



## Grazing Management 101: *Managing Your Forages*

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*This article is part two of a two-part series on grazing management. This article will focus on grazing methods to address the different grazing behavior tendencies that was discussed in part one of this two-part series on grazing management. Hopefully in part one you understood the importance of matching the nutrient composition of forages to the nutrient requirements of different classes of cattle. Now we can focus on best management practices for grazing.*

Stored feeding costs are usually the single largest input in beef cow-calf operations, representing approximately 60% of all production cost. Harvesting forage as hay requires about seven hours of labor per acre each season, so any acres that the cows can harvest themselves is welcome help. The longer you can graze, the less you have to feed. An old saying goes “them cows need to earn their keep”. That’s where grazing management can play a major role.

There are basically two grazing management systems: continuous and rotational. Continuous grazing systems usually require the least amount of management and purchased inputs, however they are also apt to result in poor pasture utilization and reduced animal performance. When grazing commences in the spring and forage production exceeds cattle demand, some plants will become more mature and less palatable. As the grazing season progresses, these less palatable plants will be avoided in favor of new regrowth on previously grazed plants. Forage from the mature un-grazed plants (as a result of spot grazing) is essentially wasted, and the



frequently grazed plants are weakened from frequent defoliation.

Rotational grazing can be many different things, from having two pastures and rotating the cattle back and forth to a grazing system with many flexible pastures and rotating animals based on forage production. Rotational grazing reduces selective and spot grazing due to higher stocking densities that cause livestock to graze more uniformly over the designated area. Because of this uniform grazing pattern, pasture productivity is improved because plants are allowed to rest between grazings. Timing of grazing is critical to avoid cattle grazing mature, lower quality forages. Most pastures should be grazed approximately one week before grasses head out or when legumes hit that early to mid bud stage

in growth. Keep in mind that timing of grazing and grazing length of a pasture is related to seasonal forage growth. On average, legumes need three to four weeks of rest, cool-season grasses need as little as two weeks of rest in cooler weather and five to seven weeks in hotter weather, and warm-season grasses need five to six weeks rest during cooler weather and a three week rest during hotter weather.

Rotational grazing improves overall pasture quality because the more desirable plants are allowed to rest and cattle are forced to graze the more un-desirable plants, which in-turn prevents forages from maturing and improves forage quality, offering the potential for improved animal performance. There are tips to better utilize the quality of forages growing by certain classes of cattle. When certain classes of cattle are forced to graze a pasture down to the stems, animal performance will be poor due to the lower quality of nutrients available in the lower portion of the plant (stem). If you have certain classes of animals that require higher quality forages (replacement heifers, lactating first-calf heifers, or under-conditioned lactating cows), let them graze a pasture first at a faster rate followed by a “clean-up crew” of animals with lower nutritional needs (such as pregnant dry cows or lactating cows in good condition). A second option is to graze your cattle with lower nutritional needs on pastures consisting of poorer quality forages and let your cattle that demand higher quality graze the better quality pastures.

There are several other components that impact grazing management. We must remember that half of the pasture plants are beneath the soil, i.e. the roots. When plant tops get shorter from grazing, the roots also get shorter. If plant tops are kept short, the roots will also remain short, and therefore less able to extract nutrients and moisture from the soil. Also, with grasses, the leaves remaining after

grazing provide the primary fuel through photosynthesis for regrowth. So a sure way to kill desirable species is to graze close and then graze the regrowth without allowing adequate rest.

Soil fertility maintenance is also closely linked with grazing management. Grazing animals recycle a significant amount of the fertilizer nutrients they consume in their manure. Rotational grazing systems create more uniform distribution of those manure nutrients, so once adequate soil fertility levels are reached, maintenance levels of P and K will be less than for continuously grazed pastures.

Lastly, develop a grazing and an evaluation plan. The development of a grazing plan is likely as important as any other aspect of grazing management. The plan need not be complex, but should at least include an estimate of the forage needs of the cattle herd throughout the grazing season and an inventory of pasture resources available to meet those needs. Other useful components would be times and amounts of fertilizer applications, a general timetable to commence grazing, a specific pasture to start with, and a pasture rotation sequence. Often in beef cow-calf operations, there are at least two groups of cattle. How each group will be managed within the grazing plan is also important to consider. To finish this section up, include an evaluation plan with your grazing management plan. An evaluation plan will allow you to make stocking rate and/or grazing period adjustments throughout the grazing season to avoid overgrazing of pastures, wasting of forage left in pastures, and compromising animal performance.

For more information on cow/calf management, visit the U of M Beef Team website at: [www.extension.umn.edu/beef/](http://www.extension.umn.edu/beef/).