

BODY CONDITION SCORING FOR DAIRY COWS

1. PURPOSE

Body Condition Scoring (BCS) is a tool for determining if an animal is too thin, too fat, or in ideal condition. It is therefore intended to identify nutritional deficiencies and general health problems of Dairy Cattle.

2. RESPONSIBILITY

- 2.1 Trained and qualified staff
- 2.2 Feed Specialist
- 2.3 Veterinarian
- 2.4 Lactanet personnel

3. GENERAL

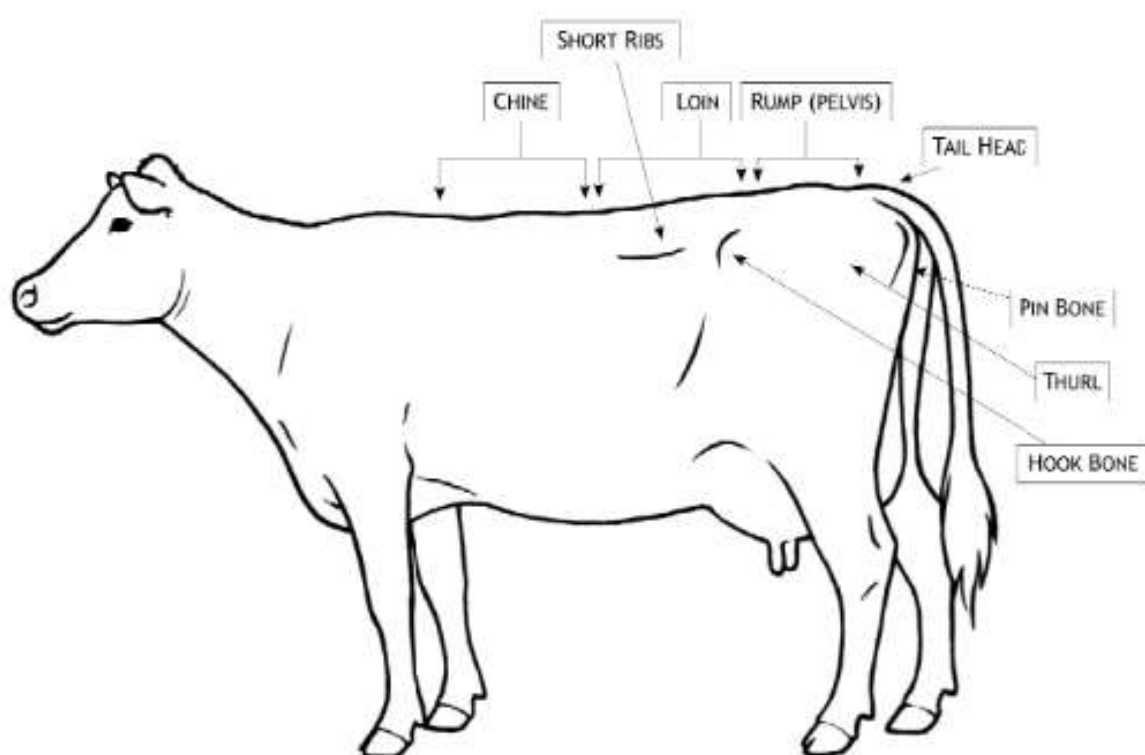
- 3.1 Assessment frequency:
 - 3.1.1 Animals are regularly monitored by the Dairy Barn staff during the daily husbandry tasks. The body condition of a cow or herd is scored when:
 - Illness is suspected.
 - The animal (s) is transferred to another stall.
 - Plans to transport the animal.
 - Periodic scoring at each stage of lactation.
 - Periodic assessment by Lactanet to assess nutritional requirements.
- 3.2 Body Condition Scores (BCS) of the cattle can indicate whether their nutritional needs are being met. Poor BCS may result from:
 - Poor access to feed (not enough or too much competition at the feed bunk),
 - Poor quality of feed
 - disease
 - lameness
 - other factors
- 3.3 The ideal body score is stated to be between 2.75-3.25. This includes dry-off and calving cows, and growing heifers.
- 3.4 Any observed abnormalities must be immediately reported to the Technician, Herd Manager and/or Veterinarian.
 - 3.4.1 Cows that are too fat at calving (BCS>4) are more prone to reproductive and metabolic diseases (e.g., difficult calving, retained placenta, cystic ovaries, uterine infections, ketosis, displaced abomasum, milk fever).
 - 3.4.2 Cows that are too thin at calving (BCS<3.00) may not have sufficient body reserves to support high levels of milk production. Cows that lose more than 1 BCS experience reduced fertility, ketosis, particularly if the loss is too rapid.
 - 3.4.3 Significant change in BCS is noted.

4. PROCEDURES

- 4.1 BODY CONDITION SCORING PROTOCOL:
 - 4.1.1 Record the identification number of the animal on the Cattle Assessment Record.
 - 4.1.2 Use the [Body Condition Scoring Chart \(Table 1\)](#) to conduct the assessment.

- 4.1.3 Put your hands on the important body parts.
- 4.1.4 Feel the amount of fat covered over the various body points. Note that gut fill can give a visual impression of the condition over the ribs; it is, therefore, important to feel the amount of fat cover.
- 4.1.5 Assess the body condition of the animal to determine if the animal is:
 - a. Too thin (BCS \leq 2) requires corrective action.
 - b. Acceptable (BCS $>$ 2)
- 4.1.6 Record the results of the assessment in the Herd Health Scoring Record. Refer to Appendix [DC-A-6A: Herd Health Scoring Record](#). Records must be permanently retained.
 - 4.1.6.1 Identify animals that are too thin or overweight. Consult with the feed specialist and/or veterinarian to evaluate possible causes and take corrective actions to improve the BSC of those Animals.

FIGURE 1: Labelled Illustration of a Dairy Cow

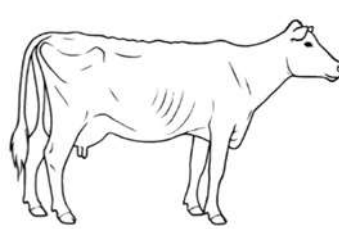
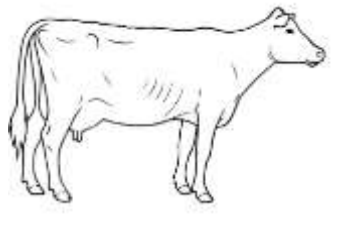
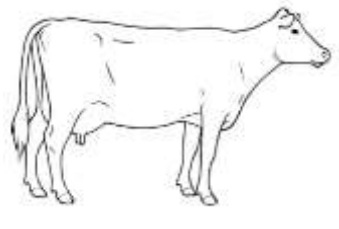
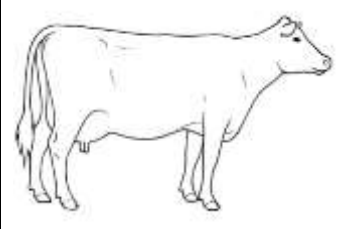
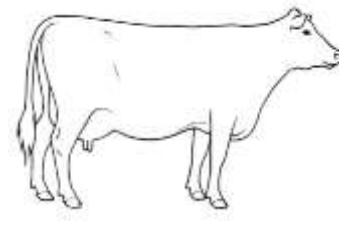


4.2 QUARTER POINT BODY CONDITION SCORING CHART:

- 4.2.1 This is a 14-point body condition scoring chart (with scores ranging from $<$ 2 to 5 in 0.25 increments). Scores are split between:
- 4.2.2 Thinner cows: BCS of 3.0 and lower (Table 1)
- 4.2.3 Fatter cows: BCS of 3.25 and higher (Table 2).
- 4.2.4 Gray cells depict what has changed between two scores.
- 4.2.5 Pelvic area is for either a V-shaped (thinner) or U-shaped (fatter) cow.
- 4.2.6 Start by determining if the pelvic area is V-shaped or U-shaped, and then work from left to right on the relevant table (V-shaped is the top table, U-shaped is the bottom table).

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TABLE 1: Body Condition Scoring Chart

	BSC 1	BSC 2	BSC 3	BSC 4	BSC 5
					
Short Ribs	<ul style="list-style-type: none"> Ends sharp to touch. Loin prominent, shelf-like appearance Obvious scalloping over top and ends. 	<ul style="list-style-type: none"> Ends not as prominent as BCS 1 but can be felt. Edges easily felt, with slight fat cover, and slightly more rounded appearance. Overhanging shelf effect less apparent 	<ul style="list-style-type: none"> Ends can be felt with moderate pressure. Ribs appear smooth without noticeable scalloping. Overhanging shelf effect much less apparent 	<ul style="list-style-type: none"> Individual rib ends not visible, only felt with firm pressure. Overhanging shelf effect slight, barely visible 	<ul style="list-style-type: none"> Ends can't be seen or felt. No overhanging shelf effect
Back Bone	<ul style="list-style-type: none"> Vertebrae prominent in chine, loin, and rump area Individual bones easily visible 	<ul style="list-style-type: none"> Vertebrae in chine, loin and rump area, less visually distinct Easily feel individual vertebrae 	<ul style="list-style-type: none"> Vertebrae in chine, loin and rump area appear rounded. Backbone visible, but individual vertebrae not distinct 	<ul style="list-style-type: none"> Vertebrae in chine rounded, smooth. Loin and rump area appear flat 	<ul style="list-style-type: none"> Vertebrae in chine, loin and rump not visible Difficult to feel individual vertebrae
Hook and Pin Bones	<ul style="list-style-type: none"> Sharply defined, very angular in appearance No discernable fat pad. 	<ul style="list-style-type: none"> Bones still prominent, angular No fat pad palpable 	<ul style="list-style-type: none"> Visible, but smooth, with rounded appearance Fat pad palpable 	<ul style="list-style-type: none"> Rounded, with obvious fat covering 	<ul style="list-style-type: none"> Very round, buried (almost disappearing) in fat tissue
Thurl (area over pelvis)	<ul style="list-style-type: none"> Severe "V shaped" depression without fat cover. 	<ul style="list-style-type: none"> Less severe "V shaped" depression. Little tissue cover 	<ul style="list-style-type: none"> Forms "U shaped" depression 	<ul style="list-style-type: none"> Area between hooks and pins almost flat Pelvic bone only felt with firm pressure 	<ul style="list-style-type: none"> Appears flat. Filled in between the hooks and pins
Tail Head	<ul style="list-style-type: none"> Sunken and hollow on either side of tail head with obvious folds of skin Ligaments connecting pin bones to spine are sharply defined. Vulva prominent. 	<ul style="list-style-type: none"> Both sides of the tail head are sunken and hollow Sharply defined ligaments connecting pin bones to spine 	<ul style="list-style-type: none"> Both sides of tail head somewhat hollow, but skin folds not distinct Ligaments connecting pin bones to spine are rounded in appearance 	<ul style="list-style-type: none"> Sides of tail head not hollow, no skin folds Some fat deposit palpable 	<ul style="list-style-type: none"> Hollow filled in. Areas on both sides of tail head buried in fat tissue

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TABLE 1: Body Condition Scoring Chart for Thinner Cows (BCS of 3.0 and lower)

BCS	3.0	2.75	2.5	2.25	2.0	<2.0
Pelvic Area	V	V	V	V	V	V
Hook Bones	rounded	angular	angular	angular	angular	angular
Pin Bones	padded	Padded	angular, fat palpable	angular, no fat palpable	angular, no fat palpable	angular, no fat palpable
Short Ribs	corrugations between ribs not visible	corrugations between ribs not visible	corrugations between ribs not visible	corrugations visible ½ way between tips and spine	corrugations visible ¾ way between tips and spine	corrugations visible all the way up to the spine

TABLE 2: Body Condition Scoring Chart for Fatter Cows (BCS of 3.25 and higher)

BCS	3.25	3.5	3.75	4.0	4.25	4.5	4.75	5.0
Pelvic Area	U	U	U	U	U	U	U	U
Tailhead Ligament	visible	barely visible	not visible	not visible	not visible	not visible	not visible	not visible
Sacral Ligament	visible	visible	barely visible	not visible	not visible	not visible	not visible	not visible
Thurl	not flat	not flat	not flat	not flat	flat	flat	flat	flat
Tips of Short Ribs	visible	visible	visible	visible	barely visible	barely/not visible	barely/not visible	barely/not visible
Pin Bones	visible	visible	visible	visible	visible	buried	buried	buried
Hook Bones	visible	visible	visible	visible	visible	visible	barely visible	not visible

BODY CONDITION SCORING FOR DAIRY COWS**5. REFERENCES**

Dairy Farmers of Canada. proAction On-Farm Excellence, Farmer Manual 2023.

Dairy Farmers of Canada, proAction On-Farm Excellence. July 2021. *Quick Guide to Body Condition Scoring*. Retrieved from <https://www.dairyfarmers.ca/proaction/resources/animal-care>

DairyNZ Body Condition Scoring. February 2012. *The Reference Guide for New Zealand Dairy Farmers*. <https://www.dairynz.co.nz/animal/body-condition-scoring/how-to-bcs/>

National Farm Animal Care Council. Code of practice for the Care and Handling of Dairy Cattle, 2023. *Body Condition Scoring*. Retrieved from www.nfacc.ca

Document Status and Revision History

DATE	PREVIOUS VERSION	NEW VERSION
7-Feb-2018		Version 01: MAC Campus FACC approved
8-Sept-2023		Version 02: MAC Campus FACC approved