1. PURPOSE

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

2. RESPONSIBILITY

2.1 All permanent, casual and student staff identifying and reporting abnormalities

2.2 Trained Technicians, Dairy Barn Manager, Farm Director, Veterinarian and feed specialist are responsible for BCS assessment and corrective actions

2.3 Research staff

3. GENERAL

3.1 Assessment frequency:

3.1.1 Dairy Barn Staff: Animals are constantly 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 (see section 4.3)

3.1.2 Research Staff: Animals must be assessed before the start of the research trial, then weekly and at the end of the trial, In instances where there is potential risk of metabolic issues or injury, the frequency of monitoring must be increased (e.g. weekly to twice weekly to daily).

3.2 Any observed abnormalities must be immediately reported verbally and in writing to the Lead Technician or Dairy Barn Manager.

3.3 Body Condition Scoring (BCS) is assessed using the scoring method described below.

3.4 Record the results of the assessment on the Herd Health Scoring Record. Refer to Appendix DC-A-6A: Herd Health Scoring Record.

4. PROCEDURES

4.1 TO SCORE THE COW BODY CONDITION:

4.1.1 The BCS scoring scale ranges from 1 (emaciated) to 5 (fat). Importantly, the target BCS of cows will vary depending on stage of lactation, but the BCS scoring scale remains the same.

4.1.2 Record the ID number of the animal on the Cattle Assessment Record.

4.1.3 Refer to the Body Condition Scoring Chart in Figure 2 below to conduct the assessment.

4.2 Record the results of the assessment in the Herd Health Scoring Record. Refer to Appendix DC-A-6A: Herd Health Scoring Record.

4.2.1 Records must be permanently retained.

4.2.2 Individual Cow Assessment:

4.2.2.1 Assess cows or status by tabulating scores. In particular, cows with a BCS equal to, or less than 2, are too thin. Cows with a BCS equal to or more than 4 are too fat.

4.2.2.2 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.
**BCS 1: (Emaciated- Red Zone)**

**SHORT RIBS:**
- Ends sharp to touch
- Loin prominent, shelf-like appearance
- Obvious scalloping over top and ends

**BACKBONE:**
- Vertebrae prominent in chine, loin and rump area
- Individual bones easily visible

**HOOK AND PIN BONES:**
- Sharply defined, very angular in appearance
- No discernable fat pad

**THURL (area over pelvis):**
- Severe “V shaped” depression without fat cover

**TAIL HEAD:**
- 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.
BCS 2: (Thin-Yellow Zone)

SHORT RIBS:
- 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

BACKBONE:
- Vertebrae in chine, loin and rump area, less visually distinct
- Easily feel individual vertebrae

HOOK AND PIN BONES:
- Bones still prominent, angular
- No fat pad palpable

THURL (area over pelvis):
- Less severe “V shaped” depression
- Little tissue cover

TAIL HEAD:
- Both sides of the tail head are sunken and hollow
- Sharply defined ligaments connecting pin bones to spine

BCS 3: (Average- Green Zone)

SHORT RIBS:
- Ends can be felt with moderate pressure
- Ribs appear smooth without noticeable scalloping
- Overhanging shelf effect much less apparent

BACKBONE:
- Vertebrae in chine, loin and rump area appear rounded
- Backbone visible, but individual vertebrae not distinct

HOOK AND PIN BONES:
- Visible, but smooth, with rounded appearance
- Fat pad palpable

THURL (area over pelvis):
- Forms “U shaped” depression

TAIL HEAD:
- Both sides of tail head somewhat hollow, but skin folds not distinct
- Ligaments connecting pin bones to spine are rounded in appearance
BCS 4: (Heavy-Yellow Zone)

**SHORT RIBS:**
- Ends can be felt with moderate pressure
- Ribs appear smooth without noticeable scalloping
- Overhanging shelf effect much less apparent

**BACKBONE:**
- Vertebrae in chine, loin and rump area appear rounded
- Backbone visible, but individual vertebrae not distinct

**HOOK AND PIN BONES:**
- Visible, but smooth, with rounded appearance
- Fat pad palpable

**THURL (area over pelvis):**
- Forms “U shaped” depression

**TAIL HEAD:**
- Both sides of tail head somewhat hollow, but skin folds not distinct
- Ligaments connecting pin bones to spine are rounded in appearance
BCS 5: (Fat-Red Zone)

SHORT RIBS:
- Ends can’t be seen or felt
- No overhanging shelf effect

BACKBONE:
- Vertebrae in chine, loin and rump not visible
- Difficult to feel individual vertebrae

HOOK AND PIN BONES:
- Very round, buried (almost disappearing) in fat tissue

THURL (area over pelvis):
- Appears flat
- Filled in between the hooks and pins

TAIL HEAD:
- Hollow filled in
- Areas on both sides of tail head buried in fat tissue

4.3 GOALS FOR BODY CONDITION SCORES BY STAGE OF LACTATION:

4.3.1 The Dairy Cattle Code of Practice provides recommended target BCSs during various stages of lactation:

<table>
<thead>
<tr>
<th>Stage</th>
<th>BCS Range</th>
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<tbody>
<tr>
<td>Dry off</td>
<td>3.25 - 3.75</td>
</tr>
<tr>
<td>Calving</td>
<td>3.00 - 3.75</td>
</tr>
<tr>
<td>Early lactation</td>
<td>2.50 - 3.25</td>
</tr>
<tr>
<td>Mid-lactation</td>
<td>2.75 - 3.25</td>
</tr>
<tr>
<td>Late lactation</td>
<td>3.00 - 3.50</td>
</tr>
<tr>
<td>Growing heifers</td>
<td>2.75 – 3.25</td>
</tr>
<tr>
<td>Heifers at calving</td>
<td>3.25 – 3.75</td>
</tr>
</tbody>
</table>

4.3.2 Cows should be at an ideal BCS at dry off and should be fed to maintain this condition until calving.

4.3.3 Post calving (calving to 120 days) cows can be expected to lose 0.5 to 1 unit of BCS. Cows should not lose more than 1 BCS at any time or within a very short period of time.

4.3.4 BCS should remain constant or begin to increase during mid-lactation. During late lactation cows should gain back the BCS lost during the post-calving period.
4.3.5 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).

4.3.6 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.

4.3.7 Keep records. Identify animals that are too thin or overweight and consult with the feed specialist and/or veterinarian to evaluate possible causes and take corrective actions to improve the BSC of those animals.

5. REFERENCES


Document Status and Revision History

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