

# Managing Herefords

## Body Condition Scoring



### At Weaning Time: Don't Forget Momma

*Take time to collect cow weights and body condition scores.*

Improved reproduction and feed efficiency are two goals all cattle producers strive to attain. They are also two of the harder goals to measure. Producers spend hours looking for ways to improve conception and herd productivity.

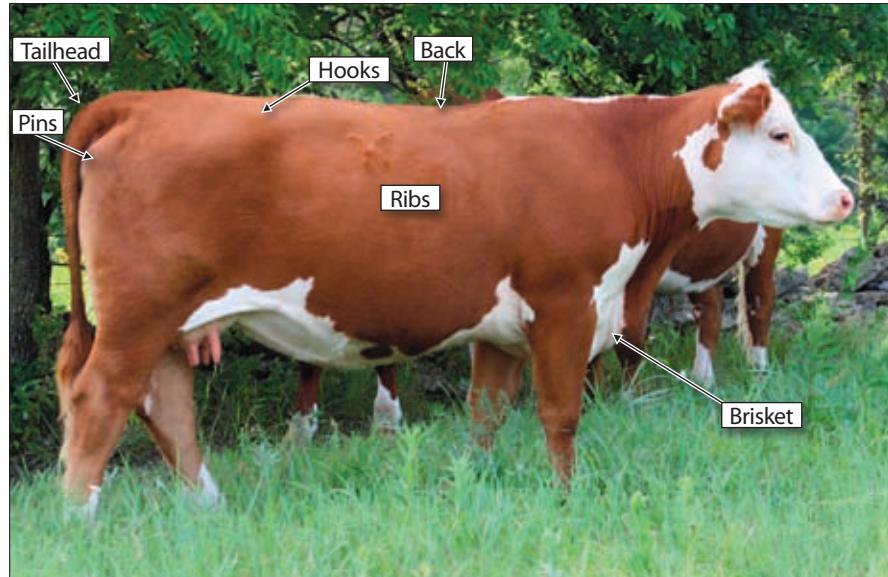
An easy tool available to assist producers in the evaluation process of their cow herds is body condition scores (BCS). These scores allow producers to achieve optimum reproduction level and reduce feed costs.

"Body condition scoring is an easy method to assess the nutritional status of the herd and the impact of an operation's nutritional program," says John Hall, Virginia Polytechnic Institute and State University Extension beef specialist. "By using body condition scoring at critical times, cattlemen can make decisions on when to supplement. Also, considerable research indicates that body condition score before calving and during the breeding season are directly related to reproductive efficiency."

Hereford breeders are encouraged to collect and report cow weights and BCS at weaning. To be compliant with Whole Herd Total Performance Records (TPR™), producers have a seven-day window before and after weaning to collect cow weight and BCS. Hereford breeders must report both a cow weight and BCS for the data to be included in national cattle evaluation.

"This data should be collected because it will give us an opportunity to look at some cow maintenance issues, which, in turn, could be directly related to fertility and longevity," says Jack Ward, American Hereford Association (AHA) chief operating officer and director of breed improvement. "Today we do not calculate a mature weight EPD (expected progeny difference), but we will obviously use this data in our

**Figure 1: Key areas to examine during body condition scoring**



current indexes, and it could also be used in calculating some sort of stayability or survivability EPD or index.

"This will be a trait that could really prove to be important to the genetic analysis," he adds. "We are continually looking at ways to improve efficiency in the cow herd, and this data could be very important in finding the genetics that will make the proper changes."

#### Getting started

Hall has taught body condition scoring to students and producers for several years, conducting workshops and research on the subject. He says the scores are a visual estimate of body energy reserves, so a trained eye and a notebook are all that is really needed when scoring cows. He does encourage producers to utilize reference publications before starting the process.

The most common BCS system ranks cows from 1-9 (See Figure 2 on Pages 3-5).

Hall says for the novice, it is easier to learn the process if cattle are run through the chute and key areas of the cow are examined closely and felt. The key areas include hooks, pins, ribs, backbone and tailhead (See Figure 1). After the cow is examined in the chute and a score is given, based on palpating the key areas, the cow should then be viewed after being let out of the chute. This final observation will help train the novice's eye. An experienced person helping during the first body condition scoring session is a great asset, Hall adds.

"The rancher who is experienced in body condition scoring can walk, drive or ride through a herd of cows and body condition score them by sight," Hall says. "Alternatively, the cows can be brought to a corral for easier viewing."

#### Collecting data

For utilization in Hereford cattle evaluation, the key time to collect and record BCS is at weaning, but

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the process of evaluating cow BCS is something that is useful year-round. According to Hall, there are four key times to BCS cows:

- 1) 60-90 days before calving;
- 2) Weaning;
- 3) Calving; and
- 4) Beginning of the breeding season.

"From a management perspective, 60-90 days before calving is the most important time," Hall says. "Because of the clear relationship between BCS at calving and rebreeding success, we want to make sure cows are on target to calve in the ideal BCS. If they are too thin at this time, producers still have time to increase BCS on cows before calving."

"The second most important time to score cows is at weaning. The BCS at weaning indicates the ability of the cow to adapt to the environment or the adequacy of the nutrition program. Also, weaning BCS can be used to determine which cows need to gain weight between weaning and calving. Finally, from a genetic evaluation

perspective, BCS at weaning will be used to adjust the cow body weight at weaning to estimate mature cow size," Hall explains.

Evaluating BCS is something everyone who helps on a farm or ranch should be trained to do, but for reporting purposes, it's best for consistency if one person scores all the cows reported to the AHA.

### Utilizing the data

BCS allows producers to sort cows according to nutritional needs, thereby improving the efficiency of their nutrition program. This is possible because of the strong relationship between body condition and weight change.

Hall explains that although it is critical to have cows in good condition at calving, BCS at calving can be used to plan the nutrition program from calving to breeding. Cows that are thin at calving but gain weight from calving to breeding have increased pregnancy rates compared to cows that remain thin. BCS at the beginning of the breeding season is an indicator of breeding season success. Cows that are thin at the beginning of the breeding season will respond to increased nutrition, but the effect on pregnancy rates may be limited.

Research shows that cows in BCS 5-6 at calving and breeding will have higher pregnancy rates than cows that are in BCS lower than 5. The critical body condition for first-calf heifers is BCS 6-7.

Hall says, aside from the optimum BCS differences, there is little difference in body condition scoring first-calf heifers, young cows and mature cows. "Older cows (older than 10 years) create a unique situation because the

natural 'sagging' of the ribs and body tends to make backbone, hips and ribs more apparent in older cows," he says. "Cattlemen should concentrate on fat deposits in the brisket, tailhead and pins of these cows when making a BCS determination."

Thin cows (BCS 4 and less) need to be managed to gain weight precalving and from calving to breeding in order to increase reproductive success, Hall says. Cattlemen may have to feed thin cows separately from the main herd to more economically increase BCS on these cows.

"Cows that are BCS 4 at weaning and have a large, healthy calf need only to be managed to gain weight and BCS to be at BCS 5 or 6 by calving," he says. "Cows that are less than BCS 4 at weaning may indicate a mismatch between cow type and the ranch forage resource or an inadequate nutritional program."

"Cows that are BCS 8 or 9 before calving can be placed on lower-quality feeds or pastures and allowed to lose weight until they are BCS 6 without reducing calf vigor or subsequent reproductive performance. In contrast, cows that are BCS 8 or 9 at weaning and produced a lightweight calf at weaning are unproductive cows that may need to be culled."

To improve body condition, Hall says there's not a specific technique or feeding strategy; however, there are guidelines to increase BCSs.

For example if 45 days prior to calving a cow is a BCS 4, she needs to gain 1 BCS (40 to 85 lb.) in 45 days.

He encourages cattlemen to consult their local Extension specialist or nutritionist to determine the best nutrition program to fit their environment and available resources.

Research shows that failure to monitor body condition prior to key production periods can be disastrous to cow herd productivity. Take the time to collect weights and score cows each fall, and then use the data to take action and improve the productivity of your herd and your customers' herds.



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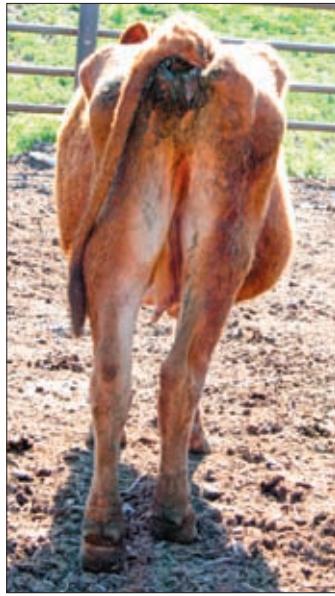
Figure 2: Dam's body condition score reference chart



**BCS 1**  
**Emaciated**



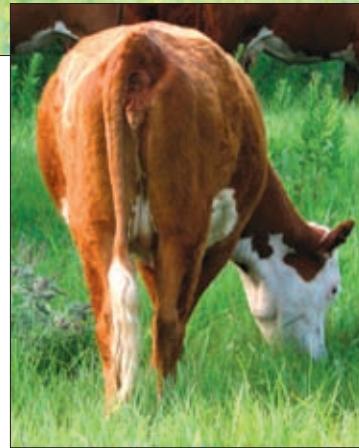
**BCS 3**  
**Thin**  
Ribs are less sharp but definable.  
Some fat on spine.



**BCS 2**

**Poor**

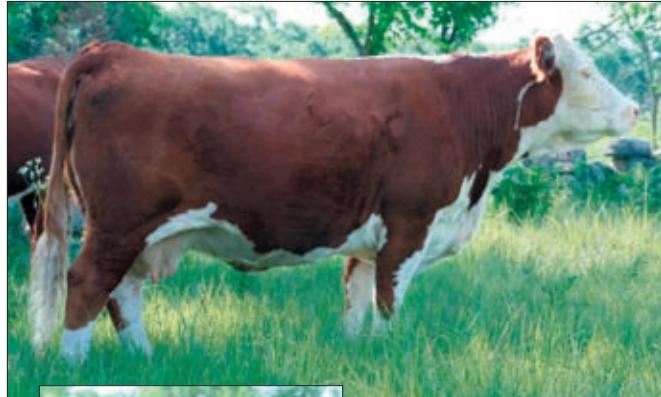
Somewhat emaciated.  
Tailhead and ribs  
are less prominent.  
Backbone still sharp.



**BCS 4**  
**Borderline**  
Ribs not obvious.  
Some fat over ribs  
and hip bones.  
The backbone  
can be identified  
but feels rounded,  
not sharp.

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**BCS 5****Moderate**

Good overall appearance. Palpable fat cover on the ribs.

**BCS 6****High Moderate**

Firm pressure needed to feel backbone. High degree of fat is now palpable over ribs and around tailhead.

**BCS 7****Good**

Fleshy condition. Carries considerable spongy fat over ribs and around tailhead.



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**BCS 8**

### Fat

Very fleshy and over-conditioned. Large fat deposits over ribs and around tailhead. Backbone almost impossible to palpate.



**BCS 9**

### Extremely fat

Cow has lost definition. Hips buried in fat tissue, looks blocky. May be impaired in mobility. Bone structure no longer visible.

### For more information

Visit the following Web sites to learn more about body condition scoring:

#### Feeding Cows by Body Condition

Kansas State University

[www.oznet.ksu.edu/library/lvstk2/c842.pdf](http://www.oznet.ksu.edu/library/lvstk2/c842.pdf)

#### Body Condition Scoring Beef Cows

Virginia Tech

[www.ext.vt.edu/pubs/beef/400-795/400-795.html](http://www.ext.vt.edu/pubs/beef/400-795/400-795.html)

#### Body Condition, Nutrition and Reproduction of Beef Cows

Texas A&M

<http://animalscience.tamu.edu/ansc/publications/beefpubs/B1526-bcsnutrition.pdf>

#### Body Condition Scoring of Beef Cows

Oklahoma State University

<http://osuextra.okstate.edu/pdfs/F-3283web.pdf>