

Stockpiling Bermudagrass or Bahiagrass for Fall/Winter Grazing

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Winter feeding programs can contribute heavily to the overall ownership costs of cow-calf production systems. Traditional feeding programs in Texas and across the southeastern US have concentrated on feeding conserved warm-season grasses (hay) for many years. This practice, however, is generally a very expensive method of feeding cows during the winter period. A different approach could use standing or stockpiled bermudagrass left in the field for grazing during fall and early winter. Stockpiled bermudagrass can provide the required nutrition for dry, pregnant cows through January if the appropriate procedure is followed. Producers should plan on providing approximately 45 - 60 days of grazing with the dormant bermudagrass. In most instances, stockpiled bermudagrass should be used up by mid January. Once the stockpiled bermudagrass is completely grazed, a shift to *another* bermudagrass pasture overseeded with annual ryegrass can provide necessary nutrition throughout the remainder of the winter feeding period. A short period of hay feeding may be necessary until the ryegrass pastures are ready to be grazed. These changes in winter feeding programs can substantially reduce winter feeding costs.

In order for stockpiled bermudagrass and ryegrass to contribute to the program, the stocking rate must be in balance with the property's ability to produce the forage necessary for the resident cow herd. In many instances, overall stocking rates will have to be reduced in order to provide the deferred pastures for stockpiling bermudagrass and overseeding ryegrass.

Adequate moisture combined with the appropriate fertility program is required to produce the desired bermudagrass quantity and nutritive value. Note that if adequate moisture is not received during September, October and November, little bermudagrass will be produced and grazing initiation of ryegrass may be delayed. *Always* have a barn full of good hay in reserve for drought or ice and snow cover. Also realize that good hay stored appropriately in a barn does not have to be replenished each year and can last for many years without further deterioration once an approximately 10% loss in dry matter and nutritive value occurs during the first year of storage.

On the opposite side of this page is a suggested protocol for stockpiling bermudagrass that will provide adequate nutrition for mature, spring-calving cows that go into the fall in good body condition (Fig.1). This protocol is designed to provide stockpiled bermudagrass that will provide 8-14% crude protein and >50% TDN through January. *If* the bermudagrass is used for other classes of cattle, appropriate supplements will likely be required.

- Estimate the number of acres required for your cow herd. In lieu of actual ranch forage production records, some assumption must be made. These assumptions include:
 - a. Enough moisture will be received to produce the desired level of bermudagrass.
 - b. An appropriate amount of fertility will be applied to stockpile 2500 lbs of bermudagrass DM per acre.
 - c. A 1000-lb cow (animal unit) will consume 26 lbs of forage dry matter (DM) per day.
 - d. Harvest efficiency of the stockpiled bermudagrass will be 65%.

An example of a typical east Texas cow herd is demonstrated below.

- 1) 25 cows x 26 lbs forage DM per day x 75 days = 48,750 DM required by the animals
 - 2) 48,750 lbs DM/0.65 harvest efficiency = 75,000 lbs DM production requirement
 - 3) 75,000 lbs DM requirement/2500 lbs DM per acre production = 30 acres required for stockpiling
- Graze pasture to a 1-2" stubble height or harvest the final cutting of hay in preparation for fertilization approximately 8 weeks prior to first anticipated frost. Mow only as a last resort as mowing simply places thatch on top of the grass you are attempting to grow and costs money in tractor fuel and wear and tear on the equipment.
 - Apply 60-75 lbs N, 18 lbs P₂O₅, 60-75 lbs K₂O per acre. If P and K are adequate according to soil test results, apply only N.
 - Defer pasture(s) from grazing and allow forage to accumulate until frost.
 - Initiate grazing in response to the need for hay supplementation
 - When grazing is initiated, control the grazing with either an electric wire or by opening and closing gates. If grazing is not controlled, much forage will be wasted. Provide cows with 1-2 days of forage only and allow enough time for cows to harvest 65% of the standing forage. The top 2/3 of the stockpiled forage is primarily leaf and provides good nutrition. If cows continue to graze closer than the top 65%, they will be consuming mostly stems, which is much lower in nutritive value.
 - After cows graze stockpiled forage to the appropriate height, advance the electric wire or allow access to other pastures to provide additional days of grazing.
 - If grazing is not controlled, cattle will selectively harvest the leaves the first 4-5 weeks and leave the stems which are lower in quality. At this time, it may be necessary to start supplementing the cattle with protein to prevent loss of body condition. A good method to determine if the cattle are deficient in protein is to observe their manure for consistency.
 - When stockpiled forage is completely grazed, it will be time to start a traditional hay feeding program or initiate grazing ryegrass. A limited amount of hay is typically needed until the ryegrass is ready to be grazed.
 - Be sure to provide free choice loose mineral supplement to the cattle and closely monitor the body condition of the cattle.
 - Bahiagrass may be substituted for bermudagrass based on preliminary data obtained at Overton.
 - If system experiences a break down, switch to Plan B (hay stored in the barn).

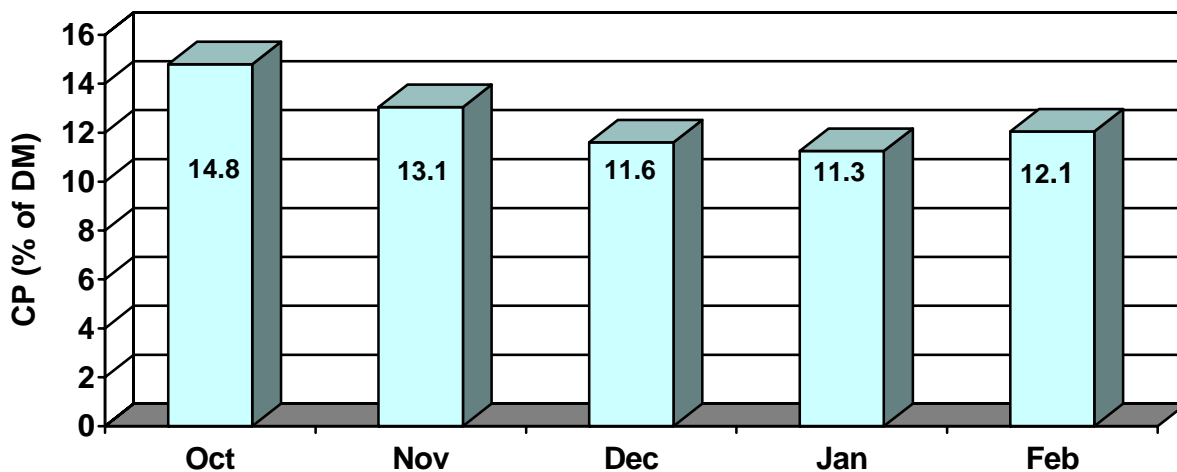


Figure 1. Crude protein (CP) of bermudagrass and bahiagrass cultivars during fall and winter for two years at Overton, TX. Evers et al., 2004.