



Assessing Sow Body Condition

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Introduction

A critical element of successful swine reproduction is managing sows so they do not gain or lose too much weight or body condition between parities. Maintaining sows in proper body condition throughout their lives can lead to more consistent reproductive performance, but inadequate control of sow body weight and condition can lead to farrowing difficulties, poor rebreeding performance, and high culling rates. In addition, the direct economic impact on annual feed costs of underfeeding or overfeeding sows can be substantial. For example, feeding a herd of 200 sows during gestation an extra daily allotment of 0.5 pounds of a feed that costs \$135 per ton will increase annual feed cost by about \$2,400.

General recommendations for feeding sows can be obtained from several sources, including universities, private nutritional consultants, feed industry representatives, and veterinarians. However, because individual operations vary in terms of animal genetics, environmental conditions, and management, these general recommendations may not be adequate. Therefore, it is important to monitor sows on individual farms to determine the adequacy of current feeding management practices.

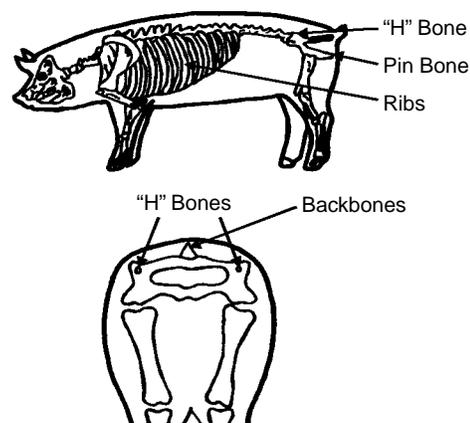
The purpose of this publication is describe a sow body condition scoring system that requires only a minimal amount of time and does not require any specialized equipment. This scoring system can then be used to determine individual gestation feeding levels to achieve a target condition score at farrowing.

Sow Body Condition Scoring System

This scoring system uses finger or hand pressure at key points on the sow's body to arrive at a number, or "score"—hence the name "sow body condition score." The points used on the sow's body are those areas where the only tissue between the skin and bones is fat tissue. These areas on the sow include the ribs, back bone, "H" bones, and "pin" bones (Figure 1). By assessing the ease or difficulty of feeling these bones, you can estimate the fat stores of the sow. It is important to rely on more than one of these areas when assessing body condition. Different animals may deposit fat in differing degrees at different locations.

A condition score from 1 to 5 is assigned to each sow, based on the ease or difficulty of detecting bones at various pressure points. Figure 2 illustrates the physical appearance of sows for each condition score and describes the ease or difficulty of detecting the bones for each score. An approximate level of back fat associated with each condition score is given in Table 1. The goal is for sows to attain a condition score of 3 by mid-to-late gestation and to maintain that score until farrowing. Sows with a condition score of 3 at farrowing will enter the farrowing crate with adequate fat reserves to withstand a heavy lactation, but

Figure 1. Location of ribs, backbone, "H" bones, and "pin" bones on the sow.



they will not be so overconditioned that they will experience farrowing difficulties or reductions in lactation feed intake. Sows entering the farrowing house with a condition score of 3 should eat well, milk well, and have a condition score of 2.5 at weaning, resulting in a prompt return to estrus. A realistic goal is to have all sows in a farrowing group with condition scores between 2.5 and 3 at farrowing, with 80% scoring 3.

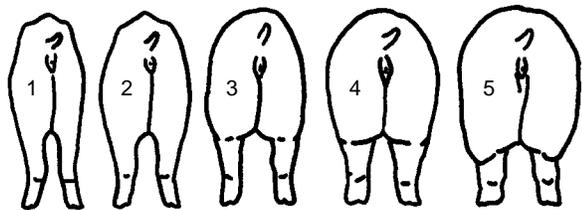
Table 1. Relationship between condition score and back fat level.

Condition Score	Approximate Level of Back Fat (Inches)
1	< 0.6
2	0.6 – 0.7
3	0.7 – 0.8
4	0.8 – 0.9
5	> 0.9

Frequency of Condition Scoring Sows

For best results, sows should be condition scored at mating and at least two additional times between breeding and farrowing. It is often convenient to combine condition scoring with other routine activities, such as pregnancy checking and vaccinations, to save time opening gates and positioning people to score sows. A typical procedure is to score sows at mating, on day 30 post-mating when sows are pregnancy checked, and about 80 days after breeding. Condition scores will be more accurate if two people score the sows and the resulting two scores are averaged. When this team approach is used, the same individuals should always score the sows so scoring will be consistent.

Figure 2. Body condition scores of sows.



Score	Condition	Detection of ribs, backbone, "H" bones, and "pin" bones
1	Emaciated	Obvious
2	Thin	Easily detected with pressure
3	Ideal	Barely felt with firm pressure
4	Fat	None
5	Overly fat	None

It is important to record condition scores so that monitoring the sow's progress is possible. One convenient way to document a sow's condition score is to record the score on her information card. Another option is to develop a card similar to that shown in Figure 3 and simply circle the drawing that best represents the sow's condition at the time of evaluation.

Figure 3. Example record card for recording the condition of a sow during gestation.

Time	Body Shape
Mating	
Day 30	
Day 80	

Number of Sows to Condition Score

It is generally best to condition score each sow individually, especially in herds with no recorded history of condition scoring, those in which sow condition is poor, and in herds that are experiencing reproductive difficulties. Once sow body condition within a herd has stabilized at a desirable level or a feeding management strategy has proven satisfactory, it may be sufficient to establish a condition score monitoring program rather than continuing to score all sows in the herd. For a monitoring program, at least 15 to 20% of the sows in each farrowing group should be condition scored.

Using Condition Scores to Adjust Feed Intake

When using body condition scores to adjust feeding levels for sows, it is important to define an operation's "base feeding rate." A base feeding rate represents the amount of feed which will allow a sow to gain the proper amount of weight and condition during gestation, assuming she has a condition score of 2.5 at mating and is not subjected to extreme environmental conditions. For most operations, a base feeding rate during gestation of 4.5 to 5 pounds per day of a corn-soybean meal diet is adequate.

During lactation, some sows may lose considerable body weight and condition, resulting in a condition score of lower than 2.5 at weaning. These sows will need more feed than the base feeding rate to achieve proper condition by the next farrowing. Other sows may be overconditioned at the time of weaning and will need less feed than the base feeding rate to achieve the desired body condition score by the next farrowing.

It is best to identify at the time of mating sows that will require more or less feed than the base feeding level in order to reach the target condition score by farrowing. The advantage of identifying these sows early in gestation is that ample time will be available to get them into proper condition. In general, it is best to condition sows during the first half to two-thirds of gestation so that large adjustments in feeding rates are not necessary close to farrowing.

Table 2 shows some guidelines that can be used to adjust the daily feed allowances of gestating sows based on their body condition score. Keep in mind that these adjustments are only guidelines. Animals on different farms may require more or less feed to achieve target condition scores based on their genetics, environmental conditions, and farm management practices.

Table 2. Guidelines for adjusting gestation feeding level based on condition score.

Condition Score	Feeding Level (Pounds)
1	Base feeding level + 2.0
2	Base feeding level + 1.0
3	Base feeding level
4	Base feeding level - 0.5
5	Base feeding level - 1.0

Summary

Sow condition scoring provides a more reliable method of assessing body condition than visual appraisal alone. Condition scoring of sows is a relatively simple process that can be used to determine the adequacy of gestation feeding levels and lactation feed intakes. Condition scores can also be used to provide guidelines for adjusting daily feeding rates during gestation so that each sow is in proper condition for farrowing and rebreeding. Maintaining sows in the proper condition will increase sow longevity and lead to more consistent reproductive performance.