

Are Your Cows in Condition?



For a cow to change one body condition score, she'll have to gain or lose 50-80 lb. of body weight

SHARON HEMMEL PHOTO

Condition-scoring your cows can help you better manage your herd to improve reproductive performance and reduce feed costs

BY LINDA ALBERS

Producers subconsciously condition-score their cow herd every time they feed, but they don't often realize the full potential of that evaluation. By applying the traditional evaluation in a more current system, producers can track performance better and more closely meet the herd's dietary requirements cost-effectively.

"Every day the producer looks at the cows and evaluates them but doesn't write it down," says Twig Marston, Kansas State University (K-State) Extension cow-calf specialist. When it comes time to evaluate management technique, there's no written record. He encourages producers to take a more formal approach to body condition scores (BCS), recording the scores at periodic intervals. "This system is just writing down what you already do."

Condition scores are based on the cow's fat thickness at six points: tailhead, back, hooks, pins, ribs and brisket. It measures the amount of finish and muscling and categorizes the calculations into a scoring system.

"To score the cattle, you look at them and feel down the top," Marston says. Look for muscling shape and thickness at the dorsal

process, rear quarter and rib cage, as well as fullness in the brisket.

The scores measure the thickness of a cow and serve as a reflection of energy intake and energy exerted. A high BCS means the cow has too high of an energy intake or is not exerting enough energy to burn the calories digested. A low BCS means the cow is not getting enough energy to live up to her genetic potential or she is working harder than her diet can support.

Jan Lyons and her family own and operate a 250-cow herd south of Manhattan, Kan. Lyons says she first heard about body condition scores at an Extension cow-calf meeting about 10 years ago.

"Before then we were always aware of our cows' conditions, and we knew if it was adequate for rebreeding and lactation," Lyons says. She uses a relaxed application of the scoring system to evaluate the nutritional needs of their cows and to sort the herd for feeding purposes.

"We use body-condition scoring somewhat," Lyons says. "We use visual means to know the condition of our cow herd, but we don't score every individual animal. Instead, we spot sample a few individuals in each pasture."

They sort their herd by age, then somewhat by BCS, so they can manage the groups according to differing nutrient requirements. "For example," explains Lyons, "we may pull a thinner, older cow and put her with the 2-year-olds with calves, since they should have about the same nutrition requirements."

By sorting the herd by BCS, the producer can develop a feed ration that is ideal for each cow. The cattle with lower body condition should be fed high-quality or high-quantity feed, while the high-scoring females should receive the lower-quality feed or lesser amounts.

The scores also are a good tool for measuring reproductive efficiency. According to Marston, there is a direct order of energy use by the body. Energy is first used for maintenance, then milk, then reproduction, then weight.

A cow with a low condition score has already sacrificed weight because of lack of energy. Unless her energy intake increases, her reproductive system will slow down or shut down. By scoring the cows, the producer can distinguish which cows are more likely to be open, have shorter estrous periods or have more milk available for their calves. The producer can also custom-feed the sorted groups in order to increase reproductive efficiency.

Lyons says the reproductive efficiency of their herd has increased since they started applying the condition-scoring system.

"At certain times of the year we look at the cows producing more milk for their calves, their cycling ability, the overall health of the individuals and the conception rates to make sure they are being fed enough."

A BCS of 5 on a 9-point scale is ideal, according to a K-State Research and Extension publication. Cows at BCS 5 are fed most efficiently to get the best reproductive performance. At BCS 5, the ribs are fully covered and are not noticeable to the eye (see illustrations on pages 244-245). The hindquarters are plump and full, and there is good fill over the ribs and on each side of the tailhead. As the score decreases, the ribs and backbone become more visible, and the brisket is less full.

To calculate BCS, a producer should be able to identify a 5-scored cow, Marston says. Then the rest of the herd can be appraised by comparison.

Relationship of body condition and percentage of cows cycling 60 days postpartum (Whitman, 1975)

Condition at calving	WL change precalving	WL change post-calving	% cycling 60 days post-calving
Good	Lost	Lost	90%+
Moderate	Gained	Lost	74%
Moderate	Lost	Lost	48%
Thin	Lost	Gained	46%
Thin	Lost	Lost	25%

According to Marston, four times of the year are optimal to score your cow herd: at calving, at the start of the breeding season, mid-summer and at weaning. At each of these times the scores have different applications.

"At weaning, the producer should use the scores to decide if he or she should sort the herd or keep them together," Marston says. "Mid-summer, the scores can measure if the producer should wean the calves early. At calving and at the start of the breeding season, the scores act as a predictor for next year's calf crop."

Taking the time to score the animal is worth it as long as there are no additional expenses or too much additional outlay in management, says Lyons.

"Profitability is what this business is about," she says. "We are constantly trying to better our production record, but a successful producer cannot increase management cost beyond the expected returns."

The expected returns for using the condition-scoring system vary according to the starting point of your cow herd, but a profit of about \$1,000 over two years is expected for the average herd, according to a publication produced by Elanco Animal Health in cooperation with Extension specialists nationwide.

For example, consider a herd of 100 head consisting of 63 cows at BCS 5 and 37 cows and heifers at BCS 4. If you feed the entire herd as one group, you should expect \$6,739 in feed costs, 95 calves weaned, and a 90% pregnancy rate the following year.

If that same herd is sorted according to BCS, feed and management costs increase by about \$1,000 the first year, but the producer should expect a 2% increase in weaned calves and a 5% increase in pregnant cows the following year. That adds up to a net increase of \$1,228 in two years.

The results will vary according to the current condition of the herd, but the use of a consistent condition-scoring system can increase the feed efficiency and reproductive efficiency of your operation.

To receive more information on condition-scoring systems contact Dale Blasi, K-State Research & Extension specialist in feed, forage and nutrition, at (785) 532-5427; or contact Twig Marston, K-State Research & Extension specialist in cow-calf genetics, at (785) 532-5428.

An illustrated guide to: The g-point system for scoring body condition

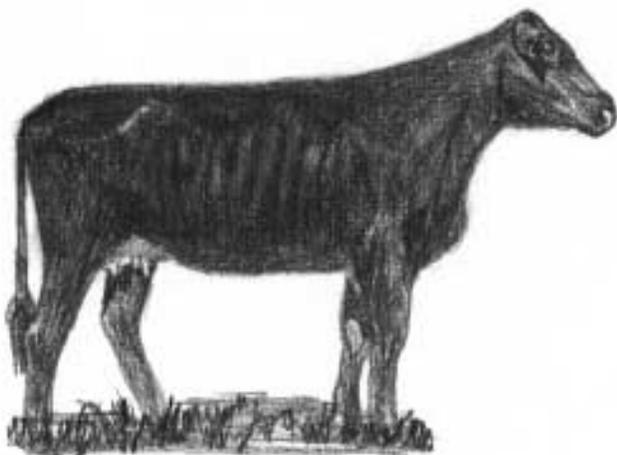
BCS 1 Bone structures of shoulders, ribs, back, hooks and pins are sharp to touch and easily visible. There is little evidence of fat deposits or muscling.



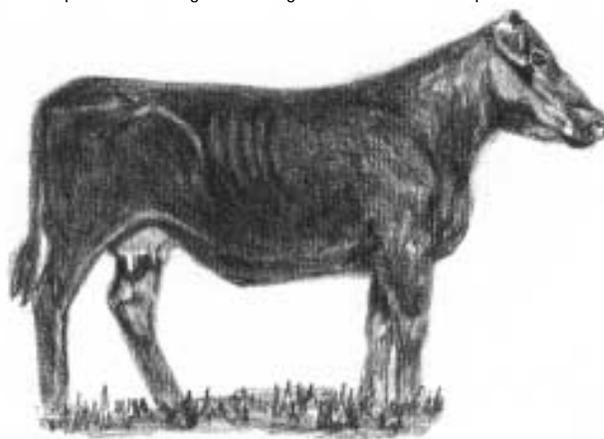
BCS 2 There is little evidence of fat deposits, but some muscling in the hindquarters can be seen. The spinous processes feel sharp to touch and are easily seen with space between them.



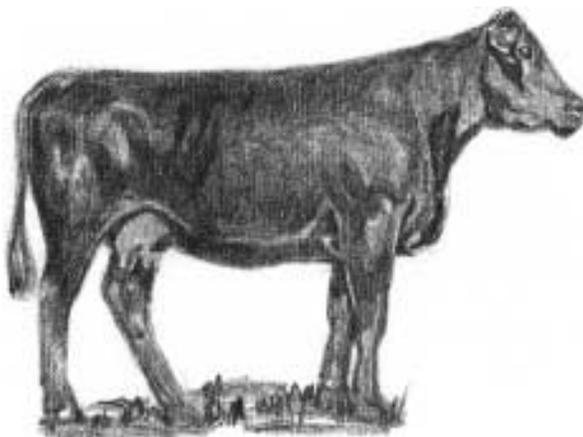
BCS 3 Fat is beginning to cover the loin, back and foreribs, but the backbone is still highly visible. Processes of the spine can be identified individually by touch and may still be visible. Spaces between the processes are less pronounced.



BCS 4 The foreribs are not noticeable, but the 12th and 13th ribs are still noticeable to the eye, particularly in cattle with some spring of rib and ribs wide apart. The transverse spinous processes can be identified only by palpation (with slight pressure) and feel rounded rather than sharp. Full, but straight, muscling is evident in the hindquarters.

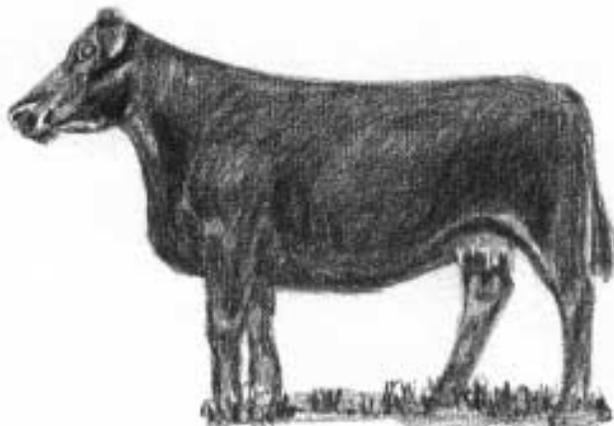


BCS 5 The 12th and 13th ribs are not visible to the eye unless the animal has been shrunk. The transverse spinous processes can be felt only with firm pressure and feel rounded. Spaces between the processes are not visible and are distinguishable only with firm pressure. Areas on each side of the tailhead are fairly well-filled, but not mounded.

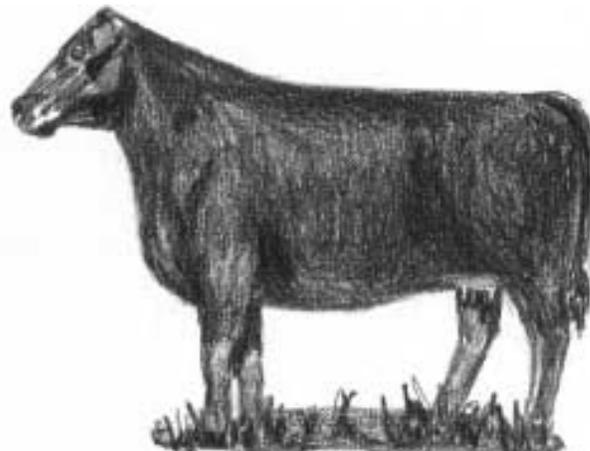


DONETA BROWN ILLUSTRATIONS

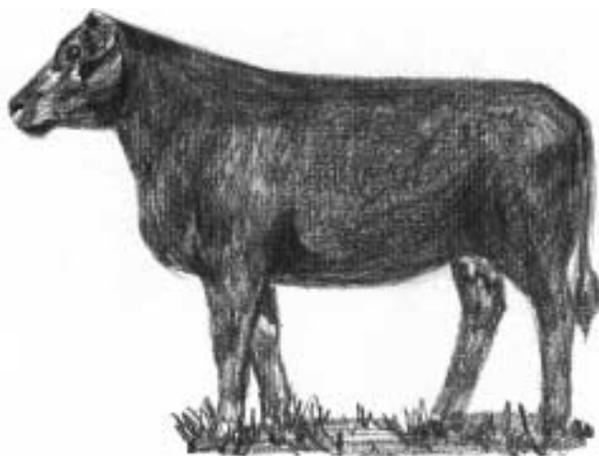
BCS 6 The ribs are fully covered and are not noticeable to the eye. The hindquarters look plump and full. You can see noticeable sponginess covering the foreribs and on each side of the tailhead. Firm pressure now is required to feel transverse processes.



BCS 7 The ends of the spinous processes can be felt only with very firm pressure. Spaces between processes can barely be distinguished at all. Abundant fat cover on either side of the tailhead with some patchiness is evident.



BCS 8 Animals take on a smooth, blocky appearance, with the bone structure disappearing from sight. Fat cover is thick and spongy with patchiness likely.



BCS 9 The animal's bone structure is not seen or easily felt, and its tailhead is buried in fat. The animal's mobility may actually be impaired by excess fat.

