Should I establish bermudagrass or bahiagrass?

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Warm season perennial forage crops like bermudagrass and bahiagrass form the backbone of many cow-calf production systems in the southeastern United States. In fact, the cow-calf industry throughout the Coastal Plain region is heavily based on these forage species. Both species can be productive and persistent under grazing when established in appropriate environments and managed properly. Many producers in south Georgia have difficulty deciding which of these species to establish on their farms. Soil drainage, availability/feasibility of sprigging, fertility inputs, grazing pressure, forage distribution, and hay needs are all issues that should be considered when choosing between these two forages. In this article, I'll review the characteristics of each of these species and give tips as to when and where each should be established.

Soil drainage. Bermudagrass doesn't like "wet feet" and requires a well drained soil for good production and persistence. Several producers have stated that Alicia bermudagrass is relatively tolerant to poor drainage, but to my knowledge there is no evidence available to support this claim. On the other hand, bahiagrass is suited to a wide variety of soil types and is tolerant of high sandy areas as well as poorly drained sites. This is a critical characteristic to consider. If the field is poorly drained, bahiagrass is likely the best choice. Either species will grow on well drained soils.

Availability/feasibility of sprigging. This is another critical issue to consider when establishing a new field. Commercial spriggers are often unwilling to travel large distances or plant small areas of hybrid bermudagrass. In addition, many fields may contain stumps or rocks which prevent mechanical tillage and sprigging. In these situations, establishing forages by seed is the best option. Since seed-type bermudagrass varieties have performed relatively poorly in the Coastal Plain of Georgia, establishing bahiagrass in these situations is likely the best option.

Fertility inputs. This is one of the most important factors to consider when choosing between bermudagrass and bahiagrass. Bermudagrass is a highly productive forage species, but requires frequent nutrient inputs (particularly potassium and nitrogen) for optimum growth, disease resistance, cold hardiness and persistence. Producers willing to provide these inputs in a timely fashion will reap the rewards of this increased productivity. Bahiagrass can survive on acid soils that are low in potash and phosphorus. Bahiagrass will provide a dependable (but far less productive) forage source for producers who are unwilling to lime and fertilize than well fertilized bermudagrass. Bahiagrass will respond to nitrogen inputs and can be relatively productive in intensively managed situations.

Grazing pressure. Both bermudagrass and bahiagrass are tolerant of close continuous grazing. However, under extremely close grazing, bahiagrass grows more prostrate and

produces a large proportion of dry matter below grazing height. This makes bahiagrass a plant that is highly tolerant of heavy grazing.

Forage distribution. Both bermudagrass and bahiagrass are highly productive during summer months, but bahiagrass will typically produce forage for a few weeks longer in fall months. While this slightly longer season does not result in more overall forage production than bermudagrass, the longer growing season can decrease fall hay needs.

Hay production. Since bahiagrass is generally less productive than bermudagrass, the latter is preferable as a hay crop. This is particularly true when Pensacola bahiagrass is the established variety. Tifton 9 bahiagrass grows in a more upright fashion and produces yield that are sometimes 25% higher than Pensacola. Bahiagrass also cures to a darker color which some buyers discount and generally contains more stems and seedheads which can result in lower quality hay. If hay production is needed from the field, bermudagrass will typically yield more tons of higher quality forage than bahiagrass.

Summary. While bermudagrass has the capability to be more productive and have higher quality forage than bahiagrass; there are situations where bahiagrass should be established. Carefully consider soil drainage, feasibility of sprigging, fertility inputs, grazing pressure, forage distribution and hay production needs before choosing a species for establishment. New bahiagrass varieties are on the horizon, which could improve the forage distribution and vigor of bahiagrass in the near future.