

NEWS TO EWES

What Do Ewes Need To Be Ready?

by Dr. Donald G. Ely

Body condition scoring is a system of classifying breeding ewes on the basis of differences in body fat. While it is subjective, with practice, it can be accurate enough to indicate the nutritional status of individual ewes as well as the entire flock. Thus, it allows the shepherd to identify, record, and adjust the feed intake of ewes determined to be thin, in average flesh, or fat. In the long run, this can save money for producers and/or prevent problems attributable to ewe condition.

Body condition scores (BCS) change throughout the year as ewes progress through each stage of production: Flushing/Breeding, Early Gestation, Late Gestation, Parturition, Early Lactation, and Late Lactation. Weight at a given stage of production is the best indicator whether ewes are too thin, too fat, or just right to do the job to the best of their abilities. However, mature weights vary among individuals and breeds, making it difficult to use weight to determine the correct BCS for a specific stage of production. Body condition



scoring describes the condition of ewes, is convenient, and is more accurate than a simple eye appraisal.

Condition scores for ewes range from 1 to 5. A score of 1.0 represents the thinnest animals and a score of 5.0 represents the fattest. Usually, 90% of the ewes in a flock fall within BCS of 2, 3, and 4. Half scores are often used to improve the evaluation process. Then, the range of scores expands to 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, and 5.0. The intermediate half scores are helpful when an animal's condition is not totally clear (3.0 vs 3.5). However, determining an exact BCS is probably not as important as

assigning a relative score. For example, a BCS of 3.0 vs 3.5 is not a big difference, but the relative difference between a 2.5 and a 4.0 is significant.

The BCS estimates the conditioning of muscling and fat development. Scoring is based on handling the animal for extent of muscling and fat deposition over and around the vertebrae in the loin region (**Figures 1, 2, 3**). In addition to the central spinal column, loin vertebrae have a vertical bone protrusion on each side (transverse process). Both of these protrusions are palpated and used to assess an individual BCS. Examples of handling the spinal column, the loin vertebrae, and ribs of ewes can be seen in **Figures 1, 2, 3 and Photographs 1, 2, 3**.

When handling ewes to assign a BCS, make sure each ewe is standing on a level surface and in a relaxed manner. Using your fingers (held together) and thumb, determine the sharpness of the spine behind the last rib and in front of the hip bone (**Figure 1 and Photograph 1**). Determine the sharpness of the transverse processes at the same time (**Figure 2 and Photograph 2**). In addition, it may be helpful to determine the extent of fat

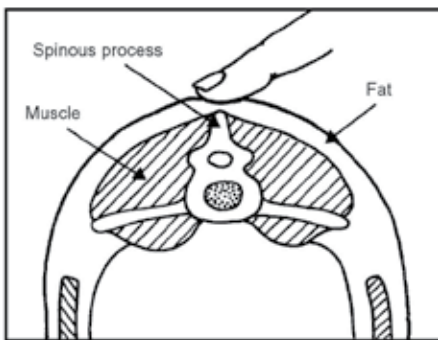


Figure 1

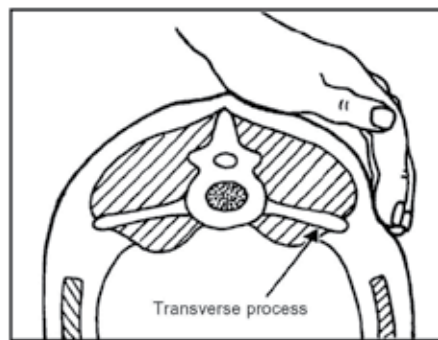


Figure 2

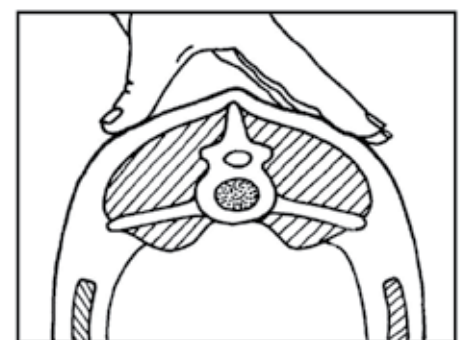


Figure 3



Photograph 1



Photograph 2



Photograph 3

Table 1. Condition Scoring Ewes

Point of Evaluation	Score				
	1	2	3	4	5
Spine	Prominent, sharp	Prominent, smooth	Smooth, rounded	Detected only as a line	Not detectable
Fat cover	None	Thin	Moderate	Thick	Dense
Transverse processes	Prominent, sharp	Prominent, rounded	Smooth, rounded	Not detected	Not detected
Foreribs	Prominent	Prominent with slight covering	Smooth indentation	Slight detection	Smooth, not detected

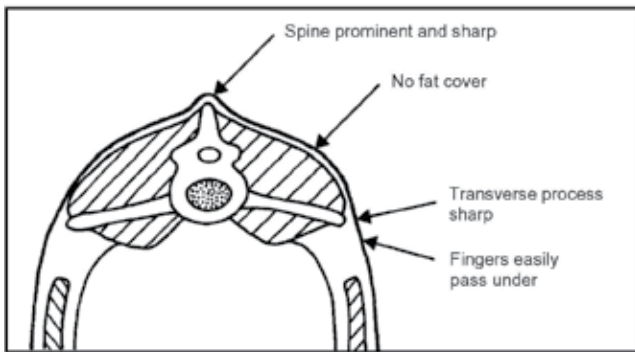


Figure 4 – Condition 1

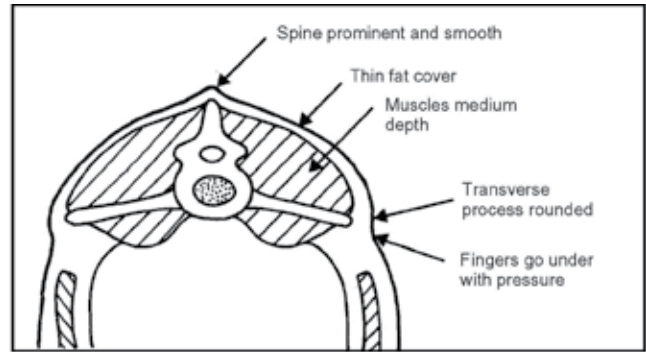


Figure 5 – Condition 2

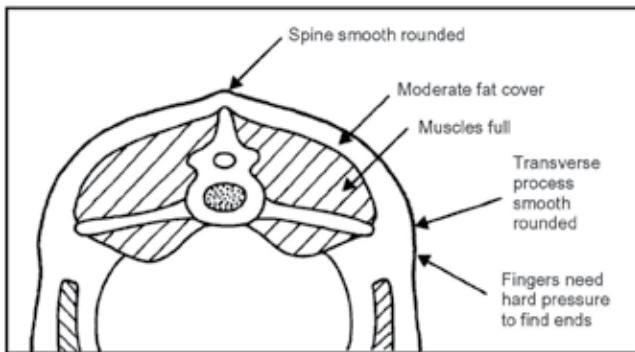


Figure 6 – Condition 3

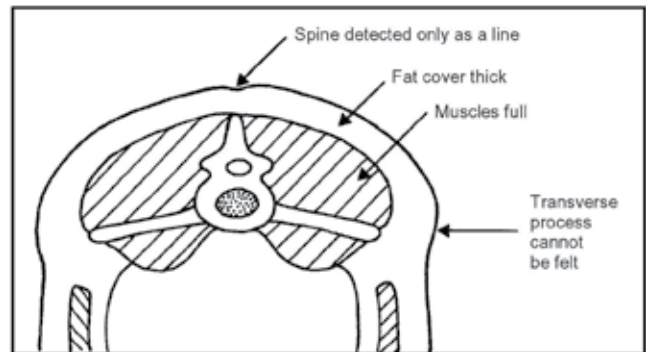


Figure 7 – Condition 4

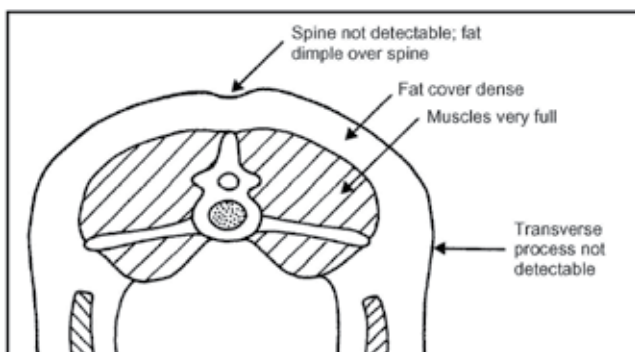
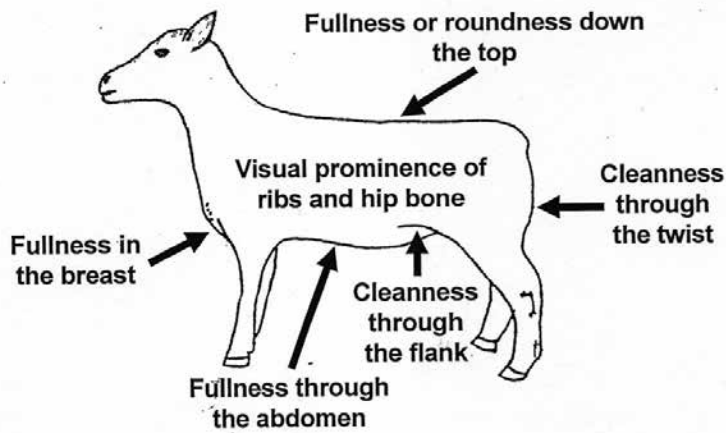


Figure 8 – Condition 5

covering over the foreribs because, in many instances, the handler may find sharpness over the spine (condition score 2.0), but will find fat over the ribs (condition score 3.0) (**Figure 3 and Photograph 3**). Then, one must arrive at some average for an overall BCS. After all points have been evaluated, assign an overall score according to **Table 1**. Diagrams of the five whole numbers are described in **Figures 4 – 8**. (*J. Thompson and H. Meyer: 1994. Body condition scoring of sheep. EC1433, Oregon State University, Corvallis*).

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Figure 9. Points of Visual Evaluation for Ewe Body Condition.



With increased experience, the BCS might be assessed visually. Certainly this method is less time consuming and minimizes physical labor. But, as wool cover and to some extent hair cover increases, the accuracy and precision of visual appraisal becomes more difficult. **Figure 9** shows the points of visual evaluation. Some of these differ from those of the “hands-on” method because they can be appraised with the naked eye. If visual appraisal is to be used, make sure the end results of both methods are the same. **Photograph 4** shows BCS 3.5 for the ewe on the left vs. 2.0 for the ewe on the right. **Figure 10** shows how BCS fluctuates during stages of production during a 12-month period (one lamb crop per year). The periods during the year when BCS is most important are: Flushing/Breeding, Late Gestation, Early Lactation, and Maintenance. On average, a difference of 1.0 BCS is equivalent to 13% of the live weight of a ewe with a 3.0 BCS. Thus, a ewe with a maintenance weight of 150 pounds needs to gain 20 pounds to increase her BCS from 2.5 to 3.5.

Fat ewes (BCS 4 and 5) may not cycle during breeding. If they do cycle, ovulation rates may be low. Excessively thin ewes (BCS 1.0 to 1.5) may have similar problems. To gain a benefit from nutritional flushing, and ultimately lambing rate, ewes must have less than a 3.0 BCS at flushing. If ewes have a BCS of 3, 4, or 5 as early as 6 weeks before flushing, reduce their feed intake so they will be 2.0 to 2.5 at the beginning of flushing. On the other hand, if they are 1.0 to 1.5, increase intake for 6 weeks prior to flushing,



Photograph 4 showing a BCS of 3.5 for the ewe on the left vs. 2.0 for the ewe on the right.

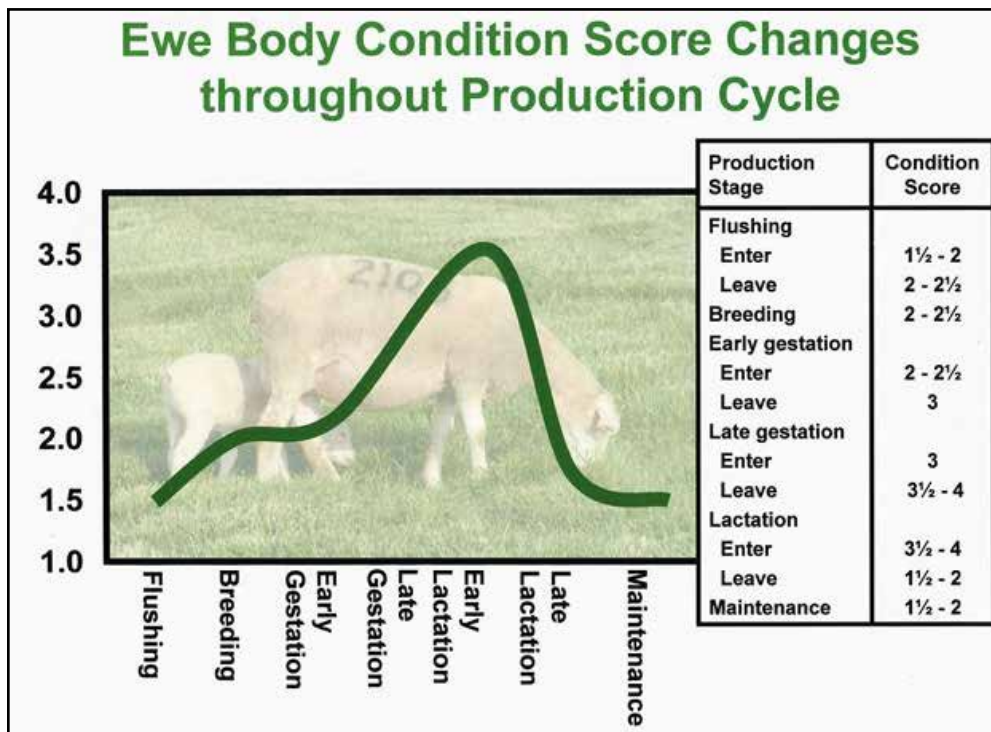


Figure 10.

throughout the flushing period, and for 3 weeks into the breeding season. Optimum BCS during flushing/breeding is 2.0 to 2.5. Body condition score should gradually increase from flushing/breeding, through early gestation (first 110 days) to 3.0 at the beginning of late gestation (last 4 to 6 weeks). A feeding program should be developed that will promote enough gain so ewes will have a 3.5 to 4.0 BCS at lambing. Typically,

ewes lose weight during lactation even though they are fed large amounts of high-quality diets. Average BCS of ewes at the end of early lactation (60 days postpartum) can be as low as 1.5 to 2.0. After weaning, nonpregnant and nonlactating ewes can gain significant condition from pasture alone. It is during this period that shepherds must manage pastures so ewes do not become too fat, remembering they should enter the next

flushing/breeding season with BCS between 2.0 and 2.5. Proposed stocking rates to maintain a BCS of 2.0 to 2.5 for dry, open ewes at maintenance are presented in Table 2.

CONCLUSION:

Condition scoring is a valuable management tool that should be performed regularly before Flushing/Breeding, Late Gestation, Early Lactation, and Maintenance phases of the annual production year of ewes. Condition scoring allows shepherds to improve flock management, reduce feed costs, and limit health/performance problems resulting from improper nutrition. Flock management is improved because ewes can be grouped into different feeding programs based on their needs. Ultimately, the annual feeding program becomes more economically efficient.

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Table 2. Proposed Stocking Rates for Dry, Open Ewes at Maintenance^{a, b}

Month	Grass ^c	
	OG/F	BG
April	6 to 15	2 to 4
May	16 to 30	4 to 10
June	20 to 25	13 to 20
July	13 to 16	13 to 16
August	0 to 8	0 to 3
September	8 to 15	3 to 6
October	16 to 20	5 to 8
November	3 to 6	0 to 2

^a Dry, open ewes at maintenance; number of ewes per acre.

^b Assuming a mature ewe weight of 150 lb and a daily dry matter consumption of 2.0% of body weight (3.0 lb dry matter intake per head per day).

^c OG = orchardgrass; F = fescue; BG = bluegrass