

Regenerative Farming

Sustainable farming practices can help restore soil health, thereby capturing carbon and improving the water cycle.



The Impact

Regenerative farming, also called carbon farming, is defined as farming and ranching practices that put carbon from the atmosphere back into soil. Regenerative farming practices have the potential of drawing down more than 1 trillion tons of carbon dioxide from the atmosphere into the soil. In contrast to conventional farming and grazing, regenerative farming techniques can improve soil health, reduce erosion, save water and enhance wildlife habitat. These farming practices also help increase crop productivity and build more nutrient-rich, resilient soil.

Description

Regenerative farming, also known as regenerative agriculture, is a set of farming practices designed to improve and regenerate the health of the soil, ecosystems, and communities. The key principle of regenerative farming centers on enhancing soil health. This involves increasing soil fertility and biodiversity, promoting soil organic matter, and improving water retention. By focusing on soil health, regenerative farming not only boosts crop yields and resilience against climate extremes but also aids in carbon sequestration, thus contributing to the mitigation of climate change.

The primary challenge farmers and ranches in San Mateo County face is the cost to transition to regenerative agriculture. Aid in financing such projects through fundraisers would help address this challenge and increase adoption of regenerative farming practices in the county.

Where It's Been Implemented

Currently, several ranches and farms across San Mateo County, Calif., engage in regenerative farming practices with a higher concentration in Half Moon Bay. Markegard Family Grass-Fed, a farm located south of Half Moon Bay, provides grass-fed beef and lamb and pasture-raised chicken and

pork. The farm's grazing practices prioritize holistic, planned grazing in which no area is ever overgrazed. Rather, the health of the grassland and its regrowth are prioritized.

TomKat Ranch, a 1,800-acre grass-fed cattle ranch in Pescadero, hosts other regenerative farming programs, including a Fork to Farm partnership that accelerates the transition to regenerative agriculture and a data project that monitors the health of the local ecosystem. The San Mateo Resource Conservation District offers technical assistance in developing carbon farm plans that help farmers and ranches make their farms more productive and resilient.

Key Drivers

Engaging in regenerative farming practices promotes the health of the soil. One benefit is that it increases the water-holding capacity of soil, thereby reducing demand on local water sources. Crops and ranches in the county adopting regenerative farming will become more resilient to the challenges invoked by climate change and will reduce greenhouse gas emissions. Local wildlife and pollinator habitats will be less likely to be disrupted as well.

Key Factors for Success

Public purchasing from regenerative farms and ranches is pivotal to driving the adoption of regenerative practices. Educational campaigns can work to address this challenge. Since San Mateo County is not a predominantly agricultural county, having an engaged consumer population in urban areas can help farmers and ranchers sustain or transition to regenerative farming practices in rural areas of the county.

Key Obstacles

Since adopting new farming and ranching practices is expensive, farmers and ranch owners have cited cost as a key obstacle preventing the adoption of regenerative practices. Having a more robust infrastructure or funding source could help address this challenge. The San Mateo County Resource Conservation District is exploring ways to raise funds to support regenerative farming.

Timeline to Implementation

Farmers can approach the transition to a regenerative farm with a holistic management framework. Farmers need to evaluate the ecosystem processes of their land. Then, they can integrate regenerative practices that best fit the needs of their land.

References and Resources

- [San Mateo County Resource Conservation District: Carbon Farming](#)
- [TomKat Ranch](#)
- [Markegard Family Grass-Fed](#)

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