

# Bermudagrass Varieties

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**C**ommon bermudagrass, a native of southeastern Africa, was brought to Savannah in 1751. By 1807 it was considered one of the most important grasses in the South and widely used for pasture because of its drought resistance. Common bermudagrass, a prolific seed producer, soon became a serious pest in cotton and corn fields. It is no wonder that row crop farmers were not pleased when Dr. Glenn Burton came of Tifton, GA in 1936 as a forage breeder and decided to improve bermudagrass. However, his impressive breeding program resulted in release of the hybrid variety Coastal in 1943 which was more drought-tolerant, disease-resistant and much higher yielding than common bermudagrass. Coastal was rapidly accepted by livestock producers even though it required vegetative planting, resulting in over 12 million acres across the South today. Since then, Dr. Burton has developed a number of other bermuda grass hybrids and additional varieties have been produced elsewhere.

With a number of bermudagrass varieties available, some of them widely advertised, a common question by Georgia livestock producers is which one is best. This depends on location as some varieties are excellent in the southern part of the state but not cold hardy in the north. Others are disease susceptible in one area but not in another. Most are vegetatively propagated while a few are planted from seed, similar to common bermudagrass, resulting in lower cost of establishment. Forage quality of some varieties has been improved with breeding but it should be kept in mind that plant maturity when grazed or harvested has the greatest effect on quality.

## Vegetatively propagated varieties

Coastal is the standard against which all other varieties must be compared. It generally yields up to twice as much as common bermudagrass when well fertilized and is particularly productive during late summer and early autumn. It is well adapted to the Coastal Plain and Piedmont regions. In the upper Piedmont and Limestone Valley regions

it can be injured during cold winters. In extremely cold winters some stands have been killed in northern Georgia.

Tifton 44, released in 1978, is much more cold hardy than Coastal and stands will survive anywhere in Georgia. It has finer stems and forms a denser sod than Coastal. Forage yields are similar to Coastal. This is especially true on clay soils where Tifton 44 often provides little or no grazing or hay during the establishment year. In some cases, the slow establishment has resulted in heavy grass weed problems and delayed forming a good sod for several years.

Tifton 85, released in 1992, is the best bermudagrass hybrid currently available for southern Georgia. It is taller, has larger stems and very rapidly spreading large stolons. Tifton 85 has produced 26% more dry forage and was 26% more digestible than Coastal bermudagrass in trials at Tifton, GA. It is recommended only in the Coastal Plain as stands can be thinned by cold in the Piedmont and killed in northern Georgia during winter. Maintaining a good cover of frosted grass can keep the grass dormant and improve survival of Tifton 85 in areas north of the Coastal Plain.

Russell was originally found in a field in eastern Alabama and released as a variety in 1994 by Auburn university. In the Piedmont and Limestone Valley regions where it is recommended, Russell has been equal in yield and nutritive quality to coastal. Russell has faster establishment and is more cold hardy than Coastal.

Alicia is a commercial variety selected in Texas and released in 1967. Alicia is established more rapidly than Coastal, has similar yield potential, but is less winter hardy, is susceptible to rust, and has lower nutritive quality. It is not recommended in Georgia.

World Feeder is a commercial variety selected and released in 1991 by a producer in Oklahoma. It has good winter hardiness and establishment. Experiment station trials in Oklahoma and Arkansas show that it was substantially lower yielding than Tifton 44 bermudagrass. In a 3-year trial at Tifton, GA, World Feeder yielded only 38% as much as Coastal and 31% as much as Tifton 85 bermudagrass (Unpublished data, G.W. Burton). It is not recommended in Georgia.

## Seed planted varieties

Common bermudagrass covers a wide range of ecotypes that may differ in adaptation and productivity, depending on seed origin. Since it can be easily established from seed, it is often planted for low-management pasture use. Total forage yield is lower than for bermudagrass hybrids and its susceptibility to leaf spot disease can reduce forage yield and quality in late summer and autumn during wet summers. However, in mixture with tall fescue, common bermudagrass can be a valuable pasture grass and provide summer grazing.

NK37, Pasto Rico, and Terra Verde are commercial blends of giant and common bermudagrass. First year yields are high and generally superior to vegetatively propagated hybrids. Yields typically decline in succeeding years because of cold injury or leaf spot disease susceptibility. The result is a common bermudagrass stand.

Cheyenne is a giant type that has performed well in the Piedmont and Limestone Valley regions. Forage yields and nutritive quality are similar to Coastal but winter hardiness is superior. Since it is seed planted, establishment is cheaper but there is a risk in annual grasses such as crabgrass out competing it as no herbicides are available for grass control. Frequent mowing is recommended during the establishment year for weed control. It is not recommended in the Coastal Plain because of disease susceptibility.

## Conclusion

Establishment of a bermudagrass hayfield or pasture is a major investment so it is important to select the best available variety for your area. Georgia livestock producers have a number of excellent options to select from and can avoid wasting money on unadapted or less productive varieties. Improved bermudagrass varieties can be useful but they do not substitute for good management. Soil testing, adequate fertilization, and good grazing practices or cutting hay at early maturity can enhance nutritive quality and productivity of any variety.