

Crabgrass

Chris Teutsch, Ray Smith, Tom Keene, and Jimmy C. Henning, Plant and Soil Sciences

Crabgrass possesses significant potential for supplying high quality summer forage although it is considered a weed by many. A primary advantage of crabgrass is that it is well adapted to Kentucky and occurs naturally in most summer pastures, especially those that have been overgrazed. It is also highly palatable and a prolific re-seeder. Planting an improved variety of crabgrass is recommended because the production of naturally-occurring ecotypes varies greatly. Crabgrass is best utilized by grazing.

Crabgrass is best adapted to well-drained soils such as sands, sandy loams, loamy fine sand, loams, and silt loams that do not crack extensively. For more information see AGR-217: *Determining Soil Texture by Feel*. Crabgrass will produce on moist clay loams, but produces only moderately on clays, silts, and silty-clay loams. Optimum growth occurs at a slightly acid pH. In most cases a pH range of 6 to 6.5 should be targeted. Phosphorus and potassium should be applied according to soil test. For more details

on fertilizing warm seasons forages like crabgrass, see AGR-1: *Lime and Nutrient Recommendations*. In the absence of a soil test, apply 60 to 80 lb/A of P_2O_5 and 70 to 100 lb/A K_2O prior to seeding. Apply 60 to 80 lb/A of actual nitrogen at seeding and 40 to 60 lb after each cutting or intensive grazing if regrowth is desired. If nitrogen is not applied before crabgrass emergence, delay application until seedlings have started to tiller. Applying nitrogen to crabgrass seedlings in the one to four leaf stage may thin or kill stands.

Seed crabgrass beginning in early May after the soil temperature is at least 60°F. It is best established by broadcasting seed onto a fine, but firm seedbed at a rate of 3 to 6 lb/A of uncoated seed (5 to 8 lb/A of coated) followed by cultipacking. The seeding depth should be $\frac{1}{4}$ to $\frac{1}{2}$ inch. Grain drills can be used to establish crabgrass. This method is most often accomplished using the large seedbox after mixing crabgrass seed with a carrier to facilitate accurate metering. Lift the disk openers of the drill out of the soil, detach

seed tubes from openers and allow seed to fall onto the soil surface. Cultipack immediately after seeding.

Crabgrass can produce grazable forage in as little as 40 to 60 days after seeding. Like pearl millet, it does not contain prussic acid. In addition, it is a good choice for equine pastures since there are no known forage related disorders with crabgrass. Crabgrass must be grazed rotationally in order to maintain productivity. Grazing can be started at 6 to 8 inches and well-anchored and stopped at 3 to 4 inches. Hay should be cut at the early to late boot stage or at height of 18 to 24 inches. Leave 3 to 4 inches of stubble if regrowth is desired.

Crabgrass is an annual that acts like a perennial through reseeding. Therefore, it must go to seed at least once during the growing season. In most cases, animals should be removed at least two to three weeks before the first expected frost in the fall to ensure reseeding. Shallow tillage in late winter or early spring is needed to incorporate the volunteer seed and guarantee a uniform stand.



Figure 1. Crabgrass in the early vegetative stage.

Crabgrass Facts

Common Name: Crabgrass

Scientific Name: *Digitaria species*

Origin: Southern Africa

Growth Characteristics: Annual with creeping growth habit, long runners, and very leafy

Adaptation: All of Kentucky

Major Uses: Excellent summer grazing, can also be used for hay and silage

Drought Tolerance: Fair to good

Soil Drainage: Well-drained soils that do not crust severely

Weight per Bushel: 25 pounds

Number of Seed per Pound: 825,000

Seeding Rate: 3-6 lb/A pure live seed (PLS)

Seeding Date: Early May, when soil temperature is consistently 60° to 70° F

Seeding Depth: ¼ to ½ inches

Time to First Grazing: 40-60 days under good growing conditions

Expected Yield: Hay-2 to 4 tons DM per acre

Soil pH: Prefers slightly acidic pH, target should be 6.0 to 6.5

Fertilization: Apply phosphorus and potassium according to soil test. Apply 60 to 80 lb/A of actual nitrogen at seeding and 40-60 lb after each cutting or intensive grazing if

regrowth is desired. Do not apply nitrogen to seedlings in 1-4 leaf stage.

Seasonal Distribution: 90% of growth in June, July, and August

Grazing Management: Start grazing at 6-8 inches tall. Graze to a height of 3-4 inches. Manage regrowth in same manner.

Hay, Green Chop or Wilted Silage Management: Cut at the early to late boot stage or at a height of 18-24 inches. Leave a three to four inch stubble if regrowth is desired.

Forage Related Disorders: *Nitrate Poisoning.* Although crabgrass can accumulate nitrates in rare situations, few cases of poisoning have been documented.