

# CONDITION SCORING

REPRO **active**



# CONDITION SCORING

Condition scores are the key indicator of a cow's reproductive performance.<sup>1</sup>

Focus on improving fertility by matching the nutrient requirements of the cow with the availability of pastures to ensure condition scores are maintained.<sup>1</sup>

## How do condition scores impact you?<sup>1,2</sup>

The reproductive performance of your herd depends on their condition scores. Poor nutritional management of your cattle at different stages of the year and different stages of production may lead to an inefficient production system:

- Greater foetal size can increase the incidence of dystocia
- Metabolic disorders
- Increased calving difficulties
- Lower milk supply
- Low bull fertility (semen quality and unfit bulls)
- Delayed return to cycling

## Why is it important?<sup>3,4</sup>

One of the most important skills for any livestock manager is being able to assess the condition of your animals and judge how this changes over time. Cattle with sufficient body scores have greater resistance to nutritional impacts.

Condition scoring is an important management tool that you can use to assess and predict the body fat reserves of your cattle. Predicting condition score allows you to identify a plan and estimate the nutritional requirements your herd will need.

## TIP WHY DO I NEED TO ASSESS CONDITION SCORES?<sup>4,5</sup>

Maintaining condition scores of your cattle will help you manage feed requirements.

You should know the condition score of your animals, but it is more useful to be able to predict their future condition score to prevent decreasing productivity and profitability.

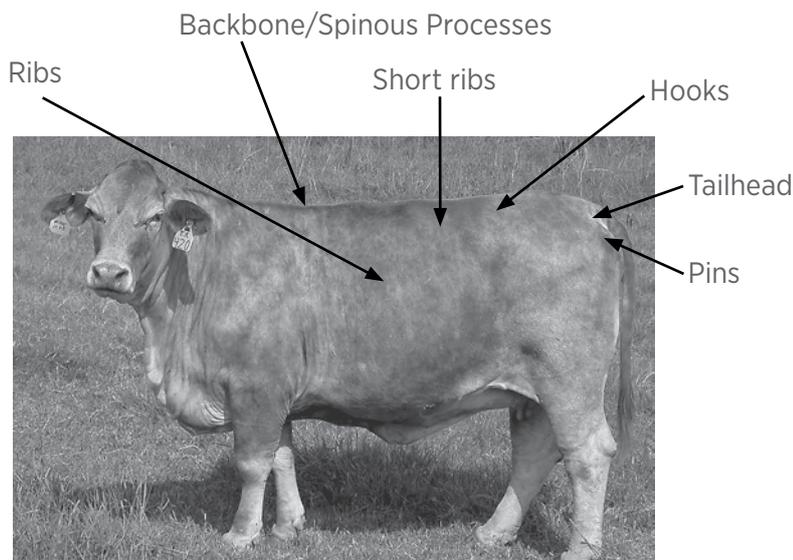


# DETERMINING CONDITION SCORE OF YOUR CATTLE

## Key areas to assess

Measuring condition score of animals can take some time, but once you understand the different scores it is not difficult.<sup>5</sup> It involves feeling around the lower backbone region, often called the “short ribs” to detect the amount of fat and muscle in this region.

- For cattle, the fat around the top of the tail is also assessed.<sup>4</sup>
- **Figure 1** illustrates the key areas to assess the condition score of your cattle.
- The two key areas to assess are short ribs and around the tail head (**Figure 2**).<sup>6</sup>



Adapted from Parish and Rhinehart 2008<sup>7</sup>

Figure 1

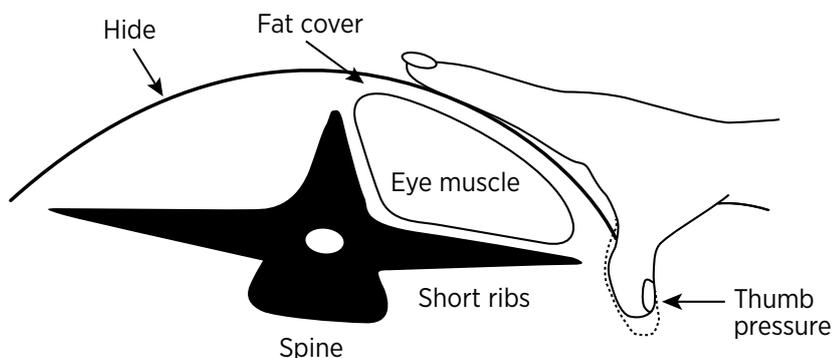


Figure 2

## THE SHORT RIBS<sup>6</sup>

The degree of prominence of the short ribs is found by placing the fingers flat over the short ribs and pressing the thumb into the end of the short ribs (**Figure 2**). A condition score is given according to the ease with which the individual short ribs can be felt with the thumb.

## THE TAIL HEAD<sup>6</sup>

The degree of fat cover around the tail head is assessed by using the fingers and thumb and should be done at the same time as assessing the short ribs. The appropriate score is given depending upon the degree to which palpable fat can be felt.

# SCORING<sup>8</sup>

Cattle condition scores should be maintained above minimum guidelines to ensure they meet welfare, health, growth and reproductive targets. Know their limits before compromising their biological function.



Condition score 2\*



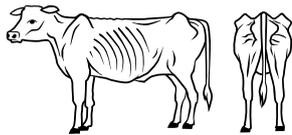
Condition score 3



Condition score 4

\*Due to welfare conditions, a condition score of 1 is not acceptable.

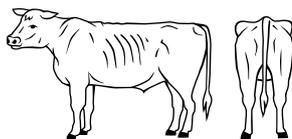
## CONDITION SCORE 1



Individual short ribs sharp to touch, no tail head fat.

- Backbone prominent
- Hips and shoulder bone prominent
- Ribs clearly visible
- Tail-head area recessed
- Skeletal body outline

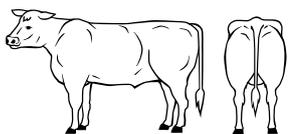
## CONDITION SCORE 2



Individual short ribs easily felt, but feel rounded rather than sharp. Some tissue cover around the tail head.

- Backbone visible
- Hips and shoulder bone visible
- Ribs faintly visible
- Tail-head area slightly recessed
- Body outline bony

## CONDITION SCORE 3



Short ribs only felt with firm thumb pressure. Fat cover on either side of tail head that can be easily felt.

- Hip bones faintly visible
- Ribs generally not visible
- Tail-head area is not recessed
- Body outline almost smooth

**TIP** DOCUMENT ANY CHANGES IN CONDITION SCORE OF YOUR HERD OVER TIME

**TIP** CONDITION SCORES BELOW 2.5

Consider early weaning, supplementary feeding or herd segregation to prevent your herd's condition score falling below 2.5.

**TIP** LOW BULL FERTILITY

Low bull fertility and conception may be a result of poor condition in the previous few months prior to mating when semen is produced.<sup>1</sup>

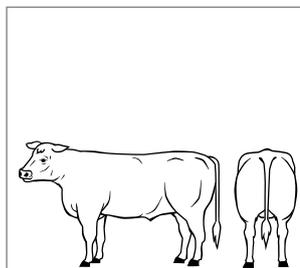
**TIP** DETERMINE IF YOUR HERD ARE GAINING, SLIPPING OR MAINTAINING THEIR CONDITION

One condition score equals between 50–80 kg live weight depending on frame size of the cattle.<sup>3</sup>

Losing up to 2 kg per day may not be noticeable, but over a month this equates to slipping one condition score. Monitor your herd frequently and document their condition scores to help prevent reproductive inefficiencies.<sup>3</sup>

# SCORING

## CONDITION SCORE 4



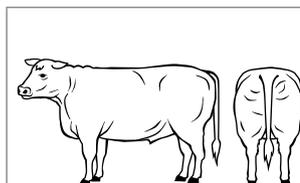
Short ribs can not be felt and fat cover around the tail head is easily seen as slight mounds, soft to touch. Folds of fat beginning to develop over the ribs and thighs

- Hip bones only faintly visible
- Ribs well covered
- Tail-head area is slightly lumpy
- Body outline rounded

## TIP OVER FATNESS

Over-fatness can interfere with the heat exchange function of the testicles, resulting in infertility in over-fat bulls (score 4).<sup>1</sup>

## CONDITION SCORE 5



Bone structure of animal no longer noticeable, the tail is almost completely buried in fatty tissue

- Hip bones showing fat deposit
- Ribs very well covered
- Tail-head area very lumpy
- Body outline bulging due to fat

Minimum required condition scores (expect an average condition score to be at least 0.5 higher)<sup>1</sup>

		Joining	Calving	Mid lactation	Weaning
SPRING CALVERS	Heifers	Depending on the breed, heifers should join when 300+ kg	3.0		
	Cows	3.0	2.5	2.5	2.5
	Bulls	3.5			
AUTUMN CALVERS	Heifers	Depending on the breed, heifers should join when 300+ kg	3.0 - 3.5		
	Cows	3.0	3.5	2.5 - 3.0	3.0
	Bulls	3.5			

Autumn-calving cows need extra body condition, compared with spring-calving cows, as a resource to use if the feed supply does not provide enough energy for themselves and their calf.<sup>5</sup>

When to assess<sup>1</sup>

		Joining	12 weeks before calving	Calving	Weaning
FEMALES	Monthly Assessment		Fortnightly Assessment		Monthly Assessment
MALES	Weekly assessment from 8 weeks before mating until the end of mating				

# HOW TO APPLY CONDITION SCORE FOR BETTER RESULTS

Condition score threshold breached	Consequence	Corrective action
<p>Cows fall below recommended condition score<sup>3</sup></p> <p><b>Calving</b> Spring: &lt;2.5 Autumn: &lt;3.0</p> <p><b>Joining</b> &lt;2.5</p>	<p>The time to start cycling after calving increases rapidly, increasing the risk of cows failing to conceive.</p> <p>Cows in poor condition are likely to produce light weight calves that do not meet market specifications.</p> <p>There are limited benefits for having cows over condition score 3.5.</p>	<p>Ideally, monitor cow condition score before calving. If feed resources are limited, draft off light cows and give this group access to more feed. Seek advice if you are unsure of the correct ration.</p> <p>Good nutrition will help reduce the post-calving anoestrus interval, but cows that calve at too light a condition score will still struggle to conceive.</p>
<p>First calf heifers fall below condition score 3.0–3.5 before calving and condition score 3.0 at joining<sup>3</sup></p>	<p>First calvers are particularly vulnerable to poor nutrition at the point of calving, both in terms of reduced fertility and a possibly increased risk of calving difficulties.</p> <p>Heifers in poor condition are particularly vulnerable to the effects of internal parasites.</p> <p>Heifers calving in poor condition will produce less colostrum and there is a greater risk of neonatal calf mortality.</p> <p>Calf growth will also be penalised.</p>	<p>This group must be given priority feed, otherwise their pregnancy rates will be too low.</p> <p>If possible, draft off light heifers early to ensure they do not fall below condition score 3.</p> <p>Draft off heifers that have calved to ensure they have access to high-quality feed.</p> <p>In high rainfall regions (&gt;600 mm), consider drenching to prevent clinical worm problems.</p>
<p>Lactating cows fall below condition score 2.5 and entering a low plain of nutrition<sup>3</sup></p>	<p>Lactating cows require more feed to lift condition score before joining with subsequent risk to future reproductive performance.</p>	<p>To avoid future supplementary feeding, wean calves when cow condition score falls to 2.5 if calves are more than 100 days old.</p> <p>Allocate high quality feed to young calves and lower quality feed to dry cows.</p>
<p>Cattle reaching condition score 5.0<sup>1</sup></p>	<p>Low bull fertility and conception due to unfit bulls. Over-fatness in bulls can also interfere with the heat exchange function of the testicles.</p> <p>Foetal sizes may be larger from over-fat cows, increasing the incidence of dystocia and metabolic disorders.</p> <p>Fatty udder syndrome, a result of over-feeding replacement heifers, may result in reduced milking ability when they rear their own calves.</p>	<p>Manage and match feed and nutritional requirements, an excess of high quality feed may cause cattle to become over fat.</p> <p>Assess scrotal palpations for fat, freedom of movement, head, body and tail of epididymis, shape of testes, hernia.</p> <p>Measure fat deposition rates to avoid fatty udder syndrome.</p>
<p>Large range in condition scores of herd<sup>9</sup></p>	<p>Cattle at the extreme ends (lowest or highest condition score) may have different nutritional requirements. There is a risk the nutritional allowance of the herd may too high and/or low.</p>	<p>Consider splitting the herd into two groups and allocate appropriate feed to each according to condition scores.</p>

# HOW DO CONDITION SCORES IMPACT YOU?

## Your cow's reproductive performance<sup>10</sup>

About 85% of well-grown maiden heifers mated for up to six weeks can be expected to become pregnant, but it is usually difficult to get them to reconceive during lactation.

Aim to achieve pregnancy rates in first-calf heifers to be equal to the rest of the herd. Assessing condition scores and feed requirements (managing and prioritising) can help.

Heifers need to be in good condition before calving to have sufficient body reserves to provide milk for their calf to become pregnant again while lactating.

Increasing condition score at calving reduces the PPAI<sup>11</sup>

	Feed availability*	Condition score at calving		
		1.5-2.0	2.5-3.0	3.5-4.0
PPAI <sup>†</sup> (days)	high feed	49	38	31
	low feed	65	45	38
Pregnancy rate	high feed	84	92	90
	low feed	70	87	86

\*Dependent on available feed on the farm; <sup>†</sup>PPAI, post-partum anoestrus interval.

## SUMMARY

### Condition score

- Can be obtained by assessing the short ribs and around the tail head<sup>6</sup>
- Should be made at least monthly (depending on the stage of production)<sup>1</sup>

### Poor nutritional management of your cattle will impact their condition scores and may lead to:<sup>1,2</sup>

- Suboptimal pelvic size and foetal pelvic disproportion can increase the incidence of dystocia
- Increased calving difficulties
- Lower milk supply
- Metabolic disorders
- Low bull fertility (semen quality and unfit bulls)

## TIP HOW DOES CONDITION SCORE AFFECT REPRODUCTION RATES?

Suboptimal condition score during late pregnancy can prolong the interval between calving and first oestrus cycle for all cows except those in good condition where it has no effect.<sup>12</sup>

# THANK YOU

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## GLOSSARY

**Condition score:** An assessment of an animal's condition based on an estimate or measurement of the amount of fatty tissue under the skin on certain body parts. The objective of condition scoring is to obtain a simple and reliable estimate of the body fat reserves of live cattle. The condition score provides an estimate of fat reserves that is independent of size, and is a more reliable description of condition than liveweight alone. One condition score equals between 50–80 kg live weight depending on frame size of the cattle.<sup>3</sup>

**Dystocia:** Calving difficulty. Abnormal labour or birth.

**Fertility:** The ability of an animal to reproduce.

**Foetal:** Relating to, characteristic of, or being a foetus.

**Foetus:** The developing offspring before birth.

**Metabolic disease:** (in livestock) A disease caused by productivity practices when the body reserves on calcium, magnesium or energy cannot meet the common metabolic needs. The common metabolic diseases in cattle include ketosis, milk fever, fat cow syndrome, and hypomagnesaemia.

**Oestrus:** In cattle, the period during which a cow or heifer is willing to receive a bull. Also known as heat or bulling.

**Short ribs:** The transverse processes that are directed laterally from the vertebrae.

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