
Paddock Guide

TO

BODY CONDITION SCORING



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Acknowledgement

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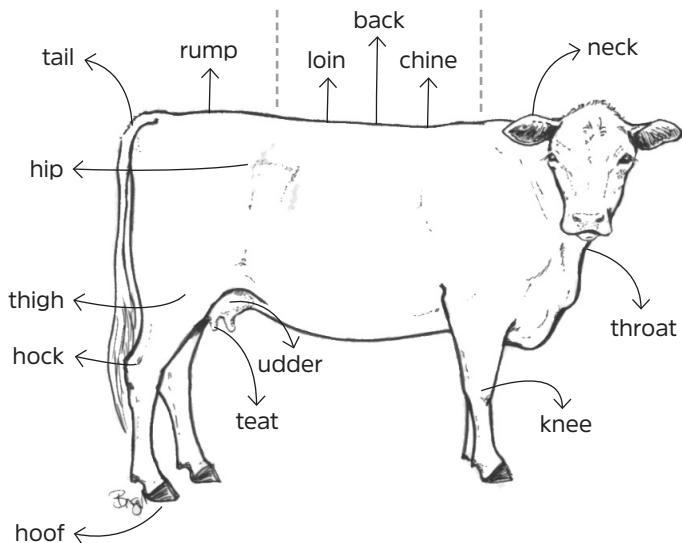
Background

The following guide provides an overview of scoring body condition in mature Angus cows, for the purpose of including the information in the genetic evaluation conducted by Angus Australia.

The scoring system adopted by Angus Australia is based on the system developed by NSW Department of Primary Industries, which assesses the level of fat and muscle reserves on an animal.

The scoring system works on a 0-5 scale, with half scores for animals exhibiting features between whole scores.

Body condition scoring can be performed on all classes of stock, however this guide focuses on body condition scoring mature cows.



Scoring Body Condition

Body condition scoring assesses the physical characteristics over six key areas to identify the level of body reserves on the animal, including;

- Pin bones
- Rump
- Hip
- Short ribs
- Backbone
- Dewlap and brisket

When scoring body condition, it is important to view the animal as a whole, as variation in the conformation of animal can result in some feature being more pronounced in some animals. For example, the hook bones are more prominent in mature cow compared to other classes of stock.

To effectively body condition score animals you will need to be able to clearly view the animal from the front, side and rear, as shown by the photographs in this guide for each body condition score.

This guide provides both artistic illustrations and photographs, supported by detailed descriptions of the characteristic features of each body condition score.

Hips

Assessing the visibility of the hook bones

Backbone

Assessing the visibility of the spine

Rump

Assessing shape between the pin and hook bones

Short Ribs

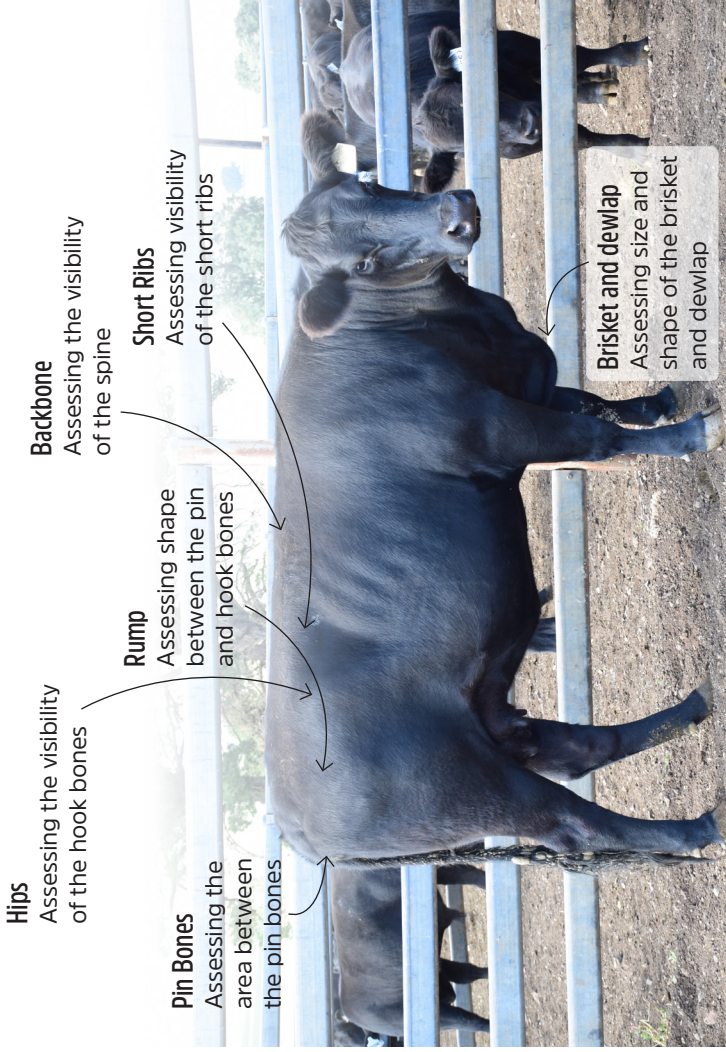
Assessing visibility of the short ribs

Pin Bones

Assessing the area between the pin bones

Brisket and dewlap

Assessing size and shape of the brisket and dewlap



BODY CONDITION SCORING

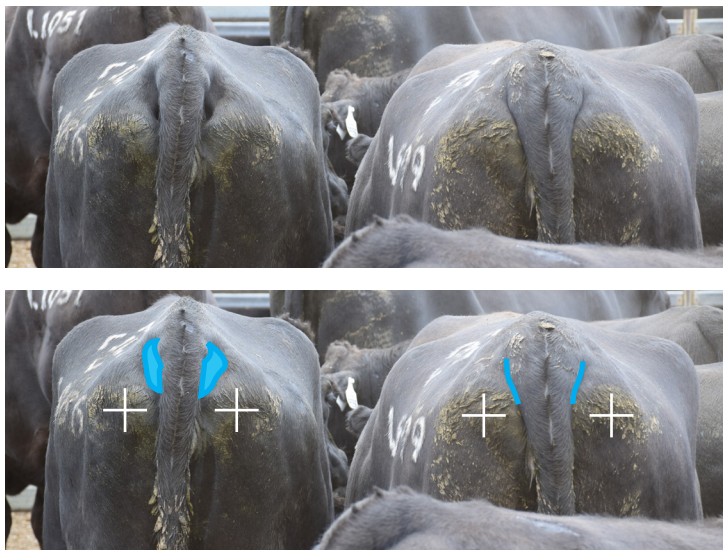
Areas to assess

Assessing pin bones

The pin bones sit at the rear of the hips and are a key indicator of the body condition score of the animal. When assessing the pin bones, scorers are assessing the space under the tail head.

The following picture highlights at least a two-score difference between two mature cows when assessing the pin bones. The cow on the left shows a clear pocket under the tail head compared to the cow on the right where no pocket is visible, due to the tail head. The pockets are shown in blue in the bottom image, with the pin bones marked with a white cross.

Fat will build up on the tail head as condition score increases. The following pictures show significant fat reserves on the tail head of the cow on the right.



Assessing the hip and rump

The hip and rump are key areas where muscle wastage in the animal is visible, the area also becomes increasingly prominent within mature cows.

The following pictures highlight the area between the hook and pin bones where rump is assessed. The blue lines show an example of the variation seen, with the concave shape of the top cow compared to the flat shape of the second cow.

When assessing the hips, scorers are assessing how prominent the hook bone appears. The white circle highlights a hook bone which is more prominent in the top cow compared to the second cow, where it is still prominent but is smoother in its transition to the spine.



Assessing the backbone and short ribs

The backbone and short ribs are key areas when assessing body condition score and can be useful indicators of intermediate scores. Scorers are assessing both the visibility of the short ribs and backbone, as well as the shape between the two.

The following pictures show the backbone is easily seen in the cow on the top, compared to the cow on the bottom, whose backbone is not prominent. The cow on the top has a slightly concaved shape between the short ribs and backbone, making the backbone clearly visible.

The short ribs of the cow on the top appear sharp with the top and bottom edge clearly visible, compared to the cow on the bottom with visible short ribs that are rounded. The area between the backbone and short ribs is also flat.



Assessing the dewlap and brisket

The brisket/sternum of an animal is a key area to assess, particularly in the higher body condition scores. Scorers are assessing the size and shape of brisket and in instances where the brisket is not visible, the size of the dewlap.

The following pictures show the top cow displaying a little fill within the brisket compared to the second cow which has a brisket that is empty.

Fat is present within the dewlap of both animals as they exhibit a dewlap that has some thickness or fill between the dewlap walls. In lower condition score animals, the dewlap becomes thin, with a more defined edge between the dewlap and sternum.



Things to consider when scoring body condition

When body condition scoring animals, it is important to be objective in the assessment. Condition score is an assessment of the level of fat and muscle an animal has and as a result needs to consider a range of other factors which may affect the visual appearance of an animal.

These factors should not impact on the score given to an animal, but can be useful in reducing the risk of misinterpreting features of the animal's body condition.

STOCK CLASS

Whilst the following guide focuses on the body condition scoring of mature cows, it is important to understand that body condition scoring can be influenced by the stock class of an animal. Typically, as general rules we see;

- Males have more muscling than females
- Older animals will have more pronounced bone structures than younger animals
- Condition score fluctuates during the year in response to seasonal and management conditions.

COAT TYPE

The Angus breed has a high degree of variation within coat type which can influence condition scoring when variation exists within the examined animals. Individuals with slicker or lower coat scores will display more pronounced features of body condition than animals with heavier coats. A heavier coat on an animal can muffle the features of a body condition score.

CAPACITY OR FRAME SCORE

Body condition score is not a measure of the capacity or frame score of the cow and neither should impact the condition score of the animal.

Body condition score focuses on the relative fat and muscle composition of the animal. Larger animals will need a larger total volume of fat to express specific features, however relative to their size the proportion of fat should be comparable.

RUMEN /GUT FILL

When viewing animals from the side, it is advisable to score them viewing the right-hand side. This is because rumen/gut fill may impact the assessment of the short ribs, a key indicator of body condition score, if viewed from the left-hand side.

Rumen fill is visible in the 'triangle' between the short ribs, ribs and hook bone. The area will swell or contract, with the triangle less or more visible based on the volume of contents within the rumen.

MUSCLE SCORE

Muscularity of the animal has a big impact on the interpretation of body condition score. It is important to understand the difference between body condition and muscling.

The appearance of an animal is the result of bone structure, fat reserves and muscling. Bone structure remains relatively constant between animals of a similar size, however muscle and fat can vary significantly.

Individuals' with greater muscling, typically have less fat.

Things to consider for genetic evaluation of body condition

WHEN TO SCORE

Mature cow body condition scores should be taken when the 200 day weights for the progeny of the females are recorded, which will normally be at, or near the time of weaning.

Measurements can also be repeated at the start of joining and pre-calving for any members who are willing to collect multiple measurements throughout the year.

USE THE SAME SCORER

Variation will exist between scorers, with some scoring slightly higher or lower depending on individual decision making. For this reason, it is important that the same person scores all animals within a management group.

SCORE ALL ANIMALS ON THE SAME DAY

It is important that all animals within a management group are scored on the same day.

VARIATION IN SCORES IS KEY

While animals should be scored as per the scoring system, it is important that there is variation in the body condition scores that are submitted. Genetic evaluation works by identifying differences between animals. If little or no variation is identified between animals, particularly within management group and age class, then the effectiveness of the body condition scores for genetic evaluation will be limited.

CONSIDER MANAGEMENT GROUPS


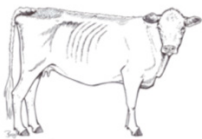
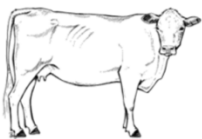
The body condition of an animal is heavily influenced by environmental and management conditions. For this reason, genetic evaluation analyses cattle in contemporary groups to take out the influence of as many of the non-genetic effects as possible (e.g. management, nutrition, feed, year, season, injury, health status, pregnancy status).

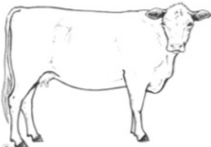
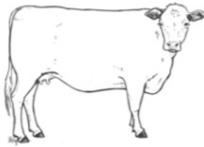
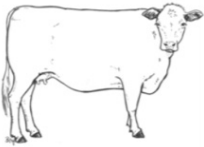
It is essential that management groups are submitted in association with body condition score information to identify animals that have been subject to different non-genetic effects. The underlying principle is that only animals that have had an equal opportunity to perform should be included in the same management group.

BODY CONDITION SCORING

Quick Guide

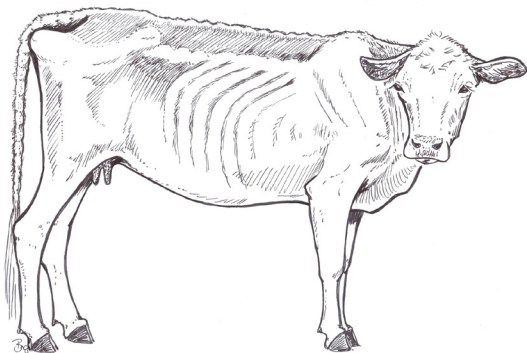
MATURE COW BODY CONDITION SCORES FOR ANGUS COWS

	BCS 0	BCS 1	BCS 2
			
BRIEF DESCRIPTION	<ul style="list-style-type: none"> · Weak, with no body reserves. At risk of death from cold, wet weather or other stressors · Recovery for transport dependent on high quality care but will be slow 	<ul style="list-style-type: none"> · Healthy but with significant muscle wastage · Able to recover from transport if adequately fed 	<ul style="list-style-type: none"> · Lean but strong and healthy with evident muscle wastage
PIN BONES	<ul style="list-style-type: none"> · Inside of pin bones deeply sunken to the bone 	<ul style="list-style-type: none"> · Inside of pin bones sunken 	<ul style="list-style-type: none"> · Inside of pin bones slightly sunken
HIP & RUMP	<ul style="list-style-type: none"> · Hook bone prominent with rump deeply concave 	<ul style="list-style-type: none"> · Hook bone prominent with rump concave 	<ul style="list-style-type: none"> · Hook bone prominent with rump slightly concave
BACKBONE	<ul style="list-style-type: none"> · Spines of backbone individually identifiable 	<ul style="list-style-type: none"> · Spines of backbone identifiable 	<ul style="list-style-type: none"> · Easily seen
SHORT RIBS	<ul style="list-style-type: none"> · Very prominent and easy to see individually 	<ul style="list-style-type: none"> · Prominent and very sharp to the touch 	<ul style="list-style-type: none"> · Visible but not individually and fairly sharp to the touch
DEWLAP	<ul style="list-style-type: none"> · Dewlap is a skin fold with sternum identifiable 	<ul style="list-style-type: none"> · Dewlap has no fat 	<ul style="list-style-type: none"> · Dewlap has some fat

BCS 3		BCS 4		BCS 5		
						
<ul style="list-style-type: none">· Moderate condition with rounding of skeletal features· Ideal condition for cows at weaning		<ul style="list-style-type: none">· Healthy with significant fat reserves· Ideal condition for cows at joining		<ul style="list-style-type: none">· Excessively fat animals with no skeletal features visible· A block shaped appearance and mobility only to walk		BRIEF DESCRIPTION
<ul style="list-style-type: none">· Filled but not mounded		<ul style="list-style-type: none">· Filled and mounded		<ul style="list-style-type: none">· Not identifiable due to fat coverage		PIN BONES
<ul style="list-style-type: none">· Hook bone prominent		<ul style="list-style-type: none">· Smoothly rounded		<ul style="list-style-type: none">· Not identifiable due to fat coverage		HIP & RUMP
<ul style="list-style-type: none">· Not prominent		<ul style="list-style-type: none">· Not prominent with rounded appearance		<ul style="list-style-type: none">· Not identifiable due to fat coverage		BACKBONE
<ul style="list-style-type: none">· Visible and are easily felt with firm pressure as 'rounded' rather than sharp		<ul style="list-style-type: none">· Visible and are easily felt with firm pressure		<ul style="list-style-type: none">· Cannot be seen or felt		SHORT RIBS
<ul style="list-style-type: none">· A little fill in the brisket / sternum		<ul style="list-style-type: none">· Full in the brisket / sternum		<ul style="list-style-type: none">· Rounded fat deposit at the brisket / sternum		DEWLAP



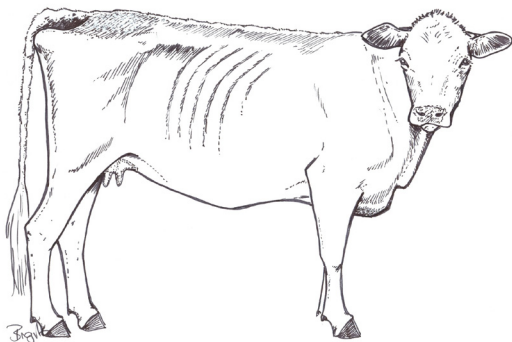
Body Condition Score 0



Weak, with no body reserves. At risk of death from cold, wet weather and other stressors. Recovery from transport dependent on high quality care but will be slow.

PIN BONES	Inside of pin bones deeply sunken to the bone
HIP & RUMP	Hook bone prominent with rump deeply concave
BACKBONE	Spines of backbone individually identifiable
SHORT RIBS	Very prominent and easy to see individually
DEWLAP	Dewlap is a skin fold with sternum identifiable

Body Condition Score 1

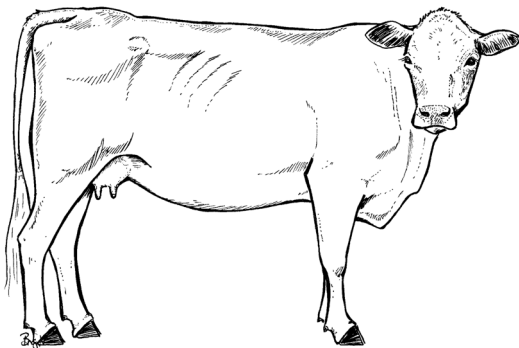


Healthy but with significant muscle wastage. Able to recover from transport if adequately fed.

PIN BONES	Inside of pin bones sunken with clear 'pocket' under the tail head
HIP & RUMP	Hook bones prominent with rump concave
BACKBONE	Spines of the backbone identifiable
SHORT RIBS	Prominent and very sharp to the touch, concave between the backbone and short ribs. The individual ribs of short ribs are identifiable at their edge
DEWLAP	Dewlap has no fat with brisket not evident. Clear edge between the dewlap and the sternum



Body Condition Score 2



Lean but strong and healthy, with evident muscle wastage.

PIN BONES	Inside of pin bones slightly sunken, with clear separation between the tail head and walls of the pin bone
HIP & RUMP	Hook bone prominent, with rump slightly concave
BACKBONE	Easily seen, with individual spines of backbone not identifiable
SHORT RIBS	Visible, but not individually and fairly sharp to the touch. Slightly concave between backbone and short ribs
DEWLAP	Dewlap has some fat, with brisket having little to no fill



Body Condition Score 2.5

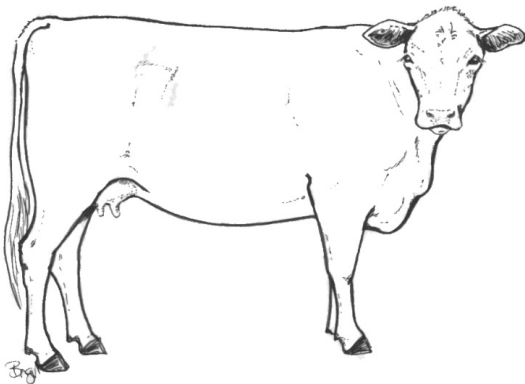
These individuals can exhibit features that are clearly above or below the condition score of other animals scored either BCS 2 or BCS 3.

Generally, animals of condition score 2.5 have features which are beginning to flatten out, however still exhibit a slightly concave shape.

Individuals which score 2.5 will typically show a degree of fill within the brisket, which differentiates 2.5 from 2 score animals.



Body Condition Score 3



Moderate condition with rounding of skeletal features. Ideal condition for cows at weaning.

PIN BONES	Filled but not mounded, tail head sitting within the walls of the pin bone
HIP & RUMP	Hook bone prominent and flat across the rump
BACKBONE	Not prominent
SHORT RIBS	Visible and are easily felt with firm pressure as 'rounded' rather than sharp. Flat between the backbone and the short ribs
DEWLAP	A little fill in the brisket/sternum



Body Condition Score 3.5

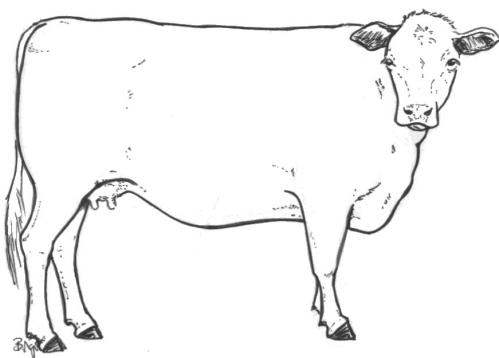
These individuals can exhibit features that are clearly above or below the condition score of other animals scored either BCS 3 or BCS 4.

The noticeable features of the 3.5 score animals compared to the 3 score, is the beginning of subtle rounding of the features, particularly the hook bone and short ribs.

Individuals will express fill between the pin bones but separation is still present between the walls of the pin bone and tail head, which is not present with condition score 4 animals.



Body Condition Score 4

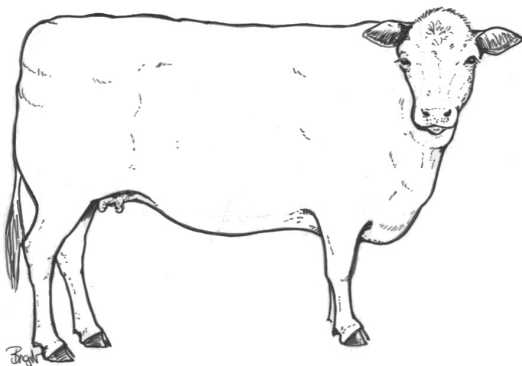


Healthy with significant fat reserves. Ideal condition for cows at joining.

PIN BONES	Filled and mounded, with significant fat on the tail head. Tail head sitting 'on top' of the walls of the pin bone
HIP & RUMP	Hook bones smoothly rounded, with slightly mounded rump
BACKBONE	Not prominent with rounded appearance
SHORT RIBS	Visible and are easily felt with firm pressure, slightly rounded between backbone and short ribs
DEWLAP	Full in the brisket/sternum



Body Condition Score 5



Excessively fat animals with no skeletal features visible.
A block shaped appearance and mobility only to walk.

PIN BONES	Not identifiable due to fat coverage
HIP & RUMP	Not identifiable due to fat coverage
BACKBONE	Not identifiable due to fat coverage
SHORT RIBS	Cannot be seen or felt
DEWLAP	Rounded fat deposit at the brisket / sternum

BODY CONDITION SCORING

Test Yourself

When body condition scoring animals, it is important to be consistent and objective in your assessment. It can be valuable to practice on groups of animals prior to scoring to ensure consistency in scoring.

Individual scorers will have subtle differences with the score they give to an animal, therefore it is important the same scorer scores all animals scored on a particular day.

The key message with assessing the body condition score of animals is the ability to identify differences within animals rather than everyone scoring the same animal the same.

The following questions provide an introduction to the type of decision making required when body condition scoring Angus animals.

1) Which cow has the higher condition score?

Based on the rear view of the two animals below, identify the animal with the higher body condition score.

To challenge yourself identify the difference between the scores (e.g. BCS 2 and BCS 2.5 = a difference of half a condition score)?

Answer:



2) Rank the following cows from highest to lowest body condition score?

From the side view of the following cows at weaning, rank them from highest to lowest body condition score?

The following cows have all raised a calf to 200 days.

Answer:





3) What condition score would you give the following cow?

From the rear and side view of a cow at weaning, what condition score would you give this cow?

Answer:



4) What condition score would you give the following cow?

From the rear and side view of a cow at weaning, what condition score would you give this cow?

Answer:



5) What condition score would you give the following cow?

From the side, rear and front view of the following cow at weaning, what condition score would you give this cow?

(See following page for image third image)

Answer:





Test yourself Answers

- 1) Cow A is 0.5 BCS above Cow B
- 2) Within the 4 cows there is one cow clearly higher (A) than the others (B, C, D), the rank is A, B, D, C
- 3) BCS 2
- 4) BCS 3
- 5) BCS 2.5, This is the same cow shown for the Guide BCS 2.5 on page 26

BODY CONDITION SCORING

*Submitting to
Angus Australia*

Body condition scores can be submitted to Angus Australia using a Microsoft Excel template that is available through the Angus Australia website www.angusaustralia.com.au. An example of the template is provided over the page.

Body condition scores can also be submitted via an extract from a compatible herd recording software package (e.g. KoolCollect, StockBook, HerdMASTER).

When submitting body condition scores, it is important to;

- Accurately record the Animal ID
- Accurately record the date of scoring
- Assign appropriate management groups
- Record the correct trait code for body condition score –
 - Body Condition Scoring - Joining - **BCJ**
 - Body Condition Scoring - Weaning - **BCW**
 - Body Condition Scoring - Pre-calving - **BCP**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	L	H	ASSESS	SOCIETY	HERD	DATE-OBS	ANIMAL-ID	GRP	BCW	HHW	MW			
2	L	X	Assessor	Society	Herd	Measurement	Animal Ident	Man	Trait # 1	Trait # 2	Trait # 3	Trait # 4	Trait # 5	Trait # 6
3	L	X	Number	Code	Ident	Date		Grp	Value	Value	Value	Value	Value	Value
4	L	X												
5	L	D	9999	ANGS	ABC	20191026	ABC D1	1	3	152	545			
6	L	D	9999	ANGS	ABC	20191026	ABC D2	1	3.5	156	521			
7	L	D	9999	ANGS	ABC	20191026	ABC D3	1	3	154	518			
8	L	D	9999	ANGS	ABC	20191026	ABC D6	1	4	149	543			
9	L	D	9999	ANGS	ABC	20191026	ABC D6	EMT	4.5	151	560			
10	L	D	9999	ANGS	ABC	20191026	ABC D19	1	3.5	155	530			
11	L	D	9999	ANGS	ABC	20191026	ABC D19	EMT	3	149	490			
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FOR FURTHER INFORMATION

Further information on assessing body condition score and collection of performance recording information for a range of traits can be found by going to the Angus Education Centre, www.angusaustralia.com.au

For further information on contact staff at Angus Australia on (02) 6773 4600 or office@angusaustralia.com.au



www.angusaustralia.com.au