Effective Body Condition Scoring of Florida Cattle

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INTRODUCTION

Body condition score (BCS) or changes in body condition is a more reliable indicator for evaluating the nutritional status of a cow than live weight or changes in live weight. Although cows with greater BCS tend to have heavier weight, the live weight alone is not a good estimate of overall nutritional status. Most cow herds have a range in cow frame size and muscling in their cows that make BCS a better measure of body fat than live weight. Live weight is also affected greatly by gut fill and pregnancy status both of which affect live weight, and are seasonal depending on the breeding season, forage quality and forage availability. In winter feeding studies, the body condition loss is usually much higher than the body weight loss.

On many ranches, cow body condition score can be evaluated regularly in circumstances where weighing cows may be impractical. This technique is easy to learn and can be very useful in making management decisions.

BODY CONDITION SCORES

Body condition score of beef cows is scored from 1 (thin) to 9 (fat). This system has been used by many cattlemen and researchers as a guideline in evaluating the body condition. It should be realized that any visual scoring system will vary depending on the people doing the scoring and scoring by different people will not agree exactly. However, condition scores should not likely vary by more than one score between experienced evaluators.

It is not difficult to evaluate body condition score of cattle. The first step is to determine which areas of the body are most useful in determining body condition (Figure 1). Fat deposits are visible over the back, tail head, pins, hooks, ribs and brisket of cattle. A description of body condition scores is given in Table 1.
A BCS of 5 should look average — neither thin nor fat. Initially establish what a BCS 5 looks like, then cows can be classified as fatter or thinner and a specific score applied. The fill or shrink from digestive contents or pregnancy can change the appearance of moderately fleshed cattle especially over the rib or in front of the hooks. Long hair is another factor that can make it more difficult to evaluate the amount of condition on a cow. When hair is long, physically palpating the cattle over the back and ribs, and feeling the flesh over the horizontal process of the backbone in front of the hooks can be helpful. The amount of flesh over the transverse process or sharpness of feel of this bone can be used to help evaluate body condition. The descriptions in Table 1 can be used to facilitate palpation for BCS.

Cattle with BCS of 3 or lower have very little fat and are evaluated on degrees of muscle loss. The bone structure over the back and ribs is very visible and another useful indicator is the area from the hooks to the pins. Cattle with muscle loss show a depressed or sunken appearance in this area.

Cattle with BCS of 6 or higher show a smoother appearance across the ribs and back. The breed type of cattle can influence where fat is deposited. Some cattle with Brahman breeding show very little fat over the ribs but will deposit fat over the hooks and pins. Other cattle show uniform deposits of fat across the ribs and back with no patchy deposits around the tail head.

A BCS range of 3 to 7 will include most beef cows in Florida. A cow of medium frame size will weigh approximately 1,100 lb at BCS 5 but only 950 lb at BCS 3. In this system, a medium frame beef cow would change in weight approximately 75 lb for each condition score.

SEASONAL CHANGES IN CONDITION SCORE

The BCS of the beef herd will change during the year. The condition is usually highest in mid to late summer then declines in the fall or winter and is lowest in late winter or early spring. The rate of loss of BCS should be gradual and not extreme if possible. The rate of loss of BCS should be gradual and not extreme if possible. A cow can lose one BCS during the fall and winter (75 lb of flesh), thus it is desirable for the cows to be supplemented to lose this gradually over 120 days instead of a very rapid loss in 45 days followed by feeding high levels of supplemental feeds in an attempt to prevent further condition losses. It is our observation that some Brahman and Brahman crossbred cattle will lose condition faster than other types of cattle especially after calving. It is important that these cattle be monitored closely and that forage and supplemental feeds be adjusted to avoid high rates of condition loss.

USING BCS IN MANAGEMENT DECISIONS

A good ranch manager must evaluate many management alternatives and adjust the program based on the current situation in each herd. Decisions such as stocking rate, fertilization, supplemental feeding, grouping of cattle, parasite control, and diagnosis of problems can use BCS to provide useful information about the overall nutritional status of the herd and individual cows in the herd.

The average BCS of a herd during the year can be used to evaluate the general nutritional status of the herd. If the BCS of the herd is low during the late summer or fall, several factors such as forage quality, stocking rate, mineral supplements and parasite control need to be evaluated to help determine possible causes and solutions.

The type, level and time to start supplemental feed should consider the BCS of cattle. Forage quality and quantity, time of calving, body condition, milk production level, breed type, pasture size, and weather all must be considered. If cattle have a higher BCS than normal, it may be possible to reduce the level of supplement provided. In other situations, the level of supplement given during the winter may need to be increased to maintain BCS. The amount of supplement usually needs to be adjusted to each herd and it may need to be adjusted during the winter depending on the conditions and cattle. An early frost or a drought can change the economically optimum levels of supplements.

It is desirable to have cows in BCS 5 or higher at calving and if there is a considerable range in BCS in a herd, it may be desirable to separate thin cows. It is usually economically prohibitive to supplement the entire herd if only half of the cows or fewer will respond to the higher level of nutrition. An alternative is to separate thinner cows and manage these cows to improve BCS prior to calving. Possible alternatives may include grazing on a higher quality pasture, providing additional supplements and(or) treating for parasites.

SUMMARY

A BCS of 5 or higher at calving and through breeding is needed for good reproductive performance. Proper stocking rates, a good mineral supplementation program and timely use of protein supplements offer the most potential for economically improving BCS and pregnancy rates. Separating cows by condition at pregnancy testing or 2 to 3 month prior to calving and feeding both groups to calve in BCS 5 or above will maintain high reproductive performance while holding supplemental feed costs to a minimum. The

routine use of BCS in each herd will provide needed information to manage the cow herd for a high calf crop and profitability.

Figure 1. Assessment points for visual evaluation of cow body condition score.

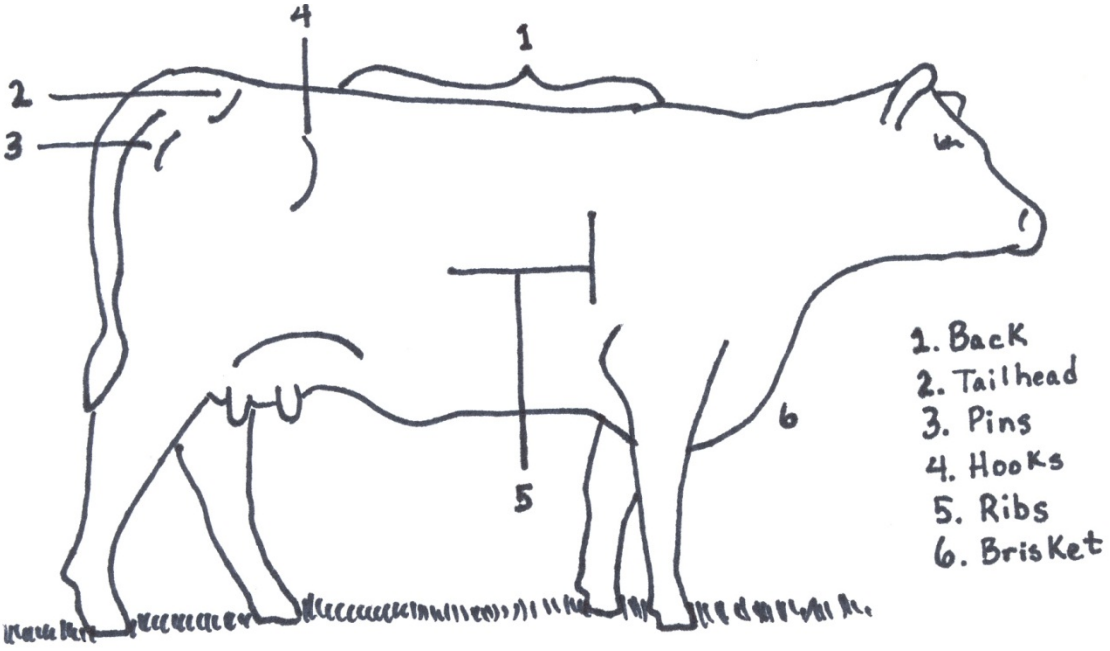

Table 1. Description of Body Condition Scores (BCS)		
BCS	**Description**	
1	**Emaciated**	**Bone structure of shoulder, ribs, back, hooks and pins sharp to touch and easily visible. Little evidence of fat deposits or muscling.**
2	**Very Thin**	**Little evidence of fat deposits but some muscling in hindquarters. The spinous processes fell sharp to the touch and are easily seen with space between them.**
3	**Thin**	**Beginning of fat cover over the loin, back and foreribs. Backbone still highly visible. Processes of the spine can be identified individually by touch and may still be visible. Spaces between the processes are less pronounced.**
4	**Borderline**	**Foreribs not noticeable; 12th and 13th ribs still noticeable to the eye, particularly in cattle with a big spring of rib and ribs wide apart. The transverse spinous processes can be identified only by palpation (with slight pressure) to feel rounded rather than sharp. Full but straightness of muscling in the hindquarters.**
5	**Moderate**	**12th and 13th ribs not visible to the eye unless animal has been shrunk. The transverse spinous processes can only be felt with firm pressure to fell rounded - not noticeable to the eye. Spaces between the processes not visible and only distinguishable with firm pressure. Areas on each side of the tail head are fairly well filled but not mounded.**
6	**Good**	**Ribs fully covered, not noticeable to the eye. Hindquarters plump and full. Noticeable sponginess to covering of foreribs and on each side of the tail head. Firm pressure now required to feel transverse processes.**
7	**Very Good**	**Ends of the spinous processes can only be felt with very firm pressure. Spaces between processes can barely be distinguished at all. Abundant fat cover on either side of tail head with some patchiness evident.**
8	**Fat**	**Animal taking on a smooth, blocky appearance; bone structure disappearing from sight. Fat cover thick and spongy with patchiness likely.**
9	**Very Fat**	**Bone structure not seen or easily felt. Tail head buried in fat. Animal's mobility may actually be impaired by excess**