

# NALF'S NEW TERMINAL PROFIT INDEX (TPI) & FEED CONVERSION SUB-INDEX (\$G)

What are these new NALF index's and how you should evaluate cattle accordingly? It is important to remember that the TPI index is not an index for selecting replacement heifers or female selection. This index is for identifying **Terminal Sires** that excel in feeding performance in today's formula and grid-based marketing of today's fed cattle environment.

The North American Limousin Foundation released its Terminal Index last February which is built utilizing iGENDEC. Recently at its summer board meeting, the NALF board of directors approved an adjustment to the Terminal Profit Index which increases the emphasis on dry matter conversion rates by incorporating weaning to yearling weight spread for cattle, PWG (YW-WW) weighted by a marginal economic value of \$.277).

iGENDEC is a web-based tool to enable the construction of economically optimal selection indexes. iGENDEC allows for index customization through adjustment of economic and production parameters to reflect actual historical price data and made available via the Beef Improvement Federation.

The new **Terminal Profit Index (TPI)** has been constructed to identify sires that produce the highest profit potential for fed cattle utilizing traits that directly impact feeding performance and superior carcass traits. The new index was created using the most recent 10 years of USDA reported fed cattle and grid pricing data, K-State reported feedlot cattle performance and NALF data. The new TPI index models the use of Limousin sires on Angus based cows with all calves marketed on a value-based carcass grid. The units reported represent expected differences in profit per mating.

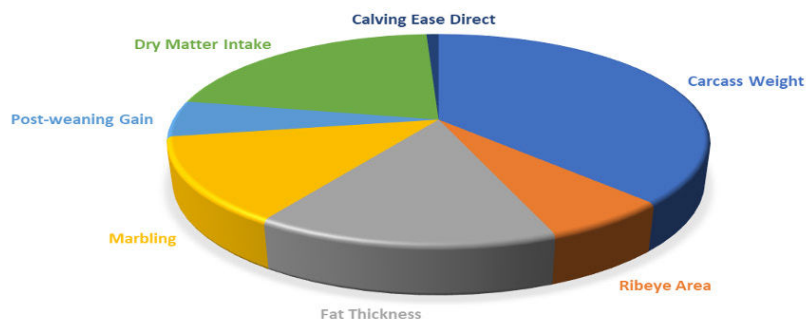
The following EPD traits are included in TPI and their corresponding Marginal Economic values used in the Terminal Profit Index. **HCW \$1.608, REA \$23.36, FAT-\$162.185, MS \$43.01, DMI -\$20.856, CE \$.957, PWG SPREAD \$.277.**

The marginal values which are determined by parameters in the iGENDEC program and simply multiplied by each EPD trait and then added up for a total \$ index value on each animal in the herdbook. The range seen on NALF's 4500 active sires reflects a high of \$210.00 and a low of -\$16.00 with a mean of \$94.00.



## RELATIVE TRAIT EMPHASIS OF TRAITS USED IN TPI INDEX

FIGURE 1. UPDATED NALF TERMINAL INDEX  
RELATIVE TRAIT EMPHASIS (%)



# THE FEED EFFICIENCY SUB-INDEX, \$G OR \$GAIN

Dry matter intake is a key component to \$G along with an animal's PWG potential to reflect an animal's feed conversion capability. The key to DMI is to remember a lower percentile rank is not necessarily a bad thing. Cattle that are giving you back adequate gain for their intake are still producing pounds efficiently. The real use of DMI is to get to the correct expression of feed conversion rates. **\$G is used to find cattle that are superior for Feed Efficiency.**

You will find cattle that range in the 50th to 90th percentile for DMI but rank exceptionally well on their new (\$ Gain EPD) if they are converting their intake. The \$G sub-index that will be published weekly by IGS simply measures cost of feed and an animal's individual intake versus the value of a fed steer on a 5-year average adjusted by an individual animal's gain.

The formula for \$G is listed below:

**(Ration cost @ \$280 per ton/2000 lbs =  $-.14 \times \text{DMI EPD}$ ) + (Fed market value at  $\$1.17/160$  days  $\times \text{PWG}$ ) = \$G (Feed efficiency sub index)**

**\$G for feed conversion represents the marginal value of gain over feed cost. The higher the \$G sub-index EPD, the better or reflective of superior conversion of feed to pounds gained.** (Cost of feed based off an animal's DMI is calculated as a negative number and added back to the market value per pound  $\times$  an animal's post weaning gain).

When evaluating a sire for \$G, The EPD range for All Limousin Active sires reflects a high of .25, an average of .10 and a low of -0.03 for NALF's active sires.



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