

Annual Cool Season Forages for Beef Cattle Georgia Cattleman, September 2001

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Many Georgia cattlemen utilize bermudagrass and bahiagrass for summer grazing. However, availability of a good cool season perennial forages like tall fescue to provide winter grazing may be lacking. This creates a forage shortage during late fall and winter months. Cattlemen can utilize several types of small grains or annual ryegrass to help stretch hay stores for mature cows or supply high quality grazing for stockering.

Species Pros and Cons

Rye is probably the most popular small grain for winter annual pastures in Georgia. It is the earliest maturing and most cold hardy small grain species. Seedlings are more drought and heat tolerant than wheat or oats and fall forage production is superior to wheat. Rye is generally mature and ready to plow under by mid to late April in the Coastal Plain. This early maturity makes it a good annual forage for cropland that will be planted to corn next spring. Varieties recommended for grazing include *Bates*, *Early Grazer*, *Oklon*, *Elbon*, *Wintergrazer 70*, *Wintermore*, *Wrens Abruzzi*, and *Wrens 96*. Rye supply may be tight this year, so it is important to find seed early.

Wheat is another popular small grain for winter forage production. Seed can be cheaper than rye, but this varies from year to year. Wheat is also a cold hardy species and is later maturing than rye; however, wheat produces less fall forage than rye or oats. Peanut and cotton fields can be planted in wheat without interfering with spring planting. Roberts is the recommended variety for grazing.

Oats are also an option for winter grazing. Oats are a highly palatable forage, but are the least cold tolerant of the winter annuals. Stands can be thinned or lost in cold weather which can limit the use of this small grain. Oats are similar to wheat in maturity. Recommended varieties are Arkansas Co. 604, Harrison, Horizon and NC Rodgers.

Annual ryegrass is the latest maturing of the winter annual grasses and can be grazed until early June in some areas of the state. Ryegrass may generate a small amount of forage in late fall when planted on clean-tilled land, but this production is dependent on favorable rainfall and temperature. Plants can be damaged in cold weather, but cold tolerance can vary between varieties. Ryegrass will typically produce higher quality hay than wheat, oats or rye.

Stand establishment Small Grains (Clean-till)

Plant 90-120 pounds of seed per acre in the fall. Planting can begin in the mountains around September 1st, in the Piedmont around October 1st, and in the Coastal Plain around October 15th. These planting dates are earlier than if the crop were intended for grain production which increases disease, insect and drought risks. With optimal moisture and temperature the pasture should produce fall grazing by mid to late November. Do not graze pastures (either clean or no-tilled) until plants have begun to tiller. This allows root systems to develop and prevents plants from being pulled up and thinned with grazing. Growth is slow before tillers are formed and if early growth is removed, overall plant growth will be suppressed.

Small Grains (Overseeded)

Remove residue by grazing bermudagrass or bahiagrass closely and no-till 1.5-2 bushels of seed per acre into the dormant perennial sod. Failure to remove residue can slow or prevent winter annual establishment. Heavy bahiagrass sods may need to be lightly disked prior to seeding to reduce competition and provide good planting conditions. Overseeded small grains will probably not supply grazing until early February.

Annual Ryegrass

Ryegrass can be easily established by broadcasting 25 pounds of seed per acre in closely grazed warm season pastures. Broadcast seed in mid to late October. Grazing should be available in mid-January or February, depending on the severity of the winter and moisture conditions. Ryegrass can also be no-tilled or drilled in prepared land alone or in combination with other small grains. Ryegrass is a prolific seed producer, so it can become a weed problem in some cropland situations.

All small grains are responsive to nitrogen fertilizer. On overseeded perennial pastures, apply 60 pounds of nitrogen in the fall after growth has started and another 60 to 80 pounds in the late winter if fall growth was good.

Potential animal problems

Winter annual pastures are rapidly digested in the rumen and can occasionally cause bloat. Animals should be introduced to pastures with a full stomach to decrease the risk of bloat. Nitrates can also be a problem in heavily fertilized small grain pastures. This occurs infrequently and is usually only a concern in cool cloudy weather.

Grass tetany is the most common problem observed when grazing winter annual pastures. Small grains contain high levels of potassium which can interfere with calcium and magnesium absorption. A mineral high in calcium and/or magnesium should be available to animals at all times. This is especially critical for lactating cows because their calcium requirements are higher than dry cows.

Grazing management

Because winter annual forages have high nutrient concentrations (15-30% crude protein and 60-75% digestibility), much of their nutritive value is wasted when mature dry cows are allowed to graze free choice. Small grains are more economically and efficiently utilized when managed as a high quality supplement to low quality hay. Limit grazing helps balance forage nutrients from small grains pastures when grazing mature beef cows. Limit grazing is simply allowing cattle access to pastures for two to four hours per day or allowing cattle to graze small grains on alternate days. When cattle are not grazing winter annuals they can be fed low to medium quality grass hay. Limit grazing allows cattle to use the small grains pasture as a protein and energy supplement and minimizes forage trampling and soiling.

Summary

Balancing nutrients and forage supplies throughout the year is important in maintaining beef cattle productivity. Utilizing winter annuals and practicing effective grazing management will improve forage distribution and harvest efficiency as well as decrease dependence on hay and other stored feedstuffs.