

Selecting Boer Herd Sires: Buying A Bull Like A Racehorse

I hope this title caught your attention as I want to share several interesting observations from recent reading that I have done about bull selection. That's right I said bull selection but what does this have to do with Boer buck selection. You will have to read further to find out.

I have been doing a considerable amount of reading recently about breeds of livestock other than goats. I think we can learn a great deal from breeders of various breeds of livestock and try to relate this information to Boer goats.

Given below are two separate opinions that I have found in recent searches on the internet. I would like to include these here and then comment on what I think these opinions lend to a discussion of Boer bucks. The first treatise compares buying a bull to selecting race horses and I think you will find it interesting.

Buying A Bull Like A Racehorse

“With some of the green-up people are getting antsy, almost like a disease, to get to buying some females or looking at new hay equipment or anything else spring fever can bring. For me it's the anticipation of the Kentucky Derby and watching these young hopefuls try to pass the test to make it to the first Saturday in May. Although their performance is judged a little differently, handicapping that racehorse is not a whole lot different than picking those herd bulls. Everybody knows what the paper says, but there's always the x-factor or those intangibles that bring you back to the favourite. For the horse races it may be a gruelling stretch run or something that marks them as “battle hardened” ready for the task. With bulls it's probably something like he's freer moving or he has that “look” that you like or his mamma is an awesome cow that will help the bulls sort themselves to the top compared to their counterparts. It's the same with the Derby contenders class is class and once they rise to the top, just like your herd bull selections, will have passed one test, progeny will define their legacy.” (taken from a market report site on the internet.)

The next article is a little more extensive and alludes to many of the considerations involved in selecting a breeding bull. It appears below:

Bull Selection Can Help Beef Producers Capitalize on Markets

“Beef producers who want to purchase bulls or semen for their spring breeding herds should be doing their homework now, says a Purdue Extension beef specialist. Cow-calf producers can take advantage of high market prices by selecting healthy bulls that will produce calves with more growth potential.

“If we can buy bulls that will produce offspring that will be born with a minimum of dystocia, grow a little bit faster, will produce a little bit higher-quality carcass, and produce replacement females that perform above average, I think our cow-calf producers have the opportunity to capitalize,” said Ron Lemenager.

Producers can do this by looking at what will affect offspring and doing plenty of research before investing.

“Good bulls come from good cows,” Lemenager said, “So if producers can take a look at mom before they purchase that bull, I think it helps minimize some of the risk.

But even if the dam looks good and is healthy, a bull's own merit still needs to be evaluated, starting with reproductive soundness. They should have a breeding soundness evaluation that

includes both a physical exam and semen quality evaluation. Many seedstock operations offer a breeding guarantee to the buyer.

Lemenager also said it's important to know the health status of the animal. "Know the background of the bull and the vaccination history," he said. "If you're buying an older bull, be sure the animal doesn't have any venereal diseases that are going to come back into the herd. I really like the idea of buying a virgin bull to minimize the risk."

Structural soundness plays a role in whether a bull will be able to get cows bred, so Lemenager suggested inspecting feet and leg structure, eyes and muscle shape, a factor that contributes to calving ease. Also important is genetic merit. Genetic defects have the potential to cause problems in the herd.

"Almost every breed has one or more genetic defects, and they can sneak up on you if you're not careful," Lemenager said. "Producers need to study the pedigrees and know which bulls are free of genetic defects, or buy bulls that have been DNA tested and declared free of known defects."

Producers also need to study up on a bull's expected progeny differences, or EPDs. Calving ease, maternal calving ease, growth traits, maternal milk and carcass traits can all affect a producer's bottom line.

"We really need to keep an eye on the EPDs for the economically important traits," Lemenager said. "We need to stay away from single trait selection and emphasize multi-trait selection to make herd improvement that complements marketing strategy. If you're saving back replacement heifers, things like maternal calving ease and maternal milk become very important. Growth traits such as weaning and yearling weight affect the pounds available for sale. Carcass traits, such as marbling, back fat and the ribeye area are the main drivers for how these cattle hang on the rail.

"I'd also do an independent cull on frame size, so the cattle don't get to be too big or too little."

It's not until all of these traits have been met that Lemenager recommends producers start looking at the animal's phenotype, or "look".

Much of this same advice applies to producers who manage an artificial insemination breeding program. And while commercial AI studs tend to do a good job of screening animal health, AI sires can still perform differently.

"Some bulls produce semen that's of higher quality or that gets cows bred better than other bulls," Lemenager said. "So, here again, producers need to do their homework before they start spending a lot of money on semen. They need to know that the bull has been working, that cows have been conceiving to that semen and that the offspring are performing as expected."

In both of these small articles there is considerable mention of productivity traits and the importance of maternal traits of raising offspring and giving milk. These maternal traits should also come into play when selecting a herd sire for a Boer goat herd. The Boer goat industry is still in its infancy in the US and we have not come around to realizing many of the important considerations used by beef ranchers in selecting bulls and applying this to selection of bucks. Many people choose a Boer buck according to their winnings in the show ring which is often based more on form rather than function and "pretty" rather than production. I suspect that many of the bucks with tubular bodies and a feminine appearance that are winning in some shows today actually don't have enough testosterone to be effective herd sires. There is a reason they look like a girl and some of it has to do with glandular function particularly testosterone. In my opinion, boys should look like boys and girls should look like girls. Bucks should be heavier in the front end as they have to compete for the females and does should be deeper or heavier in the rear end to have capacity to hold babies.

I recently wrote an article that discussed visions for the future of the Boer goat industry and one of the more important visions was collection of herd production data from many different Boer bucks so that EPDs could be calculated. As a continuation of this vision perhaps DNA markers

can be identified for some of the positive EPD values. These DNA markers might help us to identify the bucks to use in meat goat production herds.

Notice in the beef discussion that consideration was given to production data in carcass evaluation. While back fat and ribeye measurements are very important in selecting beef cattle I think that we need to discover other important measures for carcass data with Boer goats and meat goats. Goats are browsers rather than grazers like cattle and sheep and as a result deposit fat differently. Goats deposit fat around the internal organs such as kidney, pelvic and heart areas and have little or no back fat measure regardless of the fact that they may be consuming high protein feed for extended periods of time.

The phenotype or “look” is one of the last considerations in selecting a bull while phenotype for selection of bucks in the show ring is one of the primary considerations. The importance of performance data in beef cattle selection for the mother of the bull is important. I think this should be an important consideration to be added to the equation in Boer buck selection. As the man says “good mothers produce good sons.” Some think that the proper shape of the udder is what produces the proper shape of testicles on the bull calf produced.

Without getting too long winded in this article I think you see what I am trying to say. We can learn from the cattleman and what he uses in his selection process.

Ratios And Proportions In Goats

- The angle at the point of the shoulder (where the scapula connects with the humerus) should ideally be 137 degrees.
- The angle at the rear hock should be 160 degrees. A greater angle is posty legged; lesser angle is sickle hocked.
- The angle of the neck coming out of the topline should ideally be 40 degrees.
- The ratio of hook to thurl to pin (thurl is where the femur fits into the pelvis) should be 2 to 1, that is, two parts from the hook bone to the thurl and one part from the thurl to the pin bone. A ratio of 1 to 1 results in a goat that almost falls down when they turn. A goat that is cow hocked in the rear legs will normally have a ratio of 3 to 1.
- For balance the topline ideally is twice the neck length measured from the poll to the first cervical vertebrae for the neck and from the first cervical vertebrae to the pin bone for the topline.
- A sign of masculinity in a buck is that the heart girth is equal or up to 10% more than the topline measurement.
- A sign of femininity in a doe is when the circumference at the flank is greater than the heart girth (that is manifested in the doe appearing wedgy or deeper in the rear end than at the front end)
- Bucks are bigger in the front than the rear because they have to compete for the does and a doe is deeper in the rear than the front as they need capacity to carry kids.
- The width between the eyes is equal to or directly proportional to the width of the shoulders and the width of the loin. Width can also be predicted by distance or width between the horns. A narrow gap between the eyes predicts a narrow, slab sided goat with very little meat.
- The length of the face from the horn set to the muzzle is equal to or directly proportional to the length from the hook to the pin (the rump or hip) and also is directly proportional to the longissimus dorsi muscle that runs down the back.
- The circumference of the forearm is an indicator or predictor of mass and muscle (the forearm is an area that is muscle surrounded by skin that doesn't get fat).
- The width of the chest floor and length of the canon bone are predictors of growth potential as is the size of the skull.
- The distance from the tip of the nostril to the tip of the lip is called the “stop” in Australia and is a predictor of future mass and muscle in kids.

- The depth and length of the flank skin is a predictor of muscle development in the stifle area – the deeper the flank skin and the longer it is from the rear leg to the deepest part of the body the greater the capacity for muscling in the stifle area.
- Width in the rear and at the widest point when viewed from the rear should be stifle to stifle. Second widest area should be thurl to thurl when viewed from the rear.
- If you notice where the flank intersects the front of the rear leg and project a line through the leg to the back of the leg indicated the meat extends down the back leg from the tail.
- A sign of femininity is indicated by good width between the ribs.
- A sign of femininity is openness or width between the hocks so that there is adequate capacity for the udder between the rear legs.
- A sign of femininity is refinement in the head and neck area as well as lighter but adequate bone in the legs than in the male.
- A sign of femininity is illustrated in the hair coat by the appearance of a swirl of hair half way down each back leg. This is also an indication of strong maternal traits and milkability.
- The appearance of hair swirls on each side of the front of the chest is termed a thymic swirl and is an indication of a strong immune system. This trait can be a valuable selection criteria for young goats.
- A hair swirl located in the middle of the barrel down low on the body is called a pancreatic swirl and indicates strong reproductive traits.
- The existence of hair swirls in the hair coat of a goat is a manifestation of proper glandular function.
- The ideal pastern is short and you should be able to draw a perpendicular line from the rear of the dew claw to the back of the heel of the hoof.
- The ideal set to the back leg is when you can draw a perpendicular line that extends from the pin bone down through the rear hock and then down through the rear pastern.
- The ideal set to the front legs is when you can draw a perpendicular line that extends through the point of the shoulder down through the center of the knee and on down between the toes. Toes should be tight together and not splayed apart. Too much weight on a young skeleton can cause splayed toes and weak pasterns.

You might take a look at www.bovineengineering.com for more perspective on linear measurement and hair coat configurations on beef cattle.)

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