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Soil health is the “continued capacity of the soil to function as a vital living ecosystem that sustains plants, animals, and humans” (USDA-Natural Resources Conservation Service, Idaho). It is critical to ample food production, efficient water filtration and storage, carbon storage and sequestration, and biological diversity. **Improving soil health on Idaho’s farmlands holds the potential for achieving significant conservation benefits, while creating agronomic and economic resiliency for Idaho’s farmers.** That is why The Nature Conservancy in Idaho is promoting the adoption of regenerative farming practices to improve soil health across the state. We believe that by supporting farmers in their efforts we can create a more resilient future for both nature and people.

As part of the effort to support farmers in their soil health journeys, The Nature Conservancy has developed a series of guides based on the following soil health principles, including examples from those farmers who have taken steps to improve their soil health.

THE KEY SOIL HEALTH PRINCIPLES

1. Soil Coverage

Soil coverage, also known as soil armor, in the form of cover crops or crop residue enhances soil health by reducing erosion, suppressing weeds, and reducing evaporation rates.

2. Living Roots

Keeping a living root in the soil for as long as possible helps maintain soil structure, increases carbon storage, and promotes biological diversity.

3. Minimal Till

Minimizing soil disturbance helps maintain soil structure, which is important for respiration, water infiltration, and soil’s biological and chemical properties.

4. Diversity

Rotating crops, or growing multiple crops on the same field, can help control pests and disease, foster biodiversity, and even provide opportunities to diversify farm income.

5. Livestock Integration

Integrating livestock to graze residues or cover crops increase nutrient cycling and microbial activity in the soil.

6. Context

Regenerative agriculture is not a one-size-fits-all solution—it needs to be tailored to every farm’s unique context and climate.

These guide documents are intended to serve as a starting point for those interested in transitioning to regenerative farming systems. They are not intended to be comprehensive or exhaustive in the information available on regenerative agriculture.