

# Grazing Crabgrass

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Crabgrass is typically viewed as a weed which invades lawns and pastures and is difficult to control, but this may be changing. There are now crabgrass forage varieties commercially available that may be of use to livestock and horse managers. Crabgrass is a warm-season annual grass and comes in many varieties, but two most common are smooth crabgrass (*Digitaria ischaemum*), and large crabgrass (*Digitaria sanguinalis*) sometimes referred to as “hairy crabgrass.” Smooth crabgrass is most often seen in lawns, as it is a low-growing grass which tolerates traffic and close mowing. It has an advantage of producing nodes which take root when they come in contact with soil, allowing for a growth pattern similar to bermudagrass and zoysia grass which spread by stolons. This physical trait also allows for smooth crabgrass to act as a soil anchor, giving it an advantage to surviving in erosion-prone areas. Large crabgrass is much larger and has an elongated stem with multiple leaves on each stem. It grows upward as opposed to outward. This is most similar to forage varieties commercially available. In 1988, the Nobel Foundation released its first forage crabgrass, ‘Red River’, followed by the release of ‘Quick-N-Big’ in 2006 from Elstel Farm and Seeds.



Grazing Red River crabgrass (plot in foreground) and three other bermudagrass cultivars at the Virginia Tech Mare Center in a collaborative project with the University of Maryland.

‘Red River’ and ‘Quick-N-Big’ are suitable for use in the southeastern portion of the U.S., from Nebraska to the east coast and south. Both have demonstrated high yield potential and have been successfully grazed by cattle and horses. When comparing the two, ‘Quick-N-Big’ can produce ~10% more forage than ‘Red River’, but previous reports have shown yields as high as 12,000 lbs or more of dry weight yield per acre for both varieties. Not only do forage-type crabgrasses produce high yields, they are also high in nutritional quality. Quality does vary with management, but crude protein has been reported to range 12-25% on a dry matter basis. Palatability is good for cattle and horses, despite the “stemmy” appearance of mature plants. Average daily gains for beef cattle grazing the two varieties have ranged 1.8-2.5 lbs per day.

Recently, a study was conducted where ‘Red River’ crabgrass was grazed by horses. Results showed ‘Red River’ was preferred compared to varieties of bermudagrass, but it is unclear if this is due to nutritional differences or to growth pattern differences. It had a tendency to grow upward but also develops runners if space allows, whereas bermudagrass exhibited stolonous growth radiating outward in a horizontal pattern.

Establishing crabgrass is relatively simple. It should be seeded at 1-5 lbs/ac, depending on goals. As compared to other forages, crabgrass establishes more successfully with aged seed than with new seed. Soil pH can be 5.5-7.5 and soil should be lightly tilled and compacted prior to seeding. It can be broadcast onto the seedbed or applied by no-till drill at ¼-½" deep, maximum. When broadcasting, it should be rolled, assuring good seed-to-soil contact. Under good conditions, seed should germinate quickly and forage can be grazed or harvested as soon as 40 days from emergence. It responds well to nitrogen, but can be prone to accumulating high nitrate levels. Currently, it is recommended to split nitrogen applications so that no more than 50-60 lbs/ac are applied at a time. When controlling weeds in crabgrass pastures, 2,4-D can be applied, as it will be most effective against broadleaves. If you wish to control crabgrass itself, multiple pre-emergent and post-emergent products are available; but be advised not all products are labeled for on-farm use and grazing restrictions may apply.

For many livestock and equine managers, perennial cool-season grasses such as tall fescue, orchardgrass, and Kentucky Bluegrass are popular grazing forages. They only need to be seeded once, and if properly managed, can produce a viable grazing option for years to come. Their disadvantage is they experience a summer production decline when temperatures increase, and they require more time to establish compared to warm-season annual grasses, such as crabgrass. By supplementing pastures with forage crabgrass, you can ensure abundant forage throughout the summer. It will need to be seeded every year, or the field will need to be rested at the end of the summer and into early fall, allowing it to enter a reproductive state and drop seeds for the next season. In addition, it can be a useful emergency forage if hay fields and pastures suffer winter damage. In a pasture, supplementing animals with hay can be minimized as crabgrass is ready to graze sooner than freshly seeded perennial grasses.