For the past few weeks we have discussed feed efficiency, and how selection for this trait can greatly affect the profitability of an operation. Because it <u>is</u> heritable, producers should understand that intentional selection for this trait is one of the most effective ways to establish it in their operation. Feed efficient cattle may be considered to be of higher value because their genetics are reflected through their performance. That is, cattle that are known to possess desirable genetics are often valued much higher than cattle with an unknown genetic background. This week we want to continue this discussion on using genetics to improve the value of your cattle. We will also discuss how new technology can provide a great way to select for good genetics in your herd.

Tom Brink of Top Dollar Angus, TDA, can be credited with founding a similar type of program that uses this technology. TDA is a marketing program that heavily relies on cattle with quality genetics, and highly value those cattle with desired genetics. Cattle that qualify and are marketed through this program receive at least a \$50/head premium above the average market price. This is significant, and will quickly add up. The reason for this premium is because TDA serves as a link between ranchers and feeders. The cattle that qualify for TDA have a well known history and their genetic performance has already been measured. This helps the buyers to better anticipate how the cattle will perform in a feed lot environment. Buyers are often more willing to pay more when they are provided with information that reveals the quality of the cattle. In order to qualify for TDA, the calves must contain two or more generations of Angus genetics, possessing growth and carcass traits in the top 25%. To verify this, pedigrees (if available), or GeneMax testing (discussed below) are used. To get the \$50/head premium on TDA cattle, they <u>must</u> go through the TDA program. If your cattle do not qualify for TDA, Brink states "We'll still help you market the calves." Further, he says if you wish to one day produce TDA cattle, "many will only be one generation away from getting there".

GeneMax is a genomic test that can be used to help producers make more informed selection, mating, and marketing decisions for their cattle. As we previously mentioned, GeneMax can be used to verify qualification into the TDA program, however, it can be used in other areas. Some producers find that GeneMax is an effective method to determine the herd potential for gain and grade in herds that have a less-known genetic history. It can also serve as a sorting tool for replacement females. With this test, a simple DNA sample should be submitted, and the producer will then receive an individual score on each animal tested. This score represents the potential that the animal has for possessing the genes that contribute to gain and grade. Brink offers an example of how GeneMax can be effectively used in an operation- "If you had 150 Baldy heifers, you could GeneMax them, eliminate the low scores, and then mate them to calving-ease sires high for growth and carcass value. Their calves will have extra marketability via TDA, and those females are set up for life to continue producing premium calves.

Mr. Brink says that TDA began with the Angus breed due to the vast number of Angus cattle, and depth of the genetic database. However, even if you do not own Angus cattle, you should still strive for optimum genetics that will add value to your cattle. Please visit the links below to read more about GeneMax and TDA: <u>http://beefmagazine.com/cattle-genetics/beef-cattle-genomics-come-full-circle http://beefmagazine.com/cattle-genetics/top-dollar-angus-pays-genetic-verification</u>

Prices for feeder calves sold through the Superior Livestock Auction on Friday, December 19, 2014 are as follows: 450lb- \$324, 540lb- \$284, 625lb- \$238, and 710lb- \$223. The price for January 2015 750lb feeder steers on the Chicago Mercantile Exchange was \$220.2 on closing Friday, December 19, 2014.

Please note that there will not be an article the next two weeks. We will resume the week of January 5, 2015.

Merry Christmas, Dr. Jesse Richardson, DVM

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