

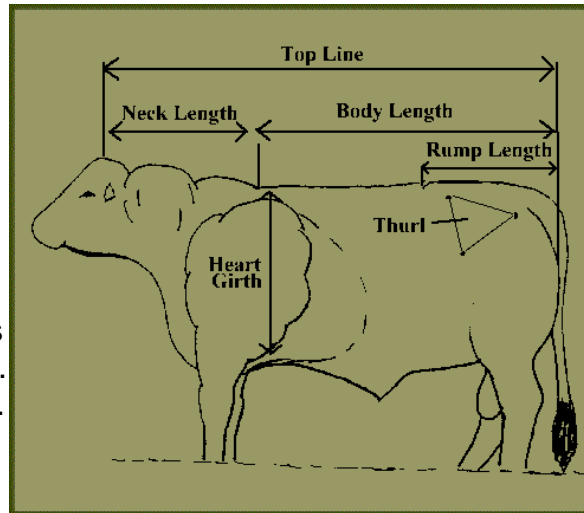
LINEAR MEASURING GUIDELINES & CORRELATIONS FOR THE MALE (Measured in Inches)

TOP LINE

The top line is the total length of the animal from front of poll to back of rump. The top line is derived from three measurements: neck length, body length and rump length. These three measurements make up the total top line length.

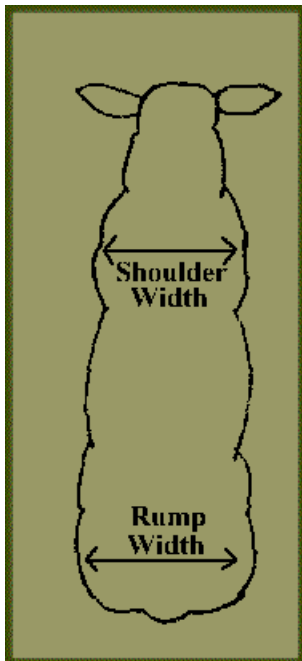
TRUE TOP LINE FOR BULLS ONLY

True top line is $1\frac{1}{2}$ times the body length.
Example: If the bull was 70 inches long and his body is 48, his neck length would be 22 inches. But multiply $48 \times 1\frac{1}{2}$ and his true top line is 72.



HEART GIRTH

The total distance around of the animal's chest cavity behind the elbows is the heart girth and should be equal to the total top line or larger at 12 months of age. The large girth is needed for proper size for vital organs (heart, lungs, glands). The closer the heart girth is to the top line, the more efficient, adaptable and vigorous the animal is. If heart girth is larger than top line it is a plus. Insufficient heart is a high indicator of structural defects, allows front feet to toe out, hooked toe, more susceptible to stress and is a high maintenance animal. Animals with a pinched or restricted heart girth do not perform well on grass. Reproduction suffers. A small heart girth is a structural defect and should not be tolerated.



BODY LENGTH OR 2/3 TOP LINE

The 2/3 top line is the rump length and back length together. It is the distance from the back of rump to the middle dip in vertebrate (chine bone) between the shoulder blades. If the back is too long it affects the neck length and the animal is out of balance. Long backs tend to be weak and will sway. Most long backs have too small a loin muscle. The long backed animals will have a dip from loin to top of the shoulder. There will be a dip from rib cage to shoulder blade. This break or dips are a structural defect and should not be tolerated.

RUMP LENGTH PERCENT

The rump length percent is the percentage the rump makes up of the body length or the 2/3 length. Divide the rump length by body length. Rump length percent in the bull influences the neck length in his daughters. Less than 40% rump length in the bull increases the neck length of his daughters and makes for a smaller heart girth,

thus higher maintenance. A long neck in a female is not symbolic of femininity. A range of 38% to 40% is ideal, less than or more than that is considered extreme. This range works best and will make adequate milking daughters. The rump length percent sets the standard for the degree of masculinity in the bull. If the rump length is below the 38% range, the level of masculinity is much lower.

RUMP WIDTH %

Divide the rump height into the rump width to get the rump width percent. This number should be 44% or greater. A higher number is what you want to aim for. Example: If the RW is 24 and the RH is 50, the RW% is 48. The animal is 48% wide as it is tall. High rump width percent is indicative of early maturity and ease of keeping. Bulls with higher rump width percent usually have wide shoulders, deep chests and a more acceptable scrotal. With good rump width% the animal normally has a better chest & shoulder area i.e. a larger heart girth.

ADJUSTED SHOULDER WIDTH

The shoulder width minus rump length is referred to as the adjusted shoulder width. You are looking for +2 inches or greater at 12 months of age in your bulls. In other words the bull's shoulders are to be 2 inches wider than his rump is long. A higher number means more testosterone, more masculinity. Wide shoulders mean more room for vital organs (heart & lungs).

Bulls have to look and be Masculine. Masculinity is responsible for the ability to withstand stress. Wide shoulders are the highest indicator of reproductive efficiency.

Masculine bulls will sire sons than when mated to proper phenotype cows (feminine) will create herd sires too.

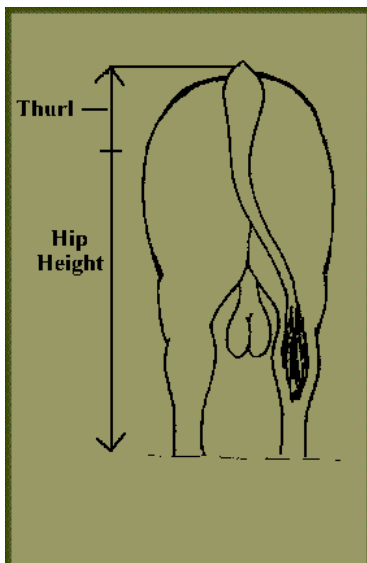
Masculine bulls produce daughters that reach puberty early, breed back and wean a heavy calf.

Yearling bulls with impressive adjusted shoulder widths correlate with uniform gestation time and length, uniform birth weights, ease of calving and more uniform weaning weights in their calves.

Wide shoulders usually mean a larger scrotum.

Masculinity in the bull is in the wide, deep shoulders and short thick neck with a rump to match the front.

Masculine sires put more pounds of beef on their calves. The bull's rump should balance with his shoulders.



RUMP HEIGHT

Correlates highly with gain-ability. Extremely tall animals tend to be out of balance due to slow puberty development, which lowers reproductive efficiency.

Taller animals have less meat on their carcass than the shorter thicker animals.

Taller animals will tend to have a smaller chest and shoulders and are easy to stress and are a higher maintenance animal.

Taller animals do not do as well on grass and takes longer to finish. Tall animals require more high energy.

A frame score from 4.5 to 5.5 tends to work best for finishing on grass.

FLANK CIRCUMFERENCE

The flank circumference should be, at minimum, equal to the heart girth but up to 2 inches larger is a plus.

A small flank measurement indicates an absence of meat on rump and this will be passed on to the progeny.

THURL

Thurl should be 13% of the rump height or greater. Greater is better if the slope of the rump (hooks to pins) is at the proper angle.

Thurl size and shape makes for ease of calving. It correlates with pelvic depth and structural soundness of the hind legs.

If the thurl is properly in place the animal will track (back foot in front track) when it walks. Measurement is taken from ground to stifle joint to top of back.

SCROTUM

The scrotum of yearling bulls should be 38 to 40 centimeters. Larger or smaller is in the extreme and should not be tolerated.

The **scrotum should be football shaped** with the epididymis on the very bottom of each testicle. If the epididymis is anywhere else but on the bottom it is a defect and will show up in the quality of udder in the daughters. The sons will have the same problem as the sire or worse with irregular shaped testicles (recessive genes). If the nipples of the sire are on the neck of the scrotal sack, the daughters udders will be tilted up in front with lower milk production. If the nipples of the sire are on the scrotal neck his sons will have a large navel area with the penis shaft opening pointing toward the ground and fertility is lower. Bull with Irregular shaped testicles and epididymi will create daughters with irregular and cylinder shaped udders, large nipples and udders tend to sag and break down too soon.

IMPORTANT AREAS OF THE MALE

Shoulder width.

Neck length. A masculine neck is short, full of crest development.

Scrotum size, testicle length.

Heart girth to top line.