

U.S. Natural Climate Solutions Accelerator

Round 3 Finalist: Soil Health Institute

Initiative: Achieving Carbon Goals by Enhancing Adoption of Soil Health

NCS Pathway: Agriculture: Soil Health

U.S. Geographic Focus: U.S. croplands in the Midwest, Southeast, Northeast, Southwest, Northwest

The agricultural sector can achieve net zero greenhouse gas emissions by adopting soil health practices. To achieve national scale, “**Achieving Carbon Goals by Enhancing Adoption of Soil Health**” initiative led by the Soil Health Institute, proposes to develop and deliver a soil health train-the-trainer curriculum to 13,000 Certified Crop Advisors (CCAs) and tailor the approach for up to 1,300 agricultural retailers across North America. This curriculum will integrate a unique set of economic, measurement, and modeling tools to inform, motivate, and equip farmers, consultants, and agricultural retailers to significantly expand adoption of soil health management systems.

How it works: To drive adoption of soil health management practices in U.S. agricultural systems, the Soil Health Institute plans to provide training to 6,500 Certified Crop Advisors (CCAs) and hundreds of agricultural retailers over the 15-months grant term, and to provide training to the remaining CCAs and agricultural retailers within 3 years thereafter. CCAs and agricultural retailers are uniquely positioned to make soil health management recommendations to growers. The Institute will provide a tailored curriculum via in-person trainings, webinars, and in-print materials, and plans to award continuing education credits.

Scaling/Replication: According to a recent survey, 60% of ~12,000 CCAs surveyed prefer to receive information and training from their societies and nonprofits like the Soil Health Institute (specifically identified), with a preference for information on soil health measurements and the associated economics. The Institute will replicate these trainings for other trusted farm advisors, such as agricultural retailers, extension agents, nonprofit organizations, and for-profit advisors that engage with the farmers of the majority of the U.S. row crop acres. Through tailored trainings, advisors can leverage the experience, scientific resources, industry expertise and credibility of the Soil Health Institute in partnership with the Tri-Societies, WinField United, Truterra, and over 100 other research, teaching, and extension organizations throughout North America.

Climate mitigation benefit: The team estimates that it can sequester up to 500 million to 1 billion tonnes CO₂e on U.S. croplands and rangelands during 10 years of projected landscape scale implementation. This assumes cover crops, and no-tillage on approximately 150 million acres of croplands.

Co-benefits: Practices designed to improve soil health also reduce nutrient loss to waterways, increase drought resilience, enhance yield stability, improve profitability, increase biodiversity, and enhance pollinator and wildlife habitat.