



Warm-Season Perennial Forage Grasses

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Introduction

Warm-season perennial forage grasses provide the basis for pasture and hay production during the time period of April through October in most areas of Louisiana. All of these perennial grass species are introduced from other areas of the world, namely South America and Africa. These species grow dormant during the winter and early spring months but begin to regrow in April. Many livestock producers will overseed a cool-annual grass into the sod of these warm-season perennial species to provide grazing during the winter and early spring months.

Bermudagrass

Bermudagrass has been grown in the United States at least since the middle of the 18th century when its introduction to Georgia was recorded. Although long regarded as a weed by early crop farmers, its importance as a pasture and forage grass today is no longer disputed. Its primary area of adaptation in the United States is south of a line from Virginia to southern Kansas, but it is also grown in the Southwest whenever adequate moisture is available. In its area of production, bermudagrass is a highly productive, warm-season perennial grass that has a growing season lasting from March or April until autumn frosts. In Louisiana, peak growth rates are usually produced during May through August. Bermudagrass can be used for either pasture or hay. It is especially feasible to use for hay production because it cures relatively easily, makes attractive hay and has a high yield potential. Both seed-propagated and vegetatively-propagated (hybrid) types are available.

Seed-propagated bermudagrass includes common commercial bermudagrass as well as several brands that represent specific selections or blends of specific selections of seed-propagated plants. Seed-propagated bermudagrasses have the ability to cover the ground and stabilize the soil quickly, and they are easier

and less expensive to establish than hybrid bermudagrass types. Seeded varieties should be planted in the late-spring and early-summer months at a rate of 5 to 8 pounds of hulled seed per acre. Suggested seeded varieties for planting include Common, Cheyenne II, Mohawk, Ranchero Frio, Sungrazer Plus and Texas Tough.

Hybrid bermudagrass must be propagated vegetatively. This can be accomplished via two methods. One involves digging and planting sprigs (rhizomes or roots), but many newer varieties can be propagated from top growth (commonly referred to as long-hay plantings). The long-term yield potential of most commercially available hybrid varieties is higher than seed-propagated bermudagrasses. Thus, a hybrid bermudagrass is often a good choice for hay production or, especially when acreage is a limiting factor, for pasture. The normal method of long-hay plantings involves broadcasting the vegetative material at a rate of about 1,500 to 2,000 pounds per acre into a prepared seedbed. The material can then be disked into the soil. A cultipacker may be used to firm the seedbed after planting. Suggested varieties for planting include Alicia, Brazos, Coastal, Grazer, Tifton 44, Tifton 85, Russell, Jiggs, Sumrall 007 and Little Phillip #1.

Bahiagrass

Bahiagrass is grown from east Texas to the Carolinas and as far north as northern Arkansas and central Tennessee. It is principally adapted to the region encompassing Louisiana, Mississippi, Alabama, southern Georgia and Florida. It is adapted to a wide range of coastal plain soils but performs best on sandy soils with a pH of 5.5 to 6.5. It grows better on drought-prone soils with relatively low fertility and on sandier soils than do most other pasture grasses. Bahiagrass is a deep-rooted perennial. It forms a deep,

extensive root system which few other plants are able to encroach after a sod has been developed.

Bahiagrass is popular in the South because of several factors. Namely, it tolerates a wider range of soil conditions than bermudagrass or dallisgrass, it is established by seed rather than vegetative material, it resists encroachment of weeds, it can persist and produce moderate yields on soils of low fertility and it withstands heavy grazing. Bahiagrass can be used as

Bahiagrass (cont.)



Bahiagrass in a pasture. Photo by Tripp Morgan

a permanent pasture or as a hay crop. Beef cattle gains on bahiagrass pasture have been intermediate to gains on common and coastal bermudagrass, and bahiagrass hay with appropriate supplementation is satisfactory for beef cattle wintering programs. Bahiagrass seed can be planted in the late spring and early summer months at a seeding rate of 15 pounds per acre. Suggested varieties for planting include Argentine, Pensacola, Tifton 9, UF Riata, TifQuik and AU Sand Mountain.

Dallisgrass

Dallisgrass is an adapted, warm-season perennial grass that is very productive on alluvial soils and more fertile upland soils in Louisiana. It has good drought tolerance but does not do well on deep, sandy, upland soils of northern Louisiana or soils with low fertility. Dallisgrass has a long growing season and is often available for grazing earlier in the spring than other warm-season grasses. It is noted for having good forage quality. Dallisgrass is a bunchgrass that has very short rhizomes. It is well suited for productions in mixtures with white clover and common bermudagrass.

Dallisgrass is only moderately well suited for hay production because much of the leaf growth is near the soil. Dallisgrass is noted for having poor seed quality. Seed germinates slowly, often

taking four weeks or longer for emergence. Seedling vigor is often poor; so, competition must be minimal for a long period for good establishment. Dallisgrass also suffers from ergot problems in the seed head, which can be harmful to beef cattle. This problem can be controlled in pastures by clipping to remove the seed heads.

While dallisgrass is a desirable species, at the present time there are no commercial varieties available for planting. Dallisgrass seed is all classified as “common” and historically seed has been imported from countries outside of the United States. However, since the early 2000s, no imports of dallisgrass seed into the United States have occurred. So, until imports of dallisgrass seed become active again, the only way to utilize dallisgrass is from existing plants in pastures.

Carpetgrass

Carpetgrass is a perennial grass that performs well on moist, medium- to fine-textured soils. The plant is stoloniferous and can spread rapidly and form a dense sod. It does not persist well on dry or sandy soil types. Since most of its growth is located near the soil surface, it is best suited as a pasture grass. The forage quality is similar to bahiagrass. There are no commercially varieties of

carpetgrass available; all seed is classified as “common.” For new plantings, carpetgrass can be seeded in the late spring and early summer months at a rate of 15 to 20 pounds per acre. There is very limited research information available on the forage production and quality of this species.

Johnsongrass

Johnsongrass is a perennial grass that is classified as a noxious weed in Louisiana by the Department of Agriculture and Forestry. It can therefore not be planted as a forage crop. However, Johnsongrass does volunteer widely throughout the state. It is best suited for use in the heavy clay soils of south Louisiana and some bottom-land areas in north Louisiana. Johnsongrass is a very aggressive and competitive grass as it contains a large number of rhizomes, which are horizontal underground stems. Johnsongrass is sensitive to defoliation, so it must be lightly stocked or rotationally stocked if it is to persist in pastures. Johnsongrass can also be used

as a hay crop, but because it contains relatively thick stems, it takes longer for it to dry out than either bermudagrass or bahiagrass.

A major concern with using Johnsongrass as a forage is its potential for nitrate and prussic acid accumulation. Both are poisonous and can even be lethal to livestock at high levels of accumulation. Nitrates can be an issue under stress conditions, normally during a drought. Prussic acid accumulations can occur in drought conditions and also immediately after the first killing frost in the fall. If frost is imminent, livestock should be pulled off of the pasture for a period of seven to 10 days.

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