



Body Condition Scoring of Sheep

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What Is Body Condition Scoring?

Body condition scoring is an easy way to keep track of the nutritional status of your flock. Simply put, it is a subjective measure of the body fatness and muscle cover of your sheep. The Body Condition Score (BCS) of your sheep is rated on a scale of 1 to 5 with 1 being emaciated and 5 being extremely fat. Most sheep on most farms will have a BCS ranging from 2 to 4.

Why Use BCS?

It is often difficult to simply look at your sheep and see whether they are losing, maintaining or gaining weight. Wool or winter coats on hair sheep can make “eyeballing” the condition of your sheep difficult or unreliable. Keeping accurate records of your flock’s overall body condition is difficult to do when simply eyeballing the flock. Records are important because changing BCS can alert you to individual animal or flock-level health problems. Heavy parasite loads, bad teeth, diseases and lameness can cause animals to lose condition because they are not eating or because the nutrients they eat are being diverted to parasites or are lost to diarrhea.

The BCS of your flock can tell you quickly and easily whether the nutritional needs of your sheep are being met. You may choose to cull sheep that have difficulty maintaining their body condition under your management regimen as a means of reducing your feed costs. Ewes that lose too much body condition during lactation should be separated from the rest of the flock and provided improved nutrition.

BCS can provide you with an indicator of potential reproductive success. Ewes that are thin are less likely to breed or produce twins successfully. Excessively fat ewes are less likely to give birth to twins and are more likely to suffer from pregnancy toxemia (ketoacidosis). They may also have increased difficulty giving birth because of additional fat deposits in the pelvic birth canal.

BCS is a useful means of comparing one sheep to another. Body weight for a ewe from a large breed may be identical to that of a ewe from a small breed, but the level of body fatness will be very different. The smaller animal will carry a great deal more fat at the same weight. Flock managers may have differing ideas about what constitutes an animal in “good” condition. Flocks that are managed extensively, as is common

on western ranges in the U.S., will often have lower BCS than those managed more intensively. Yet, the manager of the extensively raised flock might consider a ewe with a BCS of 2.5 to be in good condition. An intensively raised ewe with a BCS of 2.5 would only be in fair condition.

How Is Body Condition Scored?

There are several ways to determine the BCS of your sheep, but the most commonly used method was developed in Australia in the 1960s. It involves feeling the muscle and fat along the backbone between the last rib and the front of the hip bones – the lumbar vertebrae of the spine.

The lumbar vertebrae have three projections that look like flattened fingers, called the spinal processes (Figure 1). The loin eye muscle (gray area in Figure 1) lies in the angle created by the vertical and horizontal spinal processes. The loin eye muscle does not cover the ends of the spinal processes.

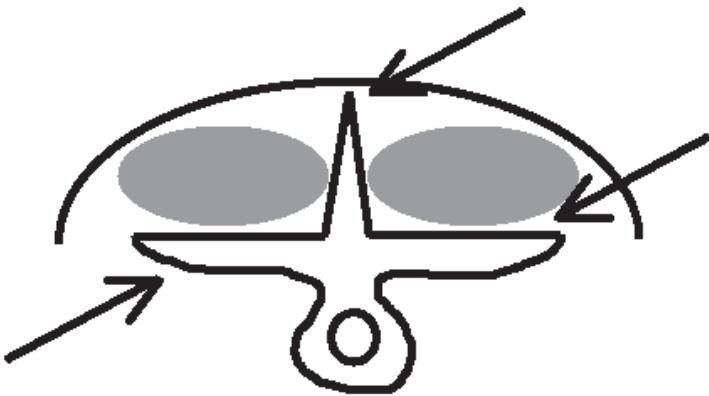


Figure 1. Feel along the spinal processes (arrows) of the lumbar vertebrae between the last rib and the hip bones to measure body condition in your ewes.

BCS 1 – The spinal processes are prominent and sharp. Your fingers can pass easily under the ends of the horizontal processes and you can feel between each one. The loin eye areas are shallow with no fat cover.

BCS 2 – The spinal processes still feel prominent, but smooth, and individual processes can be felt as ripples beneath some cover. The horizontal processes are smooth and rounded. You can still pass your fingers under the ends with a little pressure. The loin eye areas are of moderate depth, but have little fat cover. A ewe in BCS 2 will have spinal processes that feel similar to the second joint of your fingers (Figure 2).

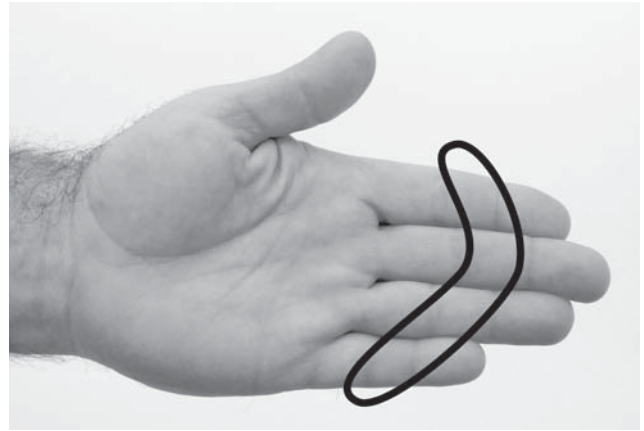


Figure 2

BCS 3 – The spinal processes can only be felt as smooth and rounded elevations. Individual bones can be felt only with pressure. The horizontal processes are smooth and well covered, and firm pressure is required to feel over the ends. The loin eye areas are full and have a moderate degree of fat cover. A ewe in BCS 3 will have spinal processes that feel similar to your palm just below the fingers (Figure 3).

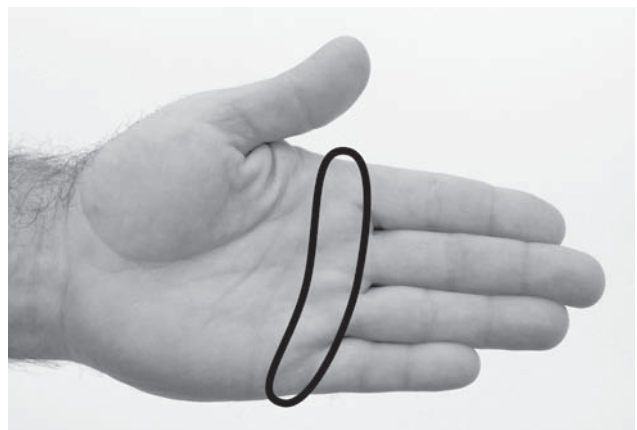


Figure 3

BCS 4 – The spinal processes can just be detected, with pressure, as a hard line between the fat-covered muscle areas. The ends of the horizontal processes cannot be felt. The loin eye areas are full and have a thick covering of fat.

BCS 5 – The spinal processes cannot be detected even with firm pressure, and there is a dip between the layers of fat in the position where the spinal processes would normally be felt. The horizontal processes cannot be detected. The loin eye areas are very full with very thick fat cover. There may be large deposits of fat over the rump and tail. A ewe in BCS 5 will have spinal processes that feel similar to the meaty part of your palm below the thumb (Figure 4).

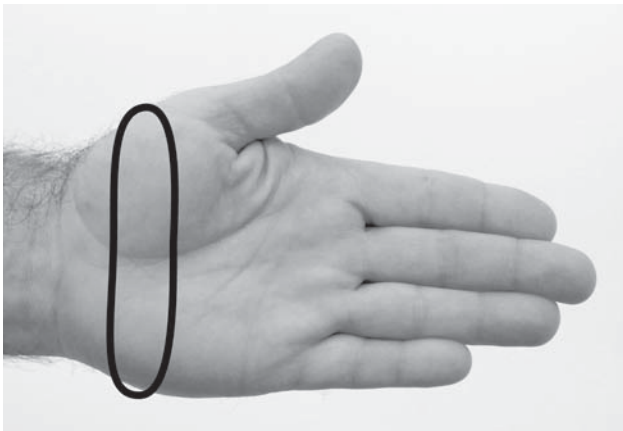


Figure 4

The differences among the different BCS scores are fairly large, and producers often resort to using half scores to more clearly distinguish the body condition of their flock. For example, ewes entering the breeding season should have a BCS of 3-3.5 for best reproductive results.

How Reliable Is Body Condition Scoring?

Because BCS is a subjective measure of the fat and muscle cover of your ewes, you might wonder how reliable the BCS is. Recent studies have shown that not only is the reliability of trained body condition scoring assessors very high, but that once

trained, they tend to remain very reliable year after year. Body condition scoring is relatively easy to learn, and with a little practice, you can become proficient.

There are a few situations that can make body condition scoring or interpretation of BCS challenging. For example, young ewes usually will not have as much condition as older ewes. This is because they are still growing, and muscle and bone will grow before fat will be deposited. Their BCS may be lower without reflecting poor nutrition management. Late pregnant ewes may be difficult to evaluate because of the size and location of the growing fetuses or rumen fill. It is also possible for ewes in late pregnancy, because of the high demands of the fetuses, to lose condition quickly if they don't get enough to eat. Sheep with heavy coats of wool may be harder to evaluate than shorn sheep.

Summary

Body condition scoring is a subjective way of measuring the level of muscle and body fat carried on your sheep. BCS can give you a good indication of the health, nutritional state and potential reproductive success of your flock in a single easy measurement. Despite its subjectivity, BCS are very reliable indicators when conducted by a trained scorer. Most sheep on most farms will have a BCS of between 2 and 4. Age, pregnancy status and wool coat are a few of the variables that can affect the outcome or interpretation of your ewes' BCS.

References

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