

# MCA/MSU Bull Evaluation Program Buyer Survey and Impact Report

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## Impact of the MCA/MSU Bull Evaluation Program

- Based on increased sale weights of calves, yearlings, and finished cattle sired by BEP bulls, greater replacement heifer value, and enhanced cull bull value, compared to an “average” bull, BEP bulls were estimated to net an additional \$5,357 during their lifetime. The total value attributed to the program from production and use of superior breeding stock was \$910,637 in the survey period, and \$5,172,575 over 10 years.
- Testing, data, and resulting information provided on the bulls sold in the BEP sales was estimated to be worth \$79,730 to buyers during the survey period, and \$431,733 over 10 years.
- If the BEP did not exist in Michigan, buyers estimated that they would need to spend an additional \$280 to locate and purchase a bull of similar quality. The existence of this program has additionally saved producers \$265,826 over 10 years in procuring their breeding bulls.

BEP impact  
\$1 million+  
annually

The MCA/MSU Bull Evaluation Program (BEP) is the region's premier central bull appraisal program. In its 34<sup>th</sup> year, the program is a cooperative effort among the Michigan Cattlemen's Association, Michigan State University, and Plank Farm. The objectives of the program are to 1) promote performance-evaluated beef cattle and serve as an educational tool to acquaint producers with its overall value, 2) provide a common environment for evaluating young bulls for rate of gain, soundness, and body composition, and 3) aid beef producers in obtaining superior bulls that have been evaluated for growth, breeding and structural soundness, and carcass merit.

On June 1, 2021, a survey announcement was sent to the 111 buyers of BEP bulls from 2017 through 2020 by U.S. mail (n = 111) and by email (n = 76). The online survey was constructed in Qualtrics (Provo, UT) and was open for 30 days. An incentive for completing the survey was offered (two people to receive a \$250 discount on their next BEP purchase). Thirty-two survey responses were obtained, for a return rate of 28.8%. A summary of survey results is provided in this report, along with calculations of the regional economic impact of the BEP program.

Survey results from questions to obtain economic impact and associated calculated values are presented in Table 1. For comparison, data are shown for the present (2021) and two previous surveys (2013<sup>1</sup>, 2016<sup>2</sup>), which contained similar questions. Survey data covers the period of 2010 to 2020. Due to survey timing, buyer data from the 2016 BEP was not included. Economic impact was derived from the estimated value for additional weight reported for BEP bulls sired calves sold as weanlings, yearlings, or as finished cattle. Weekly market prices were obtained for the years represented from a published national steer price data series (CattleFax, Centennial, CO). Prices for 550 lb. weanlings, 750 lb. yearlings, and finished fed cattle were used to calculate linear price slides for weanling and yearling cattle. Price slide data was used to project total animal value of average steer progeny and BEP bull sired steer progeny. The difference in total animal value was considered to represent the value differences of both steers and non-replacement heifers. Additional value of replacement heifers was derived directly from survey responses. Representative data were extrapolated from survey results to all bulls sold through the program and all buyers during the 10 years covered, which also roughly equates to one cattle cycle. One limitation of these calculations is that they only include the value of additional weight for steers and non-replacement heifers. In interest of reducing survey complexity, there were no questions regarding realized value differences in offspring health, feed efficiency, yield grade, quality grade, even though these traits may be heavily considered in some bull consignor breeding programs, nor was there an attempt to quantify the value of replacement heifer offspring in regional herds. Therefore, the economic impact estimates calculated here are conservative and likely underestimate the true economic impact of the BEP.

Table 1 shows the performance and economic survey data from the 10 years of purchases between 2010 and 2020. A total of 587 bulls were sold during that time frame. The current survey reveals that buyers own 1.6 bulls on average purchased from the BEP and they typically use the bull for 3.0 years. The BEP bulls were documented as having offspring with greater weights at weaning, yearling,

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<sup>1</sup> Buskirk, D. D., K. S. Gould, and D. L. Grooms. 2013. MCA/MSU Bull Evaluation Program: Buyers & consignors survey results. Michigan State Univ. Ext., E. Lansing. Available: <https://www.mibulls.com/summary-and-impact-reports.html>

<sup>2</sup> Buskirk, D. D., K. S. Gould, and D. L. Grooms. 2016. MCA/MSU Bull Evaluation Program: 2016 Buyer survey and impact reports. Michigan State Univ. Ext., E. Lansing. Available: <https://www.mibulls.com/summary-and-impact-reports.html>

and as finished cattle, and replacement heifers sired by BEP bulls were worth more than those not sired by BEP bulls. Over the 10 year span, BEP bull offspring were estimated to be worth over \$5 million more than average bulls, BEP supplied information was worth more than \$400,000, and if the BEP did not exist, producers would have incurred more than \$250,000 in additional costs in obtaining breeding bulls.

Table 1. Survey responses regarding value differences and related calculated economic impact of the MCA/MSU Bull Evaluation Program

Survey instrument	2013 Survey		2016 Survey		2021 Survey	
Buyer years covered	2010, '11, '12		2013, '14, '15		2017, '18, '19, '20	
Number of buyers surveyed	130		124		111	
Number of bulls sold during period	208		209		170	
Producer estimates	<i>n</i>	Mean	<i>n</i>	Mean	<i>n</i>	Mean
Number of cows calved in current year	47	47.9	44	70.1	32	49.9
Number of bulls currently owned purchased from BEP	47	1.3	44	1.8	32	1.6
Number of bulls currently owned not purchased from BEP	45	1.1	42	1.6	32	0.8
Typical use of bull before replacement, years	46	3.1	44	3.5	29	3.0
Number of BEP bull sired calves sold within 90 d of weaning	36	22.6	30	27.8	27	18.1
Additional weaning weight of BEP bull sired calves, lb/animal <sup>a</sup>	19	31.0	12	47.1	21	30.7
Number of BEP bull sired cattle sold as yearlings	24	9.8	22	21.2	26	3.9
Additional yearling weight of BEP bull sired yearlings, lb/animal <sup>b</sup>	8	66.5	8	73.8	19	51.8
Number of BEP bull sired cattle sold when finished	30	15.0	28	14.1	27	14.6
Additional finished weight of BEP bull sired cattle, lb/animal <sup>c</sup>	15	84.7	10	86.5	20	75.8
Number of BEP bull sired replacement heifers retained annually	38	6.5	36	9.6	21	6.0
Added value of BEP bull sired replacement heifer, \$/heifer	18	\$166.10	14	\$178.57	21	\$153.80
Added value received for cull BEP bulls, \$/bull	17	\$183.80	18	\$122.22	21	\$59.50
Calculated economic impact						
Additional cost incurred without BEP, \$/survey period	\$110,510		\$107,800		\$47,515	
Value of information provided by BEP, \$/survey period	\$155,459		\$196,544		\$79,730	
Additional value of BEP bull offspring, \$/survey period	\$2,004,913		\$2,257,025		\$910,637	
					10-year total	
					\$265,826	
					\$431,733	
					\$5,172,575	

<sup>a</sup>2013 and 2016 survey respondents asked to assume avg. steer = 570 lb and heifer = 545 lb at 205 days of age. 2021 survey respondents asked to assume avg. steer = 570 lb and heifer = 540 lb at 205 days of age.

<sup>b</sup>2013 and 2016 survey respondents asked to assume avg. yearling steer = 970 lb and heifer = 930 lb. 2021 survey respondents asked to assume avg. yearling steer = 1260 lb, heifer = 1200 lb.

<sup>c</sup>2013 and 2016 survey respondents asked to assume avg. finished steer = 1,100 lb and heifer = 1,000 lb. 2021 survey respondents asked to assume avg. finished steer = 1,325 lb and heifer = 1,200 lb.

The remaining data was obtained from the 2021 survey and represents buyers of bulls from the 2017, 2018, 2019, and 2020 sales.

The number of respondents that viewed material on mibulls.com, attended a BEP Open House or visit, attended a sale at the station, or viewed, bid, or purchased a BEP bull online is given in Figure 1. Most respondents had used mibulls.com and had attended the sale in person. Sixty-nine percent (22/32) had attended an open house or visited prior to sale day. Just half of respondents had viewed, bid, or purchased a BEP bull using the program's online platform at DVAuction.com.

## Bull Evaluation Program Participation

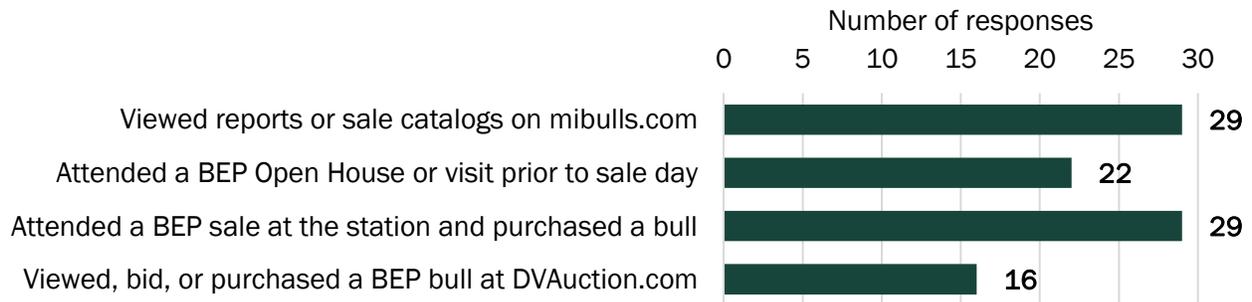
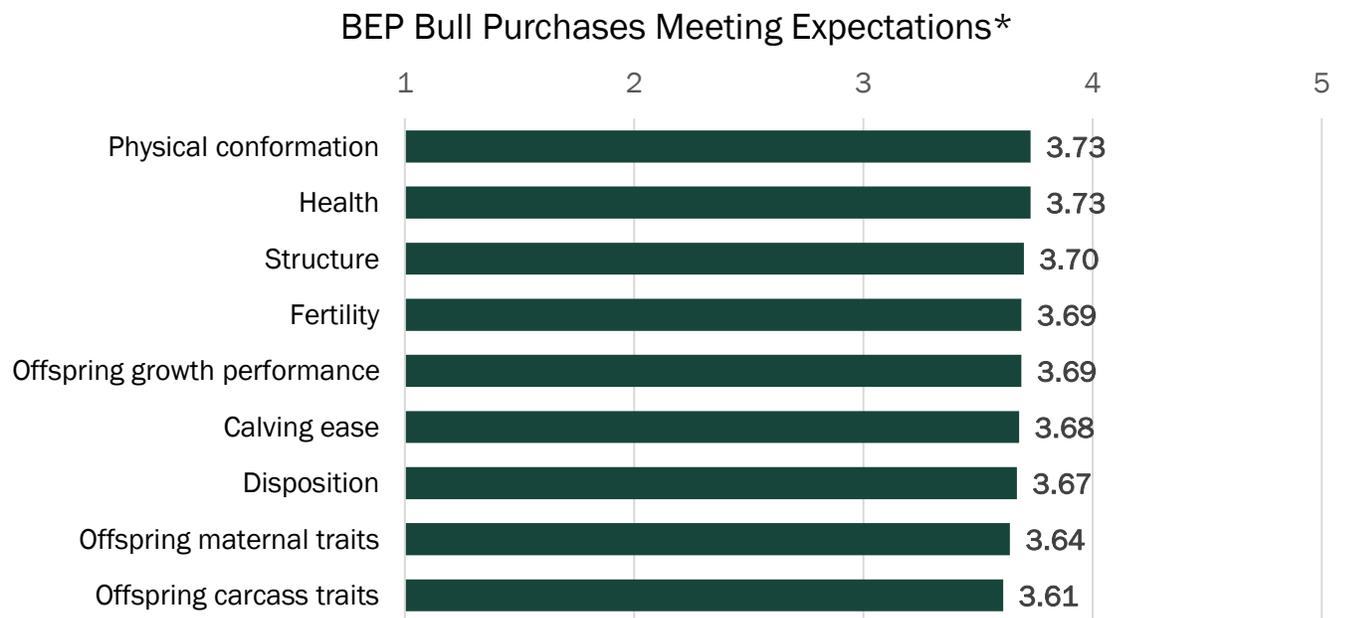


Figure 1. Ways in which buyers have participated in the BEP, 2017-2020 (n = 32).

The ability of BEP to meet buyer expectations for a list of criteria is shown in Figure 2. All criteria had a mean value that exceeded the mid-point of meeting expectations of buyers (score of 3.0). All criterion on the list fell within a tight range of 3.61 and 3.73. The criterion with the greatest means above meeting expectations were physical conformation and health, while the lowest rated was offspring carcass traits.



\*Rating scale, 1 = far short of expectations, 2 = short of expectations, 3 = meets expectations, 4 = exceeds expectations, 5 = far exceeds expectations.

Figure 2. Rating of bulls purchased from the BEP on meeting expectations in the noted criteria (n = 30).

Nine respondents answered that they had not yet culled a BEP bull from their herd, while twenty-one respondents indicated that they had culled a BEP bull. For those culling bulls, the reasons are

summarized in Figure 3. Twenty of the 31 reasons given were retained daughters, age, and size, which would be anticipated reasons to cull bulls in a typical herd scenario. The specific causes of injuries reported were not given. Four bulls were culled for disposition (2 of which were from the same buyer), two bulls were culled for feet issues, and one culled for poor fertility.

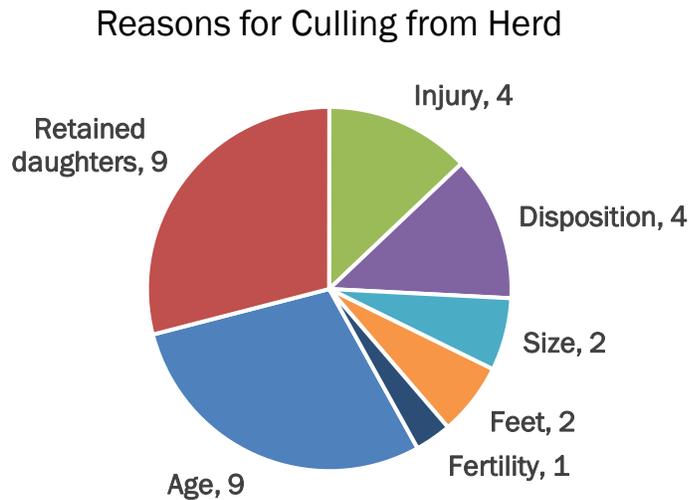


Figure 3. Respondents stated reasons for culling BEP bulls (n = 21). The numbers indicate the incidence of mentions (n = 31) from an open-ended question.

Breed preference is shown in Figure 4. More than half of the respondents prefer Simmental and SimAngus bulls for their herd. More than one third prefer Angus, and 11.8% prefer Charolais, Red Angus, or Shorthorn.

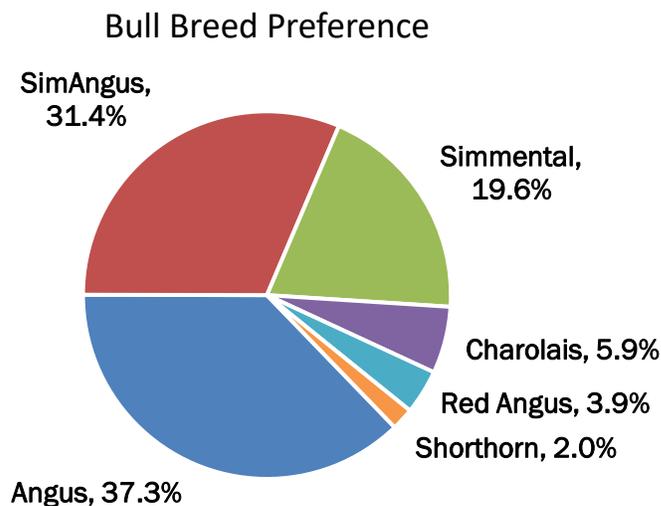
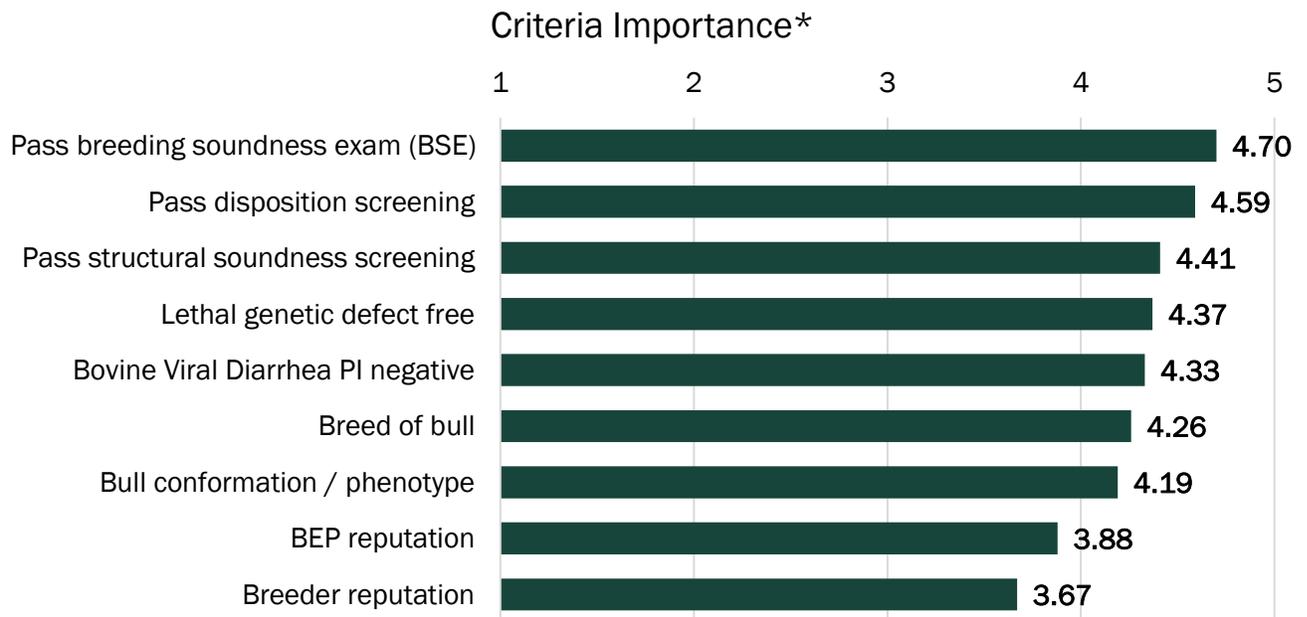


Figure 4. Breeds of bulls typically purchased for the respondents' herds (n = 29).

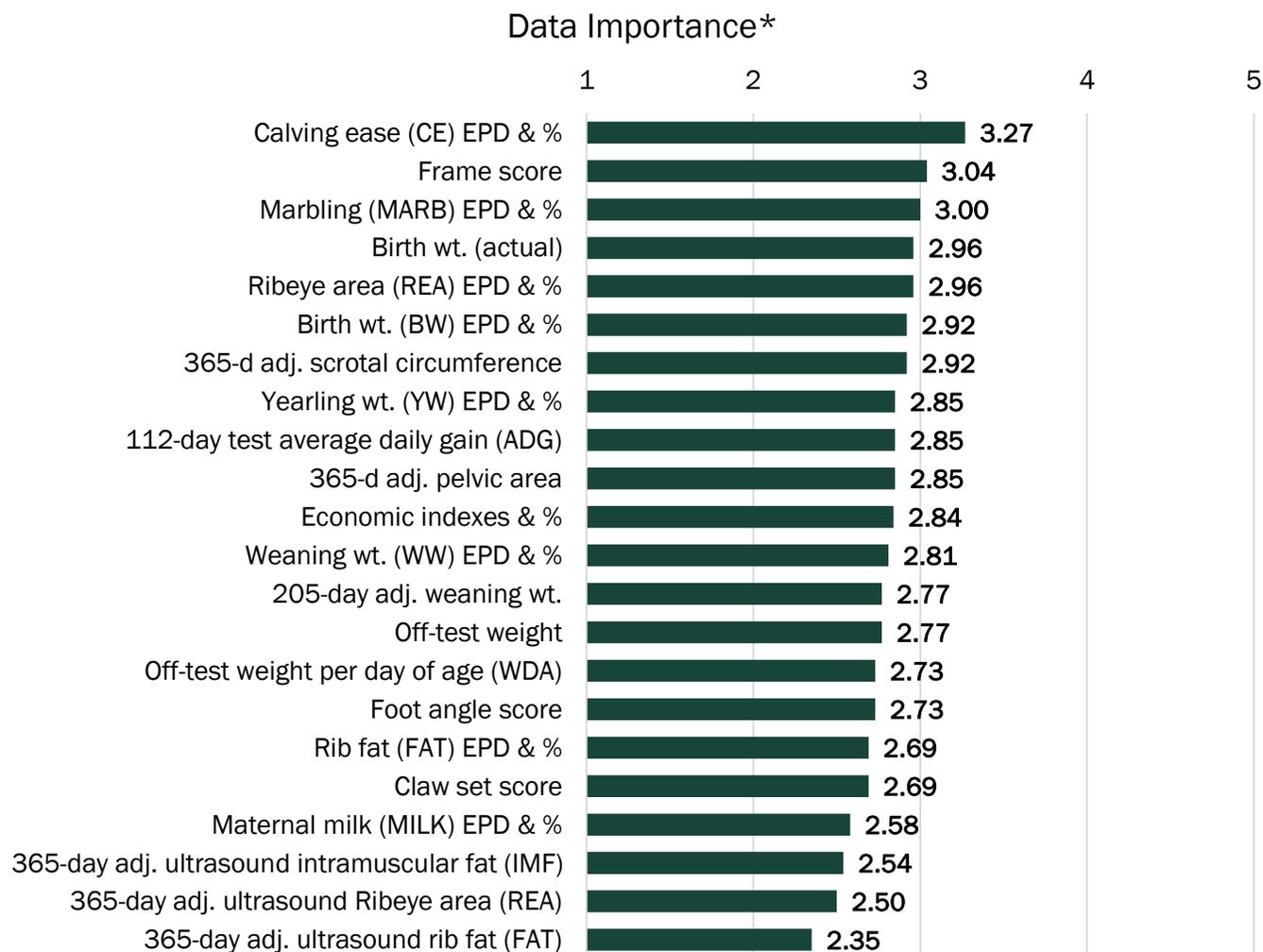
Buyers were asked about general criteria of importance to them when making their bull buying decisions (Figure 5). Successfully passing a Breeding Soundness Examination was the highest rated criteria, followed closely by screened for disposition. Although the reputation of the program and breeder ranked last on the list of criteria, these considerations were still rated as moderately important.



\*Rating scale, 1 = not important, 2 = somewhat important, 3 = moderately important, 4 = very important, 5 = extremely important.

Figure 5. Respondents rating of criteria importance when making their bull buying decision (n = 27).

Buyers were asked to rate the importance of each data point provided in the current sale catalog when making their buying decision (Figure 6). As expected, because many buyers represented are presumed to be part-time cow-calf operators (mean herd size 50 cows), trouble-free calving is important, which is indicated by calving ease Expected Progeny Difference (EPD) and percentile being ranked as the most important. Likewise, other calving traits of actual birth weight and birth weight EPD and percentile were within the top 6 traits of importance. Adjusted ultrasound data ranked lowest, presumably because this information is contained within the corresponding EPDs, as marbling and ribeye area EPD and percentiles were ranked 3<sup>rd</sup> and 5<sup>th</sup>, respectively. All data were indicated to be somewhat to moderately important.

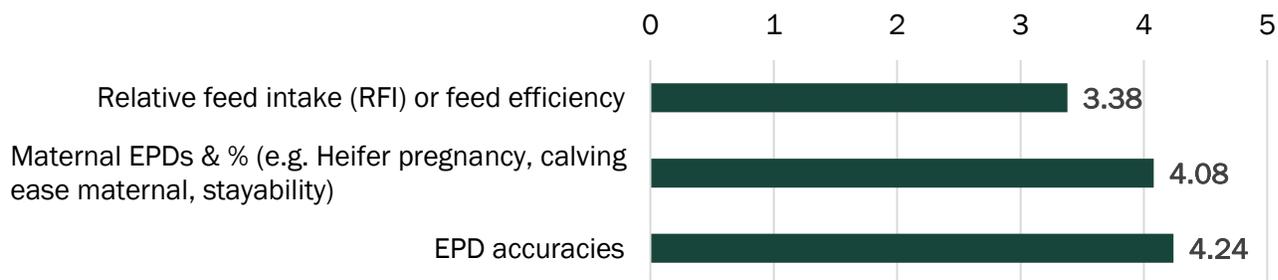


\*Rating scale, 1 = not important, 2 = somewhat important, 3 = moderately important, 4 = very important, 5 = extremely important.

*Figure 6. Respondent rating of the importance of data points provided by the BEP when making their bull buying decision (n = 26).*

The survey asked respondents to rate the usefulness of three pieces of data that are not currently provided to buyers in the catalog (Figure 7). Interestingly, even though there are more than 30 data points in the catalog, all three of the proposed data were rated as moderately or very useful. The two highest ranked categories have data available from the represented breed associations, so may be considered for inclusion in future sale catalogs. Buyers were asked to comment on additional criteria, data, or information that they would like to have available on BEP bulls (Table 2). No clear themes emerged, although docility or disposition was mentioned in 3 comments.

### Usefulness of Additional Data\*



Rating scale, where 1 = not useful, 2 = somewhat useful, 3 = moderately useful, 4 = very useful, and 5 = extremely useful.

Figure 7. Respondent ratings of usefulness of additional data for the BEP (n = 26).

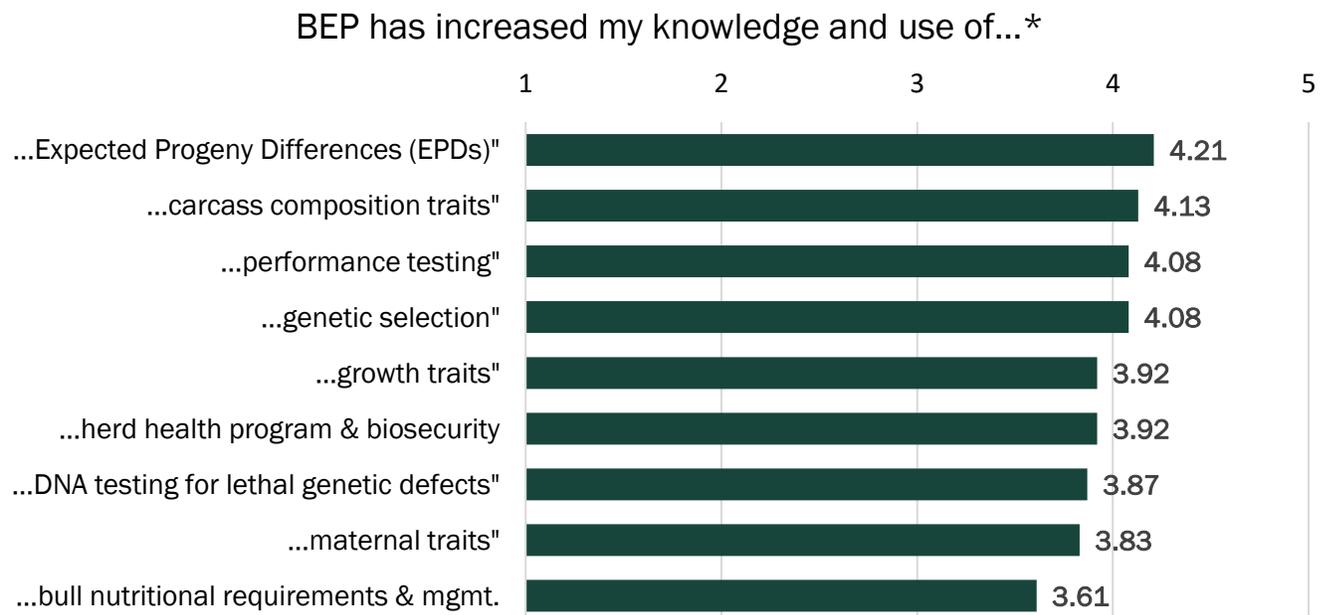
Table 2. Respondents open-ended responses to the request, “Describe additional criteria, data, or information that you would like to have available on BEP bulls (n = 15)\*”

Reproduction data
Docility ratings important to include in catalog
Disposition
I don't know that any additional info would make a difference, however, with that said, I do not know that we will buy from the sale again. We have bought 4 of our last 5 bulls there and have been very pleased with them but financially it has not paid off. We struggle to find a market to sell them as breeding stock and end up just selling them at market price and getting pretty much the same price as if we would have purchased a nice bull from a neighbor or friend. The reason why I like buying from this sale is they have had fertility tests and I know their disposition will be good
Proof of breed by blood tests
More information on health while at Bull Test
None
Pedigree. Calving intervals of the dam. Pathfinder info. in the pedigree. Simmental stayability in the pedigree.
Feed efficiency
Need to take less emphasis off the numbers and breed better quality bulls. NOT starve the animals coming into the test because they are trying to win the bull test. Some of the weaning weights are horrible and they should not be allowed to be in the test. Quality sells and so does phenotype. The EPDS are just a tool and a lot of BS behind them. Big breeders run the AAA and people are just chasing the numbers and not caring about phenotype. In Michigan, phenotype sells.
I think you cover most of what we as bull buyers are looking for

None as of now.
Angus buyer it's all there on AAA and BEP data ribeye ultrasound
None
I would like a marketplace for purchased bulls when I am done with them - some format to reconnect with potential buyers

\*Corrections made to grammar and spelling for clarity.

Figure 8. depicts the areas that bull buyers feel that their knowledge has been increased from participating in the BEP. On average, respondents agreed that the BEP has increased their knowledge of EPDs, carcass composition traits, performance testing, and genetic selection.



\*Scale of agreement, where 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, and 5 = strongly agree.

Figure 8. Knowledge and use gained by BEP buyers (n = 15).

Buyers were asked to comment on improvements for the BEP (Table 3). Again, there were no themes that emerged from comments. Nevertheless, comments may help the BEP committee to make improvements to the program.

Table 3. Respondents open-ended responses to the request, “List suggestions you have to improve the MCA/MSU Bull Evaluation Program.” (n = 10)

Include docility rating in catalog.
Can't really think of anything at the moment, but with all the info you provide, for sure helps narrow down and make the bull selection much easier. Thanks
Our bull we just purchased was ill per our Vet with a liver infection from the water and it would have been nice to know the previous health record of the bull purchase.
Expanded inspection day
Need to do a better job of foot scores. Our bull we bought was one of the top 10 in the sale, as far as price, and he has already been on the foot trimmer. The day of the sale and the open house the barn up front by the feed alley should be scraped clean both days. Cannot look at foot structure and claw structure when they are in a foot of straw.
More breed variation. Seems like Angus have become dominate. It's nice when you can get a breed that has the best of both like Sim/Angus or even with a little Hereford mixed with and Angus give that nice disposition of the Hereford.
Would like to see a limit as to the number of bulls per consigned perhaps 6 or 7 bulls each.
Please keep the program going and we will continue to buy every other year.
None
Keep it going. I use this platform to make sure I have quality bulls.