Robust Reliability

*by **Jack Ward***

Together, pedigree, phenotypes and genomics create more reliable breeding values.

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The 2017 Beef Improvement Federation (BIF) convention was hosted May 31-June 2 by the University of Georgia. It was another great event with a big focus on the value of genomics for breed improvement and the introduction of new genetic evaluation software to include genomics with more accurate pedigree information and phenotypes.

The message was clear — all components are important moving forward including pedigree, phenotypes and genomics, and seedstock breeders should be committed to all of these. None are a silver bullet, but together, genetic evaluations will be able to produce breeding values with more reliability and create an opportunity to identify genetics that can make quicker and more accurate generational turns.

The American Hereford Association (AHA) is positioned well. Breeders have been committed to genotyping animals, which has allowed us to start with a pedigree from which we can build more accurately. Whole Herd Total Performance Records (TPR™) will also play a vital role in the future because it provides unbiased data. We can generate breeding values for the most important economically relevant trait to the industry — fertility. Bruce Golden, Theta Solutions, presented a new concept for cow fertility that AHA will adopt utilizing cow inventories strengthened with genomics.

A new robust genetic evaluation

Golden also shared with BIF attendees a new genetic evaluation software, BOLT, that the AHA will adopt. AHA staff along with Theta Solutions and the Agricultural Business Research Institute (ABRI) have been working toward the implementation of this new evaluation over the past few months. This evaluation will be more robust and will allow for both phenotypes and genotypes to be included along with pedigree with a marker effect for each trait. In addition, it will allow for the genomic component to move up and down the pedigree.

This evaluation will be fully analyzed before it is fully implemented. Staff have worked side-by-side with the AHA breed improvement committee, Theta Solutions and ABRI to evaluate the results. In addition to the evaluation, the staff have worked with ABRI to develop an infrastructure to automate the front-end data pull and the back-end results. The evaluation creates an opportunity for the AHA to store all genotypes, which will allow us to address pedigree issues quicker.

The next step has been to identify an advisory committee to review evaluation results. This advisory committee consists of the breed improvement committee, other AHA breeders and a representative outside the beef industry who has utilized the BOLT software in another protein industry.

The final step will be to introduce the evaluation to the membership, which should occur in late summer or early fall. The AHA Annual Meeting and Conference will have a session dedicated to breed improvement, and representatives from all areas involved in the process will discuss how the evaluation works and the benefits of its implementation. I encourage you to join us Oct. 27-29 for the Annual Meeting and Conference in Kansas City, Mo.

I am proud of all who have been involved in the process. It has been exciting to see the evolution, and this will again show the beef industry the commitment that the AHA and its members have to beef cattle improvement. I would also like to thank AHA members and Board members who attended this year's BIF convention. I encourage all of you to go to the AHA's Hereford Headlines blog, and to watch the short videos summarizing many of the topics covered. **H**W