

Seeded Bermudagrass Update
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Many questions I am asked at county cattleman's meetings involve the quality, yield and persistence of seed-type forage bermudagrass varieties. In this article I'll review available varieties, adaptation, and establishment methods for this popular alternative to sprigging.

Although sprigging is more expensive than establishing bermudagrass from seed, some of the advantages that vegetative establishment has over seed established bermudagrass should be mentioned. First, herbicides are available for weed control during early vegetative establishment. The lack of effective weed control is a serious issue when establishing the seed-type varieties as stands can be lost to weed competition during the first year. Second, many available sprig-planted bermudagrass hybrids were developed in Tifton under local conditions and may be better adapted to our environment. These characteristics make sprigging a relatively dependable method for establishing hybrid bermudagrass pastures and hay fields. However, even after considering these advantages, many producers are justifiably interested in planting seed-type varieties because of potential savings in establishment costs.

Varieties.

Cheyenne is a popular seed-type variety marketed by Pennington Seed. Cheyenne is persistent, cold tolerant, and has produced yields similar to Russell and Coastal bermudagrass in central and north Georgia. Cheyenne pastures grazed at the Northwest Branch Experiment Station in Calhoun for the past five summers have provided excellent yields with no indication of thinned stands. Seed supplies of Cheyenne are often tight because of poor seed production and high seed demand.

Giant is a variety that produces good first year yields, but these yields quickly decline in subsequent years due to severe cold damage. In a forage trial conducted in Athens and Calhoun, Dr. Carl Hoveland observed that Giant yielded only 66% of Cheyenne over a four year period. Final stands were also only about 50% of the original density. Avoid seeding pure stands of Giant bermudagrass in Georgia.

Wrangler is a seed-type variety developed in Oklahoma. Observed performance and cold tolerance of this variety in Oklahoma are good, but it has not been tested in Georgia. We will evaluate Wrangler statewide in Georgia beginning this spring and should have performance data and planting recommendations in the near future.

KF CD194 yields similar to Cheyenne and Coastal and persists well in the Piedmont and Limestone Valley. This variety has good potential for pastures and hayfields in these areas. I am not aware of any pure seed source for KF CD194, but a *blend* of KF CD194 and Wrangler (marketed as ***Sungrazer***) was available in some areas last year.

Vaquero is a new variety released this year by Cebeco International Seeds and also has excellent potential for the Piedmont and Limestone Valley. *Vaquero* was recently compared to *Cheyenne* and *Ranchero Frio* over a four year period in Athens. When cut at four week intervals, *Vaquero* yielded significantly more forage than both *Cheyenne* and *Ranchero Frio* (5.63 versus 5.29 and 5.19 tons per acre respectively). A limited seed supply is available this year and will probably need to be ordered in advance through your local seed dealer.

Seed Blends.

Bermudagrass seed varieties are often blended and sold under a different market name. For example, *Ranchero Frio* is actually a blend of *Cheyenne* and Giant bermudagrass seed. If you choose to establish a seed blend, evaluate the mixture of varieties carefully as it will determine your pasture's future productivity. Usually, one variety in a blend will persist in a stand and other varieties will decline due to cold tolerance, disease tolerance, or other forms of competition. This will cause the plant composition in the field to change over time according to individual plant persistence and competitiveness.

Blends that contain Giant bermudagrass may be acceptable as long as there is a productive and persistent variety present in the mixture. *Ranchero Frio* is considered a productive blend because *Cheyenne* will begin to take over the stand as Giant is lost to cold weather and diseases. Alternatively, seed blends which contain a combination of common bermudagrass and Giant provide high yields for one or two years, but eventually become common bermudagrass stands as the Giant variety fails.

Adaptation.

To date, most seed-type varieties have only been evaluated in the Piedmont and Limestone Valley areas of Georgia. It is currently unknown how these varieties perform or persist in the Coastal Plain. Dr. Robert Morgan is initiating a statewide bermudagrass variety test where performance, persistence, and quality of seeded and hybrid varieties from extreme South Georgia to the Calhoun area will be evaluated.

Planting procedures.

The ideal time to plant seed-type bermudagrass varieties is in April. This is typically late enough to avoid frosts, but early enough to get a slight head start on crabgrass, goosegrass, and other warm season weeds. Bermudagrass seedlings are small and intolerant of heavy weed competition. Seed should be planted in clean tilled fields where fertilizer and lime have been applied to meet soil test recommendations. Seeded bermudagrass varieties can be planted too deeply, so a firm seedbed is necessary for accurate seed placement and good establishment. Cultipack seeders are ideal for seeding bermudagrass because they create a firm seedbed, place the seed, and establish good seed to soil contact in a single pass. If a cultipack seeder is not available, you can accomplish similar results using a cultipacker. Firm the seedbed using the cultipacker, broadcast the seed, then repack the seedbed with the cultipacker. This involves more trips across the field than broadcasting and lightly harrowing seed, but seeding depth and plant establishment are far more predictable and dependable.

An alternative planting method suggested by Dr. Carl Hoveland is to prepare the seedbed in early spring, allow weeds to germinate, and spray with Gramoxone or Roundup while weeds are small. Bermudagrass seed can then be immediately no-till planted into the dead residue (Gramoxone and Roundup have no residual soil activity). Again, be careful with seeding depth. Seed should be planted no deeper than one-half inch.

Fields should not be sprayed with preemergence herbicides prior to planting seed-established bermudagrass. Applications of 2,4-D may also prevent establishment and should not be sprayed for a minimum three to four weeks prior to planting. No-till planting into living tall fescue or common bermudagrass stands is almost certainly a waste of time and money because of heavy plant competition for water and light.

Once again, there are no weed control options available for seed established bermudagrass other than mowing. Any postemergence herbicide that injures crabgrass will also harm seedling bermudagrass. Mowing is the only available option.

Seeding bermudagrass can be a less expensive alternative to establishing a bermudagrass pasture. However, it also carries a few more risks than sprigging. In next month's article, Dr. Robert Morgan will discuss the pros and cons of hybrid bermudagrass varieties established from sprigs.