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Media Event Unveils AHA Leadership in Genomics

Craig Huffhines

The 2011 American Hereford Association (AHA) media event was an enormous success. Attending the event were leading writers and editors from both national and regional publications as well as radio broadcasters from major market agriculture radio stations covering the Midwest.

The Hereford breed needs to take credit for revolutionary improvements in the genetic base of the breed, particularly in the last decade. Hereford breeders, under the strategic direction of the AHA Board, have utilized all of the tools available in beef cattle selection to engineer a product that is currently receiving high marks from the commercial industry.

The media event was hosted by Olsen Ranches Inc. near Harrisburg, Neb., and allowed the AHA Board and staff the opportunity to talk candidly with industry media regarding the Association's commitment to breed improvement and genomic research.

For the past 12 years, AHA has worked with Art and Douglas Olsen to progeny test Hereford sires. Originally a registered Hereford herd, it was then transitioned to commercial.

"The seedstock business was not necessarily our cup of tea," explains Art. "We weren't particularly good at the marketing part of that business, but we really enjoy collecting data and making improvements in our cow herd using the information."

Douglas is one of the most detail-oriented people you will find in the business. He does all of the artificial insemination (AI) work, and he is truly a young scientist when it comes to animal breeding and understanding how genetics are transmitted in the cow herd.

The Olsens' love for breed improvement and data collection and their insatiable appetite and interest in understanding selection decisions and how they impact the bottom line made them a perfect National Reference Sire Program (NRSP) test herd.

Since 1999 Olsens have submitted data to the AHA on more than 7,600 calves out of 146 sires. Collecting trait information from calving ease and birth weight, udder scores, body condition scores, weaning weights, and a host of feedlot and carcass performance information has allowed the AHA and participating bull owners the ability to rapidly prove a sire against some of the highest accuracy sires of the breed.

The relationship has been invaluable to the AHA. In a very controlled breeding system, the AHA has been able to accurately rank sires in virtually every trait we measure. We have been able to look at cow families and the daughters of these sires to determine how they hold up to rigorous production parameters.

On occasion the AHA has identified the rare sire that rings all of the bells — the proverbial "curve bender," attracting the investment and promotion from corporate bull studs and aggressive use across the population. This research has undoubtedly had an influence on the progress of Hereford breed trends for all traits as well as encouraged the use of AI within the Hereford breed.

In 2010 the AHA partnered with the Olsens, adding a GrowSafe system to their feedlot. With the ever-increasing cost of feed, the AHA has been interested in identifying genetic differences in feed efficiency. Art and Douglas both had an interest in doing a better job of measuring the feed efficiency, not only in the steers but in the commercial females as well.

Not only has Jack Ward, AHA chief operating officer and director of breed improvement, worked very hard in recruiting sires and participating breeders to participate in the project, but he has also successfully organized a research partnership with the National Beef Cattle Evaluation Consortium in one of the most comprehensive molecular genetic research projects in the country. Today, every calf born at Olsens will have a DNA sample collected for future gene discovery work.

Already, the scientists have begun to make progress in identifying gene markers within the DNA that provide some level of information that might improve the accuracy of a young sire's expected progeny differences (EPDs). **HW**