

Management of Yearling Bulls

Management of yearling bulls can be divided into three phases: pre-breeding or conditioning, breeding season and post-breeding season. For optimum results it's important that proper steps be taken during each period.

Pre-Breeding or Conditioning

This is the time period following the purchase of a yearling bull. Although some producers will forgo this phase and begin breeding their new bull immediately, Dr. Neal Schrick of the University of Tennessee says it's important to allow the bull some down time to get into "breeding shape." Let him get used to his new environment, especially if you buy from a different region of the country. The bull may need to build stamina, and this is a good time to do that. Make sure he is getting adequate nutrition, which includes good mineral. Concerning nutrition, Dr. Schrick also notes, producers should always be careful when letting bulls graze fescue during the summer months. Reduced fertility of semen has been noted in bulls grazing fescue during the early summer months, but this can be overcome with management (clovers, etc).

Producers should also use this conditioning time to do vaccinations and de-worming and conduct a breeding soundness exam. The breeding soundness exam will evaluate a bull's physical condition and the quality of his reproductive system, including a semen analysis. The exam will alert farmers to problems before the bull goes through an entire breeding season with bad results.

Breeding Season

The breeding season typically lasts 2-3 months, and like the conditioning phase, proper management is essential to optimum results. When breeding a young bull, it's important to not over-work him. Dr. Schrick suggests a bull to cow ratio of one cow per month of age of bull, up to three years of age. For example, a two-year old bull should not breed more than 24 to 25 cows during a 90-day breeding period. These numbers may change with length of breeding period as well as terrain.

If a herd has more than one bull, a dominance effect may come into play. The older established bull will assert his dominance over the young bull, and could end up breeding most of the cows. If he has a poor semen quality or poorer genetics, this could reduce pregnancy rates and quality of the entire herd. Remember, you just paid a lot of money for a young bull with hopefully better genetics, yet the pregnancies are coming from the older bull. This can be avoided by separating cows into breeding groups.

Dr. Schrick also says heat detection should be monitored, even by producers using natural service. A breeding soundness exam observes for physical and reproductive problems, but it does not measure libido, or breeding desire of the bull. It has been reported that libido is a problem in up to 8 percent of bulls. Does the yearling bull you just purchased have the libido to properly perform? Observe for heat activity and

rebreeding for the first few weeks the bull is with cows to see if he is getting the job done.

Post-Breeding Season

The post-breeding months are similar to an athletic off-season, and training and management are just as important. It's key that the bull receive proper nutrition and exercise during this time so he can return to "breeding shape" next season. Preventing injury is also important, although difficult. Dr. Schrick suggests evaluating bull pens and then making necessary repairs or changes that will best help the bull avoid injury.

Matching Bull Genetics to Cowherd

Bull selection is an infrequent decision, but one with a long-term impact. In fact, according to Dr. David Kirkpatrick of the University of Tennessee, almost 90 percent of a calf crop's genetics are the results of the last three bulls used. Bull selection can influence growth, calving ease, maternal ability, carcass merit and reproduction. Therefore it is imperative to select a bull that will match the needs of your cow herd.

Considerations

Before selecting a bull, you should determine how you want to position your herd within the industry. Different marketing strategies will create different bull needs. How will your calves be marketed, as yearlings or on the rail? Will daughters be saved for replacements? If saving females, how big should they be? These are questions that must be considered. Also, producers must evaluate their environmental resources. In other words how much nutrition and labor can you provide, and what cow types will do best under these conditions.

After considering these factors, determine the herd's current strengths and weaknesses. Set new production goals, and then search for a bull to genetically compliment the herd's needs, strengths and environment.

Utilize Selection Tools

It is important to keep in mind that not all beef cattle operations have the same resources, goals, priorities or marketing plans, which is why different farms need different types of bulls. For example, a herd with a large population of replacement heifers will have different bull needs than a herd with all mature cows. To help determine if a bull will match the needs of your cow herd, use the EPD's (Expected Progeny Differences) reported in sale catalogs. EPD's measure growth, calving ease, milk, and carcass merit. They work similar to a Nutrition Facts label, predicting the amounts of good qualities and bad qualities each bull could pass on to offspring. They track level of performance in the

bull and his ancestors, and allow producers to select for traits of economic importance, including cow size and reproductive efficiency.

Selection

When choosing a bull it is important to select first by establishing acceptable genetic value. Then evaluate reproductive soundness and structural soundness. Temperament should also come into play in the selection process, as should visual appraisal – body capacity, muscling, depth and frame.

A common misconception is that bigger is better, but that is not always the case. Choose a bull that will be most economical and best serve your herd. Dr. Kirkpatrick says you should change your mindset from “maximum” to “optimum” results.

Types of Bulls

-Calving Ease: Also known as Heifer Acceptable-Specializers. These bulls are best used in herds with a high percentage of first calf heifers. Since high birth weight is the largest contributor to calving difficulty, some growth is sacrificed to make calving easier.

-Growth: (Terminal-Maximizers). Terminal Bulls produce feeder calves with exceptional growth. They cannot be mated to replacement heifers, only mature cows.

-Balanced: (Optimizers). Balanced bulls produce moderate birth weight calves for calving ease. Calves of balanced bulls display acceptable growth. Offspring heifers exhibit moderate mature size and milking ability.

-Carcass: These bulls can be used with replacement heifers. Their offspring display moderate growth with desirable carcass traits.

Remember Selection Strategy

Before selecting a bull, define goals and identify the herd’s current strengths and weaknesses. Utilize information, such as EPD’s, and then select for traits of economic importance. Afterwards, track bull performance and know your market. Take necessary steps to positively impact end product acceptability.

Utilizing Genetics to Improve Uniformity in Herd and Replacement Heifers

Uniformity is a marketable commodity and the key to efficiency in beef production. Cattle of different types and sizes cannot be marketed together, so it is beneficial to all producers to strive for uniformity. But as Tennessee Livestock Producers’ director of

genetic programs, Kevin Thompson says, uniformity is not easily attainable. Instead it is an ongoing process that requires close management.

Challenges

Age and genetics are two factors that most greatly influence herd uniformity. They have a direct impact on frame size, muscle character, color, milking ability and fertility. If one can determine how to use these factors to his advantage, he is on track to a more uniform herd.

Of course there are many challenges associated with attaining herd uniformity. At the onset, farmers may be dealing with cows of various types and sizes. And when purchasing new cattle you can never be entirely sure what hidden traits you are introducing into your herd. Differing hide colors is another challenge to uniformity, and is shown to have a negative effect on marketability.

If you are a farmer who uses a short calving season, you may face an additional challenge in your efforts to achieve uniformity, as you must select first-calve heifers to retain before having time to fully measure certain factors, such as milking ability. These factors determine a heifer's staying power in the herd. And according to Thompson, selecting heifers that will stay in the herd for multiple years is a key element to achieving your goal.

Overcoming Challenges

If your goal is uniformity, the first area of focus should be age. This begins in calving season, with selection and retention of replacement heifers. Once selected as a replacement heifer, the animal must be closely managed. She will need extra nourishment to quickly grow to breeding size. Once heifers are ready for breeding, they should be the first of the herd to go to the bull. There is an increased likelihood of conception during the first 1/3 of breeding season. Conception significantly improves the heifer's chances of remaining in the herd multiple years, which equals profitability, and eventually, uniformity.

But while closely monitoring heifers for herd uniformity traits, the herd sire selection is even more important. You will consider weaning weight and yearling weight. Scrotal circumference is also a factor as it determines age at puberty, which impacts fertility and ultimately longevity within herd. Also take into consideration the would-be sire's mother's milking ability. The sire will pass this trait on to daughters. Adequate nutrition is vital to a healthy herd and allows for genetic potential.

Some farmers may consider changing to a different cattle breed to sire their herds. Initially this will cause issues with uniformity. However, crossbreeding does increase heterosis, the possibility to obtain a genetically superior individual by combining the virtues of its parents. But with good selection and management, producers can increase herd longevity which will help overcome uniformity issues.

Whatever route you decide to take, remember, management is key.