USDA Natural Resources Conservation Service
U.S. DEPARTMENT OF AGRICULTURE

Your Regenerative Agriculture Journey:

Soil Health on Range and Pasture

What is Regenerative Agriculture?

Regenerative agriculture is a conservation management approach that emphasizes natural resources through improved soil health, water management, and natural vitality. Emphasizing regenerative agriculture builds upon NRCS's 90 years of conservation work by restoring land health, improving long-term productivity, and ensuring American grown production for the future.

It Starts with a Whole Farm Assessment!

The NRCS Regenerative Pilot Program (RPP) begins with NRCS staff, partners, or technical service providers conducting a whole-farm assessment. An assessment examines the condition of resources across the operation to identify voluntary conservation opportunities. Conservation planning and producer objectives drive the process, ensuring site-specific solutions that work for the producer.

Conduct soil testing ahead of making management changes to set a baseline and then again after a sufficient amount of time has passed (i.e. 5 or more years). Tests are a valuable tool for quantifying some of the soil's physical, biological, and chemical characteristics.

Putting Conservation Practices to Work

Using the whole farm assessment and conservation planning process, producers identify resource concerns and identify opportunities for voluntary conservation practices they would like to implement.

The RPP identifies 15 primary conservation practices that producers can select based on their resource and management goals and objectives.

Additional NRCS practices can be used to support the regenerative objectives. Most NRCS management conservation practices often address multiple resource concerns. For example, Grazing Management (528) can maintain or improve soil health by maintaining optimum levels of plant production and litter which maintains organic matter, sustains or improves soil structure, improves habitat for soil organisms and controls erosion. Grazing management can also improve water resource conditions by improving nutrient cycling, reducing soil compaction and increasing water infiltration. NRCS conservation practices are not limited to a single purpose but can have multiple benefits, and the combination of benefits varies with the site conditions and planning.

More Information and How to Apply

Farmers and ranchers interested in regenerative agriculture are encouraged to apply through their local NRCS Service Center by their state's ranking dates for consideration in FY2026 funding.

Applications for both EQIP and CSP can now be submitted under the new single regenerative application process.

Scan or click the QR Code for more info.

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To make progress on your regenerative journey, follow pasture and range soil health principles (see graphics above).

Taking time to understand, implement, and monitor these important principles often leads to better decision making when it comes to deciding what regenerative conservation practices to install.

We'd love to have a quick fix to improve soil health, water management, and natural vitality but these improvements are often a long-term journey.

Some improvements may take 5-10 years or longer to become visible or measurable, while others may appear within a single year.

The First Year...

Soil health improvements to your regenerative system start by protecting your soil, including the soil biology, by keeping the soil covered, increasing live roots, and reducing disturbance. A more continuous (undisturbed) soil cover serves as armor to resist erosion from water or wind and provides a steady stream of food for soil organisms. Soil organisms drive dynamic and vital soil processes. Increased plant residues can also increase naturally available water by reducing evaporation and runoff.

Where applicable on pasture and range, the following conservation practices can help kick start these improvements in Year 1 where applicable: Grazing Management (528), Range Planting (550), and Pasture and Hay Planting (512).

Years 2-5...

Regenerative grazing systems aim to restore and maintain ecosystems by mimicking natural processes. In the next few years, most improvements in soil health on pasture and range are related to increased biological activity as more varied food sources become regularly available to soil organisms. Much of the biological activity happens on and near the root surfaces. Growing and enhancing the living root system increases and improves that activity. As the roots of the plants grow deep they promote soil health by creating channels, reducing compaction, reducing erosion, and building soil organic matter and soil aggregates, which improve nutrient cycling and water infiltration. Optimizing the use of beneficial disturbances, such as natural fire or prescribed burning, are crucial for ecosystems dependent on such processes, and will promote important regenerative outcomes like nutrient cycling and biodiversity.

In Year 2-5, consider incorporating conservation practices such as Fence (382), Watering Facility (614), Prescribed Burning (338), Brush Management (314), or other conservation practices to optimize and facilitate livestock grazing management and amplify your regenerative system.

5+ Years...

You'll do another round of soil health testing to check on soil health trends typical for the soil and site conditions on your operation at some point in year 5 or later. After 5 years, you may see a slight increase in organic matter in pasture. On rangelands, organic matter increases will be highly variable.

This process may be limited if you only use some of the soil health principles but don't incorporate them all. Practicing all the soil health principles will help to get the most benefit from your production system. For example, Optimize Cover is one of the pasture and range soil health principles. The manager should manage livestock to leave the proper amount of residue remaining; if the field is disturbed too much and bare ground is increased beyond expected or tolerable limits, more water will be lost by evaporation or run off which means it is not getting used by the plants for plant growth.

Disturbance, such as grazing, fire, and drought can be natural processes of range and pasture systems.

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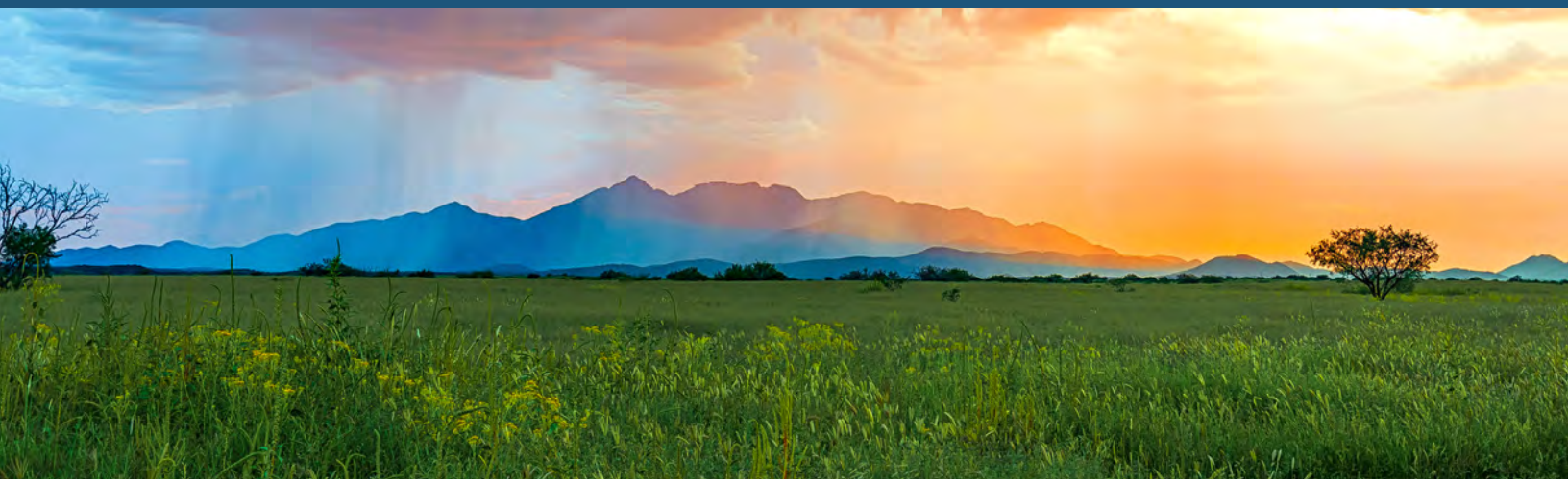

Optimizing Disturbance is also one of the pasture and range soil health principles. Non-use for extended periods of time, however, is also considered a disturbance and often results in negative feedback. When planning Grazing Management (528), it is important to consider both principles.

If you've historically had problems with drought or poor soil drainage, improving your plant cover and composition may also improve water use efficiency and internal soil drainage. Increased aggregation and soil organic matter allow soils to hold and provide more water for plants.

Increasing the variety of species in microbial communities may also provide support to plants under attack by pathogens and diseases. Some soils have been shown to suppress pathogenic populations as newly-established, mixed microbial communities provide competition. They can help keep pathogen populations in check.

INDICATORS	SHORTER JOURNEY	LONGER JOURNEY
Natural Soil Properties	Heavy soils, high clay content	Coarse, sandy soils
	High organic matter soils, prairie soils	Lower organic matter soils, forest soils
Previous Management	Already using some soil health principles	Eroded or degraded soils
Management with RPP	Higher level, bundled soil health principles— grazing management, reduced chemical use, increased variation in plant community.	Just meeting soil health principles.
Climate	Moderate temperatures, adequate rainfall	Cold and/ or dry conditions

Ready To Make Some Changes on Your Land?

It can be challenging to change your operation and do things differently, but the benefits of transitioning to regenerative agriculture can result in increased land value and profitability. Consider starting small, maybe a few pastures at a time, and as you figure things out, add more pastures and increase your level of management.

NRCS Conservation Planners can help you develop a regenerative plan based on your goals and objectives. To start this "conservation conversation," call your local NRCS team and schedule an appointment today!

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REGENERATIVE PILOT PROGRAM

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