

# Observe and adjust for resilient grasslands with Adaptive Grazing

**A**daptive grazing is a way of grazing that's completely non-prescriptive, with no formulas. The very moment you try to turn grazing into a prescription or a recipe is the very moment you are no longer adaptive and regenerative. Adaptive grazing is just that—adapting day to day, week to week, month to month every year to tailor grazing management to the conditions you see on the ground.

## Management by observation

It's key to look at the soil every day. How is grazing impacting the soil, what's happening beneath the soil surface? Carry a shovel, a sharpshooter or spade to see what's happening with soil aggregates. Am I building aggregation—a cottage cheese or chocolate cake appearance to the soil? It's a very friable soil with a lot of pore space for water infiltration and oxygenation to occur.

Keep a watchful eye on total plant leaf volume. The goal is to leave enough leaf volume to protect the soil surface, to keep it from heating up and losing moisture, and to allow plants to regrow and continue to feed the microbes in the soil beneath.

## Rotate livestock through pastures

Some people refer to adaptive grazing as adaptive multi-paddock grazing management. Daily observation and moving livestock as often as practical is important—but moving should be based on observation. What is the impact we see from that day's grazing event? Based on that, what adjustments are needed for tomorrow? Observe and adjust, observe and adjust.

## Three all-important principles

In the two decades-plus we've been working on this and refining it, we have come up with what we call the three rules of adaptive stewardship. We stress these points and teach these three rules to everybody we work with:

- ***The rule of compounding.*** In nature and in biology, there never are any singular effects. Everything creates a series of compounding, or cascading effects. And those effects are never neutral. They're either positive or negative. We want the positive cascading effects.
- ***Consistently work at increasing diversity.*** Boost diversity in everything—microbes beneath the soil, plant species, insects, birds, wildlife, the whole bit.
- ***The rule of disruption.*** This rule is absolutely core and key to being truly adaptive in your grazing practices. Being disruptive means there's a whole series of planned, purposeful disruptions we can introduce to keep things non-prescriptive. We shuffle up the disruptions so we're not doing the same disruption all the time, or at the same time of year.

## Root growth matters

Root growth matters a lot, particularly in areas that can be hot and dry, like South Dakota. Research has shown that when up to 50% of plant leaf volume is grazed, there is less than 5% root growth stoppage. But at 60%, half the root growth stops. And grazing more than 60% of the plant, can result in 80% to 100% root growth stoppage.

## Different research models needed

Conventional "reductionist" research models that try to control as many variables as possible don't fit adaptive grazing.

It takes a researcher with a different type of mindset, using old style observational-based research that can account for numerous variables at all times. Adaptive grazing study requires research on real farms and real ranches across regions—those become the replicates rather than small plots that limit variables. This research is very doable, but it's much larger scale and takes much more time and resources to be done effectively.

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This fact sheet is based on information from Dr. Allen Williams, a 6th generation family farmer and founding partner of Understanding Ag, LLC and the Soil Health Academy.

Williams left the security of a tenured full professor and research position at Mississippi State University to farm and consult on adaptive grazing in 2000. He's learned from observing his own operation and from graziers across the country, having consulted with more than 4,000 farmers and ranchers in the U.S., Canada, Mexico, South America, and other countries. Operations ranged from a few acres to over 1 million acres.

Because he's helped implement adaptive grazing in virtually every type of scenario and environment imaginable, he says it is a form of grazing that can be successful in any climate; hot, cold, temperate, arid, it doesn't matter.



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