

## What is Carbon Sequestration and Why Should I Care?

Carbon sequestration involves capturing and storing atmospheric carbon dioxide (e.g., in the soil or plants) - CO<sub>2</sub> is the most commonly produced greenhouse gas. (From USGS)

## Why Invest In Carbon Sequestration?

Carbon dioxide capture from the atmosphere can help reduce global climate change. While practices are often economically challenging to implement, such sequestration might offer marketing opportunities (e.g., “We farm to save the planet” or similar).

## Three Main Options To Increase Carbon Sequestration?

There are three main repositories to target for holding carbon on Rangelands:

- Soil organic matter,
- Perennial pastures and their associated deep root systems
- Woody trees and shrubs.

## How Can We Increase C Sequestration?

### Graze

Well managed grazing can promote perennial grass growth, increase plant productivity and sloughing of perennial roots into the soil, thereby increasing carbon storage. Grazing practices that ensure adequate plant recovery before regrazing enhance soil and biomass carbon. (See separate materials for grazing specifics)

### Compost

While composting as an option is currently gaining considerable attention, the reality of doing this economically on broad scale rangeland is likely a challenge. (See separate materials for composting specifics.)

### Habitat Diversity

Maintaining a mix of herbaceous plants (especially perennials) with woody shrubs, and trees can build reserves of captured carbon. Associated practices can include:

- Sow appropriate species (e.g., Perennial grasses and forbs, with their deep root systems)
- Restore degraded lands (making them productive obviously means more C capture)
- Restore riparian lands (i.e., land adjacent to wetlands, rivers and streams)
- Maintain plant cover at all times.
- Plant hedgerows along cultivated field margins and near ranch structures...provide shade, serve as windbreaks, and benefit pollinators and other wildlife.
- reduce erosion – keep you good soil, which is more productive.

(See separate materials for practice specifics on each of these)

The profitability of each of these practices can be challenging.



*Sequestering Carbon helps the environment, but can be economically challenging. It might offer a marketing opportunity (e.g., “We farm to save the planet” or similar)*