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FORAGE

Assess Forage Reserves Now for Fall, Winter Grazing

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There are several "classes" of reserve forages that are available for grazing livestock beginning in September and going forward through winter. It is critical to take inventory of forage reserves now to determine what is on hand and what is expected to be produced; the kinds, classes and quantity of livestock to be fed; and how to make the best use of available forages during the next few months. There are different preferential uses of reserve forage, especially when forage is limited. For this article, the classes of reserve forage to be discussed are categorized as residual pasture, stockpiled introduced pasture, stockpiled native range, stockpiled fescue, small grains winter pasture, ryegrass and spring annual pasture, and hay. The discussions will focus on usage following the first frost of the season.

Small grains winter pasture is one option that producers can use as a reserve forage for fall, winter and spring grazing.

Residual pasture

Residual pasture is the forage present in a grazing pasture at any given time. After frost, in most cases, it is recommended to make good use of the residual forage in the grazing pastures before using other forms of stockpiled grass or hay. This means to graze the leaf material to a desired residue height.

Residue is the amount of plant material remaining at the end of the grazing season. The more residue remaining going into the winter, the greater the benefit to the pastures the next spring. However, to be efficient and assuming a good pasture stand, the desired residual height is usually 3 to 4 inches for hybrid bermudagrasses (Coastal, Midland 99, Tifton 85, etc.) and introduced bluestems (Plains, B-Dahl); 6 to 8 inches for native grasses; and about 4 inches for fescue. The purpose of the residue is to maintain a layer of insulation across the soil surface, protecting the live plant tissues from the cold and the soil surface from erosion. Usually, residual pasture at frost is most suited to mature cattle since quality is fair to poor (the exception being fall-fertilized introduced pastures), but it can be efficiently utilized with proper supplementation.

Stockpiled introduced pasture

Stockpiled introduced pasture is defined as the production of an introduced pasture (usually a hybrid bermudagrass) that was fertilized in late August or early September after being grazed or hayed short, and then deferred from grazing until after frost. With a couple of inches of rainfall following application of 50 pounds of nitrogen (N) per acre, an additional 1,500 pounds of fresh growth can be attained before frost. Often, forage quality is equivalent to a high quality hay – over 12 percent crude protein (CP) – and is ideal for weaned calves, yearling calves or wet cows. Forage quality remains high as long as there is leaf material available to graze or until leached out, as happens in a wet winter. Stockpiled introduced pasture is most efficiently used in limit-access grazing or strip grazing, allocating a portion of a pasture for a short graze period (one to three days). This prevents excess trampling and shattering of the fragile leaf material as cattle walk across it. Stockpiled introduced pasture should be fully grazed by early February since forage quality usually declines rapidly thereafter.

Stockpiled native range

By definition, stockpiled native range is native range pasture that has been deferred from grazing for all or a significant portion of the growing season. If the native range is in good or excellent condition, the forage makes good standing hay for mature, non-lactating cattle with some supplementation. Forage quality is not usually very high, often less than 6 percent CP, and declines as the leaf material is removed from the stand. However, the forage tends to remain more upright, making it more easily grazed late in the winter as compared to introduced pastures. A desired residue height of 6 to 8 inches is recommended following grazing to protect the growing points from excessive exposure to the winter cold.

Stockpiled fescue

Stockpiled fescue is a fescue stand that was mowed and fertilized in late summer or early fall, and then deferred from grazing until after frost or later into the winter. Fescue is a cool-season perennial grass that continues to grow after frost with fertilizer, moisture and moderate temperatures, producing quality forage for all classes of cattle. With good fall growth and 50 pounds of N per acre, 1,500 to 2,000 pounds of production is possible with forage quality exceeding 10 percent CP. This is ideal forage for lactating cows and yearlings during the winter until the leaf area is removed. Again, it is most efficiently harvested through a limit grazing technique, but that is not as critical as it would be for stockpiled bermudagrass. It is recommended to leave a residue height of at least 4 inches as this provides insulation to the soil surface and maintains sufficient plant material for rapid recovery as growing conditions improve in late winter and early spring – especially when additional N is applied.

Small grains winter pasture

Small grains winter pasture is usually produced from the planting of wheat, cereal rye, oat, triticale or barley in early fall for late fall, winter and spring grazing. Plantings for grazing purposes may include a mixture or blend of multiple grains, ryegrass and, occasionally, interseeded legumes or turnips. Winter pasture forages are very high quality when grazed during their growing season, which occurs from early fall to late spring. With good growing conditions in the early fall and 70 pounds of N per acre (assuming adequate pH, phosphorus and potassium), 2,000 pounds per acre of dry matter production is possible in the fall. Spring production can exceed 3,000 pounds of dry matter per acre with an additional application of 70 pounds of N per acre. Crude protein can exceed 25 percent most of the growing season and remain above 10 percent as plants begin to produce grain/seed in the spring. Winter pasture is usually reserved for growing cattle or stockers, but can be used effectively as a supplement for mature cattle when limit-grazed. It is also a great source of nutrition to flush lactating cows immediately prior to and during a spring breeding season.

Ryegrass and spring annual pasture

Ryegrass and spring annual pasture include volunteer or established ryegrass, annual brome grasses, clovers and legumes that are either planted or volunteer. The management of these forages often occurs simultaneously when grazing residual pastures or stockpiled introduced pastures in the fall. By managing for a desired residual height earlier in the fall and maintaining adequate phosphorus and potassium levels (and pH for legumes), seeded ryegrass and legumes or volunteer cool-season annual grasses and legumes can germinate over the winter and produce early spring production with quality suitable for all classes of cattle. These annual forages can provide early grazing 30 to 60 days ahead of spring production of introduced summer perennial pastures. However, annuals use the spring moisture and subsequently delay spring production of the introduced summer perennials. The quantity of acres targeted for ryegrass or spring annual production should be planned to meet livestock demand for the spring season and fully grazed or hayed off by early May to minimize the impact on the introduced perennial pasture.

Hay

Hay is the usual means by which producers bridge the forage production gap between seasons of grown and growing forages. Although most often used during the winter, hay is also used during drought to meet unexpected interruptions in forage production. Quantity is determined by livestock demand for the anticipated duration that forages will not be available to graze. Quality needs to be known for each batch of produced or purchased hay. The lower the hay quality, the more supplement will be needed to meet the requirements for livestock production. Young and lactating cattle require a higher quality diet than mature, non-lactating cattle. As a rule of thumb, 8 to 10 percent CP hay is most suited for dry cows, 10 to 12 percent CP hay is suitable for lactating cows, 12 to 15 percent CP hay is ideal for weaned and yearling calves, and over 16 percent might be best used as a supplement. Notice that less than 8 percent CP is not ideal for any class of livestock. Hay that is less than 8 percent CP will require additional supplement for all classes of livestock, with the exception of mature bulls which do well on a 6 to 8 percent CP hay. ■