

Rotational grazing

“Is it easier to get more land or improve production of land you already have?” This is the first question Gene Schriefer at the Iowa County Extension office asks when talking with livestock owners. As I researched this article, the consensus is rotational grazing will reward those who apply it.

Since getting more land isn't always possible, improving production becomes the focus and rotational grazing is the solution. It results in profits from your pasture. It is also known as managed grazing or prescribed grazing. However it is called, it optimizes the number of animals without increasing acreage; it results in healthier animals, healthier pastures, and greater livestock production per acre. This practice is effective for either beef or dairy cattle. Beef cattle will have higher weight gains and dairy cattle will produce more milk per acre. Pat Leonard, a Lafayette County farmer who has used rotational grazing for 15 year, has found his milk production increased an average of 15-20 lbs per day once he began this practice. His family farm is consistently in the top 10 in Lafayette County for milk production.

Continuous grazing results in the lowest yields since there's no grass recuperation time. It's hard on plants; it uses up their root reserves and slows their recovery. Livestock having full access to pastures eat the most desirable plants first, create trails that increase erosion, and allow no time for grasses to recover. Rotational grazing allows forage plants to renew. Leaves are more palatable than stems, and new growth is more nutritious than older tissue. Plants have a chance to lengthen their roots and restore vigor to the plant. “Having fresh grasses and clovers provide the highest quality proteins, which produces quality milk at a lower cost,” said Pat Leonard. This is a very important point – rotational grazing helps keep family farmers competitive and producing quality product.



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A comparison of the recently grazed paddock to the one the cattle are newly moved to.

Increased labor and time are perceived drawbacks to this management practice. On the front end, there is a need for time and money to be invested but the increased production and subsequent time savings make this investment worthwhile. Training the cattle to move between paddocks is fairly easy. Mike Balch, a rotational grazer in Iowa County, uses a cow bell to collect the cattle and move them to a new paddock. He says "by using this method, if I need someone else to move the cattle, it's simple and the cattle are responsive." Checking cattle in a 2-5 acre paddock is much quicker and easier than in a 40 acre pasture.

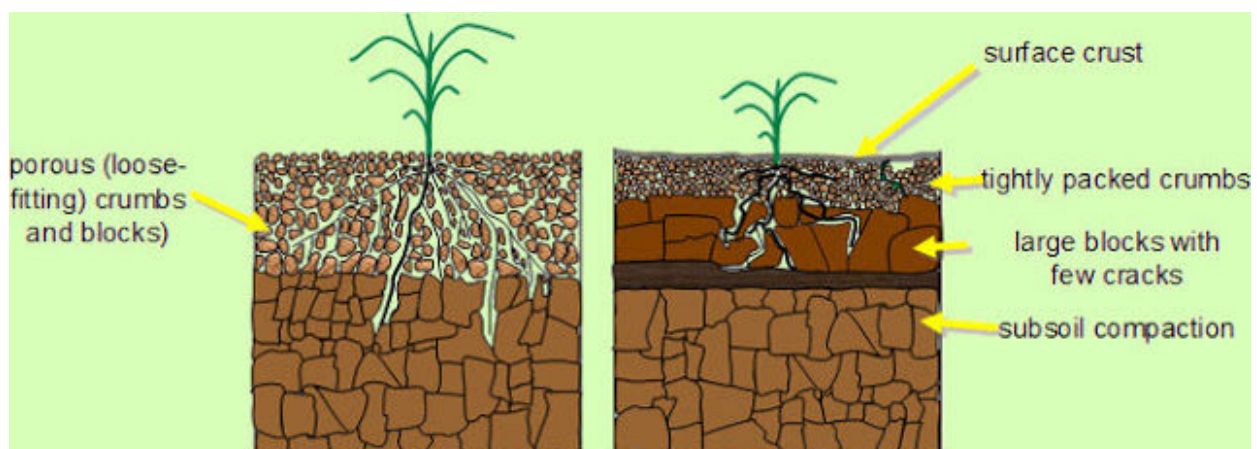
Good fencing is required to make this a success but it doesn't need to be expensive. Here's an example of how spending on infrastructure gets additional productivity. Typically, 40 acres will produce 1 ton of forage per acre. The fencing investment for this same 40 acres will improve grass by 50%, resulting in an additional 20 acres of forage. That's 20 fewer

acres you need to hay! And, according to Gene Schriefer, 50% is a conservative estimate.

Livestock water systems are another consideration once paddocks are created. Robert Bauer at Southwest Badger RC&D explained that how this is handled is very site specific but there are a number of inventive ways to keep this a manageable task.

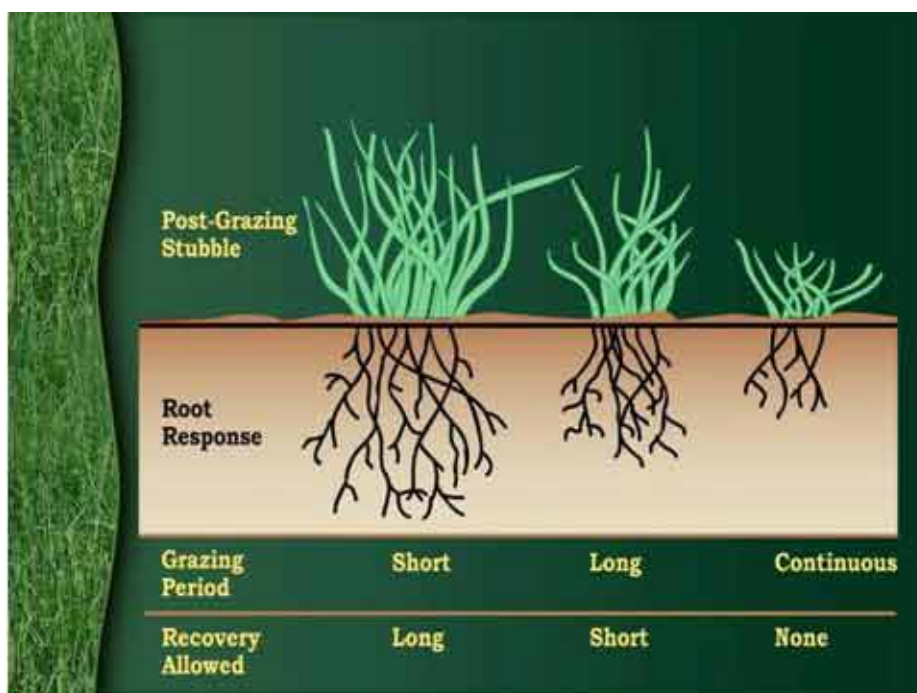
Once in operation, cost reductions in equipment, herbicide, fertilizer, and labor are realized and a healthy soil profile develops. Fertilizing is not always necessary in this well-managed system, because manure and urine will be fairly evenly distributed, providing the required NPK (nitrogen, phosphorus, potassium) for plant growth.

Producing good healthy soil is a result of rotational grazing. The outcome of allowing some portion of a pasture to regenerate is the accumulation of soil organic matter (humus), which captures and stores the moisture and nutrients from rainfall. This positive feedback loop is crucial to soil fertility and productivity. With no bare ground, soil compaction from rainfall is reduced and runoff and erosion are eliminated. When soil fertility is preserved, yields increase.



It's easy to see how rain runs off the soil so easily when there's little vegetation. Photo courtesy: TheOrangeGardener.Org

Gene Schriefer says, "Rotational grazing makes pastures and farms more resilient, especially as we experience more frequent droughts and higher temperatures indicative of the changing climate. Remember the super hot year of 2012?" Rotational grazers had lush, nutritional grass in their pastures. Grasses allowed to renew grow taller which provide a microclimate of shade and collect water. The positive feedback loop becomes more important in drought times.



When allowed to rejuvenate, grasses put their roots down further and have more vigor. Photo courtesy Colorado State Extension

Another aspect to consider is having a paddock or two in warm season grasses. They are ideal for those hot dry months of June and July in The Driftless Area. They have a different management technique but are good livestock feed.

There are numerous environmental benefits to this management. Preventing erosion and barnyard runoff are at the top of the list. Runoff is particularly nasty in our karst landscape (fractured limestone under the topsoil) of The Driftless Area. Preventing this runoff from contaminating streams and wetland

areas reduces nitrate and pesticide leaching, which contaminate our groundwater and are detrimental to humans, livestock, and wildlife. The resulting healthier soil from the management means a healthier stream corridor with healthier livestock, healthier wildlife and healthier groundwater.

In addition to the benefits mentioned, this management extends pasture time, averaging 1-2 fewer months a year requiring hay feeding. What could you do with an additional 1-2 months if you didn't need to make hay? Build the fences and let the cattle do the work to improve forage and soil conditions.

Who doesn't want more productive land? Who doesn't want to make it as productive as possible and as well managed as possible? Each pasture and each farm will have unique opportunities and grazing systems are designed according to the individual's goals. Technical and financial assistance are a phone call away!

NRCS has many assistance options through the Environmental Quality Incentives Program (EQIP). NRCS can write the prescribed grazing plan for free; this provides info about the soil, its expected yield and what seeding (if needed) is best suited for the site. With this info, we'll know the how many animals the pasture can support and can layout paddocks to aid pasture rest and rotation. Rotational times are set by nature and the grass growth not by the calendar. Understanding pasture management is part of the assistance NRCS provides. NRCS also provides financial assistance for interior fencing, cattle lanes, water tanks, water pipelines, wells, windbreaks, and rock surfacing around water tanks, and seeding cropland to pasture or interseeding existing pasture. There is additional money available for beginning farms.

Technical assistance for Lafayette, Green, and Iowa can be found by contacting Gene Schriefer at Iowa County Extension. gene.schriefer@ces.uwex.edu or 608-930-9850.

Southwest Badger Resource Conservation and Development Council offers grazing plan writing for NRCS financial assistance and mentorship support to landowners and beginning livestock farmers for Lafayette, Green, Iowa, Grant, Green, Sauk, Richland, Crawford, Vernon, and La Crosse Counties. Contact Robert Bauer, Grazing Broker at Southwest Badger Resource Conservation: robert.bauer@swbadger.org or 608-732- 1202.