

Hereford breed is zoning in on genomic technology



GrowSafe system

In 2010 the Olsens, in cooperation with AHA, added a GrowSafe system to their feedlot, which allows the collection of feed efficiency data.
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KANSAS CITY, Mo. - The American Hereford Association (AHA) has positioned itself to incorporate genomic technology and to discover the genomic markers that are economically relevant to the Hereford breed.

The AHA hosted a media event sharing information about Hereford genomics, Hereford research projects and the National Reference Sire Program (NRSP). The event included a tour of one of the NRSP test sites, Olsen Ranch, Harrisburg, Neb. During the tour, AHA's chief operating officer and director of breed improvement, Jack Ward, explained the organization has taken a proactive approach testing and validating the tools available, ensuring a Hereford genomic product that is reliable and useful to AHA members when it is released.

"As an Association we aligned ourselves with researchers and worked collaboratively with the National Beef Cattle Evaluation Consortium (NBCEC), U.S. Department of Agriculture (USDA) Meat Animal Research Center and other global Hereford associations, to discover the genomic markers that are economically relevant to the Hereford breed," says Craig Huffhines, AHA executive vice president.

Ward explained that AHA has been working with Dorian Garrick of NBCEC on genotyping. "Today we have more than 1,200 high-accuracy sires 50K genotyped," Ward said. "This population has been used to train and validate a Hereford-specific panel." Matt Spangler, University of Nebraska assistant professor and beef genetics Extension specialist, said, "The AHA has taken a large and much-needed step in the implementation of marker-assisted EPDs (expected progeny differences). Their approach of working with the NBCEC allows them flexibility in how they specifically incorporate the information into their genetic evaluations.

"In order to continue to evolve and further develop their genomic predictions, it will be critical that Hereford producers continue to collect phenotypes and genotype-influential animals within their respective herds," Spangler added. "They should be proud of what they have accomplished and capitalize on this inertia to continue forward."

Ward explains that the Agricultural Business Research Institute (ABRI) has developed the software to add genomic information into the Hereford Pan-American Genetic Evaluation and AHA staff is currently working on a research run with introduction to be in Spring 2012.

AHA also plans to continue to 50K genotype Hereford sires with support from partner countries. It will also maintain a database repository for future genomic research.

The real help to seedstock breeders and buyers will come as AHA continues to work with the science community to train and validate the Hereford-specific panel for all measurable traits, including feed intake.

To keep costs down and to simplify the process, the association has plans to work with a one-stop-shop lab that will provide parentage testing, genetic abnormality testing and genomic information for the genetic analysis.

"The Association's role is to give our members tools to make improvement in beef production," Ward said. "Genomic-enhanced EPDs is the next phase in breed improvement strategies that will allow our members to continue to improve the genetics they produce."