



by Shane Bedwell, chief operating officer and director of breed improvement

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Moving the Breed Forward

This time of year brings great joy and anticipation as calving season sets in full swing. It's exciting to see if those breeding decisions paid off and how this next calf crop can make an impact on your prospective customers. As seedstock breeders, you hold an important key to the future profitability of your customers, and because of this, they look to you for advice. As Hereford genetics gain more of the market share back in the commercial sector, this trust is critical for the future success of the breed. So, I thought I would update you regarding a recent *Journal of Animal Science* article that proves that Hereford is making the right kind of strides to position seedstock breeders and commercial cattlemen for success.

It seems that calving ease (CE) always ranks the highest among priorities of bull buyers, and rightfully so, as the extra cost of a lost calf, the labor expended assisting a cow, not to

mention the extra recovery time of a cow that experienced calving difficulty all add up to negative consequences. As a result, the importance of CE expected progeny differences (EPDs) should be communicated with your prospective buyers as they're making future buying decisions. A CE EPD quantifies how

easily a bull's calves will be born when he is bred to heifers.

Although birth weight is a key indicator trait of CE and is included in the analysis of CE as a correlated trait, it does not tell us the whole story. Research has shown that only 36-49% of the genetic differences between animal for CE can be explained by genetic differences in birth

weight. For those producers that retain their own replacement females, the maternal calving ease (MCE) EPD is equally as important. MCE quantifies how easily a bull's daughters will give birth during their first parity. These two traits, CE and MCE, are

certainly economically relevant and understanding how Hereford compares to other competing breeds is important to know.

The U.S. Meat Animal Research Center (USMARC) in Clay Center, Neb., annually produces a set of across-breed adjustment factors that cattlemen can utilize to compare EPDs across breeds. Without these adjustments, one cannot directly compare the differences in genetic potential between animals of different breeds.

Many of the traditional traits like growth and carcass have been included in this adjustment table, but, to date, CE and MCE have not been. Outside of differences in genetic trends and base adjustments, there are significant differences in the statistical models used to estimate EPDs for CE and MCE across different breed associations making the estimation of breed differences and across-breed EPD adjustment factors more complicated than for growth and carcass traits. The goal of the study was to estimate breed differences for direct calving difficulty (CD) and maternal calving difficulty (MCD) for first-calf heifers as a first step towards producing across-breed EPD adjustment factors for these traits.

A total of 4,579 first-calf heifers from the USMARC Germplasm Evaluation (GPE) program were utilized. Within the British breeds, Hereford had the most desirable (lowest) breed effect for CD and the 2nd lowest breed effect for MCD.

In conclusion, this study proves that Hereford genetics can provide the needed calving ease genetics when compared to other British breeds like Angus and Red Angus. These results are a testimony to the efforts of disciplined seedstock breeders moving the breed forward and give us great leverage as we grow the demand for Hereford bulls being used in commercial cow herds. Likewise, the results of this study should provide great motivation for continuing to utilize the tools provided by the genetic evaluation for continued progress within your herds. **HW**

Editor's Note: Additional details relative to these research findings can be found in the 2016 journal article below:

"Breed effects and genetic parameter estimates for calving difficulty and birth weight in a multi-breed population."
J. Anim. Sci. 94: 1857-1864.

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American Hereford Association National Reference Sire Program

Responsibilities of Test Herd:

- Select from nominated bulls
- Contact bull owner for semen shipping instructions
- Breed 55-60 cows at a random mating across genotypes
- Breed 30 cows to one reference sire that has been tested in previous years (at the cost of the test herd, semen and shipping at a commercial rate)
- Provide complete data on National Reference Sire Program (NRSP) forms
- Breeding data: Cow ID, specific breed makeup (based on percent), age of cow at breeding time, date bred and sire used
- Birth data: Calf ID, date of birth, weight and calving ease score
- Weaning data: Calf ID, date weaned and weight
- Interim data: Calf ID, date, weight
- Carcass data: Calf ID, carcass weight, marbling score, fat thickness, ribeye area, internal fat and yield grade
- Test herd must provide at least 55% conception rate
- Test herd must retain ownership or partnership at 50% or greater on cattle until they have been harvested

Test Herd Cost:

- All costs will be covered by test herd
- Test herd will pay for the reference sire semen for the 30 cows, and shipping semen will be priced at a commercial rate, data collection will be paid by test herd on all cattle

Responsibilities of Bull Owner:

- Nominate bulls for test sire
- Nominate bulls to American Hereford Association (AHA) by **March 1, 2017**
- Furnish 75 straws of semen and pay shipping cost to test herds
- Pay fees as required

Bull Owner Cost:

- Semen and shipment of semen
- Pay the test herd fee per bull tested when semen is shipped — contact Shane Bedwell for details

Responsibilities of AHA:

- Receive data and report all data back to bull owner and to test herd

AHA Cost:

There will be no cost to the test herd or the bull owner for the data reporting done by the AHA

Benefits of Test Sires:

- Obtaining high accuracy carcass EPDs (expected progeny differences)
- Obtaining performance data compared to other sires tested in herd contemporaries
- Opportunity to market semen as a NRSP reference sire, after nominated and selected
- Opportunity to test sires next to the top Hereford genetics in the breed

2017 National Reference Sire Feedlot and Carcass Testing Program Nomination Form

Sire Nomination Form

Ranch Name _____

Contact person _____

Address _____

Phone No. _____

E-mail: _____

Test Bull Information: Name and Registration No. _____

Name and Registration No. _____

*I acknowledge that any information or samples I provide to the AHA or through AHA programs may be used by the AHA for any purpose. _____

Signature _____

Send application by **March 1, 2017** to:
American Hereford Association
Shane Bedwell
P.O. Box 014059
Kansas City, MO 64101-0059

For more information, visit Hereford.org/nrsp or contact Shane Bedwell at 816-842-3757 or sbedwell@hereford.org.