

TAKEAWAYS



Healthy Soils for Sustainable Cotton

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- The Soil Health Institute, in partnership with Wrangler Jeans and The Walmart Foundation, launched the Healthy Soils for Sustainable Cotton project to quantify, expand, and verify the productivity and environmental benefits of soil management systems used by cotton producers.
 - The Soil Health Institute is a nonprofit organization that was founded in February 2016 with funding from the Samuel Roberts Noble Foundation.
 - The organization's mission is to safeguard and enhance the vitality and productivity of soil through scientific research and advancement.
 - A key goal is to provide the information that producers need to make decisions.
- Soils have chemical, physical, and biological components. The ideal soil composition is 50% pore space (air and water) and 50% solids (organic and inorganic).
- Soil health is the capacity of a soil to function as a vital, living ecosystem that sustains plants, animals, and humans.
- The functions of soil for agricultural purposes include nutrient cycling, water infiltration and availability, filtering and buffering, physical stability and support, and providing a habitat for biodiversity. Ninety percent of soil functions are mediated by soil microbes.
- Four principles support high-functioning soils: (1) maximize the presence of living roots; (2) maximize biodiversity; (3) minimize disturbance; and (4) maximize the soil cover.
 - Implementing principles 1 and 2 feeds the biology in the soil.
 - Implementing principles 3 and 4 protects the habitat.
 - Implementing these principles in crop production causes dramatic improvements—something previously believed possible only on a small scale.
- A soil health management system is a collection of conservation practices and activities that focus on maintaining or enhancing soil health, including conservation crop rotation, cover crop, no till, reduced till, and prescribed grazing.
- The cotton industry's 10-Year Sustainability goals, as outlined in their Pathways to Progress, identify six key performance indicators that producers adopting a soil health management system can help them achieve.
- The US Cotton Trust Protocol helps meet retailers' demand for supply chains to provide more data and increase transparency in support of their own sustainability goals.
- The Soil Health Institute is encouraging producers to implement a soil health management system and participate in a soil health network.