

A *new* AGE IN DNA-MARKER TECHNOLOGY

What are GeneSTAR MVPs

Now GeneSTAR® from Pfizer Animal Genetics provides a new 56 DNA-marker panel that delivers more genetic information on core traits with greater reliability. GeneSTAR MVPs™—or Molecular Value Predictions—measure the molecular breeding values for the traits of feed efficiency, marbling and tenderness. This new panel, *authenticated through a third-party validation process*, will enhance genetic improvement by providing more reliable information to enable greater selection opportunities.

GeneSTAR MVPs incorporate the 11 DNA markers included in the previous GeneSTAR test along with information from an additional 45 DNA markers to form the new 56 DNA-marker panel. MVPs are reported in units of the trait as a prediction of the animal's genetic value.

Trait	Definition	Units	MVP Range*	Average % Reliability**
Feed Efficiency ¹	Difference between an animal's actual and expected feed intake based on its body weight and growth rate	lbs./day	Min: -3.17 Max: 2.38	30%
Marbling ²	Degree of intramuscular fatness in the <i>longissimus dorsi</i> (ribeye) muscle	Marbling Score 0–9	Min: -1.00 Max: 1.11	26%
Tenderness	Force required to shear a cooked steak after postmortem aging	W-B Shear Force (lbs.)	Min: -1.04 Max: 1.89	49%

*The closer the MVP value is to the highlighted Minimum or Maximum in each row, the more favorable the result.

**The reliability value is expressed as a percentage of the maximum accuracy attainable.

How to use GeneSTAR MVPs

The new GeneSTAR MVP reporting system provides information on the animal and its genotype that can be used to make breeding and management decisions. Reading the MVP data, the animal in the example below has a GeneSTAR MVP feed efficiency value of -0.73 lbs. and a % rank value of 26 percent. This means that the MVP value for this animal ranks in the top 26 percent of animals within the same breed.

As a full-service genomics provider, Pfizer Animal Genetics offers a team of professionals to help customers achieve maximum value from the application of test results in production-marketing systems. This includes helping you understand test information and apply results to your own management and marketing programs.

Molecular Value Prediction

	FE	Marb	Tend
MVP	-0.73	0.01	-0.93
% Rank	26%	49%	7%

A sample GeneSTAR MVP report with individual percentile rank is shown at left. In addition, overall herd and breed ranges for MVPs and trait accuracies are listed in the report.

For specific questions regarding animals that may have been recently tested, or any other inquiries relating to the new GeneSTAR system, contact your Pfizer Animal Genetics representative, call 1-877-BEEF DNA or go to www.pfizeranimalgenetics.com.



1 Validated in *Bos Taurus* populations only, additional information available on file for *Bos Indicus*. Feed Efficiency is measured as Net Feed Intake.

2 In NBCEC validation, the marbling MVP is significantly associated with Ultrasound as % IMF at 60 days prior to harvest.

