

Keeping Hereford Genetics Profitable

The American Hereford Association (AHA) is working with leading researchers to identify genetic markers for eye pigment and its relationship to cosmetic disorders.



Shane Bedwell is the chief operating officer and director of breed improvement of the American Hereford Association. He can be reached at sbedwell@hereford.org.

The cool fall weather has hopefully found most of you by now, and it surely has delivered some much needed reprieve. I really enjoy this time of year as it typically is a perfect blend of crisp mornings and abundant sunshine. The combinations of harvest and weaned calf crops bring a certain satisfaction which is hard to replicate. It is also the final time before winter sets in to enjoy Mother Nature and the fruits of your labor.

Eyes on pigment research

I am excited about the progress being made within the breed and am certainly excited about a few of the projects going on in the area of breed improvement. The Hereford Feedout Program is about a month from starting, and the interest in this program has been great. I am looking forward to getting the cattle on feed and proving the value of Hereford genetics in the heart of feedlot country. A big thanks goes to HRC Feedlot and manager Lee Mayo for stepping up and agreeing to head up this program. I am confident this program will be a great validation and educational opportunity for all participants and believe this is just the beginning of utilizing feedlot trials to prove the merit of Hereford carcass quality.

Additionally, the AHA has a very exciting research program started with David Riley, Ph.D., Texas A&M, and Dorian Garrick, Ph.D., Massey University, New Zealand, to identify genetic markers to predict eye pigment and its potential relationship to eye disorders. Previous research suggests markers may exist to assist in predicting an animal's eye pigment. The Olsen National Reference Sire Program (NRSP) herd is being used as the foundation for this research, as there is a plethora of knowledge of the pedigrees and phenotypic data on this herd. During the Whole Cow

Herd DNA project, the AHA made an investment to genotype the Olsen cow herd to strengthen the database and also to serve as a great foundation for similar research projects. More than 1,800 pictures were captured of the eye region of these cattle to use in research for identifying genetic markers for eye pigment and its relationship to cosmetic disorders.

Along these lines, Jon Beever, Ph.D., who began his role as the director of genomics at the University of Tennessee this summer, is working with the AHA to continue his efforts in identifying genetic markers for prolapse and cancer eye. The good news when evaluating the last 10 years of disposal codes reported through Whole Herd Total Performance Records (TPR™) is less than 1% of the 500,000 culled females were disposed of due to cancer eye or prolapse. Even better news is these females were eliminated from the genetic pool. However, in order to potentially identify genetic markers for these two cosmetic disorders in the future, we need the appropriate phenotype. So, in the future, if you have a female with one of these disorders, collect a blood sample in a purple top tube and take a picture of the issue before shipping her. Please send pictures along with corresponding registration numbers to me. The blood tube must be shipped on a cold ice pack to: Dr. Jon Beever, 352 Brehm Animal Science Bldg., 2506 River Dr., Knoxville, TN 37996.

I want to stress cancer eye and prolapse are not unique to the Hereford breed! Still, keeping a firm grasp on these types of disorders is critically important to the future of the breed. Challenging ourselves to dig deep and to keep hammering down on the key aspects which make Hereford genetics profitable will pay major dividends for the breed. **HW**