VETERINARY CALL

by Bob Larson, Kansas State University

Monitor BCS year-round

Body condition scores (BCS) are numbers used to describe the relative fatness or body fat reserves of a beef cow or bull. The most commonly used system uses a range of 1 to 9, with a score of 1 representing a very thin animal and 9 representing an extremely fat animal.

When determining BCS, it is important to handle the cattle so that one is not mistakenly evaluating hair coat, gut fill or stage of pregnancy. The primary areas to palpate when determining body condition are the ribs, back and tailhead.

Because of year-to-year variation in forage quality and weather stress, body condition can have important year-to-year variation even when fed what appears to be the same diet.

Slightly lower forage quality and increased weather stress can result in cows losing more weight than expected. If cows lose condition during the last one-third of pregnancy so they calve in poor body condition, calf health and cow reproductive efficiency in the following breeding season will be negatively affected.

Cows in good body condition (BCS 5 to 6) at calving have the greatest probability of becoming pregnant early in the next breeding season.

Cows with BCS 1, 2 or 3 are too thin. They have very poor performance and require a substantial investment to return them to production.

BCS 4 is borderline for cows at weaning, and only a small percentage of the mature herd should be BCS 4 at the time of calving and breeding. BCS 4 is too thin for heifers during their first pregnancy.

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Cows that are BCS 4 at calving will require more days after calving to resume fertile cycles. They will also have a lower pregnancy rate in a controlled breeding season even if nutrition after calving is adequate. They have almost no chance of getting pregnant if nutrition while they are nursing a calf is poor.

In general, mature cows in good body condition that are not nursing a calf can maintain body condition on forage alone if forage quality is at least moderate and weather stress is low. If cows in good body condition

Table 1: ***Body condition score chart***

	BCS								
Reference Point	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Physically weak	yes	no	no	no	no	no	no	no	no
Muscle atrophy	yes	yes	slight	no	no	no	no	no	no
Outline of spine visible	yes	yes	yes	slight	no	no	no	no	no
Outline of ribs visible	all	all	all	3-5	1-2	0	0	0	0
Fat in brisket and flanks	no	no	no	no	no	some	full	full	extreme
Outline of hip and pin bones visible	yes	yes	yes	yes	yes	yes	slight	no	no
Fat udder and patchy fat around tailhead	no	no	no	no	no	no	slight	yes	extreme

Source: Virginia Tech. Modified from Pruitt, 1994.

are forced to consume lower-quality forage or if winter weather is harsh, supplemental high-quality forage or concentrate will be required to maintain body weight.

If cows are thin and need to gain body weight prior to calving, moderate-quality forage will not supply the needed nutrients, and supplemental concentrate or high-quality forage must be fed. If only poor-quality forage is available, even greater levels of supplement must be fed to add body condition to thin cows prior to calving.

Young cows carrying their first pregnancy require energy and protein for their own growth, as well as fetal growth, which makes their nutrient requirements higher than those of adult cows. Most dormant or baled forages do not provide all the calories needed for first-calf heifers over the winter, especially if the cattle face any weather stress.

Ranchers should plan on providing first-calf heifers with supplemental high-quality forage or concentrate for at least part of the time they are grazing dormant forage or eating baled hay. The amount of supplement required depends on the quality of the base forage (grazed or baled).

Bull BCS

Nutritional management of bulls is also important to assure good herd fertility. Yearling bulls should be at about a BCS of 6. Mature bulls should be at a BCS 5-6 at the start of the breeding season.

In order to ensure that bulls are in good body condition leading up to the breeding season, they need access to good-quality forage and little to no concentrate supplement to maintain condition, and moderate to high amounts of concentrate if they need to add body condition.

Body condition evaluation at various times of the year can help producers evaluate the genetic base of their herd by supplying evidence as to how well the production and maintenance requirements of the herd match the low-cost forage and feed resources available on the farm or ranch.

If a large percentage of the mature cow herd (4-10 years of age) does not maintain adequate condition during most years on the available forage, one should critically evaluate whether moving the herd to a different level of nutrition is indicated.

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