

QUOTABLE QUOTES

ON SIZE

Simmentaler and Simbra judges and Council members are gathering in March 2004 to discuss amongst others our “middle-of-the-road” size policy in the show ring, at training courses and during inspection.



Frame score or Sim-score (based on the wither heights of a few thousand Simmentaler show animals) is worldwide the simplest, most useful method to describe the skeletal size of an animal. It is determined on the top line directly over the hips or at the withers with the animal standing on a flat surface, legs symmetrically positioned, and head in a normal position. According to the literature size and weight are related but their rates of maturity differ. By seven months of age, cattle reach about 80% of their mature size or height but only 35 to 45% of their mature weight. At twelve months, about 90% of mature height is reached, compared to only 50 to 60% of mature weight. Let's see what the experts say? (CPM)

What happens as frame score sizes increases?

Calves become progressively more difficult to fatten.

Steers have to be slaughtered at increasingly heavier carcass weights.

Females reach sexual maturity later.

Cows have heavier mature

weights and therefore eat more.

Cows become leaner and more difficult to maintain in droughts.

Cows get slower and slower to re-breed after calving.

Cows tend to produce calves with higher birth weights and hence experience more calving difficulty.

Bulls become lighter muscled.

Structural problems, especially with the hind legs, become more frequent. (Yeates)

Some breeders are afraid that reduced cow size will decrease weaning weight. This might be true if you select according to the old fashioned weight and index system. Overseas breed associations, which are selecting according to BLUP EBV's for many years already, have shown that with EBV selection it is possible to improve 200 day or weaning weight and maintain average cow size (our aim is a mature cow weight from 16 to 33). However, a

prerequisite for this is that the cow's weight is also entered on the 200 day weighing list. (Massmann)

Large cows, when stressed by dry seasons or prolonged drought, tend to fail to re-breed in restricted joining seasons after calving. Pampering big cows with additional feed in tough

times interferes with natural selection. (Yeates)

Taller animals generally grow more quickly and lay down less fat than do shorter animals. (McKiernan et al)

Greater mature cow weight is associated with increased frame scores, which results in additional feed required for maintenance because of a larger body mass. Under favorable management, reproductive rates tend to be similar across frame size; however, when the availability of feed becomes restricted, larger framed cattle are more susceptible to reproductive failure. (Huyvetter)

The calving percentage of large - medium - small frame cows in a 43 day breeding season.

Cow size	Management/Feeding:	
	Good	Bad
Large	82%	53%
Medium	85%	67%
Small	85%	74%

Similar results were found in a study in Florida with bos indicus. (Butram and Wilham)

In the USA they conducted a study of calving intervals (ICP's) on 330 000 beef females from eight beef breed associations. This study showed that females with high yearling weight EBV's have longer average calving intervals. Females in the upper 20 percent for yearling weight EBV in each breed had longer average calving intervals than the low- and intermediate-group females of the same breed. *(Brink and Kniffen)*

Selection for increased growth rate and size tends to result in higher birth weight. These heavier birth weights create more calving difficulty. The genetic correlation between birth weight and growth rates is: weaning weight .58; 18 month weight .60; gain birth to weaning .38; feedlot gain .54 and mature weight .68. From this it is clear that especially mature weight or size and 18 month weight are highly correlated with birth weight. *(Greyling)*

From research papers gathered over years it is very clear that higher maintenance requirements, weak constitution, late puberty and heavier birth weight and thus calving problems are associated with the larger cattle. The cow which calves yearly in a natural environment and weans a heavy calf relative to her weight (50%+), has the size that is pursued by our breed society for many years already. *(C.P. Massmann)*