

Weekly ANR Column

OSU Extension Clinton County

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### Grazing Warm season Annual Grasses

As I have been driving around the county looking at cattle pastures, it's clear that we have entered the hottest days of summer where our cool season perennial pastures have slowed down on growth. With continual rain and a few cool days, maybe growth hasn't gone completely dormant, but the cattle pastures just aren't keeping up with the cattle. So, what are the options for having available forages for cattle all throughout the summer months? One of the best options would be to plant warm season annual grasses. Warm season annuals grow quickly, are easy to establish, can be grazed or hayed multiple times throughout the summer, and can produce large amounts of biomass for those of you who need to add organic matter to your soil. One of my favorite places to grow some of these grasses are in sacrifice lots where you overwinter your cattle. Sacrifice lots oftentimes grow weeds during the spring and summer and is a space not utilized during the warm months. Why not plant some warm season annual grasses in May-June so that you can then utilize this space in the summer? For those alfalfa producers who are looking towards full alfalfa stand restoration, till the ground and plant a warm season annual grass to utilize residual Nitrogen. After a season of warm season annual grasses, the chemicals that cause autotoxicity in alfalfa seedlings will be diminished and you can re-plant alfalfa. Let's discuss three types of warm season annual grasses you might choose from.

#### Pearl Millet

There are a few different types of Millet you can use for summertime grazing, these include Pearl, Brown Top, and Foxtail Millet, but Pearl is the best choice. Out of all the Millets, Pearl Millet produces the most amount of forage throughout the season and lasts the longest. This Millet has excellent drought tolerance and good tolerance to poorly drained areas. The seeds can be drilled at a rate of 15 pounds per acre or broadcasted in a prepared seedbed at a rate of between 20-30 pounds per acre. Seeding dates range from May 1 through June 15. Apply 60-90 lbs/acre of Nitrogen at establishment, and 40-60 lbs/acre after each cutting or grazing and Phosphorus and Potassium to soil test. Begin grazing when plants reach 18 inches and expect most of the forage to be produced between June and August.

#### Sorghum Sudan Grass

Sorghum Sudan Grass is a hybrid between Forage Sorghum and Sudan grass to increase leaf size and forage production while minimizing seed set. Plan to plant Sorghum Sudan grass at a rate of 20 to 25 pounds per acre drilled, or 30 to 35 pounds per acre broadcast. This warm season annual grass also has good drought tolerance as well as poorly drained soil tolerance. Fertilization applications are similar to that of the Pearl Millet. It is crucial not to graze Sorghum Sudan Grass

until it has reached a height of at least 24 inches tall because of the risk of prussic acid/cyanide poisoning in your livestock. This grass produces the most amount of biomass and forage, so this is a good option for planting in areas where you would like to increase organic matter in your soils. Heavy weed pressure is uncommon in a pure Sorghum Sudan grass because of its tall height and thick canopy as it matures.

### Teff Grass

Teff Grass is often compared to the cool season perennial grass Timothy in terms of nutritional value for livestock. Teff is a very palatable forage for livestock which is partly due to its soft leaf and stem tissue. Teff Grass makes great hay especially for horses that require lower energy needs as the grass contains lower levels on nonstructural carbohydrates. Cool weather and frost will inhibit Teff's ability to germinate and grow, so make sure that seeding happens in late May to mid-June. Teff Grass seed is very small so care should be taken when planting if drilling in the seed, 1/8 to 1/4 inches is the appropriate depth. Using a Brillion Seeder with a cultipacker is a better option for planting Teff. The seed bed must be very firm with good seed to soil contact. Coated seeds should be planted at a rate of 8 to 10 pounds per acre, and non-coated at a rate of 4 to 6 pounds per acre. Nitrogen should be applied at planting of a rate of about 50 lbs/acre, and 30lbs after each cutting or grazing.

### Cautions

Like most grasses, there is a possibility for nitrate poisoning under the right circumstances. Nitrate toxicity happens when Nitrogen has been applied and taken up into the plant, but because of the weather (drought or cool cloudy weather) is no longer mobile and stays within the plant. Livestock eat the forage with high Nitrate levels is turned into nitrite inside the rumen and at high enough levels can cause abortions or death. Visit [Warm-Season Annual Forage Crops | MU Extension \(missouri.edu\)](#) and refer to table 1. For information on safe and toxic levels of Nitrate.

If you are concerned of Nitrate levels in your warm season annual grasses, wait for the weather to improve to let Nitrates dissipate. We can also take tissue samples to determine if Nitrate levels are safe.

Prussic Acid poisoning or Cyanide poisoning is a potential problem in Sorghum Sudan Grass, also in the right circumstances. Prussic Acid levels are high in fast-growing and young Sorghum Sudan Grass, so it's important not to graze this grass until it has reached at least 24 inches in height. When the plant is drought stressed or has gone through a frost event, Prussic Acid can also accumulate in the plant. In drought stress situations, wait until a rain event and until there is at least 24 inches in re-growth until grazing. In frost situations, wait to graze until 14 days after the frost event or until the leaves turn brown. Unlike nitrates, prussic acid will dissipate after the forage is cut and cured down for hay or ensiled.

Information used from : [Teff for Forage Production.pdf \(osu.edu\)](#)

[Warm-Season Annual Forage Crops | MU Extension \(missouri.edu\)](#)