



Genomics – Your Competitive Advantage

Take responsibility for your customers' genetic success.

by *Jamie T. Courter* and *Leoma Wells*

In an industry rooted in tradition and heritage, it is often hard to accept change willingly. Over the past 12 years, the beef industry has embraced DNA technology. Like a row crop farmer, cattle breeders are pressed to produce more per acre with less input, forcing efficiency to the forefront of every decision. Enter genomic testing. Through data and science, we can select genetics that fit our environment and are more efficient than grandpa could have ever dreamed.

Responsible investing

Implementing genomic testing within a seedstock herd is an investment in the future of an operation. It can be viewed as:

- **Risk management.** Genomic testing immediately increases a prediction's accuracy. This not only means increased confidence in the bulls a commercial customer buys, but it means bulls and females retained on a seedstock operation are bred and managed

“If you compete with others, you may not win. If you compete with yourself, you always win by becoming better.”

— **Debasish Mridha**

for optimum genetic gain. Producers unfortunately do not see the effects of a single year's breeding decision until three years or more after the decision is made. This slow turnaround makes accurate decision-making of utmost importance.

- **Faster genetic gain.** As mentioned, genomic testing provides faster capabilities to make accurate decisions on yearling bulls and replacements. Therefore, “new” genetics get turned over at a rapid rate, resulting in an increase in the breed average for a

trait. This trend is illustrated in Figure 1. Delineated by the arrow, the incorporation of genomics into traditional expected progeny differences (EPDs) has led to an exponential increase in the rate of genetic gain for calving ease direct.

- **Marketing tool.** The benefits of genomic testing are endless, but to completely reap the benefits it brings to you and your commercial customers, you must market accordingly. Not only is genomic testing a potential market differentiator, it is another service you provide your customers.

So, why is it important to market your genomic results? Your customer base is not aware you are going above and beyond unless you market accordingly. They may not be aware of why genomics is important to their future success and what it means for their bottom line.

Capture your investment

Seedstock providers are investing in additional tools, like genomics, to generate elite genetics not because an association rule says so, but because they want to do right by their customers. The foundation of your operation is rooted in reputation and integrity. Marketing and explaining genomics to your customers will help highlight genomics as an investment instead of simply as the “cost of doing business.”

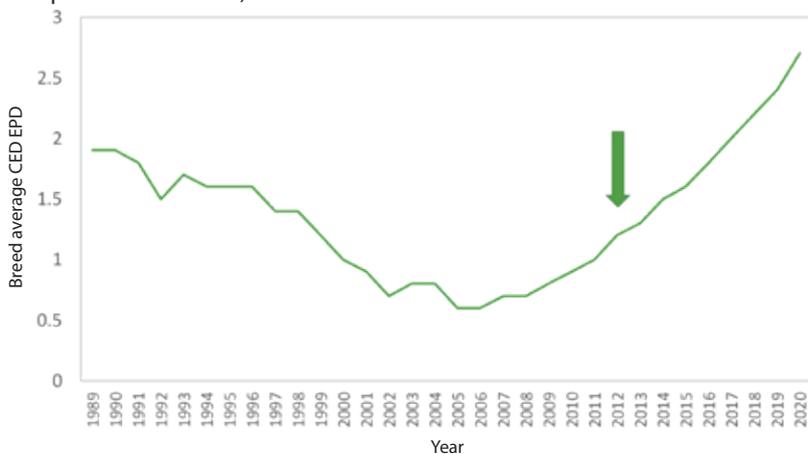
The burden you bear as a seedstock producer is more than your own — it is also the weight of all commercial cattlemen who entrust the future of their operation with you when they purchase your genetics. Your customers need you to make breeding decisions with their best interests in mind.

To fully capture the genomic investment, we urge you to consider the following:

- The information you receive from the genetic evaluation is a direct result of the effort and quality of data reported. The feedback comes in the form of EPDs.
- Reporting important phenotypic information in complete contemporary groups invests back into your operation, customers and breed association. To capture the full power of genomics, it’s crucial for your operation to continue submitting phenotypes.

Figure 1: Calving ease direct (CED) genetic trend, 1989-2020

(The arrow signifies when the American Hereford Association (AHA) first published GE-EPDs.)



Source: [Hereford.org/wp-content/uploads/2021/01/JANTRENDS-1.pdf](https://www.hereford.org/wp-content/uploads/2021/01/JANTRENDS-1.pdf)

- It is imperative to view genomics as an investment. Submitting DNA samples on your replacement heifers allows for increased accuracy on a yearling animal that would have taken a lifetime to achieve by traditional methods. Genomics provides a window into the future.
- Seedstock producers can manage buyer risk through genomics. Bulls with genomic-enhanced EPDs (GE-EPDs) inherently have predictions with increased accuracy, which equates to increased confidence in the buyer’s decision.

If you’re spending time and energy investing in phenotypic collection and reporting along with genomics, it is vital to share with your customers the depth of your commitment to their success. While nostalgia is a powerful feeling, it may be the very thing holding us back from changing and employing rapid genetic progress to better serve the commercial industry. If you’re implementing genomics as a selection and risk management tool in your operation today, your customers will reap the benefits for generations. **HW**

Editor’s Note: Jamie T. Courter, Ph.D., is a beef products manager for Neogen Genomics, and Leoma Wells is a strategic account manager for Neogen Genomics.



GE-EPDs allow commercial and seedstock producers to make more reliable selections and breeding decisions on younger animals. Each animal tested is recognized with the AHA GE-EPD logo when searching EPDs at [Hereford.org](https://www.hereford.org).