



Land Health Part 2:

Soil Health Practices For Profit

Soil health specialist and cattle producer shares the management strategies he believes contribute most to conservation and cash flow.

by **Kindra Gordon**, field editor

Can land use and regenerating soil health go hand in hand? Doug Peterson, a Missouri-based regional soil health specialist with the Natural Resources Conservation Service (NRCS), recognizes that land managers must take that dual approach of “caring for the environment, but making a living, too.” So what practices does he recommend?

In his visits with other producers, he’s found a common theme of four practices producers use successfully across the country to make operations more profitable, while also caring for the land.

1. Re-evaluate stock density

Peterson explains that “animal impact” encompasses everything livestock do on the land. This includes dunging and urinating, as well as hoof action, rubbing, even salivating.

Animal impact is “the most powerful tool we have to manage grassland resources,” Peterson says. “It affects utilization, reduces spot grazing, controls weed and brush competition, improves manure distribution, and produces seed-to-soil contact.”

With that understanding, Peterson believes increased stock density, or animal impact, for short periods of time, and then allowing longer periods for plants to rest can be a useful tool.

“By increasing stock density, we confine animals to a smaller area and force them to

graze forages they have not been required to select before,” he explains. Better forage utilization can ultimately result in increased carrying capacity and a boost to profitability.

Animal impact can also create more mulch on the soil surface, which is beneficial to soil temperatures and soil microorganisms, points out Peterson. Additionally, when pastures are rested for longer periods of time, they are able to amass more root growth, which in turn benefits the soil microorganisms.

“By increasing stock density, we confine animals to a smaller area and force them to graze forages they have not been required to select before.”

— Doug Peterson

In his own family operation, Peterson says they’ll put 250 head of cattle on three acres for a few hours. “That’s 140,000 pounds of stock density,” he shares. “I’m not saying you always have to do it, but it’s a tool available.”

He reports knowing other producers who have used heavy stock density for short

periods of time to get animals to eat and trample undesirable species like sumac and ironweed.

“It didn’t hurt the cows nutritionally, and after a couple years, better plant species moved in,” he observes.

Peterson is adamant that this approach can work anywhere in the country. He says the bottom line is this: “For producers who are willing to move cows every day — or multiple times a day — there may be opportunities to run twice as many cows.” Peterson acknowledges such a system requires more intensive management, but says many producers are “leaving money on the table” by not increasing animal impact to increase utilization and ultimately grow more grass and capture more water.

2. Reduce the amount of hay fed

On this point, Peterson is blunt, saying, “In most environments it (feeding hay) can be reduced a lot. Everyone can decrease it some.”

Peterson surmises that many people rely too much on hay because they are overstocked and have no land left to graze, or they do it out of tradition or habit.

“Haying, for some people, is a habit. It’s what they chose to do between spring planting and harvest,” he says. “Or it’s the way things have always been done, and it’s a hard mentality to break.” He notes that many

CONTINUED ON PAGE 90

Soil Health Practices for Profit CONTINUED FROM PAGE 88

operations bale May to August and feed October to April.

He encourages producers to rethink their hay-feeding habits and the impact to profits. He asks them to consider that feeding hay can also create a nutrient and health issue. He points out that hay feeders often become mud holes — detrimental to herd health. Additionally, removing hay from the land removes nutrients, and not having cattle graze the land prevents the redistribution of nutrients.

In total, Peterson says, “Don’t let equipment make you a lazy manager.”

Instead, he suggests focusing on trying to graze for as many days as possible by utilizing cool- and warm-season forages and cover crops. He suggests that even if you are in a region that gets 1 to 2 feet of snow, plant taller cover-crop species.

He shares the story of one producer who began to rethink his haying schedule and then had the epiphany that his land was producing all the feed his cows needed. He recognized he was making the choice to invest time and money into harvesting that forage vs. have his cows graze it. Once he realized this, he reduced his haying.

To make a change, Peterson advises

producers to start by “setting a goal to feed less hay than what you currently are.” He notes that cows will graze forage that sticks out of the snow, as well; he notes that hay fields may need to be grazed instead of saved for haying.

3. Graze windrows or cover crops

This strategy goes hand in hand with the goal of reducing the time and money directed to haying. He also cites cover crops’ benefits toward increasing soil organic matter, reducing compaction, reducing fertilizer needs and providing livestock feed as some of the benefits. That said, Peterson advises that when producers incorporate cover crops or windrow grazing into their operation, they should have a clear goal of why they are doing it and how it will be utilized.

Additionally, Peterson suggests the ability to use and move polywire every few days to control animals’ access to these stored forage reserves can help increase utilization and preserve forage quality. He suggests having a flexible stocking rate may also be beneficial should feed supplies or weather conditions warrant a quick change to protect both the land and livestock resources.

Peterson encourages producers to

experiment and innovate. He advises, “Try something different to improve your operation every year.”

4. Use no-till practices

For landowners with cropland, Peterson is adamant about implementing no-till. He states, “No-till has been around a long time and we have a better understanding of how it increases infiltration and nutrient efficiency. We’ve got the equipment, chemicals and fertility options for no-till. We want to keep more organic matter in the soil, so today there is not a justifiable agronomic reason you can give me for tillage.”

In closing, as a landowner and father himself, Peterson shares why he is so passionate about taking care of the soil. He notes that 2% of farmable acres globally are abandoned every year due to soil degradation.

“What we do today may not affect our own lives,” he says, “but it has an incredible influence on our kids and grandkids for future generations.”



Editor’s Note: *Kindra Gordon is a cattlemoman and freelance writer from Whitewood, S.D.*