# Not all Traits are Created Equal

## Drive genetic change at an accelerated pace with carcass phenotypes.

*by* ***Leoma Wells***

A seedstock breeder's fundamental purpose is providing genetics to drive profit within the commercial industry. Commercial operations are responsible for mass producing beef that will end up on a plate. Therefore, seedstock operations are directly responsible for delivering genetics that minimize negative dining experiences.

If we view the seedstock industry as the source of consumer satisfaction, we realize how critical it is to submit standardized data into the evaluation. Without these key pieces of information, we limit genetic progress. Asking a producer to retain ownership, submit a DNA sample and track the animal throughout its life while maintaining a contemporary group is a sizable request. But, if breeders don't take ownership of their own destiny, who will? If cattle are as good as claimed, why not seize the opportunity to prove it?

### Phenotypes plus genetics

When genomic testing was first introduced, DNA was rumored to quickly take the place of phenotype collection. Breeders would simply submit a DNA sample and know everything about an animal. Here we are, 14 years later, realizing genomic technology has increased the need for quality data and phenotype collection.

Collecting "more difficult" or "expensive" phenotypes such as carcass records provides the rocket fuel to propel expected progeny differences (EPDs), allowing genomics to be further explored.

> "Phenotypes plus genotypes equal an ideal situation."

These hard-to-collect data points are critical for seedstock breeders to continue moving the needle at an accelerated pace

Why is phenotype data collection in 2023 important for the producer as well as the genetic evaluation? Let's take some time to discuss why *phenotypes* plus *genotypes* equal an *ideal situation*.

### Accuracy and observations

Geneticists need a random population of actual observed data to compare against genotypes to isolate the single nucleotide polymorphisms (SNPs) that correspond with an expressed phenotype. Collecting standardized harvest data on even a handful of calves within a contemporary group boosts carcass trait accuracy on any related animals. This accuracy is helpful if you are promoting a sire or genetic line for terminal merit.

Submitting measurements throughout the life cycle of an animal accounts for environmental factors. The more actual data you collect and submit, the better your in-herd comparisons. You can also benchmark your herd's genetics against breed averages.

Investing in data collection increases the accuracy of your EPDs. Increased accuracy results in more validated, superior genetics to offer your commercial customers, effectively minimizing their risk.

The American Hereford Association's Hereford Feedout Program and the National Reference Sire Program provide great opportunities to acquire these hard-to-measure traits. HW

**Editor's note:** Leoma Wells is the founder and operator of Data Genie LLC.