

Grazing New Plantings of Native Warm Season Grass

(2nd Growing Season)

These are the principles, tips and tricks about grazing a new planting of Native Warm Season Grasses (NWSG) discussed in the video by the same name. For a more in-depth discussion of these principles, watch the video at <https://youtu.be/4625sVnHOuY>. Other videos in this series discuss haying mature stands of NWSG in the different seasons as well as management topics such as fertilizing and burning.

Rule of Thumb for Forage Production on New Plantings - In the first year, there is NO forage production. In the second year, you can often see 50% forage production. In the third year, it is often full forage production.

Typical Development of a 2nd Year Plant - Second year plants are still developing, and the root system is usually not fully developed. Because the plants are not fully mature, this should impact grazing management.

Is My Planting Ready to Start Grazing? - Plants can vary in development level during the second year. Factors such as land use influence how quickly plants mature (e.g. in old hayfields the plants often mature more slowly). Here are some signs that your NWSG plants are sufficiently developed to begin grazing:

- The footprint (area covered by the plant at ground level) is “good-sized”. While there are no set guidelines for the footprint of a plant that is mature enough to graze, realize that the footprint of a mature NWSG plant could be the size of a basketball (or even bigger, especially for Eastern Gama Grass). So, if in early spring of the second growing season the footprint is the size of a softball with 50 grass stems (tillers) coming out of it, it is more mature than a plant with a footprint the size of a golf ball with only one or two stems.
- The plants are tall enough so that it can be grazed and still leave the plants at a 12-14” stubble. Keep in mind that when cattle take one bite off of a NWSG plant they often remove ½ (or 1/3 on taller plants) of the plant.
- Good soil health promotes healthy plants that mature earlier.
- Good weed control in the first growing season promotes plants that mature earlier.
- Seeing a “good number” of seedheads at the end of the first growing season (maybe 9 seedheads per square foot on average across the field) is a sign that the plants are developing nicely.

Do I have enough plants to be considered a good stand? The following densities are considered a full stand:

- Big Bluestem, Indiangrass, Little Bluestem, and Switchgrass – about 1 plant per square foot. Even at a density of one plant per 1.4 square feet (or 7 plants per square yard) should be fine.
- Eastern Gama Grass – because this grass develops larger corms (has a bigger footprint), a plant density of 3-6 plants per square yard is adequate.

Grazing management for a 2nd year planting.

- Three ways to look at how much to graze:
 - Leave 12-14 inches of above-ground growth so that the plant doesn't have to pull from root reserves to recover.

- Take half and leave half of the plant AND leave 12-14" stubble after grazing. This particularly applies to plants that are such a height that one bite by the cow removes half the plant.
- Often, when a NWSG plant gets a little taller, there are 3 bites that a cow can take from a plant (in other words, on the first bite she removes a third of the plant and the second bite the next third and if she grazed the remaining third, the plant would basically be grazed off to the ground level). On a 2nd year stand, it is usually ideal to remove the cattle from the field when they have grazed off only 1/3 of the plant. This should leave stubble that is at least 12-14".
- Be careful. Monitor the grazing carefully. Don't overly-stress the plants. Err on the side of caution since the plants are not fully developed and therefore cannot handle as much stress.

Fertilizing on 2nd year NWSG stands. NWSG are very efficient with fertility and have a lower requirement than many other forages. Consequently, some people choose to fertilize NWSG and others don't. However, if the NWSG are being hayed, it is often wise to fertilize to replace the removed nutrient. If you choose to fertilize, do it when the NWSG is actively and rapidly growing in the spring (around 12" height on the plants). You can also do an experiment to see if it makes sense for you by fertilizing a small area. If you fertilize, fertilize to a pH of at least 5.0, get phosphate and potash to the medium level on a soil test, and use 40-60 lbs. of nitrogen per acre (maybe more for Eastern Gama Grass).

Weed control on 2nd year NWSG stands. Sometimes herbicides can be helpful (should you choose to use them) to reduce weed pressure and develop a stand faster. There are two general times to evaluate if herbicides might be a useful tool.

- Winter (dormant season when NWSG are brown) – Evaluate the population of winter annual weeds. They will be green before NWSG green up. While the NWSG are dormant, glyphosate can be used to kill the green plants.
- Mid-spring – Judge the size of the plants in the stand you are managing versus the size of the weeds that are emerging. This is the time you can apply herbicide to maximize the growth potential of your NWSG by controlling those weeds

Note: Grazing is often NOT a weed control method because the weed has equal or less palatability compared to the succulent NWSG, so grazing the field hard enough to stress the weeds usually results in overgrazing the NWSG.

