

Feeding the Cow Herd during the Cool Season in Florida on Deseret Ranch

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Deseret Cattle and Citrus has one goal when wintering the cow herd. That is to maintain a cow in body condition score (BCS) 5 by supplementing available forages with least-cost sources of protein and energy. We feel a BCS 5 cow will achieve an 85 to 90% pregnancy rate while weaning a 525-lb calf. To achieve this goal we sort the herd by age and BCS. In other words, sort the younger cows from the older cows, and the thinner cows (BCS 4 or lower) from the fatter cows (BCS 5 or higher). Also, we accept bids for supplement to determine the most economical sources of nutrients. To insure the herd is receiving the appropriate level of nutrients, we developed a strategy to guide our fertilization and supplementation decisions. A portion of this strategy accompanies this paper.

Due to our south-central Florida location, we basically have two forages that “work” on the ranch: bahiagrass and *Hemarthria*. The benefits as well as limitations of these two forages are well documented, so I won’t spend a lot of time discussing them. Also, our management goal of being a least-cost producer prohibits us from planting many acres of winter annuals (ryegrass) and farming forages (haying) for winter feed. The exception to this statement is ryegrass planted at the rate of 1 acre per head for our yearling replacement heifers, 2-year-old pregnant heifers, and 3-year-old wet cows.

In using these forages for winter grazing we follow IFAS fertilization recommendations, and our own “Deseret grazing strategy.” Of the two forages *Hemarthria* is our most significant, reliable winter feed source. We graze it to about a 6- to 8-inch stubble height by September 15, then apply 100 lb N, 25 lb P, 50 lb K, and 5 lb S per acre. The fertilizer applications are completed by October 10, and grazing is delayed until as close to November

25 as possible. This delay allows for accumulation of forage in sufficient quantity to allow continuous grazing through approximately February 15.

Pregnant/wet cows in BCS 5 or higher are supplemented for 90 days (beginning December 1) with a protein source only, because *Hemarthria* is typically deficient in protein but adequate in energy for all classes of beef animals. Pregnant/wet cows in BCS 4 or lower are supplemented with the same protein source, as well as an energy source to raise their BCS. Unfertilized bahiagrass is used to fill the void in *Hemarthria* availability from September 15 to November 25. The IFAS recommendations do not support a fall application of fertilizer for bahiagrass because there is not an economical increase in either quality or quantity. No supplementation is fed during this period. Cattle placed on bahiagrass pastures between December 1 and February 28 are supplemented with both protein and energy because bahiagrass is typically deficient in both these nutrients for all classes of beef animals.

In summary, Deseret has developed strategies to guide the decision-making process regarding wintering the cow herd. Its strategies are based on the most recent recommendations of IFAS, and knowledge gained from measuring the results of “experimenting” with grazing bahiagrass and *Hemarthria* pastures.

Fertilizers

Fertilizing is done to extend the grazing season, to establish new pastures, and to promote growth of legumes or other species that need special nutrition.

- A) Bahiagrass: 60 lb N—spring only
- B) Legumes: P and K—based on soil sample

(if P is high: 0-0-90; if P is low: 0-30-60)

C) *Hemarthria*: 100-25-50, 5 lb sulfur, 1 lb FE, 5 lb FTE503

- September 15 to October 30:
All pastures—graze after 60 days' growth, through winter
- February:
Limited number of pastures—graze after 30 days' growth

D) Fertilizer specifications:

- Ammonium sulfate
- Ammonium nitrate
- DAP (diammonium phosphate)
- MOP (muriate of potash) in granular forms only
- No urea, anhydrous ammonia or powdered ammonium sulfate

E) Spreading cost = \$2.75/acre

F) Foreman suggests pastures to be fertilized to supervisor for approval on per-unit basis.

Final approval for ranch-wide program made by production council.

Winter Supplementation

Maintain body condition score (BCS) on our cattle to accomplish the following:

- ▶ 90% conception rates for mature cows
- ▶ 90% conception rates for yearling heifers
- ▶ 525-lb average weaning weight (including first-calf heifers)
- ▶ \$.35 cost of pound weaned (or less)

A) General Practices

1. Cattle are sorted according to age and BCS
2. Younger animals and(or) thinner animals (BCS 4 or less) are supplemented at higher levels than the other cattle

3. Cattle are given proper protein and energy requirements according to their category

4. General forages are grazed in the winter as follows:

- Bahiagrass (September–March)
- Hemarthria* (November–March)
- Ryegrass (January–April)

5. Buy bulk feed whenever possible to reduce costs and labor.

B) Three-Year-Olds (pregnant with 2nd calf) + Thin Cows (BCS ≤ 4)

Feed: 105 days (November 15–March 1)

Calve: 90 days (December 25–March 25)

Rebreed: 90 days (March 15–June 15)

Weight: approximately 950 lb

Pasture: bahiagrass, *Hemarthria*, limited legumes

(In the past, we have supplemented with 1 to 2 lb 33% CSM cube and 4 lb mill-run molasses/hd/d)

Goals: a. Maintain BCS 5

b. Pregnancy rate of 85 to 90%

C) Mature Pregnant Females (BCS ≥ 4)

Feed: 90 days (December 1–March 1)

Calve: 90 days (December 25–March 25)

Rebreed: 90 days (March 15–June 15)

Weight: approximately 900 lb

Pasture: bahiagrass, *Hemarthria*, limited legumes, some native woods, no ryegrass

(In the past, we have supplemented with 1 to 2 lb 33% CSM cube and 4 lb mill-run molasses/hd/d)

Goals: a. Maintain BCS 5

b. Pregnancy rate of 85 to 90%

D) Open Females

Feed: 30 days (February 1–March 1)

Calve: 90 days (December 25–March 25)

Rebreed: 90 days (March 15–June 15)

Weight: approximately 900 lb

Pasture: bahiagrass, *Hemarthria*, limited legumes, native woods

(In the past, we have supplemented with 1 lb 33% CSM cube, and 4 lb mill-run molasses/hd/d)

- Goals:*
- a. Maintain BCS 3+ to 4
 - b. Pregnancy rate of 85 to 90%

E) Bulls

Feed: 90 days (December 1–March 1)

Breeding: 90 days (March 15–June 15)

Weight: range of 800 to 1,500 lb

Pasture: bahiagrass, no legumes, no ryegrass, no native woods

(In the past, we have supplemented with 1 lb 33% CSM cube and 4 lb mill-run molasses/hd/d)

- Goals:*
- a. Maintain BCS 4+ to 5
 - b. Able to breed 30 to 40 cows per season

NOTES: