

## **To Seed or Not to Seed**

Dennis Hancock  
Extension Forage Specialist  
The University of Georgia

In traveling around the state presenting programs at local Cattlemen's meetings or Extension events, the most often asked questions are about seeded bermudagrass varieties. Usually the context of the question is "which is better: hybrid or seeded." Whether or not a hybrid or seeded bermudagrass variety is right for your operation depends on a lot of factors.

Last month, several years worth of yield trials were presented that showed that even our best seeded bermudagrass varieties generally produce only 50-60% of our better hybrid varieties. In fact, the difference is often as much as 5 tons/acre. However, the yield potential alone does not tell the whole story. There are many other factors to consider when deciding which type of bermudagrass is best for each situation.

First, it is important to understand that these types of bermudagrasses differ substantially in how they are established. As the name implies, seeded bermudagrasses can be started from seed. Hybrid bermudagrasses produce few (if any) viable seed and therefore must be vegetatively established (that is, sprigged). This is obviously a major difference, particularly if you are on rolling terrain. There is a tremendous risk for soil erosion when bermudagrass is sprigged because it involves a major soil disturbance, even if so-called "no-till" sprigging equipment is used. Of course, the surest way to get seeded bermudagrass established is also to plant it into a well-prepared (conventional-tilled) seedbed. But, seeded bermudagrass can also be established by using a no-till drill. The key to successful no-till establishment is to plant into a sod that has been closely mowed/grazed AND killed with a non-selective herbicide.

Another major distinction between the two choices involves the ability to control weeds during establishment. In establishing hybrid bermudagrass, many grass and broadleaf weeds can be controlled with herbicides such as diuron and 2, 4 - D. However, there are fewer weed control options when seeded bermudagrass establishment is attempted. Applications of 2, 4 - D at one pint/acre can be applied at approximately 2 weeks following emergence, but limited control of most problem weeds can be expected with that product at that rate. Therefore, it is critical to have low weed pressure and a good kill of the previous sod. Poor weed control often results in establishment failures in bermudagrass, so this is an important consideration when deciding between hybrid and seeded options.

Ultimately, economics often dictate which type of bermudagrass to establish. As with most perennial forage crops, the establishment cost represents a significant, up-front investment. The equipment to establish bermudagrass (either a no-till drill or sprigging equipment) is not commonly part of the typical cattleman's implement inventory. Custom hiring a sprigger or renting a drill is the way most producers will get a stand started. Most economic evaluations that account for all establishment expenses (custom hiring, fertilizer, seed/sprigs, labor, fuel, herbicides, etc.) have shown that the total cost of sprigging is usually \$30 - \$100 higher per acre than seeding. Given that bermudagrass hay can be worth upwards of \$100 per ton, the additional yield of hybrid bermudagrass varieties will repay this difference in a short time. Though

spriggers usually charge by the acre (or bushel of sprigs), they may also have an additional flat fee or minimum acreage. This is because it is expensive for them to transport sprigging equipment and it may be inefficient for them to accept small jobs. As a result, producers that just need to establish a few acres of bermudagrass often find that seeded varieties are the only feasible option.

If seeded bermudagrass is the best option for your operation, it is important that you invest in solid varieties that will yield well and, more importantly, persist. The key is to select varieties that are winter hardy and are adapted to the soil and environmental conditions of your location. Several years worth of research in Georgia have demonstrated that ‘Cheyenne’ (now ‘Cheyenne II’), ‘CD 90160’, and ‘KF 194’ are dependable varieties across our state. However, the most hardy and persistent varieties often do not produce much seed. As a result, these varieties can be expensive. Seed companies will often help offset this problem by offering seed blends. Usually, these blends contain one or more of these solid varieties in mixtures with varieties that are more prolific seed producers. Though these more prolific seed producers (such as ‘Giant’ and ‘Jackpot’) grow very well in the establishment year, they are not usually persistent and are often very short lived. However, by the time these components of the mix die out, the more persistent varieties are capable of filling in any gaps. By mixing fast growing, easily-established varieties with more persistent varieties, seed blends often result in successful stand establishment and therefore are a really good option.

However, not all blends contain dependable varieties. Some products are merely mixtures of common bermudagrass seed with some of the fast-growing but short-lived varieties. Still others may contain some percentage of common bermudagrass that has merely been hulled to enhance the germination rate of the seed. These may look impressive in the establishment year, but may disappoint over the long-haul. As a result, it is critical that you carefully examine the seed tag on the bags that you purchase. Make sure that you know what you’re buying and that it contains varieties that will offer a long-term return on your investment.

The cost of establishing bermudagrass should be viewed as an investment. The greatest return on your investment will typically be from paying a little more up-front cost to sprig in a high-yielding hybrid bermudagrass. However, if small acreage makes the investment in hybrid bermudagrass impractical or rolling terrain causes sprigging to be too risky, seeded varieties can be a solid alternative. To learn more about the yields that you can expect on seeded and hybrid bermudagrass varieties or differences in their establishment methods, visit our website at [www.georgiaforages.com](http://www.georgiaforages.com) or contact your local University of Georgia Cooperative Extension Service office.