



Welcome Dr. Cristine Morgan, Chief Scientific Officer



The Soil Health Institute (SHI) has named one of the nation's premier Soil Scientists, Dr. Cristine Morgan, as its Chief Scientific Officer. Dr. Morgan will replace Dr. Steven Shafer who recently retired after serving in the position since 2016.

"Dr. Morgan brings a unique combination of technical, educational, and leadership experience to the position," said Dr. Wayne Honeycutt, SHI President and CEO. "Among her many accomplishments, Dr. Morgan has conducted ground-breaking research on how management practices influence soil-plant-water relations. She has also developed methods that were adopted by USDA for easily measuring soil carbon. She has a history of applying her knowledge for addressing real-world problems experienced by farmers and ranchers and is passionate about educating others along the way." Read more [here](#).

Living Soil Film Available for Screenings, Educational Programs

In November, the Soil Health Institute released *Living Soil* a 60-minute documentary that captures the history – and significance – of the soil health movement. The documentary is designed to educate consumers about the strategies farmers use to improve soil health and how they contribute to greater food security, environmental sustainability, and human nutrition. The film also features soil health researchers and other soil health experts commenting on new trends and



developments within soil health. It is accompanied by [soil health lesson plans](#) for high school and college students, and full information, including links to stream and download, is available at www.livingsoilfilm.com.

Connections Between Soil Health and Human Health

In October, nearly 200 scientists and leaders of public and private-sector organizations engaged in a two-day [Conference on Connections Between Soil Health and Human Health](#).

The conference was designed to bring soil science and medical science communities together, establish the current state of our collective knowledge, identify gaps and priorities, and outline the transdisciplinary paths forward.



Videos of each presentation are available on the [Institute's YouTube Channel](#). The group recommended [10 research priorities](#) and a summary of the conference was published in the [CSA News Magazine](#). A full conference report will be released in February.



North American Project to Evaluate Soil Health Measurements Principal Investigators and Project Scientists convened in Chicago, January 23 - January 24, to finalize soil testing plans for 125 long-term agricultural research sites. The scientists will evaluate 31 indicators of soil health in order to give farmers, ranchers, and others science-based measurements they need for evaluating the health of their soils.

North American Project to Evaluate Soil Health Measurements

For farmers, scientists and policy makers, one question has yet to be completely unearthed: What are the most effective measurements of soil health? In 2018, the Soil Health Institute, in collaboration with the Soil Health Partnership, The Nature Conservancy, and the Foundation for Food and Agriculture Research, General Mills, and The Samuel Roberts Noble Foundation, undertook a project to evaluate soil health measurements at a continental scale. Scientists from 125 long-term agricultural research sites managed by universities, federal agencies, and private organizations are partnering across the United States, Canada, and Mexico. The purpose of this project is to determine the most effective indicators of soil health in varying climatic zones, soils and production systems.

An important step was convening a blue ribbon panel of leading soil health experts to develop consensus on the most appropriate methods for evaluating **31 soil health indicators**. The panel benefited from the input of numerous USDA-NRCS, USDA-ARS, university, and private scientists/ farmers convened by the "Soil Renaissance" from 2013-2016 to advise and debate the issues.

Led by Dr. Paul Tracy, SHI issued a **request for applications** and selected laboratories to conduct the analyses. Following an international search, SHI also selected seven **Project Scientists** to serve as liaisons to the partnering long-term sites and to lead soil sampling (2019) and data analysis (2020).

Updates will be shared through the SHI Newsletter and on the SHI website.



(Pictured L-R): Alan Franzluebbbers Ph.D., USDA-ARS; Byron Rath, SHI; Sean Bloszies Ph.D., SHI; Jennifer Moore-Kucera Ph.D., USDA-NRCS; Fred Vocasek, ServiTech; Wayne Honeycutt Ph.D., SHI; Bob Schindelbeck Ph.D., Cornell University; Steven Shafer Ph.D., SHI; Kristen Veum Ph.D., USDA -ARS; David Myrold Ph.D., Oregon State University; Paul Tracy Ph.D., SHI; Not Pictured: Doug Karlen Ph.D., USDA-ARS; Dan Manter Ph.D., USDA-ARS; David Knaebel Ph.D., USDA-ARS.



(Pictured L-R) Sean Bloszies Ph.D., Gregory Macfarland Bean Ph.D., Michael Cope Ph.D., Paul Tracy Ph.D., Kelsey Hoegenauer Ph.D., Charlotte Norris Ph.D. P.Ag., Elizabeth Rieke Ph.D., Daniel Liptzin Ph.D., Shannon Cappellazzi Ph.D.



Soil Health and Water Quality in the Mississippi River Basin

Several conservation practices are known to reduce nutrient losses through runoff and leaching, but more information is needed to quantify the relationships between soil health measurements and water quality. SHI is partnering with the following scientists to evaluate these relationships:

- Dr. Arlene Adviento-Borbe, Delta Water Management Research Unit, USDA-ARS, Jonesboro, AR
- Dr. Kevin King, Soil Drainage Research Unit, USDA-ARS, Columbus, OH
- Dr. Kelly Nelson, Department of Plant Science, University of Missouri, Novelty, MO
- Dr. Michele Reba, Delta Water Management Research Unit, USDA-ARS, Jonesboro, AR
- Dr. Karl Williard, Department of Forestry, Southern Illinois University, Carbondale, IL
- Dr. Jon Schoonover, Department of Forestry, Southern Illinois University, Carbondale, IL
- Dr. John Baker, Soil and Water Management Research Unit, USDA-ARS, St. Paul, MN

- Dr. Axel Garcia y Garcia, Department of Agronomy and Plant Genetics, University of Minnesota, Lamberton, MN
- Dr. Jeff Vetsch, University of Minnesota, Waseca, MN

This Fall, Dr. Sean Bloszies, Soil Health Institute Project Scientist, measured 20 different soil health indicators at seven (7) sites in the Mississippi River Basin where there is a history of data on nutrient losses to surface and subsurface water. Once the data are evaluated, Dr. Bloszies' goal is to uncover links between specific soil health indicators and water quality so that land managers can make informed decisions to improve both.

This research is made possible through the generous support of the Walton Family Foundation and The Samuel Roberts Noble Foundation.

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Webinar: Soil Health & Greenhouse Gas Emissions

On November 29th, the Soil Health Institute and The Sustainability Consortium (TSC) hosted a webinar on how managing for soil health can reduce greenhouse gas emissions and achieve other sustainability goals, how those outcomes can be quantified, and how that information can be used to address TSC's Key Performance Indicators of sustainability. The webinar featured Keith Berns (Farmer, NE), Dr. Wayne Honeycutt (President & CEO, Soil Health Institute), and Kevin O'Donnell (Sustainability Director of Worldwide Sourcing, General Mills).

A recording of the webinar is available to download [here](#). The slide deck can be found [here](#).



Soil Health 360

Welcome to **Soil Health 360**, a new website feature provided to save you time as you keep up with news on soil health. In order to ensure you have fast access to information about soil health, this particular section of our website provides access to numerous third-party links as a convenience to you. Check it out [here](#)!

If you know of another resource we should include, please add it to the form made available at the **Soil Health 360** main page. We look forward to collaborating with you to ensure this feature makes life easier for everyone.

Soil Health Institute's 2019 Annual Meeting

Soil Health – A Global Imperative is the theme for SHI's 2019 Annual Meeting, reflecting just how critically imminent it is that we safeguard and enhance the vitality and productivity of soils to address food, water, climate, wildlife, fiber, fuel and other global issues.

SOIL HEALTH A Global Imperative



4th ANNUAL MEETING • JULY 16-18, 2019 • HYATT-REGENCY SACRAMENTO

If you want to be up-to-date on where the soil health movement is headed, the 4th Annual Meeting is a must-attend event.

Specific 2019 topics include:

- connections between soil health and human health,
- the soil microbiome,
- soil health management in specialty crops,
- progress in measuring soil health,
- economics of soil health,
- ecosystem services through soil health,
- soil health policies and programs,
- and more!

Registration & Poster Submissions will open in March. [Save the date to your calendar.](#)



Soil Health Video Resources

Soil Health Video Resources are available on the [Institute's YouTube Channel](#). These include presentations from SHI's Annual Meetings and [Conference on Connections Between Soil Health and Human Health](#).



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Action Teams Highlighted in Annual Meeting Report

SHI Action Teams provided updates on their major activities during SHI's 3rd Annual Meeting. Summaries of the 2018 activities and 2019 plans are available [here](#).

Soil Health Events

Upcoming soil health conferences and field days are available on the [Institute's Events Page](#).



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