Winter is Coming

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Generally, it's not wise to hold much truck by weathermen. It's not that their poor prognostications are deliberate; they can't help it (bless their hearts).

To their credit, though, they have gotten a lot better at predicting general weather trends. In fact, they are usually right in their predictions of fall and winter weather. And that is what is worrisome about this year's forecast. All the climate models suggest an "El Niño" weather pattern this fall and winter. El Niño weather patterns generally bring wetter and colder conditions than normal. So, why is this worrisome?

Wet conditions can be helpful. Winter recharge to the groundwater is always welcome. But cold winter conditions tend to cause significant problems. Here are a few suggestions to help cattlemen make the best of these challenging weather conditions, on the off chance that the weathermen are right.

Winter Forage Considerations

Annual ryegrass is the winter forage that Southern cattlemen depend upon most. Unfortunately, it tends to produce very little in cold winters. The small grains (oats, rye, triticale and – to some degree – wheat) tend to be more productive in cold, wet winters. However, the seed supplies of small grains are quite a bit tighter than normal because of poor harvest conditions this past spring. Though small grain seed is available, tight supplies are likely to drive the price to a point that many producers will be more dependent upon ryegrass. The following tips should help ryegrass grow better and go further this winter.

Plant as Early as Recommended – Circle Oct. 1 on the calendar. (If in North Georgia and the temperature turns off mild, start a week or two earlier.) Plant as much ryegrass around the first week of October as possible, especially for any ryegrass that will be in a conventionally prepared seedbed. It is desirable to have as much growth on ryegrass going into the winter as possible, in order to get a jumpstart on this winter. Even if it is fairly dry, it is wise to seriously consider "dusting" it in. One thing is for certain… it won't grow if it is still in the bag. If a small grain is used, be aware that early plantings are more likely to be hit by Hessian fly, especially in El Niño years. Consider treating the seed with an insecticide (see: http://bit.ly/ForagePests for guidance on "Temporary Winter Grazing Insect Control").

Give it a Shot of N – As previously mentioned, one's goal should be to get as much growth on the ryegrass before the cold weather really sets in during December. The amount of N applied within 2 weeks of planting is crucial to early season forage yields (Fig. 1). A shot of 40-60 lbs of N/acre at planting will result in approximately 1,500 lbs of dry forage/acre. Good early growth ensures that the stand can grow to its maximum during the winter and spring. It is like starting with more principal in a savings account that is earning compounding interest: The grass grows faster if you start with more grass.

Try Not to Graze Too Hard Too Early – This one is far easier said than done. For many producers, their stockpiled fescue or bermudagrass is likely not going to be exceptionally strong this fall because of the dry weather this summer. Hay supplies are also tight in most areas because of limited summer rain. It'll be mighty tempting to graze the ryegrass harder than normal and to lean on it earlier than normal. Try not to scratch that itch. If grazing has to start sooner than one should, consider using limit grazing or timed grazing.

Limit Grazing – Limit grazing (also known as timed grazing) is when one allows their animals to graze for only a certain amount of time during the day. The rest of the time the herd is using another source of forage or feed. A common example: A producer has the herd penned up in a sacrifice paddock or heavy use feed area and will let the animals have access to a ryegrass pasture for only a few hours or overnight. Usually, ryegrass can be limit grazed for 2-4 hours per day without adversely affecting the amount of base forage. Again, think of the grass as a savings account drawing interest. When done right, limit grazing allows the producer to get the use of the growth (i.e., using the interest) without decreasing the base amount of forage (i.e., dipping into the principal).

Be sure to choose the right time of day to allow the limit grazing to occur. Cattle consume about 40 percent of their total intake between 30 minutes before daybreak and the first 2 hours of daylight; about 15 percent during mid-day; about 30 percent in late afternoon or early evening; and about 15 percent during a midnight snack. So, cattlemen can choose how much grazing pressure is put on the pasture by choosing the appropriate time of day for the limit grazing to occur.

Limit grazing is not all that common because it has historically required someone to open the gate and let the cattle have access to the pasture and someone to run them back out of the pasture at the right time. Use technology to help cut down on that labor requirement. New devices, such as an automatic gate release timer (Fig. 2), can usually cut out at least the first of those two trips. The black strap of the device pictured in Figure 2 wraps around one of the posts at the gate, while the end of the slinky-spring attaches to the electric fence on the other side. At the programmed time, the timer releases the red-handled end, the line springs back out of the way, and the animals have access to the pasture. After a day or two of using it, the cattle learn to gather and wait at the gate anxiously anticipating the appointed time for the gate to be released.

Figure 1.

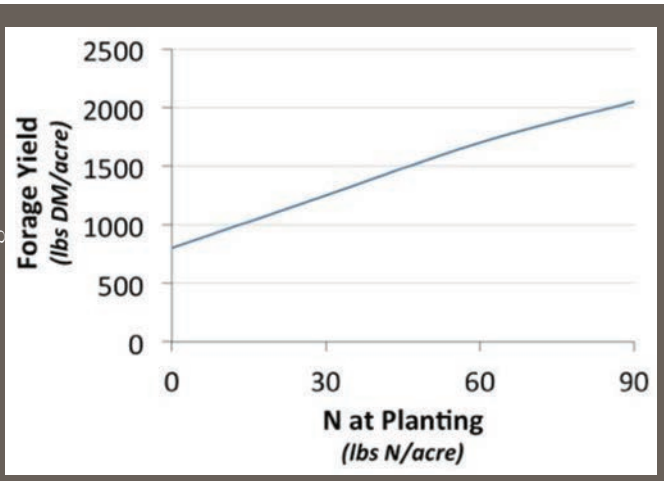

Figure 1. Long term average of annual ryegrass yield in the early season (before February) in response to N rate at planting (Texas A&M, 1960).

Figure 2.

Figure 2. Technology that automatically releases a gap in the electric fence can be a great labor-saving device when using timed grazing.

Figure 3.

Figure 3. Leaving 3-4 inches of stubble going into the winter can greatly improve winterhardiness and spring green-up in bermudagrass.

Winterizing Bermudagrass

Winterhardiness of bermudagrass is largely a function of late summer and fall management. Several management steps should be employed as bermudagrass settles in for a long winter's nap.

Provide Sufficient Potassium – Bermudagrass uses stored carbohydrates to survive the winter and to come out strong the following spring. Potassium (K) is crucial in plant physiological processes that lay down carbohydrate reserves. Thus, good K fertility is critical to winterhardiness in bermudagrass. It is especially important for K fertility to be sufficient in the late summer and early fall, as the bermudagrass plants prepare to go dormant. It is a good idea to provide 40-50 percent of the recommended K (based on a soil test) in the spring, but it is crucial to provide 50-60 percent of the recommended K in late summer.

Time Your Hay Cuttings Around Frost – One of the worst things that one can do to a bermudagrass hayfield is to cut it about 3-4 weeks prior to frost. If cut at this time, the bermudagrass will mobilize carbohydrate and N reserves and attempt to grow back. After 3-4 weeks of early fall growth, it will have used up most of its reserves. Ordinarily, it would begin to build back its reserves in storage. But, if it gets nipped back by frost, it won't have the opportunity to replenish its bank account. This makes the plant weak going into the winter, more susceptible to cold injury, and less vigorous the following spring. As a result, one should try to schedule their last cutting of bermudagrass to occur a week or so immediately before or after the first frost. Since the bermudagrass won't be growing back at that point, this will ensure that carbohydrate and N reserves in the plant are at their maximum going into the winter.

Cut No Shorter Than 3 Inches – Another one of the worst things that one can do to a bermudagrass hayfield is to cut it too short going into the winter. With modern disc mowers, it is tempting to cut bermudagrass hayfields as short as possible. But one should realize that much of the carbohydrate and N reserves are stored in the stolons (runners) that run along close to the soil surface. Cutting bermudagrass too short often severs the plant's linkage to a large portion of its reserves. Raising the cutter bar to leave 3-4 inches of residue prevents most of the stolons from being cut. Plus, 3-4 inches of residue usually provides enough shading of the soil surface to minimize the germination of weed seeds, prevents bermudagrass from attempting to green-up too early, and serves as insulation against winter injury. It would also supply enough fuel to burn off bermudagrass hayfields in February or March to reduce weeds, hasten spring green-up, or decrease the amount of leaf spot and disease spores.

More Information

Detailed recommendations for handling bermudagrass late in the season and managing cool season annual forages in the winter can be found on UGA Extension's Forages website, www.georgiaforages.com. If you have additional forage management questions, visit or contact your local University of Georgia Extension office by dialing 1-800-ASK-UGA1. GC