



## Forage Species to Improve Summer Weight Gain in the Southeast

By, John Andrae, Extension Forage Specialist, Clemson University

Several forage options exist for improving stocker production in summer months. Utilizing these forage species can fill high quality “forage gaps.” If these forage complements can be established economically and grazed efficiently, their addition should be strongly considered in grazing systems.

Selecting the appropriate summer forage for grazing animals is a complex issue, particularly when high animal performance is desired. Plant persistence, quality and production usually determine which species and variety will be planted.

The Southeast is well suited for producing large quantities of high quality pasture in the spring and fall. However, “forage gaps” or periods when forages are normally in short supply can limit summer forage productivity and animal performance.

The predominant forage for most of this region is tall fescue, a cool season perennial. Tall fescue does not typically provide an abundance of forage from June-August and, unless the wild-type endophyte has been removed, animal performance is greatly reduced. This “summer slump” can be ameliorated by grazing other high quality, productive forages.

### Issues to Consider Before Selecting Forages

**Inventory soil resources and fertility.** Soil type and fertility should always be considered before establishing new forage crops. Most plants require specific

environments for optimal growth. For example, if a summer annual grass is desired in a grazing system, which should be established, pearl millet or sorghum-sudan?

The decision is more complicated than simply comparing seed prices. If the soil has good moisture holding capacity and the pH is not too low, sorghum-sudan hybrids will normally outperform pearl millet from an agronomic standpoint. Pearl millet is better adapted to sandy soils, acidic soils and drought conditions and is superior to sorghum-sudan in these environments.

**Timing and quantity of forage needed.** Determine forage demands of animals and estimate monthly pasture production to highlight “forage gaps.” Sodseeding rye, ryegrass or winter annual clovers into a vigorous stand of tall fescue is usually an unwise decision since fescue produces adequate forage during fall and spring. Production from these forages will compete with, rather than complement, growth. A wiser choice would be to establish an area of warm season annuals or cool season species that are relatively more active in summer months to provide high quality grazing.

**Account for establishment time.** Animal producers often fail to consider the time required to establish forages. Annual forages like pearl millet normally establish rapidly and can be grazed a few weeks after emergence. Perennials like alfalfa, prairiegrass, red clover, white clover and tall fescue must establish adequate root systems to survive the upcoming summer and cannot be grazed as

#### IRM Calendar

April 16-18	Beef Improvement Federation Conference	Kansas City, Mo.
June 10-13	Beef Quality Assurance program coordinators meeting	Kansas, City, Mo.
June 30-July 3	Beef Improvement Federation Annual Research Symposium and Annual Meeting <a href="http://www.beefimprovement.org">www.beefimprovement.org</a>	Calgary, Alberta
July 15-19	Cattle Industry Summer Conference Producer Education Committee meeting	Denver
Aug. 4-6	Texas A&M Beef Cattle Short Course Contact: 979-845-6931, <a href="mailto:beef.tamu.edu">beef.tamu.edu</a>	College Station, Texas

IRM NEWS is produced by NCBA.

Direct questions about IRM programs to Renee Lloyd, [rlloyd@beef.org](mailto:rlloyd@beef.org), (303) 850-3373.

Dedicated to improving the economic efficiency of cattle operations through effective resource management.



quickly. Be sure to allow freshly planted areas to establish.

**Consider management style.** While producers dream of achieving maximum forage production and animal gains per acre, most are unwilling or unable to invest the money and management effort to achieve these gains. Producers should weigh management and fertility input requirements and determine if these can be provided cost effectively. The usefulness and appropriateness of forage species vary depending on the producer's management inputs and performance expectations.

## Replacing Tall Fescue-based Systems in Summer Months

**Alfalfa.** The “Queen of Forages” has earned her title for several reasons. Alfalfa is a high quality legume that is relatively summer active. This quality combined with excellent drought tolerance makes alfalfa one of the most underutilized grazing crops for summer stockers. Developing grazing tolerant varieties provide summer stocker operations opportunities for rapid gains.

Grazing alfalfa does require high fertility and adequate pH, but most potash is recycled under grazing. While bloat is a concern, the addition of grasses and careful grazing management will greatly minimize this risk.

High nitrogen fertilizer costs make this species more attractive than ever now — particularly in areas where it can be incorporated into crop rotations containing corn.

**Pearlmillet, sudangrass, and sorghum-sudan hybrids.** These summer annual grasses provide large amounts of high quality forage in summer months. Pearlmillet is tolerant of soil acidity and droughty soils and does not produce prussic acid. Sorghum-sudan is typically higher yielding, but is more drought prone and less tolerant of low pH than pearlmillet. Sudangrass has finer stems and can be a good option for hay and grazing operations

It can be difficult to manage these species because of extremely rapid summer growth. Also, the high cost of fuel and nitrogen may make them less attractive.

Brown midrib varieties of sorghum-sudan and sudangrass are also available for improved forage quality. Brown midrib “yield drag” issues have been largely resolved in these species and the increased gains from this trait make it an excellent option for stocker operators.

**Crabgrass.** This high quality, palatable, annual warm season species is often viewed as a weed. Crabgrass is already present in many tall fescue pastures, but is likely underutilized and overlooked for one reason — poor pasture fertility. Existing crabgrass can respond well to early or mid-summer nitrogen applications when moisture is not limiting. Currently Red River is the only variety available for purchase. Crabgrass should be spring planted, either in clean tilled areas or in thinned fescue stands, and managed to reseed in late summer.

**Chicory.** This species offers some promising characteristics for Southeastern producers. Chicory has good seedling vigor and has been successfully sodseeded into tall fescue. Chicory is often used overseas for finishing or lactating cattle and can be planted in mixtures with white clover, red clover or alfalfa.

Chicory is tolerant of acid soils and responds to high fertility. It has a deep taproot, is drought tolerant and functions as a weak perennial under rotational stocking. Expect persistence of three to four years under good fertility and grazing management. Summer production of this species is better than most cool season forages, but does not approach that of warm season annual grasses.

**Prariegrass — a.k.a. rescuegrass or ‘Matua’ brome.** This is a high quality forage with good establishment year traits; however, varieties have not performed well in yield or persistence trials in the deep South. It can be difficult to establish, and powdery mildew is a severe problem in wet years. Lakota is a newer variety with reportedly improved mildew resistance. Rotational stocking with long rest periods (40-50 days) is the ideal management method and it should be allowed to reseed in September for year-to-year persistence.

## Back to Basics: Cow-Calf Resource Manual Available

By, Jason Ahola, University of Idaho Cooperative Extension Livestock Specialist,  
Ron Torell, University of Nevada Cooperative Extension Livestock Specialist

Producers looking for a solid resource manual on beef cow/calf production should consider buying a Cow-Calf Management Guide and Cattle Producer's Library. This handbook contains over 230 different fact sheets on all aspects of beef cattle production in a 4-inch, three-ring binder. Each fact sheet has been peer-reviewed by state Extension beef cattle specialists and educators from across the 12 Western states.

Revised fact sheets are available for an additional cost each year for those who have previously purchased the book. To order the book (\$95 plus shipping) or CD-ROM version (\$35), contact the Department of Animal and Veterinary Sciences at the University of Idaho (208-885-6045) or [angelac@uidaho.edu](mailto:angelac@uidaho.edu)

Topics that are addressed within the fact sheets include: Quality Assurance, nutrition, reproduction,

range and pasture, animal health, management, marketing, finance, genetics, drought and other natural disasters.

A Management Guide provides a list of the specific fact sheets that contain information related to the biological cycle of the cow. Overall, this publication suggests management strategies that beef cattle operations can adopt in order to improve profitability.