Southern Promise

Several new forage varieties offer an abundance of options for graziers in the Southeast.

by ***Kindra Gordon***

Southern cattlemen looking to beef up pasture grazing potential now have new options, thanks to several newly released forage varieties. Many offer increased persistence, better yields and disease resistance — all traits that producers appreciate.

Extension forage specialists Don Ball from Auburn University and Ann Blount with the University of Florida, along with Roger Gates, formerly a research agronomist with USDA's Ag Research Service in Tifton, Ga., recently shared their list of a few forage species they feel hold great promise for their region.

Better clovers

"One of the best ways to improve animal performance is to grow clovers with perennial grasses," Ball says.

"Another benefit of a legume in a grass pasture, besides the added nitrogen going back into the soil, is that the mix of grasses and legumes promotes better seasonal forage distribution and stability of the pasture," Blount says.

White clover. The trio of researchers is enthusiastic about Durana and Patriot, two newly released white clovers. "It appears that they are going to be more persistent than the white clover varieties currently available," Ball says. "That will help keep clover stands longer when it is grown as a companion species with perennial grasses."

White clover

Durana is highly tolerant of close grazing and has good yields. Patriot, which is a cross between Durana and a ladino clover, offers better yields but is slightly less persistent than Durana.

Gates cautions that a wait-and-see approach is needed to determine how these two varieties will perform in the Lower Coastal Plain but, he says, "In the Upper Coastal Plain, these white clover varieties are going to be winners."

Ball says white clovers work best with tall fescue, orchard grass and Dallas grass. Limited quantities of the seed are now available.

Red clover. For winter and spring grazing, Blount suggests utilizing red clover. There are four new varieties being developed: FLMR 7, Cinnamon Plus, Freedom! and RedlanGraze II.


Red clover

"RedlanGraze II and Cinnamon Plus were both selected for grazing tolerance and the results are pretty outstanding," Gates says. Blount reports that those two varieties have looked very productive in field trials at Tifton and in northern Georgia. The new FLMR 7, which has improved nematode and disease resistance and high, early forage yield compared to many red clovers, appears to perform well in regional trials.

Arrowleaf clover. At one time this was a very important winter annual pasture legume in the Southeast, Ball says. However, it hasn't been used a lot in recent years due to its lack of disease tolerance, particularly to bean yellow mosaic virus. But, the new variety, Apache, has disease resistance and increased forage yields.


Arrowleaf clover

"I'm hopeful it will give us back the ability to use this species more widely in the Southeast," Ball says, adding that arrowleaf clover is best used when seeded with ryegrass (another winter annual) as a companion species for cool-season grazing.

Apache is currently commercially available in limited quantities.

Improved tolerance, persistence

Bahia grass. The new variety, Sand Mountain, offers increased winter hardiness, which should allow this forage to be utilized farther north than other Bahia grass cultivars. Specifically, Ball says Sand Mountain is suited to the northern parts of Alabama, Georgia, Mississippi and Arkansas and to southern Tennessee. Seed for Sand Mountain is not yet commercially available, but should be offered by spring 2004.

Because this new cold-tolerant variety yields less the farther south it is grown, Ball says he does not expect it to contribute much in areas where other Bahia grass varieties, like Tifton 9, are currently grown. "But it still could be a useful warm-season forage option farther north," he says.

For producers not seeking a winter-hardy variety, Blount and Gates suggest Tifton 9 Bahia grass. This warm-season species was released within the last 10 years but hasn't been utilized as much as it could have been, according to Gates. He says Tifton 9 is particularly well-suited to less fertile soils that may have poor drainage. However, it won't tolerate overgrazing, and because it's grown on sandy soils that don't hold nutrients, it will require regular fertilization.

Another warm-season pasture option is Tifton 85 Bermuda grass. Again, this variety was introduced about 10 years ago but has had limited use. It is best-suited to well-drained soils in the Southeast.

"Tifton 85 is expensive to establish because it must be started vegetatively with sprigs," Gates says. In addition, it requires good weed management on the site prior to planting, and fertilization afterward, in order to get the payoff in production. But, he says, the yield potential of Tifton 85 does make it worthwhile.

Orchard grass. "Orchard grass is a

wonderful forage grass, but the problem with it in the South is lack of persistence. In northern Alabama it usually provides great pasture for about three years," Ball says.

However, a new variety, aptly named "Persist," has been developed from the germ plasm of seed collected years ago from 6-year-old or older orchard grass stands throughout Tennessee. "This variety produces good yields and more importantly it has persisted better," Ball says. "If this species allows producers to get another year or two out of stands, that would be very beneficial."


Orchard grass

Researchers report that Persist is easily established and will have good adaptation throughout all regions of the United States where orchard grass is grown, but seed will not be commercially available until 2004.

Sericea lespedeza. "This is a very unique plant because it's a low-input forage crop that is extremely tolerant of poor soils and drought conditions. Once it is established, there isn't much to spend money on and, although it doesn't offer great yields, it does give low-cost gains," Ball says.

Ironically, although sericea can be grown in areas where other crops don't grow very well, previously available varieties have not been tolerant of defoliation, Ball says. That has limited its use.

But, the new variety, AU Grazer, is


Sericea lespedeza

grazing tolerant. "That should significantly improve the economic feasibility of planting this forage and should increase its usage — especially on poor land," Ball says. In many areas it could be used as a companion with tall fescue.

However, Ball cautions that sericea lespedeza, including AU Grazer, has poor seedling vigor, and therefore, should not be seeded into an existing grass stand. Instead, he advises that sericea be established first and then fescue be seeded into it.

AU Grazer is now commercially available.

A word of caution

While he's hopeful about the productivity of these new forage varieties, Extension forage specialist Don Ball with Auburn University also advises a dose of caution. "When talking about new varieties, there's always a question mark," Ball says. "I've been disappointed a lot of times by forages that seem like they are going to work well. Sometimes promising varieties don't work as well as it appears they are going to."

For the best results when selecting forage varieties, consider the type of soils and climate a particular species and variety are suited to, as well as yield, forage quality, pest resistance, seasonal distribution of growth and grazing tolerance.

Winter grazing options

Blount points out that small grains and ryegrasses are relied on heavily in the Southeast for winter grazing. Planting blends of small grains and ryegrass may help extend the winter grazing period. To help fulfill forage needs, three new varieties of oats and nine improved varieties of ryegrass have been developed.

"Most of these new varieties have improved disease resistance, and a few have better cold tolerance than older varieties," Blount says.

Although there are not great differences among the new releases, they are better than previously available varieties, these researchers say. "There is a benefit to utilizing the improved genetics of these new cultivars to boost forage and livestock production," Gates says.

Oats. The three new oat varieties are well-adapted to the southern Coastal Plains region — and its droughty, sandy, acidic soils, Blount says. The improved cultivars are Horizon 314, a winter-hardy, disease-resistant winter oat; Horizon 474, an early-maturing, high-test-weight oat that is cold-tolerant and disease-resistant; and Plot Spike LA9339, a high-yielding variety that could be harvested as forage or grain. All three should be available by 2003.

Ryegrasses. Ryegrasses are best-suited to winter grazing and can be planted in a prepared seedbed on cropland or overseeded into perennial warm-season pastures. The nine new varieties are: Fantastic, King, Surrey II, Ed, Graz-N-Gro, Prine, Brigadier, Florlina and Jumbo.

"All nine are fairly well-adapted and have yielded well in our regional forage trials," Blount says.


Ryegrass

Management considerations

If you are considering working new forages into your winter grazing operation, Blount cautions that for pastures with predominantly sandy soils, many clovers and ryegrasses may not be suitable. Blount says if soils are light and fall rainfall is scarce, winter planting may carry considerable risks.

She adds, "Since the winter period is relatively short in south Florida, many producers opt not to plant winter-grazing forages." Blount says those who do want to plant forages for winter grazing need to consider several factors, including:

- Many small grains require winter vernalization (cold temperatures to break dormancy), which may not occur in parts of Florida.
- The warm Southern climate also may promote disease pressure on winter forages, like barley yellow dwarf virus on oats and gray leaf spot on ryegrass.
- Always choose the best varieties for your region.

Despite these challenges, Blount adds, "There have, however, been productive ryegrass pastures grown in south Florida on very sandy soils. It depends on your wintering needs for your operation and your willingness to manage winter pastures."

Editor's Note: *For more information on any of these varieties, contact your state Extension forage specialist. Roger Gates, is now an Extension rangeland specialist and assistant professor with South Dakota State University in Rapid City.*