The Beef Cow Mammary System

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Introduction

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 a number of reasons. A few being: 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 colostrums intake by newborn calves having difficulty nursing oversized teats; and, 4) most udder and teat characteristics appear to be heritable. This means that there definitely is variation in the udder quality of daughters from different sire groups. Thus, change can be made through selection.

Characteristics

It is vital that you be able to recognize the desirable as well as the faulty udder.

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 indentation or cleft you see when you view a cow’s udder from the rear.

A strong median suspensory ligament is essential to a satisfactory mammary system. A cow that doesn’t have a strong center support is subject to several serious udder problems: 1) the udder floor may drop. This causes 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. This makes them much more liable to be injured; and, 3) once the udder floor has dropped, the entire mammary system may deepen to the point where the cow’s calf can’t nurse.

The fore udder should be of moderate length, strongly attached, with teats of moderate size and length.

A fore udder that’s too long may break away from the body wall as the cow gets older. Also, extra long fore udders are frequently “meaty,” an indication of low production.

The rear udder should be attached high to the body, with moderate width. It needs to show the defined halving described for the median suspensory ligament.
Quality and texture of a cow’s udder are also important things for you to consider.

Texture can best be described as a sponge-like consistency that allows a cow to let down her milk rapidly once she’s stimulated.

Ideal quality means that her udder is soft and pliable, free from congestion and hardness.

**Do I Consider the 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.

**What is More Important, Teat Circumference or 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.

**How Do Udder Scores Relate to 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.

**When is the 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.

**Udder Scoring**

The following udder scoring system was devised by a commercial ranch couple that 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 in snow country to prevent sunburned udders.

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 allow the newborn to nurse. A “3” may not be pretty to look at but will generally not require any intervention. A “2” may require intervention and if found in a young cow will surely get worse by next year. The “1’s” are definite culls and their daughters should be avoided as replacements where possible. The “2’s” are culls as economic conditions allow. 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.

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

