

GE-EPD Testing Now Available for \$55



Jack Ward

The American Hereford Association (AHA) strategic plan is the road map Board and staff members use when considering new programs and ideas. The breed improvement committee continues to focus on Core Strategy 1: Improve the overall quality, consistency, predictability and profitability of Hereford genetics as well as Objective A: Increase the accuracy of breeding values in young cattle and manage functional defect rates by developing a plan for including genomic information into genetic evaluation.

The first genomic-enhanced expected progeny differences (GE-EPDs) were released by the AHA in the fall of 2012. Since that time, the AHA has worked closely with the National Beef Cattle Evaluation Consortium (NBCEC) and other science communities to incorporate the most reliable genomic information into PACE (Pan-American Cattle Evaluation) at an affordable cost.

During the Hereford Genetic Summit, attendees were posed with the question, “At what cost would you consider genomic testing (GE-EPD) at least 50% of a calf crop?”

More than 90% of the group said they would consider this option if the cost of the test was \$55. Starting on Oct. 1, 2014, that cost became a reality. So, today, Hereford breeders have a new price schedule for DNA testing (see “AHA DNA testing prices” table).

The reason for this reduction in cost is that a new 30K LD (low density) product has been built and produced by GeneSeek. The 30K panel will allow us to impute to 50K at this point to produce molecular breeding values (MBVs) that will be used to produce GE-EPDs.

Dorian Garrick, Iowa State University Lush chair in animal breeding and genetics and National Beef Cattle Consortium executive director, has completed the research on the imputation process, and GeneSeek has the software in place for imputation.

Currently, we will use the same prediction equation, and the efficacy will be nearly the same. Please also note that, today, the HD 77K product has been used, and when we update the correlations, it will be our plan to impute all animals tested to 77K.

So, what does all of this really mean? This price and platform change will continue to allow breeders to access one more tool but at a much more affordable price

to make EPDs more reliable and to make breeding and marketing much more precise on younger animals. Long term, we may need to adopt a policy to test high accuracy sires with HD in order to make recalibration of the prediction equation better, but we will let science tell us the best approach when we get there.

During the Summit, I presented a few slides on the value of adding GE-EPDs to commercial bulls. I took all bull sales reported to the AHA by regional field staff in the central and western U.S., put a \$15,000 upper limit on price so that the data were not skewed and then looked at the value of a bull that was GE-EPD tested compared to the overall average price of those bulls.

The total number of bulls reported was 2,787 head, and as you can see in Graph 1, the difference in value of those bulls tested was more than \$2,100.

As Don Schiefelbein said during the Summit, “The No. 1 rule of business is those who write the checks write the rules.”

Your customers want more confidence when buying.

It is important, however, to remember that EPDs are still based on three components. Those are pedigree, phenotypes and now genomics. All of these are important components, and a breeder should not substitute one for another. Keep collecting data at all levels of production, and provide your customers with all information. **HW**

AHA DNA testing prices

Basic test — \$35 (no bulk rate available) includes profile, parentage, abnormalities

GE-EPD test — \$55 (no bulk rate available) includes profile, parentage (needs to be requested), abnormalities and GE-EPD

Stand-alone horned/poled (H/P) test — \$45

Full package — \$85 includes profile, parentage (needs to be requested), abnormalities, GE-EPD, H/P (needs to be requested)

Graph 1: Average bull price with and without GE-EPDs

