Performance Matters

Tandem Progress

by **Shane Bedwell**

Hereford breeders are improving cattle phenotypically and genetically.



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The quest to be the best remains very apparent among Hereford breeders, both new and seasoned. Through my travels this summer, I saw a vast amount of breed enthusiasm, increased Hereford demand and the tremendous progress breeders are making on both visual conformation and balanced genetic performance. The notion that one must be sacrificed for the other is just coffeeshop talk.

As an example, turn to Page 53 in this *Hereford World*, where coverage of the VitaFerm® Junior National Hereford Expo begins. As the show progressed, I was blown away by the quality and depth of the cattle and how the expected progeny differences (EPDs) of many of the top-placing cattle were heading in such a breed-positive direction. Look at the EPD profile beneath the picture of each champion to see what I mean. Traits highlighted in yellow rank in the top 30% of the breed or higher.

Some of these females ranked in the top 30% of the breed or higher for more than 10 traits. That's just impressive.

Genetic evaluation models updated

Speaking of progress, during their summer meeting, the American Hereford Association (AHA) Board of Directors voted unanimously to update and improve some of the models used in the breed's genetic evaluation.

Since implementing the single-step marker effects model utilizing Biometric Open Language Tools (BOLT) in 2017, the AHA has made these model improvements a half dozen times. You may recall some of these improvements pertained to the Sustained Cow Fertility, Mature Cow Weight and Calving Ease models. Essentially, these changes are similar to when genetic groupings were restructured. New BOLT software tools also are being added to improve weekly run time and stability.

Additionally, significantly more phenotypes, as well as hard-to-measure phenotypes with genotypes, have been submitted since 2017. This enables the carcass models to be calculated in one large model rather than a large model and a small model. This will address the issue that a few of you have raised about a non-genotyped animal falling outside of its pedigree average before being genotyped. Although this happened very rarely, this is just one of the many housekeeping model improvements that were made during this upgrade.

See Table 1 for the rank correlations of the traits that were updated in this latest round of model improvements. These correlations encompass the 2.6 million animals in the performance pedigree. As you can see, these correlations between old and new models are very strong. This means you should find very little reranking of animals, although a few animals could change.

As always, keep them sound. HW

Table 1 — Rank Correlations of New vs. Old Models

BW	WW	YW	MM	UDDR	TEAT	SC	BF	MARB	REA	CW
0.99	0.94	0.95	0.93	0.98	0.99	0.97	0.95	0.96	0.97	0.96