

Genomics Critical, but Phenotypes Still King

I have a lot to be thankful for in my life. The good Lord blessed me with a wonderful wife and two energetic kids that bring me great joy. We have made a new home in Missouri, which I have really enjoyed since moving from Colorado.



Shane Bedwell

I can't believe it's been a year working for the American Hereford Association (AHA). I've met so many great people in this breed and I've found one thing AHA members have — passion.

A true testament to this was the enthusiasm during the Annual Meeting. It was a definite culmination of an exceptional year at Hereford but also a great optimism for continued growth and promise for the breed in the next years.

During the educational forum, I shared some key points of the new genetic evaluation that AHA will

move to, hopefully, by late spring. One fundamental difference between the current evaluation and the new evaluation will be the change in the software platform used.

Today we use a software called Breedplan, but in the new version, the software is called Biometric Open Language Tools (BOLT). In short, BOLT will allow for better use of genomics. Rather than calculating molecular breeding values (MBVs) we will be able to use the single nucleotide polymorphisms (SNPs), thus taking advantage of the informative markers that affect specific traits in the genetic evaluation.

Because of the computing power of BOLT, the true accuracy can be calculated on animals. Today, estimating accuracy, particularly on young animals, is tough, trying to take into account all of the factors that affect accuracy, and is simply too cumbersome for computational devices. Utilizing BOLT, all factors associated with contemporary group make-up such as number of sires, accuracy of sires and dams, size of group, etc. will be accounted for in calculation of the true accuracy — all of which will allow for a more robust evaluation.

In addition, we should be able to move to more frequent evaluations that are run at least twice a month to even, possibly, weekly. This change is important to understand, as the interim model will no longer exist. Being able to include the

genomic component and phenotypes directly into the evaluation is a big advantage. Besides, interim phenotypes don't impact sire or dam until they're run through the evaluation, which can cause confusion from one run to the next.

Also, as new discovery is made on traits that are hard to measure phenotypically, through genomic markers, they can easily be added into the evaluation more efficiently. BOLT allows for more adaptability once the research has been completed.

Finally, Agriculture Business Research Institute (ABRI) will remain as our service provider. This has kept AHA from hiring additional in-house staff to run the evaluation. Plus, with the development of BOLT through script writing and trait models specific to AHA genetic evaluation, ABRI will be a more effective customer support team to AHA.

Once all research is completed, we will be doing webinars on differences expected. Please look for updates in upcoming *Hereford World* articles and *eNews*.

Phenotypes are still king. You don't throw away your screwdriver and vise-grips when you get a new end wrench. Even though the genomic component is critical to advancement, breeders must still collect phenotypes. Collecting real carcass data and dry matter intake and recording accurate culling codes will only further validate that Hereford needs to be the cornerstone in commercial cow herds. **HW**

Hereford Foundation programs

The Hereford Research Foundation board and the American Hereford Association (AHA) are excited to announce two new programs that will allow for data collection:

The Founders Club — For every 10 members in the club AHA will draw a lucky winner to get a free sire test through the National Reference Sire Program. You can join for 1 year for \$3,000 or make a two-year commitment for \$5,000. All club members may use the "Founders Club logo" for marketing and showcasing their pride through this performance program. Contact me for more information.

NJHA Fed Steer Shootout — Calling all National Junior Hereford Association (NJHA) members — Are you competitive? Do you want to know more about how your cattle can perform? If you've answered "yes," then you're perfect for this program. Enter a pen of three steers in the Fed Steer Shootout. Divisions will include feedlot performance, carcass performance and an overall grand champion. Stay tuned for more information and how to enter this educational program. Contact Trey Befort, director of commercial programs, tbefort@hereford.org. **HW**