



# Grazing Gazette

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## Spring Grazing Tips

**Frost Seeding:** The freeze thaw cycle of late winter and early spring helps to work seeds into the ground and is ideal for interseeding legumes into pastures. Wait until most of the snow has melted to avoid seeds floating away in melt water. One seed mix that has worked well is 8 pounds of red clover and one pound of an improved, taller growth habit white clover per acre broadcast. Used named or University of Minnesota recommended varieties. University of Wisconsin research from 1995 identified these as the two species most likely to successfully establish. You can use other legumes such as alsike clover, alfalfa, birdsfoot trefoil, or a mix of these, but they don't seem to have the same seedling vigor. However, if you already have them on hand, give them a try. If you want to introduce grasses into an existing stand, perennial ryegrass, Italian ryegrass, or even annual ryegrass are relatively easy to establish using a rate of 6 pounds per acre. Frost seeding works best on pastures that were heavily grazed the previous fall with low stubble heights to reduce competition. After seeding allow the pastures to rest longer than the other pasture units to encourage seedling development.

**Cover Crops:** Before grazing check the termination guidelines of your crop insurance policy and be sure previous herbicides don't carry over and produce residues in meat and milk. Graze when crop is at least 6-8" tall and leave a 4" residual. Cover crops can provide a clean calving pasture when other areas of the farm aren't suitable. Some are using "break wires" to strip graze cover crops and provide a clean area at intervals. Feed quality of small grains is very good and can allow the pastures to rest early in the season.

**Monitor Permanent Pasture Condition:** If forecasts hold, the second week of March will be a period of 50 degree weather and will be a great time to check on the species composition, weed infestations, stubble height, and general pasture condition. There may be a lot of green grass under that snow! Decide how you want to manage your pasture to maximize quality and quantity this year. Remember, pasture is a crop too! A walk in the pasture with your kids or grandkids is a great opportunity to count the blessings we enjoy.

## UPCOMING EVENTS:

- March 15 **Nitrogen Smart**, 9:00 AM, Rochester
- March 15-5/3 **Living on the Land**, 6:00 PM, New Prague
- March 17-19 **North American Farm and Power Show**, 9:00 AM, Owatonna
- March 22 **Cover Crops: Economic and Environmental Management**, 9:00 AM, University of Minnesota
- March 30 **Feedlot Operators Workshop**, 10:00 AM-2:00 PM, Nordic Lanes, Rushford, no cost and free spaghetti dinner!

*For more information about any of the programs listed please contact us.*

## Spring Grazing Management: When Should I Turn Out the Cows?

By Tom Gervais, USDA-NRCS Grazing Specialist

Even during a relatively mild winter like the one we've been having it can be really tempting to turn your livestock onto pasture as soon as the snow melts and you start to see a little green. Most beef cattle (or other livestock) have been on stored forages since sometime last fall, and operators of early spring calving herds usually want to get the calves off the calving area and onto a nice clean pasture as soon as possible.

Luckily, in many parts of Minnesota our cattle are grazing introduced cool season perennial forages, which given somewhat normal temperatures, grow pretty darn quickly once they break dormancy in spring. Due to this early growth activity you'll see a fair amount of green grass somewhere around the beginning to mid-May.

But while turning out livestock as early as possible might be a good thing in terms of getting animals on clean pasture and saving dwindling hay supplies, is early to mid-May a good time to start grazing from the perspective of forage health and productivity? There's a fair bit of evidence that shows that it may not be.

When grass begins to grow in early spring, the energy for growth generally comes from stored carbohydrates in the roots and crowns (bases) of the plant. Once the plant grows for a little while and grows some significant green leaf area, then energy for growth comes from the process of photosynthesis. If a plant is grazed or harvested without having enough leaf material available to utilize photosynthesis for regrowth, then that plant has to rely again on energy reserves to regrow. After a couple of cycles of utilizing energy reserves for growth, the plant cannot grow efficiently and may become unproductive or stunted for the rest of the growing season.

A rule of thumb says that "Grazing one week too early in the spring can sacrifice three weeks of grazing in the fall." While that may not be true in all cases or for all forages, you can be fairly sure that you aren't going to sacrifice any forage production by starting grazing too late, and it's very likely that you will produce more forage overall through the growing season.

If you can allow forages to grow until they develop 3 or 4 leaves (4-8 inches for most cool season grass plants) prior to grazing, it's likely that they will have a good jump start on a productive growing season.

Another challenge of Minnesota springs is high amounts of rainfall. Obviously most types of livestock are heavy on their feet and can muck up wet soils pretty quick. Livestock traffic on wet soils can compact soil easily, resulting in soil that doesn't perform like it's supposed to: absorbing rainfall and providing a good medium for plant roots to grow and thrive. The shorter and less mature the forage is increases the chance of livestock pugging up and compacting the soil during wet conditions. More robust forage with larger root systems can act as somewhat of a mat or a way to stabilize soil. If you can wait to turn livestock out until plants are up higher and roots are down lower, there's less of a chance of damaging soil structure.

Of course, livestock have to be somewhere during the spring green-up period, so something is likely to get damaged or grazed a little too early. Maybe you use a wintering area or calving area that can hold the livestock a little longer than normal. Or, hopefully you practice rotational grazing so you have options on where to turn out the livestock rather than turning them out over a whole pasture. If your pasture is subdivided for rotational grazing, use a different paddock or cell each spring for turnout.

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## It Pays to Manage Pasture

By June C Grabemeyer, Economist, NRCS

Pasture may not beat cropping enterprises for net returns per acre, but better pasture increases net returns per acre for a grazing system. Based on the FinBin data analysis the increase in net returns per acre with more intensive management is \$23.39/acre. This \$23.39/acre is the benefit for changing to an intensive pasture management. If the costs to achieve that management are less than this benefit, it is more profitable to change to more intensive pasture management. Typical cost for Prescribed Grazing (NRCS Conservation Practice) is \$7-8 per acre based on the labor time and the cost for some pasture measurement tools. Individual costs will vary and the pasture may also need some improvements or new planting which have costs to establish and maintain the pasture.

Using net returns per acre is one way to compare various cropping enterprises or rotations. This analysis used the Fin Bin data reports to compare the net returns per acre for 2 different rotations compared to a pasture crop. Just looking at 2014 data the pasture with intensive management was a clear winner with net returns of \$64.16 per acre compared to corn at \$-24.70, soybeans at \$32.00, or hay (mixed) at \$22.83 per acre net returns. But wait that's not fair to just look at one isolated year and not consider the rotations of crops. The rotations compared were a corn soybean and a corn silage, corn, and hay rotation. To average the net returns per acre each crops net returns times the years in the rotation were added together and averaged by the total years in the rotation. The corn soybean is a 2 year rotation so it is the sum of the net returns divided by 2 years.  $(\$-24.70 + \$32)/2 = \$4.02$  average returns for that rotation based on 2014 data.

Because yields and prices vary, the Fin Bin data for a five year period of 2010 to 2014 was used to compare the net returns. Fin Bin returns calculated are for over direct expenses and over all expenses\* (direct and overhead). Comparison for these enterprises was done comparing the net returns per acre of gross minus direct and overhead expenses. There is also a net return with government payments.

FinBin Crop Enterprise Analysis Data, 5 yr Average of All Farms 2010-2014	Hay, Mixed	corn silage	Corn	Pasture	Pasture Intensive	soybeans
Returns over Direct Expenses	89.44	326.63	336.73	9.04	75.09	215.59
Net Returns per acre	35.97	183.65	207.88	-5.73	17.66	133.85
Net with Government Payments	40.58	195.09	223.65	-4.92	21.09	147.3

Using this five years of data the average net returns per acre for a corn soybean rotation are \$170.87 and the average net returns for a rotation of hay, corn silage and corn are \$89.24 per acre. This shows more net returns per acre for cropping vs a pasture intensive at \$17.66 per acre for the 5 years selected.

The real news for grazers looking at the Fin Bin data is the comparison of pasture to pasture intensive. More intensive management increase the animal units per acre. The 5 year yield in animal units (aum) for Pasture was 2.20 per acre and Pasture Intensive was 4.72 per acre. There is a substantial difference in the net returns for pasture at \$-5.73 per acre compared to \$17.66 per acre. The measures to more intensive management increase the net returns by \$23.39 per acre. Improvements to pasture management to get to positive net returns would be of great value to stop the \$-5.73 per acre losses.

The Fin Bin budgets are good data, but specific data for the operation will provide the information on the net returns (profits) on that farm. Using net returns is a good way to determine the value of a cropping enterprise. The effect of pasture feed quality on profitability is hard to quantify but definitely contributes to the economic well being of farms using grazing management. Better feed quality translates to better animal health, performance, and reduced purchased feed costs.

\*The direct expenses are for seed, fertilizer, crop chemicals, crop insurance, storage, packaging and supplies, fuel & oil, repairs, custom hire, hired labor, land rent, machinery leases, operating interest, and miscellaneous. These are the operating expenses directly related to producing the crop. The overhead expenses are overall operation expenses allocated to the production of the crop and include custom hire, hired labor, machinery leases, real estate and personal property taxes, farm insurance, utilities, dues and professional fees, interest, machinery & building depreciation, and miscellaneous.

# Midwest Ag-Air

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