



Grazing the Surface: Managed Grazing

By managing your animals' grazing, you ensure a grass-covered pasture, lower feed costs and improved health for the herd.

By Carol Ekarius

Rules Of Thumb

For Managed Grazing Aim for 40 percent legumes, like clover, alfalfa and birdsfoot trefoil in your pasture.

In a well-developed pasture, don't graze plants until they have reached at least six inches, and do graze plants before they reach 12 inches. In a newly seeded pasture, let the plants reach at least eight inches before grazing.

Aim to remove 40 to 50 percent of the plant's leaf matter in each grazing period.

During the growing season, don't graze plants lower than three inches from the soil surface. In winter, you can allow plants to be grazed to within about an inch of the soil surface.

When the grass is growing fast during the spring and early summer, rotate animals frequently; when growth is slower, rotation can be less frequent.

If the grass is getting too far ahead of you (getting too long) during fast growth, mechanically clip it for hay, or to leave on the paddock as green manure.

Top Hobby farms and critters (or the dream of critters) go together like, well ... like chickens and eggs!

The first thing people do when they start acquiring stock, be it a horse and a few goats, some sheep, or a few cows, is learn how to feed and care for their animals. But few animal owners learn how to take care of their land at the same time.

The evidence is plentiful: Drive around the country, and where there is livestock, there is often lots of bare dirt and weeds in pastures.

But the good news is, with a technique known as managed grazing, you can take good care of both your animals and your land. With just a little extra money and time spent initially to develop a subdivided pasture, you will reap benefits year-round, including: Good grass cover, which is aesthetically pleasing and increases your property value

Lower feed bills

Decreased weed pressure

Fewer animal-health problems, such as those related to parasites and dust

Less erosion (both from wind and water) and nutrient pollution (The Environmental Protection Agency recognizes managed grazing as being environmentally beneficial.)

The Pasture Environment

In a healthy pasture there's a complex and diverse group of animals and plants (from your cherished critters and visiting wildlife, all the way down to the single-celled bacteria that live in the soil) that interact with each other.

One goal of managed grazing is to foster this healthy complexity. The variety of plants, animals, insects and microscopic organisms that inhabit a healthy pasture differ regionally. But wherever you live, if the pasture is healthy, many creatures call it home.

If you live in the eastern states, where there is generally higher rainfall, improvements to your pasture with managed grazing show up quickly.

This is because biological activity in the soil is very high, resulting in higher organic matter and quicker breakdown of



manure, urine and decaying plant matter into usable nutrients for the pasture's plants.

Listen closely ...

Check your pasture regularly for poisonous plants and unwanted weeds. Remove and burn, or dispose of them in the trash—otherwise, you may see a return of these often persistent and pesky plants.

Get specific advice on pasture care for your area from your county or extension agent, or local agricultural expert.

Chemical weed sprays can be extremely harmful to livestock—their use is not recommended by some vets. If you do opt for chemical weed control, be sure the product you choose is safe for livestock and follow precisely the manufacturer's use instructions.

Just because your animals live outdoors doesn't mean you're off the hook for manure removal. Either pick it up or drag the pasture to spread the manure so it will decompose more quickly. Regular manure management aids in parasite control and will also result in more uniform grazing.

TopHowever, in these areas, leaching can carry the minerals and trace nutrients too deep into the soil for the plants to make use of them. Soil tests will help you determine if some soil amendments are needed to jump-start things, lime being one of the most common (and cost effective) amendments in very wet areas.

The arid, western states have little or no leaching, so the mineral content of soil is usually pretty good. But the breakdown of manure, urine and decaying plants is driven more by physical and chemical breakdown than by biological activity, meaning that pasture improvement may take a little longer to see.

Top

Grass Farmers

To best take care of your animals, and your land, begin to think of yourself as a "grass farmer." In other words, your main crops are pasture plants (the true grasses, like blue grass and timothy; legumes, such as clover and alfalfa; and forbs, like dandelions and other tap-rooted "weeds"), which in turn feed your animals.

Ideally, a pasture should contain about 60 percent grass and 40 percent legumes. If yours doesn't have enough legumes, talk to your local county extension agent (see "Extending a Helpful Hand" in the December/January 2003 issue of HF) to find out what types grow well in your area. Legumes can be introduced simply by spreading seed in early spring on top of the ground, either with a whirlygig seeder or by throwing handfuls out as you walk around.

Growth primarily takes place near the soil surface, at the plant's "basal growth point." Initially a new plant gets all its energy from the seed, and seed-dependent growth is slow. Once sufficient green, leafy matter is exposed, above the basal growth point, the power plant kicks in (photosynthesis) and growth speeds up. As a plant reaches maturity, its growth slows, and the energy it creates through photosynthesis begins flower and seed-head production.

Depending on the species of plant, it may die after it produces a seed head, go dormant until next year, or it may experience a second growth period.

As a grass farmer, you want to control things so that the plant's activity is maintained in the quick-growth phase. To accomplish this, you need to "clip" the plant just before its growth slows with flower and seed production, but leave enough green surface showing to keep the power plant operating at full steam. Typically, this requires taking about 40 to 50 percent of the leaf off, and it can be done either mechanically, with a mowing device, or with those "natural" clipping units—your animals.

After a plant has been grazed (or mechanically clipped) it requires a recovery period. The recovery period is the time it takes the plant to regain the energy it lost by being cut back—or the time that it takes for the plant to regrow to the length it was when it was clipped. If plants aren't allowed an adequate recovery period before they're bitten a second time, they weaken, and may die.

Set-Stocking

Set-stocking is the most common grazing method. Animals are put into a pasture and kept there indefinitely. Like kids in a



candy store, they first go around eating the things they like best. Then, before their feed of choice has had an adequate recovery period, they come along and bite it again. Meanwhile, a plant they don't like quite as well, or one that's got manure near it, never gets bitten so it reaches slow growth. The paradox: both plants continue to lose energy, one plant because it is bitten too often, and the other because it isn't bitten often enough.

Set-stocking results in overgrazing and overresting of plants in the same pasture, at the same time. Sometimes the overrested plants do well in the short term, but many overrested plants are noxious weeds, so weed infestations usually increase with set-stocking.

Top

Paddocks

Grass farmers manage grazing by subdividing the pasture into multiple paddocks, usually with electric fencing. The animals are moved before they have a chance to regrow the same plants twice, and are kept out of the paddock until the plants have had time to recharge their batteries.

Generally speaking, the more paddocks available the better. Paddocks may be either permanent or temporary. Four to eight permanent paddocks, which can be further subdivided with polywire or tape, step-in posts, and a portable fence charger, provide the most flexibility and allow you to time your animals' movement between paddocks.

Timing Moves

The timing of animal movement from one paddock to the next is critical. In the spring and early summer the grass is growing very quickly, and recovery may only take seven to 10 days. Later in the summer the plants may require a month or more.

As an example, let's say you've subdivided your five-acre pasture into five permanent paddocks. It's May, and the grass is growing quickly. When you move the animals out of a paddock, they can return in about 10 days. With four paddocks left to be grazed, you can move them every two to three days (10 days divided by four paddocks equals two-and-a-half days per paddock).

Now it's the dog days of July; the grass is growing much more slowly and requires about 40 days to recover. If you move the animals out of a paddock, they'd have to spend about 10 days in each of the next four paddocks (40 days divided by four paddocks). The problem during this period is that at 10 days between moves, animals are starting to bite the same plants twice. How do you allow an adequate recovery period, but not let them regrow plants? Use temporary subdivisions to cut the permanent paddocks in half. Now each temporary paddock gets grazed for only five days, but the paddock you're leaving gets its full 40 days to recover (40 days divided by eight paddocks).

Top

Sacrifice Areas

It's usually beneficial on a small property to fence out a sacrifice area, which is a spot where you know the grass is never going to grow really well, because it will be hit too hard. Droughts and flood periods are inevitable, and the sacrifice area provides you an option during these periods when you need to keep the animals out of the paddocks for a short time.

A sacrifice area doesn't have to be very large. It could simply be a small corral adjacent to your barn. On our place, we have two sacrifice areas that we created with 12-foot-long stock panels. We have our water tank in these areas, so it's always easy to catch our animals in them. This past summer, we suffered with an extreme drought, so our animals had to spend the majority of each day in our sacrifice pens, only getting out to graze for an hour or so per day.

Just Try It

It may seem complicated but don't give up hope: with practice you'll get to know how your grass is doing (and your animals will thank you for it). As Andre' Voison, an early pioneer of managed grazing, said in his book *Grass Productivity* (Republished, Island Press, 1988), "In the long run, it is the eye of the grazier, supported by his experience, that is the judge."

About the Author: Carol Ekarius is the author of *Small-Scale Livestock Farming: A Grass-Based Approach for Health Sustainability and Profit*. She lives in the mountains of Colorado with her husband, and their menagerie of animals.

Top



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