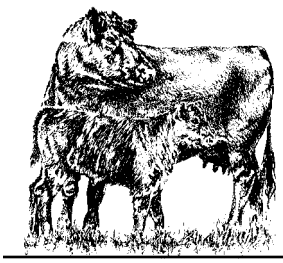

Western Beef Resource Committee *Fourth Edition*

Cattle Producer's Handbook

Management Section 734

The Beef Cow Mammary System

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The mammary system is one of the most important functional traits of the cow. Anyone who has ever attempted to milk out a sore-bagged, balloon-teated cow can certainly relate to the need for quality udders.

Udder and teat soundness are a concern for many reasons:

1. Labor associated with extra costs and reduced convenience.
2. Longevity, which may be reduced because of injury or mastitis.
3. Calf performance can be affected by a reduction in milk flow, or lower colostrum intake by newborn calves having difficulty nursing oversized teats.
4. Most udder and teat characteristics can be inherited by offspring and, therefore, be changed through selection.

Characteristics

It is vital that cattle producers be able to recognize a desirable, as well as a faulty udder (Fig. 1). An ideal udder is snugly attached, symmetrical, and of moderate length. The quarters should be evenly balanced, with the teats of medium size and length. The teats should be placed squarely under each quarter. A side view of the udder should show a level udder floor without any quartering.

The median suspensory ligament is the center support that ties the udder to the cow's body wall. This is the

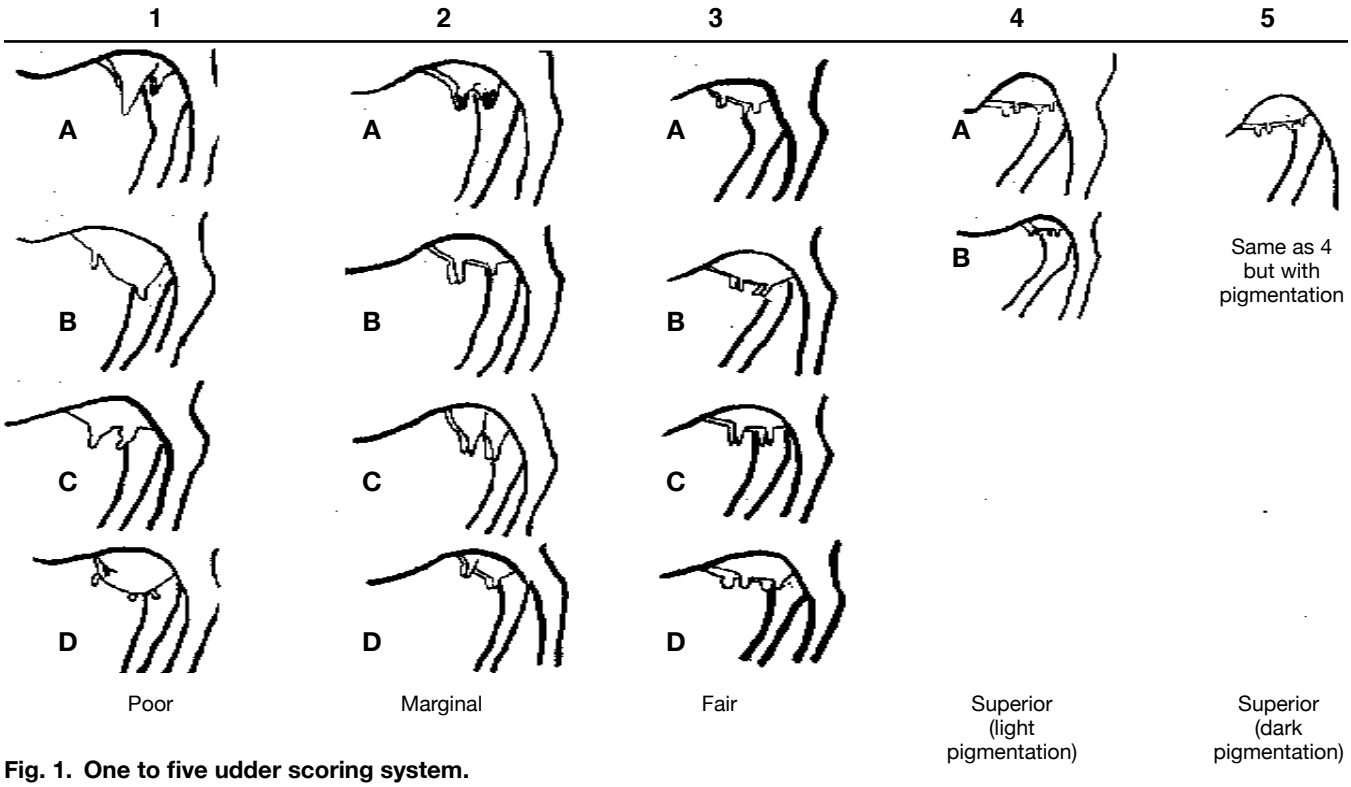

Fig. 1. One to five udder scoring system.

indentation or cleft seen when viewing a cow's udder from the rear. A strong median suspensory ligament is essential to a satisfactory mammary system.

A cow that does not have a strong center support is subject to several serious udder problems:

1. The udder floor may drop, causing the udder attachments to weaken.
2. Once the udder floor has dropped the teats will begin to strut outward on the sides of the udder, making them much more likely to be injured.
3. Once the udder floor has dropped, the entire mammary system may deepen to the point where the calf has great difficulty nursing.

The fore udder should be of moderate length, strongly attached, and have teats of moderate size and length. A fore udder that is too long may detach from the body wall as the cow gets older. Also, extra long fore udders are frequently "meaty," which may mean low production.

The rear udder should be attached high to the body and have moderate width. When viewed from the rear, it needs to show the defined central cleft described for the median suspensory ligament.

Quality and texture of a cow's udder are also important points to consider. The ideal texture can best be described as a sponge-like consistency that allows a cow to let down her milk rapidly when stimulated by suckling. Ideal means that her udder is soft and pliable, free from congestion and hardness.

Age of the Cow

Udder quality will usually decline with age, however, age should not be considered when scoring udders. It is best to score the udders as they are regardless of the age of the cow.

Teat Circumference and Teat Length

In general, teat circumference will cause problems much more often than teat length. Short teats are preferred, but long teats normally do not create difficulty for a calf provided the circumference is not excessively large. Since the largest teat is most likely to create a problem, evaluate the udder based on the largest teat.

Udder Scores and Milk Production

Teats and udders should be scored without regard for the cow's milk production. The scoring system is intended solely for evaluating udder and teat soundness. Calf weaning weights are the best estimates of milk production.

Best Time to Score Cows

The best time to score cows is within 24 hours after the calf is born. If the cow is going to have problems with udder quality, it typically will show up when she first freshens. If you wait until the cow's udder is nursed out, teat size in particular cannot be accurately scored.

Fig. 2. Udder Score 5—Black pigmentation, small teat size, great attachment front and rear with strong, symmetrical suspension. This cow's mammary system will hold up with age.

Udder Scoring

The following udder scoring system was devised by a commercial ranch couple. The couple took many photographs of their cows at calving and developed categories (scores 1 to 5) that required various levels of human intervention. The best score is "5," but is only superior to a "4" because of pigmentation, which is a major advantage to prevent sunburned udders in snow covered regions (Fig. 2).

The system uses a "1" to "5" combined udder teat score system while accepting the different appearances (A, B, C, D) that can occur within each score. For example a "5" or "4" require no intervention, whereas a "1" will definitely require intervention to avoid a spoiled quarter (mastitis) or to allow the newborn to nurse. A "3" will generally not require any intervention. A "2" may require intervention and, if found in a young cow, will surely get worse the following lactation.

The "1's" are definite culls, and their daughters should be avoided as replacements when possible (Fig. 3). The "2's" should be culled as economic conditions allow (Fig. 4). Preference is given to daughters of "5's" and "4's" for replacements. Most commercial cows in the U.S. would be a "3" score, depending on breed and age (Fig. 5).

Other scoring systems are available and in use by the various breed associations. However, the above system can be universally applied.

Fig. 3. Udder Score 1—Quarters not balanced, teat size is large, and poor front and rear suspension. At calving, intervention would be required to avoid a spoiled quarter or to allow the newborn to nurse. Teats are strutting outward because of poor udder suspension.

Fig. 4. Udder Score 2—Light pigmentation and larger than ideal teat size. Rear udder suspension is poor. This cow's udder may deteriorate with age.

References

American Gelbvieh Association's Udder Scoring System, phone (303) 465-2333, web site: http://www.gelbvieh.org/fsudders.html

American Hereford Association's Udder Reference Chart, phone (816) 842-3757, web site: http://www.Hereford.org/

American Simmental Association's Udder Scoring System, phone (406) 587-4531, web site: http://www. simmgene.com/asawebpg.htm

Acknowledgment

Portions of this article were reprinted with permission from the American Gelbvieh Association, American Hereford Association, and the American Simmental Association's udder scoring system fact sheets. These fact sheets can be found at the above Internet addresses.

Fig. 5. Udder Score 3—Light pigmentation, irregular sized and placed teats, suspension and attachment are okay.

Fig. 6. Udder scoring is difficult after the cow has been nursed. Ideally, udder evaluation should be done immediately after calving.

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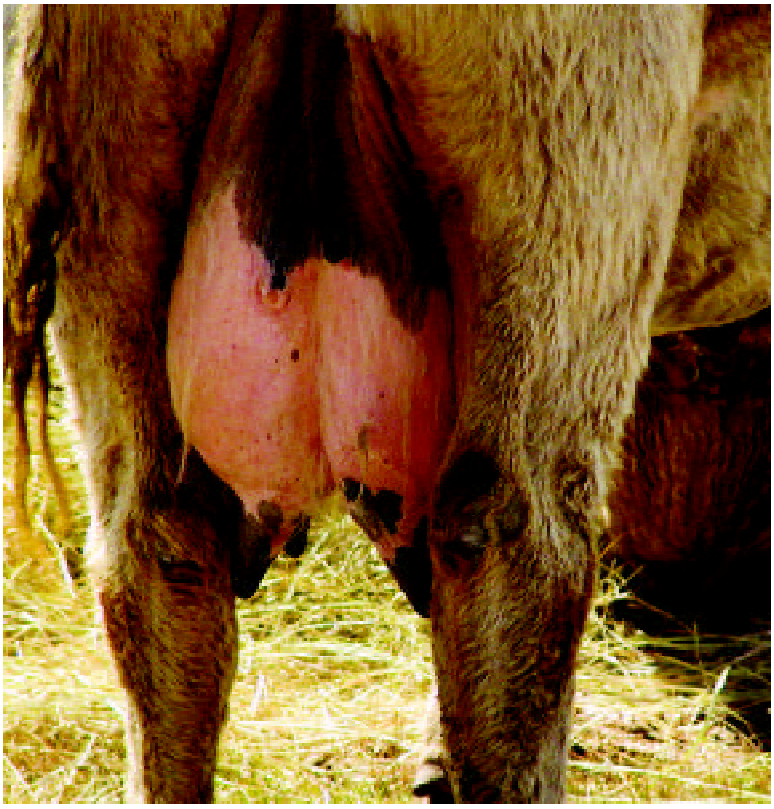

Notice the poor udder attachment and rear suspension causing the teats to strut outward.

The same cow as above. Cow was recently nursed changing teat size and appearance. Notice the poor front udder suspension even after nursing.

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