

# VETERINARY CALL

by Bob Larson, Kansas State University

## Monitoring Body Condition as a Welfare Metric

*Body condition scores can be used by producers to measure animal health.*

Good animal welfare and husbandry requires cattle receive an adequate diet, have ready access to water, and are free of heavy parasite and disease burden. One of the most important ways to assess animal welfare is by determining body condition throughout the production year, including precalving, prebreeding and mid-gestation.

Animals in good body condition are not likely to be suffering from long-term illness or lack of feed and water.

From a welfare perspective, starvation is the primary concern addressed by monitoring body condition, but long-term excessive condition can also raise concern regarding the possibility of musculoskeletal problems.

Body condition scores (BCS) are used to describe the relative fatness or body fat reserves of adult beef cattle. The most common system uses a range of 1 to 9, with a score of 1 representing a very thin animal and 9 representing an extremely fat animal. This scoring system is a good predictor of body fat and energy content, and, thus, a good tool for determining if energy reserves are already depleted or are excessive.

In my opinion, a range of BCS is compatible with good welfare. In

general, cows with a BCS of 1, 2 or 3 are too thin. BCS 4 is borderline for cows at weaning and too thin precalving. If a high percentage of the herd has low BCS, then forage availability and quality, appropriate feed supplementation, water availability, and parasite load of the herd should be evaluated and any problems corrected.

### Scoring the herd

Every herd will have some cows lighter in body condition and some heavier in body condition compared to the majority of the cows in the herd. Therefore, BCS should be evaluated both on a group basis and an individual animal basis.

When evaluating a herd, if a small percentage of the group has low BCS and disease is not identified in the cattle with low BCS, I would assume nutrition is adequate and parasitism or other disease problems are having a minimal effect on the herd as a whole. However, individual cows or bulls that are thin compared to the rest of the herd should be evaluated to determine if an individual is ill and needing treatment.

In addition to animal-to-animal variation in BCS, because of year-to-year variation in forage quality and weather stress, body condition

can also have important year-to-year variation — even when a herd is fed what appears to be the same diet each year. Slightly lower forage quality and increased weather stress can result in cows losing more weight than expected. If cows lose condition during the last one-third of pregnancy, so they calve in poor body condition, calf health and cow reproductive efficiency in the following breeding season will be negatively affected.

### In summary

Producers rely on cattle that are healthy and productive. Monitoring body condition throughout the year provides a cost-effective way to monitor both the welfare and productivity of the herd.

Individual animals and herds with good body condition provide evidence of good welfare from several perspectives, including nutrition, health and facilities. **AJ**

*Editor's note: Robert L. Larson is a professor of production medicine and executive director of Veterinary Medicine Continuing Education at Kansas State University in Manhattan, Kan.*