Pasture Management Options Following Drought

By

Gregory L. Brann
Grazing Land Specialist
USDA/Natural Resources Conservation Service
Nashville, Tennessee

(Photo Courtesy of the Natural Resources Conservation Service)

Producers that maintain at least 2 inches of stubble height will have most of their tall fescue rebound. If 50 percent of tall fescue does not survive, that is exactly what is needed for over-seeding legumes in February. Producers who grazed grass in the ground will most likely lose most of their stand and probably had a thin stand to begin with.

If stubble height of 2 inches plus was maintained and adequate moisture is available:

Option 1 - If stand is 70 percent or better, stockpiling is the best option (see prescription below).

Option 2 - Seed prior to October 15 with 1.5 bushels of wheat, 10 pounds of tall fescue, and over-seed 2 pounds white clover, 4-7 pounds red clover. On uplands add 8 pounds of annual lespedeza in February. Fertilize with up to 40 pounds of N and University of Tennessee (UT) soil test recommended P, K, and lime.

If stubble height was not maintained and adequate moisture is available:

Option 1 - If adequate moisture is available, seed prior to October 15 with 1.5 bushels of wheat, 18 pounds tall fescue, and over-seed 2 pounds white clover, 4-7 pounds red clover. On uplands add 8 pounds of annual lespedeza in February. In the fall of this year, fertilize with up to 40 pounds of N and UT soil test recommended P, K, and lime.

Option 2 - (Temporary Fix) – Over-seed 3 bushels of wheat by October 15 or 1.5 bushels between October 15 and November 1. Fertilize with up to 60 pounds of N and UT soil test recommended P, K, and lime. This mix will play out in June, and producers will need to seed warm season forage (i.e., NWSG, bermudagrass, pearl millet, sorghums,

crabgrass). Producers need to decide whether long-term they need warm season forage, annual, or perennial based on when their primary forage deficit is.

Stockpiling

If moisture is available, stockpiling has the potential to be over four times more valuable than hay. In a typical year, it is over two times more valuable than hay.

Prescription:
- Ideally, 1 acre per animal unit (1,000 pound animal).
- Mow or graze prior to September 1 (not hard to do during a drought year).
- Apply up to 60 pounds of N/acre (ammonium nitrate or stabilized urea). Fewer pounds over more acres might be a better option.
- Strip graze less than 4 days at a time (tall fescue quality improves as temperatures drop. Try not to graze before November 1 or later.

Winter Annuals (See the electronic FOTG Cover Crop Fact Sheet for additional information.

<u>Small Grains, Cool Season</u>

Rye - Cereal rye is the most drought resistant and cold tolerant cool season annual grass. It has an extensive root system and makes rapid growth in the fall. Rye is the easiest cool season annual to establish in thick residue. It provides the most winter production and biomass. Rye becomes unpalatable at the boot stage. Often rye and ryegrass are mixed in equal proportions to provide growth over a longer period of time.

Wheat - Wheat can be used for forage and grain production. It has good cold and drought tolerance, providing both autumn and winter production. Typically, wheat is the least expensive winter annual. Wheat has a low disease tolerance.

Barley - Barley is not as high quality as wheat or oats and typically the awn is barbed; therefore, its use for grazing is limited.

Oats - Oats provide early fall growth, ability to germinate in limited moisture, excellent tilling, high forage quality, and is excellent hay. Oats maintain higher forage quality with maturity than other small grains. Oats seeded at a four-six bushel rate can provide the earliest fall production of any of the small grains. Cold tolerance is a problem; therefore, oats are often seeded in a mixture with other small grains or ryegrass to reduce this risk.

Ryegrass - Annual ryegrass is the easiest winter annual to establish. It does not need to be planted in the soil as small grains do; however, production is earlier and greater when drilled. Ryegrass is high quality forage. It has low winter production, but has the highest spring production. Ryegrass is the only cool season annual adapted to poorly drained sites. Ryegrass is very competitive as a companion plant and is a tremendous re-seeder that will compete with new seedings in the future. It fits best in a heavy grazing situation

with a grazed warm season perennial like dallisgrass or bermudagrass as a base. Overlapping growth periods of ryegrass and warm season plants can reduce vigor and yield of the warm season plants.

Table 1 - Comparison of Maturity and Cold Tolerance of Small Grains and Annual Ryegrass

Species	Maturity	Cold Tolerance
Rye	**1 (Earliest)**	**1 (Highest)**
Wheat	**2**	**2**
Barley	**3**	**3**
Oaks	**4**	**5 (Least)**
Ryegrass	**5 (Latest)**	**4**