

BODY CONDITION SCORING: BEEF



BASICS

OVERVIEW

Body condition scoring (BCS) of beef cattle is a subjective technique of evaluating animals based on their relative proportions of muscle and fat stores. It is an important management tool used by producers to help optimize reproductive and growth performance, evaluate health, and assess nutritional status at both the individual animal and herd levels.

SYSTEMS AFFECTED

- Musculoskeletal
- Nutritional
- Production management

BCS Technique

- BCS scores range from 1 (emaciated) to 9 (very obese)
- Evaluation of fat covering the brisket, shoulder, ribs, and tailhead of the animal
- Observation and/or palpation of bony protuberances including spinous and transverse processes, ribs, hooks, and pins

BCS 1: Emaciated

- Severe muscle loss of shoulder and back (loin)
- Bony structures of spinous and transverse processes, tailhead, ribs, hooks, and pins are very prominent with no fat cover
- Visible spaces between the vertebrae

BCS 2: Very Thin

- Slight fat cover over tailhead, ribs, and spinous and transverse processes, however structures are still prominent

BCS 3: Thin

- Bony structures are still visible, but not as sharply demarcated
- Less visible space between the vertebrae and fat covering begins to appear over the spinous processes, tailhead, and the dorsal aspect of the ribs
- Slight muscle loss of shoulder and loin

BCS 4: Borderline

- Spinous process are no longer visible and when palpated feel rounded instead of sharp with no visible spaces between the vertebrae
- Some fat present over bony structures
- No muscle loss of shoulder or loin

BCS 5: Moderate/Average

- Spinous and transverse processes are not visible, but can be palpated with little pressure and feel smooth to the touch
- Palpable, but not overly abundant fat on either side of the tailhead

BCS 6: Slightly Fleshy

- Spinous and transverse processes can be palpated with moderate pressure
- Ribs, loin, and shoulders are covered with fat
- Visible fat deposits in brisket and tailhead

BCS 7: Fleshy

- Considerable fat covering brisket, shoulder, loin, ribs, and tailhead
- Spinous and transverse processes can only be palpated with firm pressure
- Fat deposits (pones) beginning to form around tailhead

BCS 8: Obese

- Overall blocky appearance
- Spinous processes cannot be detected
- Fat pones around tailhead are obvious

BCS 9: Very Obese

- Bone structure is no longer visible
- Fat cover is excessive and may impair mobility

**MISCELLANEOUS*****Associated Conditions***

Problems associated with BCS <5	Problems associated with BCS >7
Inability to cycle and/or conceive	Inability to cycle and/or conceive
Increased calving interval	Cost of maintenance
Increased days to estrus	Increased rate of dystocia
Decreased calf vigor	Impaired mobility

Production Management

- Most critical times to assess BCS is at weaning, 90 days before calving, and at breeding. This will allow for changes to be made to reach optimal BCS which will influence breeding outcomes and subsequent calf crops.
- Grouping cows by body condition can allow for appropriate feeding strategies to help them reach an ideal BCS of 5-7 by calving and decrease overall feed costs
- The easiest and most cost-effective time to improve BCS is between weaning and calving
- Conception rates are profoundly decreased in cows with a BCS of 4 or less.
- Target a BCS of 6 for bulls at the beginning of breeding season. Continue to monitor throughout the season to identify bulls that become too thin.

SEE ALSO

- Body Condition Scoring: Alpacas and Llamas (www.fiveminutevet.com/ruminant)
- Body Condition Scoring: Camels (www.fiveminutevet.com/ruminant)
- Body Condition Scoring: Cervidae (www.fiveminutevet.com/ruminant)
- Body Condition Scoring: Dairy Cattle (www.fiveminutevet.com/ruminant)
- Body Condition Scoring: Goats (www.fiveminutevet.com/ruminant)
- Body Condition Scoring: Sheep (www.fiveminutevet.com/ruminant)
- Nutrition and Metabolic Disease: Beef (www.fiveminutevet.com/ruminant)

ABBREVIATION

BCS = body condition score

SUGGESTED READING

Herd, D.B, and L.R. Sprott. 1986. *Body Condition, Nutrition, and Reproduction of Beef Cows*. Texas Agricultural Extension Service. B-1526.

Tennant, C.j., J.C. Spitzer, W.C. Bridges Jr., and J.H. Hampton. 2002. *Weight necessary to change body conditions scores in Angus cows*. J. Anim. Sci. 2002. 80:2031-2035.

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