

Condition Score (BCS) in Beef Herds

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This article adopts a five point BCS system (1-5) with values subdivided into 0.5 scores.

Note that some other systems use a scale 1-9. It is therefore important to know which system is being used.

Variations in cow body condition directly impact upon the reproductive performance of the herd, when failure to conceive is the most important factor in reducing the overall sale price of the weaned calf crop. Research indicates that monitoring the BCS in order to keep cows in adequate condition throughout the production cycle can improve reproductive performance and positively impact the economics of the operation.

- Achieving a BCS of 2.5 or more before calving and throughout the production cycle is the key to a profitable beef operation.
- By sorting and feeding groups based on BCS, the economics of your farm improve.
- Many farmers waste potential profits during the late winter months by over-feeding cows in adequate condition when only part of the herd needs extra energy and supplementation. This situation would apply mostly to autumn-calving herds which are bred indoors from November onwards.
- During the grazing season farmers need to pay attention to stocking rates and pasture quality because overstocking and poor forage quality can lead to thin cows when spring-calving herds are housed.
- Body condition can be measured in the field without gathering or handling cattle.

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Key targets indicating high fertility performance in a beef herd with a nine week breeding period include:

- Barren cow rate # 5%
- Cows calved during the first 3 weeks of calving period # 65%
- Weaned calf percentage # 94%

Few herds achieve these targets. Nutrition and an easy calving bull are the two most important factors.

Body condition scoring (BCS) method

The BCS system is relatively easy to learn and can be implemented in any farm situation.

Body condition scoring (BCS) is a useful management tool for distinguishing differences in nutritional needs of beef cows in the herd. This system uses a numeric score to estimate body energy reserves in the cow. Research indicates that there is a strong link between the body condition of a cow and her reproductive performance. The percentage of barren cows, calving interval, and calf vigour at birth are all closely related to the body condition of cows both at calving and during the breeding season. All these factors play an important role in the economics of your beef suckler herd. Monitoring body condition using the BCS system is an important managerial tool for assessing production efficiency and is practised by all farmers but action may not always be taken quickly enough.

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Body condition scores are excellent indicators of the nutritional status in beef cows. Ideal liveweight varies from cow to cow depending upon breed and milk yield whereas ideal body condition (BCS 2.5-3) is the same for all cows.

Body condition scoring and management responses link together three major factors:

- Good Animal Health and Welfare
- Good Husbandry
- Good Performance

Condition scoring is a technique for assessing the condition of livestock at regular intervals. The purpose of condition scoring is to achieve a balance between economic feeding, good production and good welfare. Condition scoring is particularly useful as an aid to dry cow and pre-calving management with benefits during the subsequent breeding season. The objective is to ensure that cows calve down safely whether they are on a controlled diet indoors (spring-calving herd) or outdoors at grass (autumn-calving herd). Subsequently, during early lactation the cow may be under considerable nutritional pressure and body condition is a vital indicator of excessive weight loss.

A cow in 'thin' condition (BCS 1-2) is angular and bony with minimal fat over the backbone, ribs, hooks, and pins. There is no visible fat around the tail head or brisket.

A cow in 'ideal' condition (BCS 2.5-3.5) has a good overall appearance. A cow with a BCS of 2.5 has visible hips, although there is some fat over the hooks and pins and the backbone is no longer visible.

Cows with BCS of 3 or 3.5 become fleshy and the ribs are no longer visible. There is also fat around the tail head and in the brisket. An over-conditioned cow (BCS 4-4.5) is smooth and boxy with bone structure hidden from sight or touch. She may have large protruding fat deposits (pones) around the tail head and on the pin bones. Be aware that gut fill due to rumen contents or pregnancy can change the appearance of moderately fleshy cows, especially over the ribs or in front of the hooks.

Visual indicators of each BCS are shown.

Body condition should be evaluated and recorded three times a year:

- At weaning
- 60 days before calving
- At calving.

By assigning BCS scores at the time of weaning, the cows can be sorted for appropriate feeding/grazing. Grouping cows by feed requirements and feeding them accordingly can help each of them reach BCS 2.5 - 3 by calving. Scoring cows 60-90 days before calving allows

you to evaluate your dry cow nutritional program while allowing enough time prior to calving for "extra feeding" if needed.

Cows that are thin (BCS < 2) are not reproductively efficient and are more susceptible to health problems. Cows at BCS 1 need immediate veterinary attention/investigation. Cows that are over-conditioned (BCS 4-4.5) are the most costly to maintain and have often been barren for a season or failed to rear a calf.

Two-year-olds with BCS 4-4.5 may experience calving difficulties due to the excessive fat within the pelvic canal.

Failure to conceive is the most important factor contributing to the reduction of net calf crop. Conception rates are dramatically compromised in cows that are BCS 2 or less.

Research indicates that the body condition of a cow influences days to first heat after calving and calving interval. A beef cow must conceive within 82 days of the birth of her last calf if she is to maintain a 12-month calving interval.

Percentage of cows in heat by 60 days post-calving depending upon BCS at calving

How to Body Condition Score

Scoring consistently requires handling cattle in order to assess body reserves but an overall visual inspection is also important. The scoring system is designed to cover all cattle but some allowance should be made for different breeds.

The scoring method involves a manual assessment of the thickness of fat cover and prominence of bone at the tail head and loin area. You should stand directly behind the cow to score both areas and always handle the animal quietly and carefully using the same hand.

The tail head is scored by feeling for the amount of fat around the tail head and the prominence of the pelvic bones.

The loin is scored by feeling the horizontal and vertical projections of the vertebrae and the amount of fat in-between. Assessment relies mainly on the tail head but is refined by the loin score if both are very different. On a scale of 1 - 5, a score of 1 is extremely thin and a score of 5 is extremely fat. If possible, assess the scores to the nearest half point.

Consistency in the technique is the key to good condition scoring.

1 Poor

Tail head - deep cavity with no fatty tissue under skin.

Loin - spine prominent and horizontal processes sharp.

Skin fairly supple but coat condition often rough.

BCS 1



2 Moderate



BCS 1.5



Tail head - shallow cavity but pin bones prominent; some fat under skin.

Loin - horizontal processes can be identified individually with ends rounded. Skin supple.

BCS 2.5



BCS 2.5



3 Good



Loin - end of horizontal process can only be felt with pressure; only slight depression in loin.

Tail head - fat cover over whole area and skin smooth but pelvis can be felt.

3.5



BCS 3.5



4 Fat



Tail head - completely filled and folds and patches of fat evident.

Loin - cannot feel processes and will have completely rounded appearance.

5 Grossly fat

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Tail head - buried in fatty tissue,
Pelvis - impalpable even with firm pressure in loin.

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