

# Rotational Stocking & Grazing Cycles

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The beginning of the grazing season is mainly about getting organized and making decisions about pastures, their subdivisions or paddocks, and the management of your grazing units. Adequate fencing and water need to be in place prior to the start of the grazing season for proper forage and grazing management. If not, they need to be addressed before moving forward. Let's review what rotational stocking is and how to adjust grazing when needed.

When grazing livestock, you have two options. One is to stock pastures continuously (continuous grazing) throughout the season. The other is rotational stocking using any one of the different modalities (standard, strip grazing, frontal grazing). In continuous grazing, the entire pasture area has uninterrupted access and grazing by cattle, and likely results in low yields and low stocking rates since the pasture is not allowed to rest.

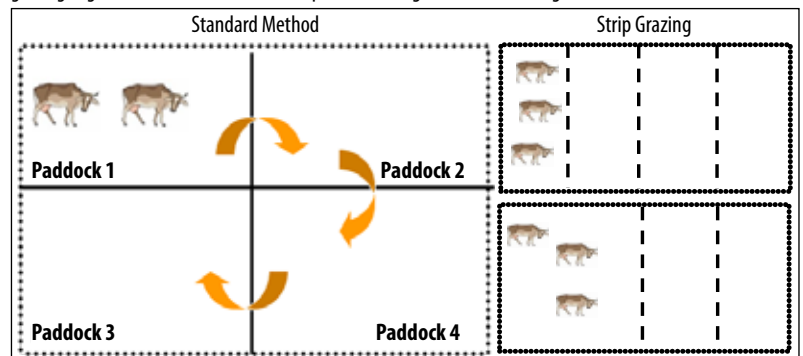
Rotational stocking, on the other hand, is a grazing method that allows resting of a section of the pasture while another section is grazed. Resting is achieved by manipulation of what and how much of the pasture the animals graze, how they graze, and when they do so. This can be accomplished in many different ways but most commonly by dividing the pasture area into smaller units (called paddocks) allowing you to manage the grazing and resting periods for each one (Figure 1). A grazing cycle is the combination of rest and grazing periods for a particular paddock. Together, grazing and resting periods allow for the entire pasture to follow a grazing plan over several weeks.

Stocking rate is also important and affects pastures the most. It is the animal-to-land relationship over time. Before grazing, you should have an idea of how much available forage is in your pasture because it will determine the number of animals you can carry overall. There are yield references for Minnesota and Wisconsin forages, but estimating your own is desired since your soil fertility is likely to be different than those average values.

For example, a good-quality pasture mix will be ~5,500-6,000 lbs dry matter (DM)/ac, while poor-quality mixes will be ~1,200-2,000 lbs DM/ac. Out of those numbers, ~45% will be available between May and June, 20% in July, 10% in August, 15-20% in September, and 5% in October.

If you have limited herbage amounts, or plan on feeding a supplement, or target individual gain more than gain per acre, you can benefit from a lower stocking rate. Stocking rate will determine stubble height. The higher the stocking rate, the quicker you will reach the target stubble height to quit grazing a paddock and move animals into the next one in the rotation (Figure 2).

**Figure 1.** Rotational stocking (grazing) through standard method (left) or any other form such as strip grazing (right), allows one section of the pasture to be grazed while resting the others.



**Figure 2.** Herd ready to graze new pasture. Livestock reached desired stubble and is moved to adjacent paddock (~12" tall) to allow grazed paddock (~6") necessary rest.



## Paddock Utilization and Rest Periods

- **Rest periods between grazings are necessary to allow grass to recover.** The number of rest days depends on forage growth. Cool-season grasses like smooth brome, Kentucky bluegrass, and timothy will need as little as two weeks of rest during cool weather (spring, fall) and one to one and a half months during hot weather. The

height at which to start grazing will depend on the growth habit of the pasture mix, but for most tall, cool-season grasses and legumes this grazing height is 8-10" (4-6" for short-growing mixes). Grazing paddocks at these heights and maturities will guarantee optimum production.

- **Utilization period.** Grazing is best when forages are in a vegetative stage, right before producing a seedhead for grasses and at mid-bud stage for legumes. Similar to the rest period, grazing length needs to be controlled as well. The target grazing period should not exceed the time when grasses start growing back. A grazed paddock will start regrowth after approximately one week in spring (May/June) and after two weeks in summer (August/September). Thus, the grazing of paddocks in spring is usually three to four days.

Spring start-up grazing faces unique conditions. At this time pastures are too wet, so pugging (damage caused by livestock tearing up the paddock's structure) needs to be avoided. Do quick rotations; move livestock after one to two days of grazing to avoid pugging. Also, this is the time of year when grasses have the highest growth rate. Start grazing when plants are just 3" tall (early spring only), moving them quickly through the paddock rotation until a paddock has the desired height. If forage growth gets too high, plan on mowing or making hay.

Another consideration during early spring is getting animals used to consuming fresh forage. Try introducing fresh forage slowly and add hay supplementation when grazing fresh paddocks.