

EWE BODY CONDITION SCORING WORKSHOP

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Resource book 8



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UNIVERSITY OF NEW ZEALAND

SUMMARY

Body condition scoring (BCS) is a quick and easy low cost management tool to increase ewe productivity and flock profitability. Body condition scoring assesses the amount of body fat or condition by feeling the vertical (spine) and horizontal processes along the loin area as shown in the diagrams on pages 5 and 6. It is based on a scale of 1-5, 1 being very skinny and 5 being very fat.

Why BCS sheep?

- It is quick
- It is easy
- It is more useful than weighing
- Helps you improve ewe and lamb thrift, welfare and performance
- Improves profitability
- You can use feed more efficiently

When BCS sheep?

There are three key times to body condition score your flock:

- 1. Weaning
- 2. Pre-tupping/pre-mating
- 3. Scanning

The target is to have all of your flock above BCS 3 or over all year around.

Suggested management practices

- Pasture control and maintenance
- Follow lambs/ewes under BCS 3



- Preferentially feed, run with ewe lambs or rotate ahead of ewes
- Use a summer feed crop
- Cull repeat offenders
- If tight for feed, consider selling younger ewes under BCS 3 and keep older BCS 3 or over ewes

Pasture control and maintenance
 BCS ↑



- Preferentially feed, supplementary feed if needed
- Mate to a terminal sire
- Do a faecal egg count test, respond accordingly



Pasture control and



- Possibly use a long acting anthelmintic (worm drench) consult your vet
- Identify those that haven't lifted in condition and preferentially feed
- Feed multiple bearing ewes with lower condition scored ewes on good pasture

WHY BCS

Why body condition score? Why add another job into your busy farming calendar?

Top performing flocks

A study was commissioned by the Red Meat Profit Partnership (RMPP) in 2014 to understand what makes a high performing farmer and how to encourage more farmers to focus on performance.

The underlying motivation for most farmers is the importance of family and the way of life that farming provides. Profitability is crucial to these goals, and underpinning this is top performing livestock.

"We are consistently looking at all the fundamentals, condition of stock, what our financial performance is throughout and at the end of each year and really keeping a handle on what is going on. I think this possibly sets us apart from others." In the 2016/17 B+LNZ farm survey the bottom line (EBITR/ha) of the top 20% of flocks was 80% higher than the average. High sheep performance was identified as a key driver of these businesses.

"Record keeping and benchmarking our sheep flock performance is critical to our farming success. I measure and monitor everything. I treat information coming in as my dashboard in the car so I know how fast I am going, what temperature I am running at and how much I have left in the tank."

Body condition scoring ewes is a practice that was clearly identified as a driver of profitability and a key component of top performing sheep flocks.



Sheep flock profit drivers

The key drivers of profit in a sheep flock are:

- Kilograms of lamb weaned per hectare
- Weaning weight per lamb
- Number of lambs weaned per hectare.

Can ewe body condition score influence these three profit drivers? Yes, the single most important factor influencing the profitability of a ewe flock is the percentage of ewes in your flock that are below BCS 3 at mating and lambing. It's about minimising the number of tail end ewes, as these are the ones bringing down the overall flock performance.

BCS your ewes regularly can help increase you profitability by:

- Increasing the kilograms of lamb weaned per hectare
- Increasing the weaning weight per lamb
- Increasing the number of lambs per hectare
- Condensing ewe conception rates
- Increasing kilograms of meat and fibre produced per hectare

Other advantages that have been identified by research and observed by farmers who use body condition scoring regularly are:

- Lets you get more out of the same amount of feed, by targeting it to those that need it
- Helps you to split your mobs and feed them appropriately to boost production and increase conception rates
- Gives you a level of confidence. You know your mob as individuals and you know what they need to achieve maximum production
- Can minimise the number of tail end ewes.
 If left, these ewes will bring the overall flock performance down
- Allows you to recognise:
 - Which ewes need preferential feeding
 - Which need to be maintained
 - Which need to be culled

In an effort to quantify some of these statements, Trevor Cook from Totally Vets prepared Table 1. For the purposes of this exercise Trevor has made the following assumptions:

- 63 kg ewes
- Stocking rate 10 per ha
- Lambs sold at weaning

 Table 1: The benefit of reducing the number of tail end

 ewes at mating and pre-lambing

	Status Quo: 15% flock BCS 1 & 2	Use BCS: 5% flock BCS 1 & 2
Scanning %	160%	175%
Lamb survival	78.4%	81%
Weaning weight	26.5 kg	27.4 kg
Increase in Gross Margin/ha		+14%

CR = Conception rate

Analysis and table prepared by Trevor Cook

Table 1 clearly demonstrates that profitability increases when focusing on the tail end ewes in the flock. Lifting the BCS of your flock from 15% under BCS 3 to just 5% under BCS 3 increases scanning percentage, lamb survival and weaning weight.



WHAT IS BCS

Body condition scoring is a quick and easy low cost management tool to increase ewe productivity and flock profitability.

Body condition scoring assesses the amount of body fat or condition by feeling the vertical (spine) and horizontal processes along the loin area as shown in the diagrams below. It is based on a scale of 1–5, 1 being very skinny and 5 being very fat. The technique is valuable as it relates to production ability of sheep regardless of body weight. For example, at 65 kg liveweight a small framed ewe may have a BCS of 4, a large framed ewe a BCS of 2.

As a rule for any given sheep, there will be a 7-9 kg difference in live weight between body condition scores.

Condition scores 0, 1 and 2 —indicates under feeding and low production

SCORE 0

This is seldom used as it only applies to ewes which are extremely emaciated and on the point of death. It is not possible to feel any muscle or fatty tissue between skin and bone.

SCORE 1

The vertical (spine) and horizontal (lumbar) processes are prominent and sharp. The fingers can be pushed easily below the horizontals and each process can be felt. The loin muscle is thin with no fat cover.

SCORE 2

The vertical processes are prominent but smooth, individual processes being felt only as corrugations. The horizontal processes are smooth and rounded, but it is still possible to press the fingers under. The loin muscle is of moderate depth but with little fat cover.



Condition scores 3 and 4 —indicates good feeding and high production

SCORE 3

The vertical processes are smooth and rounded; the bone is only felt with pressure. The horizontal processes are also smooth and well covered; hard pressure with the fingers is needed to find the ends. The loin mucle is full, with a moderate fat cover.



SCORE 4

The vertical processes are only detectable as a line; the ends of the horizontal processes cannot be felt. The loin muscles are full and have a thick covering of fat.

Condition score 5 —overfed and fat

SCORE 5

The vertical processes cannot be detected even with pressure; there is a dimple in the fat layers where the processes should be. The horizontal processes cannot be detected. The loin muscles are very full and covered with very thick fat.



What to do

Push ewes up a drenching or drafting race reasonably tight. Starting from the back of the race get in and walk behind the ewes condition scoring each ewe as you go.

The animal should be standing in a relaxed position. It should be not tense, crushed by other animals or held in a crush. If the animal is tense it is not possible to feel the short ribs and you get an inaccurate score.

Place your hand behind the 13th rib.

Using the balls of the fingers and thumb, feel the backbone with the thumb and the end of the short ribs with the finger tips behind the last rib. Feel the muscle and fat cover around the ends of the short ribs and backbone.



Watch a series of videos and a condition scoring demonstration on the Beef + Lamb New Zealand Knowledge Hub.

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DOES A HEAVY EWE MEAN SHE IS OF GOOD BODY CONDITION?

Body condition score and live weight are related. Generally to increase condition score by one unit (e.g. score 2 to score 3) ewes need to gain 7-9 kg. But remember that heavier ewes can be poor condition if they have a large frame size. Conversely, smaller frame ewes can be of good body condition. Therefore we cannot assume heavier ewes are of good body condition.

To determine if a ewe has a good level of body condition each ewe needs to be individually condition scored and this cannot be based on weight.

Condition scoring sheep by hand is quicker than weighing and can be done when doing other management practices, such as:

- Checking udders and teeth at weaning
- Drenching
- Vaccinating
- Pushing up to the scanning crate.





"Take your time with the first race, getting a feel for the range of the ewes' condition. Once you have one race under your belt don't over think it, it's not about getting exact numbers. Put a hand on them, make decision and move on."

WHEN—TARGETS AND TIMING



Whatever the season, the main goal is to identify those lower scoring ewes and get their condition up. The target is to keep all of your flock above BCS 3 or higher all year round.

"When you get to point where you have 90-95% of your ewes on or above BCS 3 for 12 months of the year, real production gains are made. We leapt from 132% to 158% lambing percentage in 3 years. The only thing we really changed was condition each group based on available feed." scoring our ewes."

There are three key times to body condition score ewes: at weaning, pre-mating and scanning. Then there are two important parts. The first part is identifying the poorer condition ewes, the second part is having a plan for what you will do those animals you identify.

"Standing in the yards and condition scoring ewes is a great tool but it must be followed up by a robust feed plan for

Weaning

Management focus—Weaning to pre mating

The period between weaning and next mating is important for good reproductive efficiency in the coming season. Ewes with a BCS under 3 at weaning must be well fed to regain condition by mating.

The traditional approach is to shear after weaning and run the flock as one mob over summer and autumn. Ewes are "screwed down" or worked hard to maintain summer pasture quality. This usually has two common outcomes:

- Feed is wasted putting condition on those that don't need it—the fat get fatter
- A tail of "skinny ewes" that are struggling to compete and losing condition develops.

Extra feed is better used to improve the condition score of the tail end of the flock. The BCS 4 and 5 ewes can just be maintained. Good ewe health and body condition score of at least BCS 3 at mating is critical in achieving a high pregnancy rate and establishing a pregnancy that is likely to result in healthy lambs at docking. It takes time to increase ewe condition, especially if feed is limiting and growth rates are low.

Ewes need 1.0 to 1.3 kg of average to good quality dry matter per day to hold body condition score at 3 over summer. It is more efficient and productive to hold ewe liveweight and condition score over summer than to lose and regain.

Split ewes after weaning lambs and preferentially feed under BCS 3 ewes in the flock for improved liveweight and condition score at mating; responses will be greatest in small framed ewes.

"Running ewes as one mob means you are wasting feed by putting condition on ewes that have already reached optimum and will not return anything extra. I target those light girls below BCS 3."

Here are some suggestions for managing your flock following BCS at weaning

Lower condition ewes (BCS 2 and under)

- Run with ewe lambs
- Rotate ahead of over BCS 3 mob
- Keep off hard hill country/on easier country with better feed
- Use summer feed crop
- Cull repeat offenders
- If tight for feed, consider selling younger ewes with BCS under 3 and keeping older ewes with BCS over 3

Good condition ewes (BCS 3 and over)

- Pasture control
- Maintenance
- Follow lambs or under 3 mob

Pre-mating



Management focus—Six weeks before the ram goes out

The period before mating is another key opportunity to measure and monitor your ewe flock.

If you can identify those ewes in your flock that are below BCS 3, six weeks prior to mating and preferentially feed this mob, you have the opportunity to improve their body condition score and lambing percentage.

"Your biggest percentage jump in scanning percentage will come from reducing the number of poor condition ewes at mating." —Paul Kenyon, Massey University

Ewes need 1.0 to 1.3 kg of average to good quality dry matter per day to hold body condition during mating and early pregnancy.

Scanning

Management focus—Scanning to lambing

Scanning is another ideal time to adjust feeding levels based on ewe body condition. You can identify ewes that

- are dry so can be culled to save feed
- can go onto a maintenance diet
- need tightening up
- need their condition score lifted

The ewes are already in the yards so it's a great time to put your hand on each ewe as they are pushed in the scanning crate. The person pushing ewes into the scanning crate should be experienced in condition scoring, with practice this is a quick easy process.

At this critical stage of the production cycle, there is a small window of influence to add to their body condition. **The period between scanning and approximately 5 weeks before lambing is the only time ewes below BCS 3 have the ability to put on condition.**

Ewes below BCS 3 at scanning need to be drafted off and preferentially feed, especially if they carry multiples.

Better condition ewes at lambing:

- give birth to heavier lambs
- are better mothers
- have more milk
- wean heavier lambs with higher survival rates

Here are some suggestions for managing your flock following BCS at pre-tupping

Lower condition ewes (BCS under 3)

- Preferential feed
- Supplementary feed if needed
- Mate to a terminal sire
- Conduct a feacal egg count and respond accordingly

Good condition ewes (BCS 3 and over)

- Maintenance feed

Here are some suggestions for both lower and good condition ewes (scanning onwards)

Lower condition ewes (BCS under 3)

- Use a long-acting worm drench
- Identify those that haven't lifted

Good condition ewes (BCS 3 and over)

 Feed ewes bearing multiples with light ewes on good pasture

More information



RMPP LEARNING MODULES

- Ewe body condition scoring
- Principles of feeding from lambing to weaning
- Principles of feeding from mating to lambing
- Sheep mating management



B+LNZ RESOURCES

- Making every mating count
- A guide to feed planning for sheep farmers
- Tips for managing ewes with triplets
- Condition scoring at flushing pays dividends at lambing



VIDEOS

- Ewe body condition scoring: an introduction
- Benefits of body condition scoring your ewes
- Why should you condition score you ewes
- Body condition scoring game changer
- Condition scoring powerful driver of flock profit
- Condition scoring will boost your bottom line
- How to condition score ewes
- Body condition scoring demo
- Best time to condition score your ewes



PODCASTS

- David Stevens: The Lamb Weaning Decision
- Farming for more than just money Steve Wyn-Harris
- Peter Young: More profit from sheep
- Trevor Cook: Top tips for farmers



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Notes

