

*DairyNZ* 

# Body Condition Scoring Made Easy

The official field guide



# Body Condition Scoring Made Easy

This booklet is a compilation of research results over a number of years, made possible by the investment of farmers in their industry through the DairyNZ levy as well as by other industry research and funding bodies.

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Explore DairyNZ BCS resources and tools at  
[dairynz.co.nz/animal/body-condition-scoring](https://dairynz.co.nz/animal/body-condition-scoring)



## Body condition scoring in New Zealand

Assessment of a cow's body condition score (BCS) gives a visual estimate of her body fat reserves. This in turn provides useful information on the outcome of her previous feed levels, her current health status as well as her future feed requirements and productivity. The BCS method described in this guide provides a consistent way of assessing cow condition.

- A BCS scale of 1 to 10 is used in NZ
- If the BCS of any animal falls below 3, urgent action must be taken to improve condition
- A cow with a BCS greater than 6.0 is considered obese
- 1 BCS unit change = 6.58% of cow liveweight (lwt)

### Average Lwt change per BCS unit for common breeds are as follows:

Jersey (425 kg Lwt)	1 unit change in BCS = 28 kg
Crossbred (475 kg Lwt)	1 unit change in BCS = 31 kg
NZ Holstein-Friesian (500 kg Lwt)	1 unit change in BCS = 33 kg
Overseas Holstein-Friesian (550 kg Lwt)	1 unit change in BCS = 36 kg

**Body condition scoring is the same for all breeds but remember:**



**Jersey (smaller frame)**

Narrow body with prominent hip bones



**Crossbred (medium frame)**

Even distribution of fat over body



**NZ Holstein-Friesian (medium frame)**

Even distribution of fat over body,  
blockier shape - shorter, rounder



**Overseas Holstein-Friesian (large frame)**

Angular body shape, appear thinner,  
carry more body fat over ribs

# The importance of cow condition

## Body condition score targets at calving

- Mature cows: BCS of 5.0
- Heifers and rising 3 year olds: BCS of 5.5
- No more than 15% of animals below target
- No more than 15% of animals above target



*Example of mature cow at BCS 5.0*

## Body condition score targets at mating

- The average decrease in BCS for the whole herd between calving and mating should not be more than 1.0 BCS unit
- Mature cows should be a minimum of BCS 4.0 at planned start of mating (PSM)
- First and second calvers should be a minimum of BCS 4.5 at planned start of mating



*Example of mature cow at BCS 4.0*

# How to body condition score

## 'Hands on' method

Body condition scoring is a simple process. However, it is important to calibrate the eye by first condition scoring cows 'hands on':

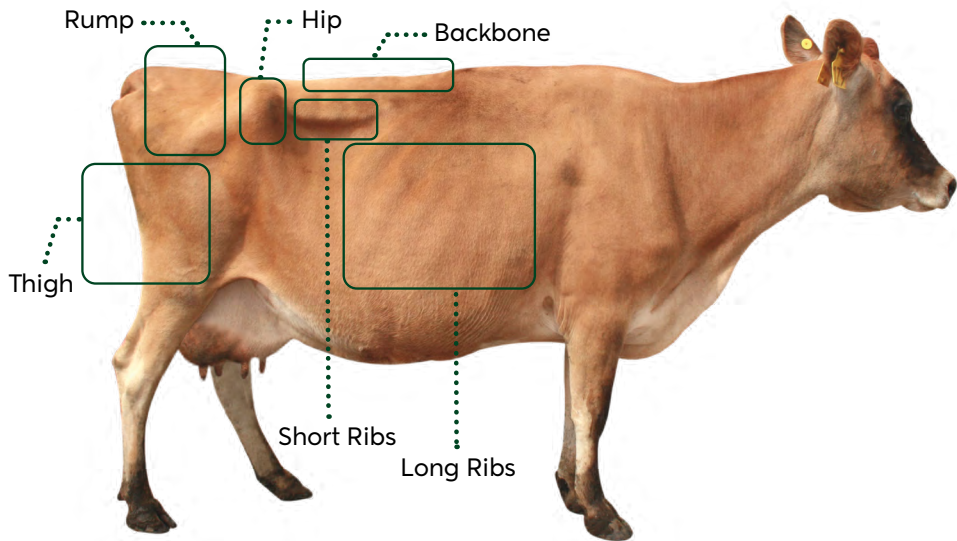
- Line up 15 cows with a range of BCS in a vet/AB race
- Put your hands on the eight body parts of the cow outlined below
- Feel the amount of fat cover over the various body points and the difference between the cows. Note that gut fill can give a visual impression of condition over the ribs, therefore it is important to score on the right hand side of the cow and to feel the amount of fat cover.

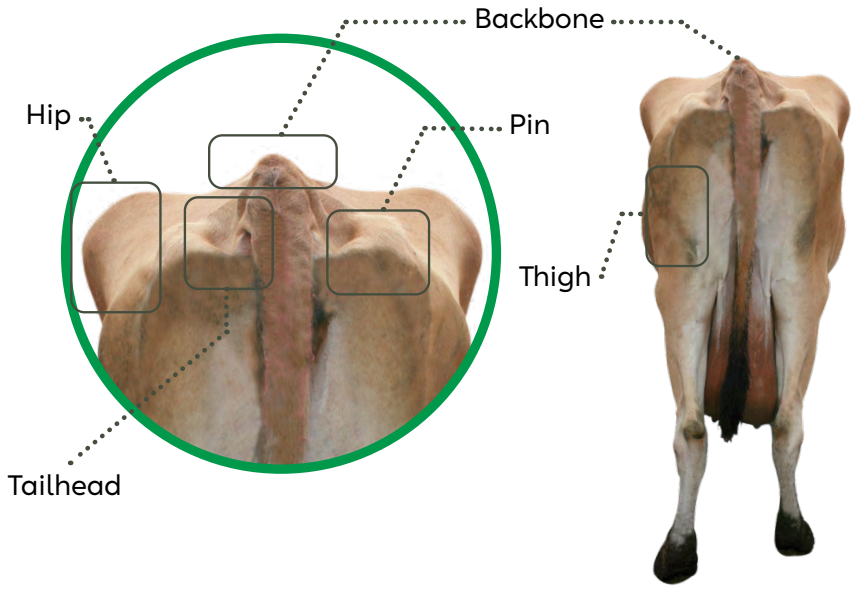
The overall BCS of the cow will be the average of the scores for the eight body parts.

## What to look for when you condition score cows

<b>Backbone</b>	is it flat or is there a ridge? Can you see or easily feel notches?
<b>Long ribs</b>	can you see or easily feel the ribs? If visible how many can you see?
<b>Short ribs</b>	can you see the short ribs? What do they feel like? Are the rib ends sharp or rounded?
<b>Hip bones</b>	are the hip bones rounded or angular?
<b>Rump</b>	is the area between the pins and hip bones, flat, sunken or hollow?
<b>Pin bones</b>	are they pointed, 'tap' like or rounded?
<b>Tailhead</b>	is there a hollow between the tailhead and pin bones? Is it a deep 'V' or shallow 'U' shape?
<b>Thigh</b>	is the area indented, flat or rounded? Is the muscle structure defined?















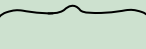

## Critical points for body condition scoring








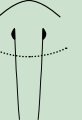




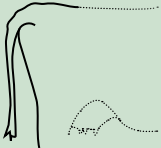
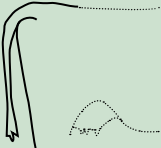
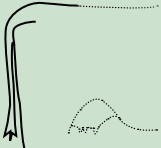
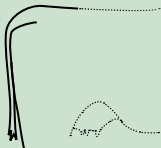






## Critical points for body condition scoring

BCS	3.0	4.0	5.0	6.0
Backbone Rear view <i>Side profile</i>				
Long Ribs				
Short Ribs				
Hips				

BCS	3.0	4.0	5.0	6.0
Pins				
Tailhead				
Rump				
Thigh				

## BCS, animal welfare, and transportation:

As the person in charge of looking after animals, it is your legal obligation to ensure that any animal under your care meets the minimum standards outlined in the relevant codes of welfare, published by the New Zealand Ministry for Primary Industries. The information provided below outlines your obligation with regard to BCS.

**Dairy Cattle Code of Welfare 2019 Minimum Standard No. 2 (b)** When the body condition score of any animal falls below 3 (on a scale of 1-10), urgent remedial action must be taken.

### Urgent remedial action may include:

- Providing additional feed
- Seeking veterinary advice
- On-farm slaughter

### Animals below a BCS of 3:

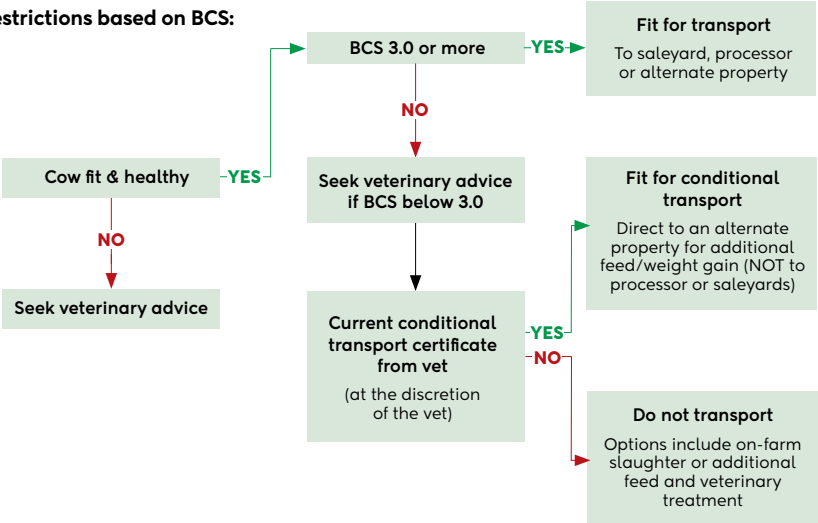
- Cannot be transported to a processor or saleyards
- Can only be transported to an alternative property for additional feed with a current conditional transport certificate from a veterinarian

Further information on your obligations for pre-transport selection can be found at [dairynz.co.nz/transport](https://dairynz.co.nz/transport) or the **Dairy Cattle Code of Welfare 2019**.



Note: The flow chart below provides a guide about transport restrictions; it does not guarantee acceptance of livestock for transport or processing.

**Transport restrictions based on BCS:**











**BCS 2.5**



**Any cow with a  
BCS less than 3  
requires urgent  
remedial action**









## BCS 2.5

<b>Backbone</b>	Very prominent, with visible notches that can easily be counted.	
<b>Long ribs</b>	The long ribs may be visible as far down as the top of the udder.	
<b>Short Ribs</b>	Clearly visible and easily counted. The short ribs will have very sharp edges.	
<b>Hip</b>	Deep depressions on the side of the hip bone.	
<b>Pins</b>	Very clear, three pronged tap formation.	
<b>Tailhead</b>	Very prominent and angular, with a very deep 'V' shape.	
<b>Rump</b>	Severely depressed (hollow).	
<b>Thigh</b>	No visible fat and very little muscle.	



## Friesian BCS 3.0











<b>Backbone</b>	Prominent ridge. "Roofing-iron" corrugations.	
<b>Long rib</b>	4 to 5 ribs easily seen.	
<b>Short rib</b>	Prominent with edges sharp to the touch.	
<b>Hip</b>	Angular, sharp edges. Depressions on sides appearing.	
<b>Pins</b>	Tap-like appearance. Sharp edges.	
<b>Tailhead</b>	Deep 'V' shape depression. Tailhead prominent, bumpy profile.	
<b>Rump</b>	Deeply dished.	
<b>Thigh</b>	Indented. No visible fat. Muscle structure defined.	





## Friesian BCS 4.0











<b>Backbone</b>	Ridge raised. Ridgeline, uneven and bumpy to the touch.	
<b>Long rib</b>	2 to 3 ribs visible but rounded. Ribs easily felt.	
<b>short rib</b>	Individual ribs can be seen. Rounded at the ends.	
<b>Hip</b>	No sharp edges (smooth). Flattened top.	
<b>Pins</b>	Tap-like appearance. Rounded edges.	
<b>Tailhead</b>	Shallow 'U' shape. Tail smooth. Base around tailhead is sunken.	
<b>Rump</b>	Slightly depressed. Dished.	
<b>Thigh</b>	Slight depression.	



## Friesian BCS 5.0

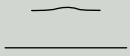









<b>Backbone</b>	Ridge easily visible but rounded and smooth.	
<b>Long rib</b>	Not visible but rounded to the touch.	
<b>Short rib</b>	Rounded, individual ribs not visible but can be felt.	
<b>Hip</b>	Rounded. Curved in profile.	
<b>Pins</b>	Rounded.	
<b>Tailhead</b>	Tail rounded. Depression under tail filled. Even, no sharp edges.	
<b>Rump</b>	Flat even cover.	
<b>Thigh</b>	Smooth and flat.	



## Friesian BCS 6.0











<b>Backbone</b>	Ridge forms a bump. Starting to round across the loin.	
<b>Long rib</b>	Well-rounded with fat cover felt.	
<b>Short rib</b>	Rounded with fat cover felt.	
<b>Hip</b>	Rounded with fat cover starting to appear.	
<b>Pins</b>	Well-rounded. Fat cover starting to appear.	
<b>Tailhead</b>	Fat cover starting to bulge.	
<b>Rump</b>	Starting to round.	
<b>Thigh</b>	Starting to round.	



## Crossbred BCS 3.0











<b>Backbone</b>	Prominent ridge. "Roofing-iron" corrugations.	
<b>Long rib</b>	4 to 5 ribs easily seen.	
<b>Short rib</b>	Prominent with edges sharp to the touch.	
<b>Hip</b>	Angular, sharp edges. Depressions on sides appearing.	
<b>Pins</b>	Tap-like appearance. Sharp edges.	
<b>Tailhead</b>	Deep 'V' shape depression. Tailhead prominent, bumpy profile.	
<b>Rump</b>	Deeply dished.	
<b>Thigh</b>	Indented. No visible fat. Muscle structure defined.	





## Crossbred BCS 4.0











<b>Backbone</b>	Ridge raised. Ridgeline, uneven and bumpy to the touch.	
<b>Long rib</b>	2 to 3 ribs visible but rounded. Ribs easily felt.	
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<b>Hip</b>	No sharp edges (smooth). Flattened top.	
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<b>Tailhead</b>	Shallow 'U' shape. Tail smooth. Base around tailhead is sunken.	
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<b>Thigh</b>	Slight depression.	



## Crossbred BCS 5.0











<b>Backbone</b>	Ridge easily visible but rounded and smooth.	
<b>Long rib</b>	Not visible but rounded to the touch.	
<b>Short rib</b>	Rounded, individual ribs not visible but can be felt.	
<b>Hip</b>	Rounded. Curved in profile.	
<b>Pins</b>	Rounded.	
<b>Tailhead</b>	Tail rounded. Depression under tail filled. Even, no sharp edges.	
<b>Rump</b>	Flat even cover.	
<b>Thigh</b>	Smooth and flat.	



## Crossbred BCS 6.0











<b>Backbone</b>	Ridge forms a bump. Starting to round across the loin.	
<b>Long rib</b>	Well-rounded with fat cover felt.	
<b>Short rib</b>	Rounded with fat cover felt.	
<b>Hip</b>	Rounded with fat cover starting to appear.	
<b>Pins</b>	Well-rounded. Fat cover starting to appear.	
<b>Tailhead</b>	Fat cover starting to bulge.	
<b>Rump</b>	Starting to round.	
<b>Thigh</b>	Starting to round.	



## Jersey BCS 3.0











<b>Backbone</b>	Prominent ridge. "Roofing-iron" corrugations.	
<b>Long rib</b>	4 to 5 ribs easily seen.	
<b>Short rib</b>	Prominent with edges sharp to the touch.	
<b>Hip</b>	Angular, sharp edges. Depressions on sides appearing.	
<b>Pins</b>	Tap-like appearance. Sharp edges.	
<b>Tailhead</b>	Deep 'V' shape depression. Tailhead prominent, bumpy profile.	
<b>Rump</b>	Deeply dished.	
<b>Thigh</b>	Indented. No visible fat. Muscle structure defined.	





## Jersey BCS 4.0











<b>Backbone</b>	Ridge raised. Ridgeline, uneven and bumpy to the touch.	
<b>Long rib</b>	2 to 3 ribs visible but rounded. Ribs easily felt.	
<b>Short rib</b>	Individual ribs can be seen. Rounded at the ends.	
<b>Hip</b>	No sharp edges (smooth). Flattened top.	
<b>Pins</b>	Tap-like appearance. Rounded edges.	
<b>Tailhead</b>	Shallow 'U' shape. Tail smooth. Base around tailhead is sunken.	
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<b>Thigh</b>	Slight depression.	



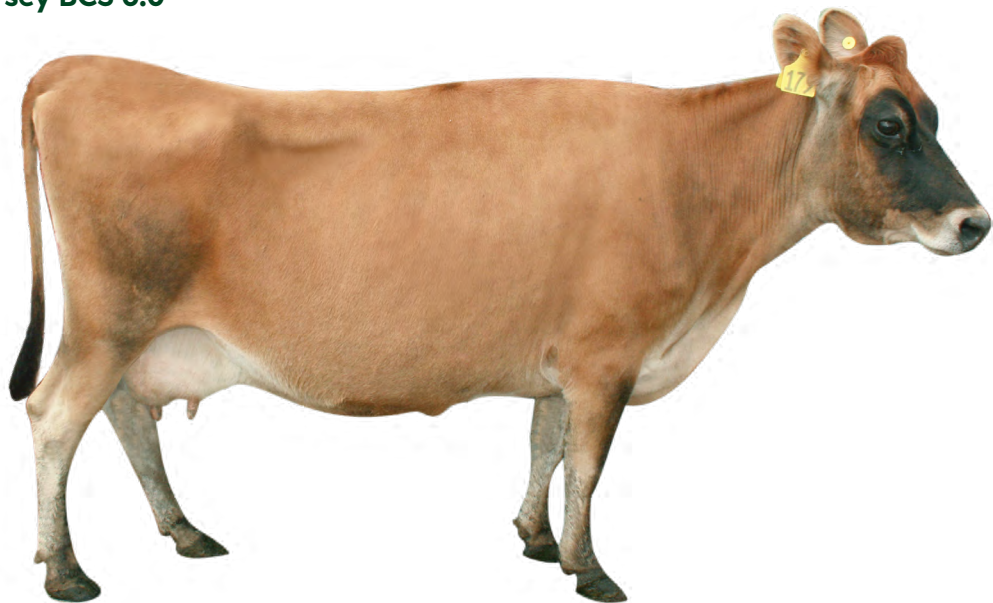
## Jersey BCS 5.0











<b>Backbone</b>	Ridge easily visible but rounded and smooth.	
<b>Long rib</b>	Not visible but rounded to the touch.	
<b>Short rib</b>	Rounded, individual ribs not visible but can be felt.	
<b>Hip</b>	Rounded. Curved in profile.	
<b>Pins</b>	Rounded.	
<b>Tailhead</b>	Tail rounded. Depression under tail filled. Even, no sharp edges.	
<b>Rump</b>	Flat even cover.	
<b>Thigh</b>	Smooth and flat.	



## Jersey BCS 6.0











<b>Backbone</b>	Ridge forms a bump. Starting to round across the loin.	
<b>Long rib</b>	Well-rounded with fat cover felt.	
<b>Short rib</b>	Rounded with fat cover felt.	
<b>Hip</b>	Rounded with fat cover starting to appear.	
<b>Pins</b>	Well-rounded. Fat cover starting to appear.	
<b>Tailhead</b>	Fat cover starting to bulge.	
<b>Rump</b>	Starting to round.	
<b>Thigh</b>	Starting to round.	



## Heifer BCS 5.5



<b>Backbone</b>	Rounded and smooth.	
<b>Long rib</b>	Covered.	
<b>Short rib</b>	Rounded, cannot be felt.	
<b>Hip</b>	Rounded.	
<b>Pins</b>	Rounded.	
<b>Tailhead</b>	Fat cover appearing.	
<b>Rump</b>	Flat even cover.	
<b>Thigh</b>	Smooth and flat.	





## Body condition scoring for herd management

### Who should Body Condition Score?

- Farmers and rural professionals can score cows. But while body condition scoring is a simple process, it requires training, practice and regular calibration to ensure accuracy and consistency.
- The best way to ensure independent, accurate and consistent body condition scoring using the DairyNZ method is to use a Certified BCS Assessor.
- Potential BCS assessors attend a training workshop and then complete an assessment. If successful, assessors are certified for 12 months. To remain certified, assessors must attend a formal calibration event every 12 months.

Find a BCS certified assessor near you [dairynz.co.nz/bcs-assessors](https://dairynz.co.nz/bcs-assessors)



## When to Score?

**Summer and Autumn:** Are the most important times to body condition score cows.

This allows individual groups of cows to be managed differently to ensure BCS targets at calving are met.

**Pre-Christmas assessment:** Determines if cows have gained BCS since the planned start of mating and allows a management plan for the autumn to be set up.

**Mid-February to mid-March:** Assessing cows determines if the management plan is working or if some cows should be dried off early, milked once-a-day (OAD), or preferentially fed.

**Pre-calving:** Assessing BCS (in springer mob) determines if the autumn management plan achieved the calving BCS targets and whether there is a need to re-assess management practices for next autumn.

**The planned start of mating:** Helps determine how much BCS cows lost between calving and mating. This will identify if getting cows back in calf is at risk as well and whether anything should have been done differently to prevent the BCS loss.

## How many cows should I score visually?

- For much of the year an average BCS (and range) of the herd may be appropriate. The greater the percentage of animals assessed, the more accurate the result. However, for groups greater than 100 cows, a minimum of 70 cows should be scored when determining a herd average.
- These cows should be selected at random.
- Scoring all cows in the herd allows individual management and is most important during summer and autumn.

## How to record Body Condition Scores?

### BCS app

The BCS app allows you to score cows on your smartphone and have ready access to the results. It also takes the hassle out of recording BCS data on paper and then transferring it to a computer.

It also allows you to:

- Calculate the average score for the herd, and store and review over time.
- Score multiple herds and create a report.
- Flag an individual cow and record her tag for later reference.

For more information, or to download the app visit [dairynz.co.nz/bcs-tracker](https://dairynz.co.nz/bcs-tracker)



### DairyNZ BCS recording sheet

If you prefer a paper method, you can print the DairyNZ BCS recording sheet.

You can print the recording sheet at [dairynz.co.nz/bcs-chart](https://dairynz.co.nz/bcs-chart)



# BCS recording chart

## Example

Figure 1 - BCS recording sheet

This herd size =		126 cows					Date: 04-06-2011				
Condition score	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	
Number of cows		13	27	33	27	14	8	4			Totals 126
Total BCS		39	94.5	132	121.5	70	44	24			525
% of sample (Number of cows in BCS group ÷ Total Cows (A))		10.3%	21.4%	26.2%	21.4%	11.1%	6.4%	3.2%			
<b>Average Condition Score:</b>		Total CS		Divide by		Total Number of cows		=	Average BCS		
		B 525		÷		A 126		=	4.2		



For further information on body condition scoring cows visit DairyNZ at [dairynz.co.nz/animal/body-condition-scoring](https://dairynz.co.nz/animal/body-condition-scoring)

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## **Disclaimer**

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