



SOIL HEALTH NEWS

FALL 2016 – Volume 1, Number 1

► INSIDE THE INSTITUTE

Dear Friends of Soil Health,

Thank you for your continued efforts in support of soil health, and welcome to the first quarterly newsletter of the Soil Health Institute. Through these newsletters, we plan to provide an update of the Soil Health Institute's ongoing activities and accomplishments, and engage you as a partner in our efforts and plans to advance the science and application of soil health.

Since our 1st Annual Meeting in July, the Soil Health Institute has established a home in Research Triangle Park, North Carolina; secured more than \$1 million in funding; made steady progress on an Action Plan, National Soil Health Assessment and creation of The Soil Health Research Landscape Tool; and presented at eight conferences throughout the United States, including the Business for Social Responsibility Conference in New York City.

In September, the Institute confirmed nearly all Committee Co-Chairs to inform the efforts in Research, Measurements & Standards, Economics, Communications & Education, Policy and Development, and received a three-year, \$450,000 grant to support the development of The Soil Health Research Landscape Tool. In October, the Institute, in partnership with Datu Research LLC, received a \$626,000 grant from the Walton Family Foundation to quantify the economic risks of soil health management systems. Please review the position announcement in this newsletter and consider applying or pass it along to others who may be interested.

In recognition of the rapidly expanding interests in and activities surrounding soil health, and the fact that this

issue is larger than any single organization, the Soil Health Institute convened 10 mostly private-sector organizations with major interests and initiatives in soil health at The Samuel Roberts Noble Foundation in Ardmore, Oklahoma on October 26-27. Our purpose at this meeting was to identify synergies, develop working partnerships to bring our efforts to scale, and establish a clear path forward for collaboration.



This meeting demonstrated the spirit of productivity and unanimity around soil health. At its conclusion, participating organizations unanimously agreed to establish a coordinating coalition to help optimize the impact of our efforts and provide clarity and strength to our respective priorities and missions.

We plan for the Institute's new website to be live by the end of the year and The Soil Health Research Landscape Tool to launch in January. Please follow the Soil Health Institute on Twitter, Linked In, and Facebook to learn about upcoming presentations, meetings, speaking engagements, activities and funding opportunities. Please direct any announcements, questions or comments to Byron Rath by email at brath@soilhealthinstitute.org or by phone at 919.230.0303.

Thank you once again for your dedication to advance the science and application of soil health.

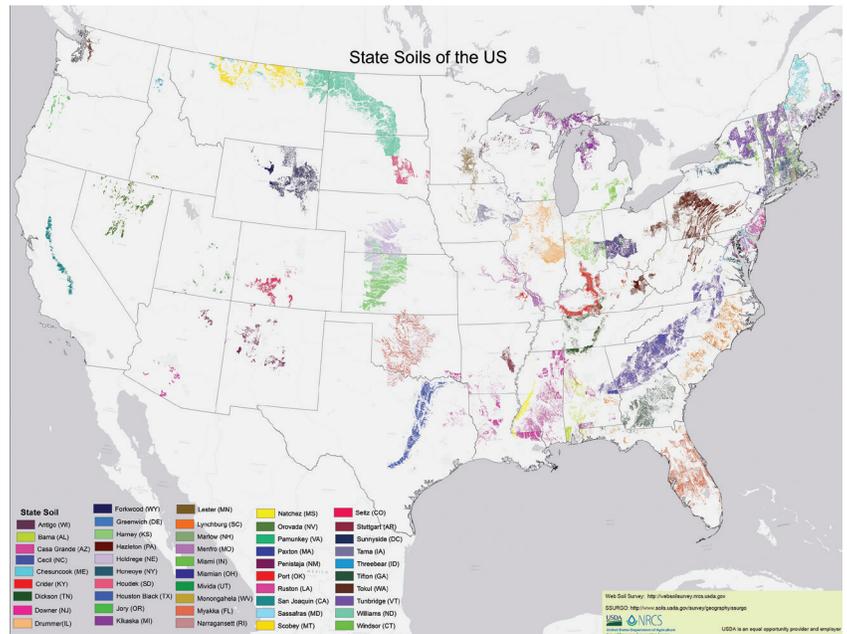
Appreciatively,

C. Wayne Honeycutt, Ph.D.
President and CEO

NATIONAL SOIL HEALTH ASSESSMENT FOCUSING FIRST ON STATE SOILS

A number of soil health partners are working in earnest to develop a National Soil Health Assessment (NSHA). The purpose of the NSHA is to generate data and analyses to:

- establish baselines for soil health at regional to national scales;
- identify trends in changes in soil health;
- establish a context to interpret soil health information obtained for individual land managers and local decision makers;
- support selection of land management practices that will lead to improvements in soil health and the resulting benefits to agricultural production and natural resources; and
- provide information to policy makers responsible for public policies in agriculture and natural resources.



Public and private sector collaboration will be required to ensure the NSHA's success. The Institute is considering a plan to test sampling designs and protocols on the State Soils – the most geospatially and agriculturally important soils in the 48 coterminous United States. The State Soils are represented in this map, created by USDA-NRCS at the Institute's request.

Credit: Created by National Soil Survey Center, USDA-NRCS, Soil Science Division on September 21, 2016

► CONFERENCE HIGHLIGHTS

Since August, the Soil Health Institute (SHI) has attended or presented at eight conferences, including:

- **Stewards of the Future Conference**
Microbiome: Unseen Opportunities for Agriculture and Health – North Carolina State University
- **Protecting and Enhancing our Soil – the Foundation for Plant, Animal, and Human Life**
The Philadelphia Society for Promoting Agriculture
- **CQuest: Charting a Course for Climate Research in Agriculture**
International Life Sciences Institute in St. Louis
- **Business for Social Responsibility Conference 2016: Be Bold** – New York City

At the invitation of **General Mills**, and in partnership with **The Nature Conservancy** and the **Soil Health Partnership**, SHI presented on the *“Scientific Basis for Soil Health”* at the Business for Social Responsibility Conference where **The Nature Conservancy** announced their *“Roadmap to U.S. Soil Health.”* Ken Powell, Chairman & CEO of **General Mills**, announced in the Conference's Opening Keynote Address that soil health is a top priority and key area of impact for their business. SHI is inspired by food industry leaders like **General Mills** who recognize that a focus on soil health helps them achieve their sustainability goals *and* supports farmers in their stewardship of our natural resources. Recognizing that farmers cannot improve what they cannot measure, it remains SHI's highest priority to establish measurements and standards to initiate and support an ongoing assessment of the health of United States' soils.

ORGANIZATIONS MEET TO DEFINE ROLES, ESTABLISH GREATER SOIL HEALTH COLLABORATION

Ten organizations with major interests and initiatives in soil health met October 26-27 at The Samuel Roberts Noble Foundation in Ardmore, Oklahoma to identify synergies, develop working partnerships to bring soil health efforts to scale and establish a clear path forward for collaboration.

At its conclusion, participating organizations unanimously agreed to establish a coordinating coalition to help optimize the impact of efforts and provide clarity and strength to our respective priorities and missions. Participants currently are working to develop a vision statement and statement of purpose for the coalition. A next step will include engaging key public sector partners.



Representatives from organizations that gathered on Oct. 26-27 at The Samuel Roberts Noble Foundation in Ardmore, OK (L-R): Sheldon Jones, Soil Health Institute; Rob Myers, Sustainable Agriculture Research and Education; Michael Doane, The Nature Conservancy; Jim Gulliford, Soil and Water Conservation Society; Steve Shafer, Soil Health Institute; Byron Rath, Soil Health Institute; Jerry Hatfield, Tri-Societies; Chad Watts, Conservation Technology Information Center; Larry Clemens, The Nature Conservancy; Karl Anderson, Tri-Societies; Jeremy Peters, National Association of Conservation Districts; Nick Goeser, Soil Health Partnership; Wayne Honeycutt, Soil Health Institute; Lara Moody, The Fertilizer Institute; Cristine Morgan, Global Soil Security; and Beth Mason, National Association of Conservation Districts.

► POSITION ANNOUNCEMENT

Position: Agronomist/Agricultural Economist

Term: 6 to 12 months

The Soil Health Institute, a non-profit organization created to safeguard and enhance the vitality and productivity of soil through scientific research and advancement, seeks a professional agronomist or agricultural economist with expertise in both fields for a term appointment **appropriate for a sabbatical or short-term postdoctoral assignment**. Duties include critical analysis and review of the peer-reviewed literature relating soil health promoting practices with on-farm economic impact, risk quantification, and risk management; preparation of reports and articles summarizing the literature on these topics; and creation of outreach materials to educate farmers, commodity organizations, scientists, extension personnel, and the public

on the economic benefits of managing soil to sustain and enhance soil health. A Ph.D. in agronomy or agricultural economics, with demonstrated research experience linking both fields, is required. Research-level expertise in statistics, economic analyses, agricultural production and/or resource management practices is required. Residence during the appointment at the Soil Health Institute's office near RTP is preferred but negotiable. Salary and benefits are commensurate with experience. To apply, send a letter of application, curriculum vitae, list of publications, and the names/contact information of four references **by December 15, 2016** to Mr. Byron Rath: brath@soilhealthinstitute.org. Position will remain open until filled.

SOIL HEALTH INSTITUTE, DATU RESEARCH RECEIVE GRANT TO EVALUATE ECONOMIC IMPACT OF SOIL HEALTH PRACTICES



The Soil Health Institute (SHI) and Datu Research have received a \$626,000 grant from the Walton Family Foundation to quantify the economic risks and rewards of soil health management systems used

in farming. Management practices that improve soil health can increase resilience to drought, improve water quality, reduce greenhouse gas emissions, and enhance sustainability. However, quantifying the economic impact of such practices is key for increasing farmer adoption, and such impacts are largely not yet quantified.

SHI will conduct a systematic review of scientific literature that evaluates economic risk and yield impacts of soil health-promoting practices, such as no-till, zone tillage, reduced tillage, cover crops, crop rotation, manure/biosolid application, and other management practices. SHI will curate this data and conduct a comprehensive analysis to determine how such factors as climatic zone, soil properties, cropping system and management practices influence soil health and economic risk relationships. Datu Research LLC, Durham, NC, will conduct focus groups to learn what risks farmers perceive in adopting cover crops, then collect actual budget data from cover crop adopters to compare perceived versus actual risks.

“Economics is a primary driver influencing adoption of soil health-promoting practices and systems. Consequently, to realize the environmental and resilience benefits of soil health management systems, the economics of such practices must be assessed, demonstrated and communicated,” explains Wayne Honeycutt, Ph.D., SHI

president and CEO. “This generous grant from the Walton Family Foundation will allow us to assess and communicate how soil health management systems influence farmers’ investment risk. We believe it’s important to summarize the nation’s research, viewing the results objectively from a business perspective,” said Honeycutt. “We want to be sure that farmers have the evidence-based information they need in making their management decisions,” added Marcy Lowe, Datu CEO.

Following data curation and analysis, SHI and Datu will develop fact sheets to distribute project findings to farmers through numerous public and private partners.

“The Soil Health Institute consists of a broad collaboration of agricultural and environmental leaders that was created to safeguard and enhance the vitality and productivity of soil through scientific research and advancement,” Honeycutt said. “Studies show that increasing soil organic carbon can significantly enhance resilience of our soils, cropping systems and grazing systems to both drought and heavy precipitation. Unfortunately, most of our cultivated soils have lost approximately 20-40% of their native organic carbon, thereby increasing crop vulnerability to extreme weather events like drought. The Walton Family Foundation grant will allow us to pull the scientific evidence together and discern which management systems work best for both our agricultural producers and our environment as a whole. The on-farm surveys conducted by our partner, Datu Research, will provide much needed ground-truthing of real world economics as experienced by farmers. Collectively, this will give us a fairly complete picture of how soil health practices impact farmers’ economic risk.”

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