

July 2020

## What Drives Bull Prices, and How Much Can I Spend on a Bull?

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### What Factors Contribute to Bull Price?

Several factors determine the age-old question of how much to pay for a bull. These factors are highly variable and can fluctuate from year to year. Five main factors will influence bull price, and we will break them down individually.

**Factor 1. Breed.** The first factor that can drive bull price is the breed of the bull. A great example of this is when Certified Angus Beef became popular in the late 1990s. Angus bulls were highly sought after, and the high market prices reflected the industry desire to own Angus bulls. This trend is currently still relevant, as many beef producers have incorporated Angus genetics into their herds (Bacon et al., 2017). However, the breed can also have an effect if it is rare or if few bulls are available to the market. In this case, market demand far outpaces supply, and in order to own a bull from that breed, a producer must be willing to pay outside the market norm for that bull. Additionally, since Angus breeding is so prevalent in many commercial herds, some commercial producers are looking at other breeds as outcrosses to increase hybrid vigor that can increase the value of those breeds, at least in a local or regional market.

**Factor 2. Availability.** A second factor that can influence bull price is the availability of bulls when the producer needs them. If many producers need bulls in a given year, demand may outstrip supply, driving prices higher. This availability can also be related to the time of year when producers are buying bulls (Bacon et al., 2017). If all producers are ready and heading to bull sales at the beginning of the season, bull prices trend higher. Furthermore, if a good number of producers need bulls at the end of the bull buying season, bull prices will increase due to the decreased number of bulls available and because bull producers know there is not a lot of supply left in the market.

**Factor 3. Auction Activity or Behavior.** The third factor contributing to bull price is auction activity or behavior; specifically, the animal's position in the sale order, the number of animals for sale, and the number of bidders present at the auction (Bacon et al., 2017). Typically, animals with beginning lot numbers tend to sell higher than animals slotted at the end of the auction. This trend of decreasing prices as the auction continues is even more dramatic if there are many animals for sale with an average number of bidders. However, if there is a large number of bidders at the auction in comparison to the

number of animals available, prices tend to increase as the demand to purchase a bull is outpaced by the supply of bulls available.

**Factor 4. Breeder Reputation.** The fourth factor that has the potential to affect bull price is the reputation of the breeder. In this situation, breeders with proven reputations will often receive a premium for the bulls they sell. The validation for this premium in price is most likely due to a breeder providing reliable seedstock for multiple generations to producers. Furthermore, high reputation breeders will guarantee their bulls have been proven sound breeders as a form of insurance for the buyer when purchasing a bull. As such, producers that buy from reputable breeders can expect to pay more for bulls due to the breeder's reputation of selling reliable bulls (Marston et al., 2002; Irsik et al., 2008).

**Factor 5. Genetic Potential.** In some situations, bulls will enter an auction with an unseen level of genetic potential, or genetic potential that matches an individual ranch's production goals or breeding objectives. These bulls typically have phenotypic traits, genetic predictions, or testing results that are extremely different than their counterparts'. As such, these bulls are valued for their genetic potential and ability to contribute specific trait levels to a particular herd. Furthermore, there are bulls valued higher because they can potentially transfer their genetic material to multiple herds by becoming an AI sire. Thus, a high level of value is placed on the bull because he has traits that are unique or extremely elevated from the "norm" of the breed, and he can be used as a herdsire across multiple herds. Thus, genetic potential drives bull prices (Irsik, et al., 2008; Atkinson et al., 2010; Bacon et al., 2017).

### **Is Purchase Price Related to Bull Quality?**

The answer to this question is both yes and no. The purchase price of a bull does have a strong correlation to bull value or quality. However,

value and quality are perceived and measured differently between beef production systems. For example, a bull purchased for \$25,000 at a sale in the Midwest may have a high perceived value for what he brings to production systems in the Midwestern states. However, that same bull may have limited value in the Intermountain West because his traits are not compatible with production resources and goals in that region. Furthermore, a bull purchased for \$2,500 at the same sale may be extremely valuable to a Utah-based operation based on his characteristics, but may be viewed as subpar in a more forage-rich production system.

### **How Much Can I Spend on A Bull?**

The amount that can be spent on a bull varies and is closely tied to the five reasons previously outlined. However, no matter what is spent on a bull, that amount needs to be recouped through an increased:

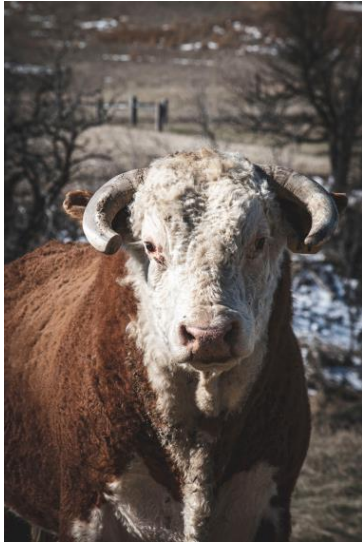
- performance of your cow herd,
- perceived value of the animals produced (i.e., bulls, replacement heifers, feeder calves, etc.), or
- product the bull produces (semen, or sire of embryos).

As depicted in Figure 1, there are instances where paying more for a bull may prove beneficial. In this example, the bull purchased for more:

- increased the amount of saleable product (increased weaning weights),
- decreased the time to puberty of replacement females,
- increased final product quality, and
- improved the overall genetic merit of the cowherd.

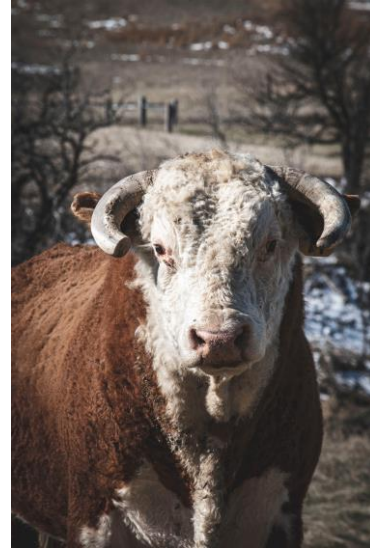
To summarize, whatever is spent on a bull must be recouped through increased performance of the herd or increased value of saleable product due to his genetics.

**\$4000**



**BW = 1.1; WW = 57; YW = 91; Milk = 29;  
SC = 1.0; REA = .48; Marb; 0.05**

**\$2800**



**BW = 2.5; WW = 48; YW = 78; Milk = 25;  
SC = 0.2; REA = .22; Marb; -0.05**

**Figure 1.** Purchase price and performance increase to recoup higher bull purchase price. If purchasing the \$4000 bull instead of the \$2800 bull, the additional \$1200 must be recouped through performance or increased genetic merit of the herd.

(1) The \$4000 bull is expected to wean calves that are 9 pounds heavier than the \$2800 bull.

Assuming a \$1.50 per pound sale price for weaned calves, and if the bull sires 25 calves per year, it would take approximately four breeding seasons to recoup the increased sale price when evaluating weaning weight alone. However, this is not the only factor that needs to be evaluated.

(2) The \$4000 bull will have heifer calves that reach puberty earlier (SC =1.0 vs SC = 0.2). Thus, replacements may breed earlier in their first breeding season, which has been documented to an increase in longevity.

(3) The \$4000 bull will have higher carcass merit potential, thus, in certain marketing strategies, it may lead to added profit.

(4) The \$4000 bull's replacements may have higher maintenance requirements (Milk = 29 vs Milk = 25). Thus, their cost to maintain and breed on a 12-month cycle may be slightly higher than heifers from the \$2800 bull.

(5) Multiple factors need to be considered when determining return on investment including increased performance, integration of new optimal genetics, carcass merit, and maintenance costs of the animals produced.

## What Strategies Should I Implement During Bull Buying?

1. **Identify multiple sales that have bulls meeting all of your criteria.** Identifying various sales allows you to purchase bulls that meet your criteria in case one sale exceeds your budget or doesn't have all the bulls you need for your operation. Furthermore, in the age of web-based information, you can research what the selling price was for similar bulls in previous years' sales to develop a bull buying budget for each purchase.
2. **Identify multiple bulls in each sale that meet your criteria and that meet your criteria at various time points in the auction.** Rank all the bulls from your most desirable to those that meet your criteria but may not be your favorite. As previously stated, auctions have certain flows in which bulls will sell higher in certain lot placements in the auction. Identifying more bulls than you need helps you to navigate the sale if prices start increasing and still gives you opportunities to pick up bulls that may be valuable to your operation.
3. **Have a budget and stay true to your budget.** Before participating in a sale, have a firm grasp of your total budget. This awareness allows you to understand how much you can spend on a bull, or how much you are permitted to spend on additional bulls if you have to pay a higher price on a bull. This planning helps you monitor your spending during a bull sale and helps with your purchasing strategy as the sale advances.

## What Strategies Should I Avoid During Bull Buying?

1. **Do not wait until the last minute to buy bulls.** Waiting until you are desperate for bulls can be a costly mistake. Typically, a producer in this situation is no longer able to negotiate price effectively, and few bulls are then available. In this situation, the producer typically pays a much higher price than the bull's value due to supply. Furthermore, the available bulls are of lower quality, so a producer overpays for a bull that limits the value to their operation.
2. **Do not buy bulls that were pulled from the sale after the sale is completed.** Buying bulls that were too sick or injured to be in a sale is not a sound strategy. In this situation, not only is the buyer possibly paying an elevated price, but there is also a risk of transferring disease to the producer's herd or the bull reinjuring himself during the breeding season and not completing his breeding season duties.

## Summary

The purchase of the right bull is essential to every beef operation. The bull or bulls utilized will have a lasting impact on herd performance and efficiency for years to come. Determining the value a bull's genetics bring to a herd is essential when determining the purchase price you are willing to pay for a bull. However, no matter the purchase price, that amount must be recouped through increased performance or added value to the product produced by the cowherd.

## Literature Cited

Atkinson, R., Sanders, D.R., Jones, K., & Altman, I.J. (2010). An evaluation of purebred bull pricing: Implications for beef herd management. *Journal of the ASFMRA*, 235–243.

Bacon, J., Cunningham S., & Franken, J. (2017). Valuing herd bull characteristics: Evidence from Illinois auction data. *Journal of ASFMRA*, 70–76.

Irsik, M., House, A., Shuffitt, M., & Shearer, J. (2002). Factors affecting the sale price of bulls consigned to a graded sale. *The Bovine Practitioner*, 42(1), 10–16.

Marson, T.T., Wankel, L.E., & Moser, D.W. (2008). Factors affecting the price paid for spring yearling bulls. In Kansas Agricultural Experiment Station Reports, *Cattlemen's Day 0(1)*, article 343.

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