SOIL HEALTH INSTITUTE

National Grazing Lands Conference

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Initiated in 2013, Farm Foundation, NFP and the Noble Foundation initiated the Soil Renaissance to advance soil health and make soil health the cornerstone of land use management decisions.

**RESEARCH**
Convene the research community to advance soil health.

**MEASUREMENT**
Incorporate soil health measures into standardized soil testing that is readily available, affordable, and commercially viable.

**ECONOMICS**
Quantify the effects of soil health on economic risks and returns.

**EDUCATION**
Reawaken the public to the importance of soil health.
Initial Findings

- Ongoing response and participation excellent
- Clear need to expand mandate for long term impact
- Show value and participation will follow
Climate of Change

- Global awareness and interest is developing
- Other soil focused initiatives/organizations open to support and collaboration
  - National examples
    - Natural Resource Conservation Service (NRCS)
    - Phytobiomes Initiative
    - National Association of Conservation Districts (NACD)
  - Regional examples
    - Sand County Foundation
    - Field to Market
    - California Healthy Soils Initiative
- Soil health initiative needs an umbrella organization to focus efforts and foster an inclusive environment
Summary Findings

• Interest in and awareness of the need to focus on soil health is strong
• Soil Renaissance voluntary participation continues to expand, reinforcing this need
• Several industry-led initiatives exist, but they are fragmented and lack connection
• To advance the soil health conversation, the Renaissance needs to evolve
Introducing

SOIL HEALTH

INSTITUTE

UNIFY. RESTORE. PROTECT.
Soil Health Institute

• **Structure**
  – Independent, nonprofit organization

• **Activities**
  – Governing board for soil measurement standards, and promotion of those standards
  – Conduct soil-related research through grant program
  – Disseminate soil-related research through global access model
  – Advancement of soil-related economics and education
  – Convening global thought leaders
  – Policy development
  – Non-sector engagement

“We know more about the movement of celestial bodies than about the soil underfoot.”

– Leonardo DaVinci
What is Soil Health?

The continued capacity of the soil to function as a vital, living ecosystem that sustains plants, animals and humans.

Note: Adopted from the Natural Resource Conservation Service (NRCS) definition of soil health.
Mission

Safeguard and enhance the vitality and productivity of the soil through science-based research and advancement.
Vision

The Soil Health Institute will be the primary resource for soil health information and research. Its outcomes will yield healthy, sustainable soils to serve as the foundation for society, benefit the environment and contribute to the productivity and profitability of agriculture.
Value

We believe that healthy soil is the foundation of life and society, and should be treated as a nonrenewable resource. We believe that knowledge advancement and research will improve soil health and sustain earth’s most valuable asset.
Guiding Principles

• Integrated Science Approach
• Science-based
• Partnership Driven
• Inclusive and representative
• Transparent and open sourced
• Communications at all levels
• Purposeful outcomes with measurable impacts
• Continuing evaluation and improvement

Note: These guiding principles were developed by the Soil Renaissance strategic development committee and adopted by all working groups.
Organizational Structure

- Founders Council
- Governing Board
- Management
• 19-21 voting members
• 1 non-voting, ex officio (President/CEO)
• No compensation
Proposed Advisory and Working Committees

Scientific Review Panel(s)  Measurement and Standards Committee

External Science Advisors  Data and research landscape management committee

Research Director
• Identify gaps in soil health research
  – Priorities/solicitations determined by Research Director (in consultation with the CEO) with External Science Advisors.

• Construct research road maps
  – Current research is not consolidated nor in useful user form.
  – Soil health roadmap is a jigsaw puzzle of many pieces.

• Rigorous protocol related to submission of proposals and assessment of outcomes
  – Research opportunities defined by continued Soil Renaissance convening's hosted by the Soil Health Institute.
Measurement and Standards

• Establish national soil health measurement standards based on regional characteristics.
  – Oversight and regulation provided by the Institute’s Measurement and Standards Committee

• Standards will be fundamental
  – Producer implementation
  – Research priorities
  – Lab proficiencies

• Promote soil health measurement standards to benefit producers and conservation
Economic Analysis

• Bridging the information gap and increase awareness of the costs and benefits of soil health practices.
  – Economic incentives are the key for broad adoption
  – Make soil health economic knowledge a priority
  – Integrating economic analysis and scientific research to support producer decisions.
• Research projects funded through the Institute will commonly require the inclusion of economic analysis
• Economic decision tools will be researched and made available for producers to use for production decisions.
• Inclusion of economic analysis will result in a positive impact on the adoption and use of soil health practices
Public Policy

• The Institute will analyze the impact of public policies on soil health.
• We will examine policies for their impact on stewardship and highlight opportunities for creative market-based solutions, keeping in mind key principals
  – Limited government and self-regulation
  – Personal property rights
  – Free trade
• Build an American agriculture system where freedom, opportunity, prosperity, and civil society flourish
• Endeavor that America’s agriculture system continues to provide
  – A stabilized backbone of domestic food security
  – Tools for international relations and international food security
  – A productive and sustainable industry for the domestic economy
  – A focal point of technology, research, and innovation.
Communications and Education

• The Soil Health Institute is committed to serving as a central hub for communications and education regarding soil health research and soil related information.
  – Broaden the depth of knowledge regarding the critical nature of soil health.
  – Delivers focused messages to its audiences through its network of contributors, researchers and communications mediums.

• Underscores each of the Institute’s primary activities
  – Research and measurement
  – Public policy
  – Economic analysis
“No civilization has outlived the usefulness of its soils. When the soil is destroyed, the nation is gone.”

Lloyd Noble
(1896-1950)
oilman, philanthropist
Thank you.

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