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FACTORS TO CONSIDER WHEN BUYING AND MANAGING BULLS

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Introduction

When considering purchasing a sire price often becomes the first consideration. My father once said the most expensive bull he ever purchased was the one he bought the cheapest. If replacement heifers are retained in the herd, 80-90% of the genetic change in a herd will be made by the bull's genetic makeup. Thus, as leading ranchers know, making decisions in selecting bulls is very important. Management of the bull after he arrives at the farm or ranch is also very important. The best genetic package is of little value unless the bull is managed to serve a large number of cows in the time frame you want him to be productive.

Source of Bulls

The reputation of the seedstock supplier is of uppermost importance. Honesty and being totally committed to a long-term customer relationship should be prerequisites of any supplier of bulls. In order to supply you with the most appropriate genetic match it is important that they understand your genetic base and your future goals. In fact, some producers will only buy bulls from someone who has visited their ranch, seen their cows and calves, and discussed their goals.

Seedstock producers should be aware of what is working in today's markets, but also should be aware of short and long range beef industry trends. They should not only have the knowledge but also have made a commitment to and are selecting for traits that will meet future industry needs. Caution needs to be exercised to not over emphasize an apparent new trend, especially if it is a single, non-economic trait. Selection for hip height only, in past years should serve as a good example as to what not to do. Presently much attention has turned to carcass traits, especially marbling. This is positive for the industry, especially with more emphasis on value based marketing and currently many grid marketing programs reward the higher quality (marbled) cattle. It is troubling however, to see some producers place high emphasis on marbling and subsequently sell calves at weaning on a commodity market. These producers have little opportunity to share in the added value that may be gained when the cattle are sold on a "quality grid" after finishing.

Many leading seedstock producers have utilized embryo transfer to produce many full and half sib bulls. This offers a large source of similar genetics which theoretically should lead to a more uniform calf crop. It is still important to consider the cost benefit effect when

considering full or half sibs. In a paper presented by Dr. Jim Gosey (Range Beef Cow Symposium Proceedings, 1997) he questioned how much, if any, would the uniformity of the calf crop be increased. Also a smaller genetic base with emphasis on one or a few traits will increase some risk in the future. If the trait turned out to be less important economically than anticipated or was linked to a very undesirable trait in the breeding herd, then a large group of cows may be adversely affected. Conversely, the risk may lead to great gains. The producer needs to carefully evaluate the risk benefit ratio.

Another recent technological advance is the use of ultrasound to evaluate the bull's carcass value. This has been a great asset and most research geneticists feel it is an excellent tool in evaluating sire groups. These geneticists, however, would caution the seedstock producer about relying too heavily on a scan from an individual bull, as the tool and/or operator are not 100% accurate. Also as stated previously, selecting for extremes for any one trait may not be advisable. For example, is it wise to select the largest rib eye offered? Do we want or need 22 sq in rib eyes? What other problems would be experienced if we over selected for extreme muscling?

The importance of complete and accurate records of the bulls and performance records in their pedigrees is obvious. The days of buying bulls on how they look the day of the sale are gone for tomorrow's profitable calf producers. Again, reputation of the seedstock supplier is a major consideration. It is important to consider the accuracy of information recorded, however further questions should be asked. Was all of the performance recorded and used in the calculations for this group of bulls that are offered? How many bulls were culled from the offering? Why were they culled?

Fortunately, published expected progeny differences (EPDs) have been a great benefit in offering a more complete and accurate picture of true genetic worth and animal geneticists favor using EPDs over in herd ratios for a single bull. The use of EPDs has made it more difficult for a single breeder to influence the genetic indicators of a bull. This is especially true if the bull is used as an AI sire with several herds.

It is not the intent of this paper to discuss how to utilize EPDs because many excellent guidelines have been previously published. It is important however they be fully understood, especially when comparisons are made from one breed to another. Using EPDs allows for exact calculations on true value of a bull in a given herd. It is possible to accurately predict how much difference in weaning weight in the short and long term would be achieved when considering two different bulls so an exact economical value can be placed on the two bulls considered. The use of EPDs as an excellent management tool can not be overstressed.

Many leading seedstock producers are not only offering bulls for sale but are offering long range alliances. This may be in the form of agreeing to purchase all of the steer calves that meet their specifications at a premium which are then entered in a feeding and retail alliance. Other seedstock producers may be interested in the development of replacement heifers for other commercial customers. These alliances should be considered as a further economic opportunity, however, again make sure you understand the details are thoroughly

evaluated. How will the value of the calves be determined? What will the bulls do to other economic traits such as calving ease or weaning weight? How good do you feel about positioning your calf crop to a single buyer 18-24 months in the future? If that buyer is not available what will the value of the calves be to other potential buyers?

Various levels of guarantees are offered with bulls. Assuming the breeders reputation is excellent, the greater the guarantee the greater the value. Obviously, those breeders that guarantee their bulls for one full year are assuming a considerable risk and should be paid for the assumed risk. Bulls that are only accompanied by a semen test should be bought for less.

All bulls should be sold with a breeding soundness examination. Unfortunately, this only assures that on the day the bull was examined he had sufficient, high quality viable semen to pass the examination. It does not guarantee that he will get cows pregnant which emphasizes how important it is to observe new bulls when they are introduced in the herd the first breeding season. Are they willing and able to service a cow?

Development of Bulls

How bulls are nutritionally developed is a lively and continuing debate. There is no question that fat sells, yet many feel that most yearling bulls are fed to excessive body condition (fat) levels. Some would argue that bulls should be fed much the same as their progeny are fed in the feedlot to determine true genetic differences. Data would indicate that growth differences can be adequately evaluated when daily gains are in the range of 2.0-2.5 daily. A few bulls in the southeast United States are developed on grass and are readily acceptable by repeat buyers. There is some argument that a fast development program is needed to allow yearling bulls to gain enough maturity to become sexually mature and serve a large number of cows. However, experience may suggest that excessively fat bulls are more prone to have fertility problems, be less aggressive especially in large pastures during hot weather, may have more foot problems, and may have shorter longevity. Another comment from my father comes to mind when considering bull development. He stated that when he purchased a bull in moderate condition he was never disappointed a year later but went on to say that he sure couldn't say that about some fat bulls he bought. Regardless of the reasons for not over conditioning bulls, as long as they are bringing a premium it is unlikely that bulls will be developed less aggressively.

Management

Discussions will continue on the value of yearling versus 2 year old bulls. Research indicates that well developed yearling bulls have very similar breeding potential as virgin 2 year old bulls. It is recommended that if multi-sire pastures are used, young virgin sires be run together and not mixed with older more aggressive bulls.

Bull to cow ratio has historically been 25-30 cows per mature bull and 20-25 for young virgin bulls. A few years ago research at Colorado State University indicated that yearling bulls could successfully service 60 cows in mountainous pasture and as a result of

this data many producers have successfully stretched their bulls to greater than the historic 25:1 ratio. If the ratio is increased it heightens the importance of frequently monitoring the bull's activity and soundness, and if a problem occurs immediate action is required even in multi-sire pastures.

Some people feel that rotating bulls every 1-2 weeks and allowing the bull to rest for a short period will increase his serving capacity in the breeding season. Even though this approach is somewhat logical and is practiced by a few, data to support such practice is lacking. Because of the added labor required it may not be practical, especially in extensive range country.

The choice of single versus multi-sire pastures will vary from farm to ranch unit and breeding pastures available. Obviously, it would be desirable to identify all calves from each sire and then make future bull selections. This is not practical in many ranching operations so several alternatives may be considered. Grouping bulls of very similar genetics in one sire group will allow some information of a sire group. In some rare cases perhaps hide color will allow identification of calves from a single sire in a multi-sire pasture. Currently, blood typing the DNA of all calves is probably not economical in commercial herds, however, DNA blood typing can be used to identify calves and may be of some merit in certain situations, for example, calves that had extreme calving difficulty, extremely poor performance or perhaps to identify the sires of the best performing calves.

It is often stated the most neglected animal on the ranch is the bull that is not in service. Care and management is especially critical for the young bulls after the first breeding season. Often these bulls are thinner than is desirable, especially if they went to pasture in excessive condition. It is advisable to feed and manage the young bulls in a group separate from the mature bulls. Supplemental feed is often necessary to regain condition on the young bull unless some high quality grazing is available in the fall and early winter.

Annual breeding soundness examinations are usually recommended. It is particularly important for these examinations when higher cow to bull ratios are utilized and when bulls are used in single sire pastures. Your veterinarian should be consulted on the need for annual evaluation and consequently how to interpret the soundness evaluation. Bulls must be offered protection from extreme cold temperatures, especially cold extreme winds that can frost damage testicles. Providing wind protection and use of straw or excessive hay for bedding can usually provide adequate protection from frost damage. New research from Canada offers a method to find damage to the testicles from injury.

In summary, the genetic change (both improve and harm) that will be made in a herd will largely be due to the bulls utilized. Every effort needs to be made to establish an excellent relationship with a reputable seedstock supplier and select the genetics that fit your environment and cow herd that will put you on course for both short and long term goals. Once those genetics are brought on the farm or ranch the bull must be managed to provide good annual service and desired longevity.

Several other excellent resources are available including:

Breeding Soundness Examinations of Beef Bulls. James Gosey. NebGuide G83-666A.

Considerations for Bulls Used in Natural Matings. John Spitzer and Fred Hopkins. Beef Cattlemens Handbook BC2010.

Breeding Soundness Evaluation. Mark Spire. Beef Cattlemens Handbook BC20201.