

Bull Qualification for Tennessee Agricultural Enhancement Program Through the University of Tennessee Bull Testing Sale

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Background

Performance-tested bulls at the University of Tennessee Bull Testing Station are sold annually in January at the Middle Tennessee AgResearch and Education Center in Spring Hill, Tennessee. Until 2018, younger bulls were sold in March. This performance test program and sale was established decades ago to educate seed stock producers or pure-bred breeders on breeding programs and to educate bull buyers on the importance of purchasing performance-tested bulls, resulting in improved beef cattle herd quality across the state. Each year, breeders deliver their bulls to the test station in August (for bulls sold in January) and November (for bulls sold in March; discontinued for 2018) of the year preceding the sale. The bulls are allowed a two-week adjustment period. They are then weighed and started on an 84-day gain test, where bulls are fed a pelleted commercial bull development ration, which is increased from limited to free-choice access. Grass hay is also offered free-choice to help manage bloating. The January sale is exclusively for senior bulls (born September 1–November 15), and the March sale is exclusively for junior bulls (born December 1–February 28).

At the end of the test period, each bull was weighed and evaluated for many phenotypic traits. These measurements include hip height, scrotal circumference, frame score, off-test weight and average daily gain. This information, along with pretest information (such as birth weight and weaning weight); expected progeny differences (EPDs); and ultrasound data such as fat thickness, ribeye area and intramuscular fat (collected during

the test period) were provided to buyers for each bull in a publicly available sale catalog. Bulls were sold in a public first-price auction.

Tennessee Department of Agriculture (TDA) offers cost-share reimbursement for purchasers of bulls through the Tennessee Agricultural Enhancement Program (TAEP). Bulls that meet EPD requirements with true National Cattle Evaluation EPDs (minimum 0.15 accuracy) are eligible for up to a \$1,200 cost-share reimbursement. Bulls with eligible genomic-enhanced EPDs qualify as a reimbursable expense, subject to a \$1,600 maximum. These requirements are suggested by an advisory committee to TDA and designed to enhance the value of feeder cattle and replacement heifers sired by the bulls purchased with cost-share assistance.

The purpose of this report is to present summary statistics of cost reimbursement eligibility through TAEP for bulls sold in the University of Tennessee bull test sale from 2011–2016. Specifically, we show the percentage of bulls that qualified for cost reimbursement by bull type, which include balanced bull, terminal bull and calving ease bull. More information about these bull types is available on the [TAEP website](#). We also show the average price of the bulls sold that qualified for reimbursement for each bull type. All bull sale prices were adjusted for inflation into 2016 dollars. Less than 4 percent of the bulls sold during this time period were breeds other than Angus. Therefore, we only present results for Angus bulls. The total number of Angus bulls sold over this time period was 561.

Figure 1 shows that 96 percent of the bulls sold during this time period qualified for cost

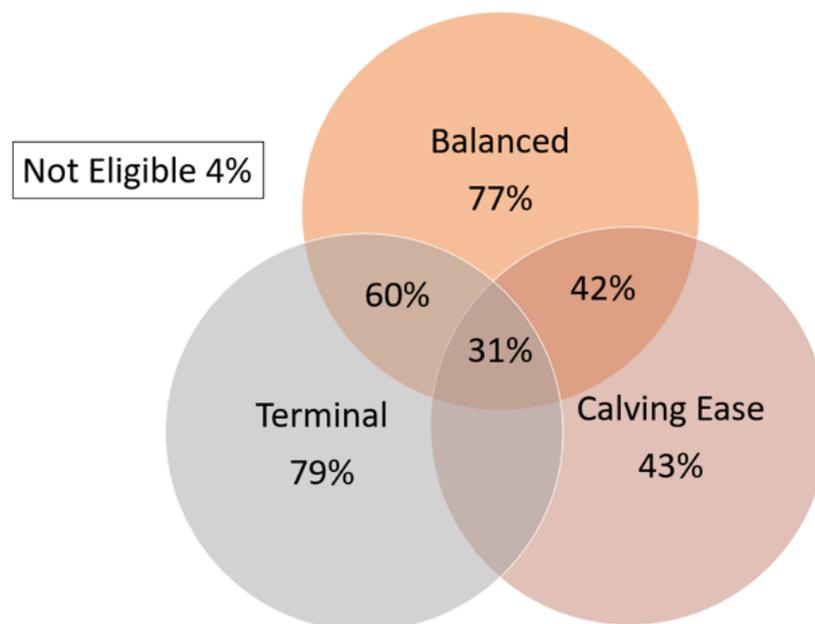


Figure 1. Percentage of the Bulls Sold Through the University of Tennessee Bull Test Sale from 2011–2016 by Reimbursement Qualification Type in the Tennessee Agricultural Enhancement Program.

reimbursement through TAEP. Of the bulls that qualified, 79 percent qualified as a terminal bull, 77 percent qualified as balanced bull, and 43 percent qualified as a calving ease bull. Furthermore, 60 percent of the qualified bulls could qualify as both terminal and balanced bulls, while 42 percent of the qualified bulls could qualify as both calving ease and balanced bulls. About 31 percent of all the qualified bulls were eligible for cost reimbursement as all three bull types. Given the EPD requirements defined by TDA, if a bull qualifies as terminal and calving ease, it also qualifies as all three bull types. It is important to note that bulls which qualify under more than one category do not receive a higher level of reimbursement; however, comparing bulls that qualify in more than one category against bulls that qualify in a single category could possibly demonstrate that a bull with genetics ideally suited for multiple situations could affect the sale price.

Figure 2 shows the average sale price (\$/head) for bulls sold by reimbursement qualification type. The average sale price for bulls that did not qualify for any reimbursement was \$2,455/head. Bulls that qualified for reimbursement had average prices of \$3,468/head for balanced bulls, \$3,563/head for terminal bulls, and \$3,634/head for calving ease bulls. The average price for bulls that qualified as both balanced and terminal was \$3,582/head, and bulls that qualified for both balanced and calving ease was \$3,656/head. If a bull qualified under all three types, the average sale price was \$3,790/head.

Summary

The goal of this report is to show the percentage and prices of bulls sold in the University of Tennessee bull test sale from 2011-2016 by bull types that qualify for cost reimbursement through TAEP. On average, bulls that were eligible for cost reimbursement as all three bull types had the highest average price, followed by calving ease and balanced bulls. Bulls that were not eligible for cost reimbursement had the lowest average price. The results indicate that bull purchasers' value of genetic qualities for bulls can vary based on the needs of their herd. This information could help seed stock producers identify which type of bulls will bring the highest prices, based on genetic qualities. This report could also be helpful in guiding the advisory committee to TDA in future selection of bull EPD requirements for cost-share reimbursement eligibility.

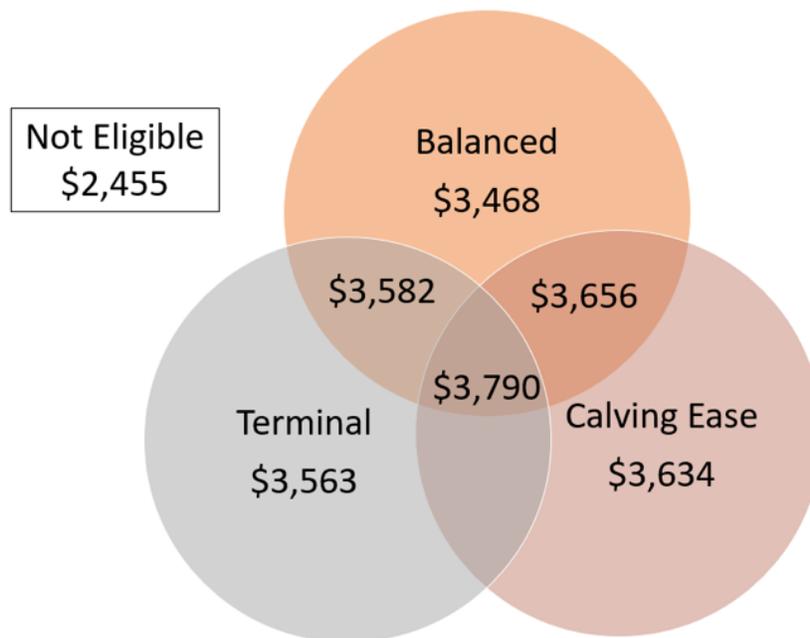


Figure 2. Average Sale Price (\$/head) (in 2016 dollars) for Bulls Sold Through the University of Tennessee Bull Test Sale from 2011-2016 by Reimbursement Qualification Type in the Tennessee Agricultural Enhancement Program.



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