

Calvin's view on DNA Technology: *As farmers and ranchers, one notion that is getting old is being told, "You have to 'get' more efficient." We are all putting in more time, and most of us have cut expenses about as much as we can. However, as we develop and identify various technologies, we've discovered that we do have an opportunity to become more efficient. It is with this thought process that we started using the DNA technology. With one DNA test, we can get the quality grade, tenderness, and feed efficiency map for an animal. As we apply this technology, we will be placing more selection pressure on the feed efficiency and tenderness traits. The feed efficiency trait is an area where, we as producers can profit the quickest as we deal with feed cost. As we strive to meet the consumer demand for tenderness, I believe there will be a pricing scheme that will reward the more tender carcass in the near future. As you study this information you will note that the DNA technology has progressed from a 22 possible marker panel (utilizing the *'s) to a 56 marker panel. As the technology continues to advance, we will soon be looking at a considerably larger DNA panel in the near future.*

I offer this DNA information to those who have a need to use another tool to make a selection. However, for most of us, the hybrid vigor Charolais offers is possibly the most economically important contribution a Charolais bull can give us.

GeneSTAR Marbling:

The GeneSTAR Genetic MVP (Molecular Value Prediction) for marbling is reported as a USDA marbling score. The scores are reported in a range of -1.00 to +1.11 with a positive value being more desirable. Therefore, you will find a +.75 means there will be much greater possibility to grade choice than if the value is a -.75. If there is a choice/select price spread, the ability to achieve a 15%-20% improvement could make a significant difference in the market place.

GeneSTAR Tenderness:

The GeneSTAR Genetic Progeny difference for tenderness is measured by the Warner-Bratzler Shear Force, in terms of pounds of pressure that it takes to cut a core sample of a ribeye muscle. The MVP values for tenderness will be between -1.04 and +1.89. The most desired MVP value for tenderness will be a negative value, so a -.50 MVP will be better than a +.50. The technology to measure the tenderness of a carcass at chain speed is currently available; therefore the progeny of the bulls in this sale may very well enter a market with a pricing scheme for tenderness.

GeneSTAR GPD Feed Efficiency:

GeneSTAR feed efficiency is based on Net Feed Intake (NFI). NFI is the difference between an animal's actual feed intake compared to the amount of feed the animal is expected to eat, based on the animal's size and expected rate of growth. Presently the MVP values for feed efficiency is reported with a range of -3.17 to +2.38 with a negative value being more desirable. Therefore, an animal with a -2.00 MVP will eat 2# less total feed every day to get its expected gain. This is compared to an animal with a +2 MVP which will eat 2# more total feed everyday to get its expected gain. The numbers may seem rather small, but if you take an animal with a -2 MVP and feed him for 120 days, that's a 240# feed savings per animal. Then assume you're feeding 1000 head with a -2 MVP. All of a sudden it's a 240,000# or 120 ton savings. On the other hand, assume you have an animal with a +2 MVP that turns into 240# more feed per animal. With 1000 head, all of a sudden you have 120 ton more than expected. That's a 240 Ton difference between a -2 MVP as compared to a +2 MVP. The feed efficiency trait is a very important issue in a livestock enterprise because 65% of the cost of maintaining an animal is feed cost.