

# NALF'S NEW MATERNAL PROFIT INDEX (\$MPI) AND INDUSTRY PROFIT INDEX (\$IPI) - ALONG WITH MATURE COW WEIGHT AND COW ENERGY REQUIREMENT YEARLY EPDS

The NALF board approved 2 new indexes and EPDS to be listed in January of 2026. In 2024, three new EPDs were implemented, Dry Matter Intake, ADG, Feed Efficiency sub-index (\$Gain) and a new terminal index, \$TPI utilizing iGENDEC software in 2024.

Upon completion of these EPDs, the NALF board moved forward with the development of 2 additional index's, \$MPI, (Maternal Profit Index) and \$IPI, (Industry Profit Index) which is synonymous with an all-purpose index in 2025.

These new indexes were built via iGENDEC with the help of Dr. Robert Weaber and Dr. Matt Spangler. iGENDEC was also the platform used to construct NALF's new \$TPI, Terminal Profit index in 2024. The new indexes will be implemented in January of 2026. The new indexes will also coincide with the release of MWT EPD, (mature cow weight) and CERY EPD, (cow energy requirement yearly).

This full suite of indexes for terminal profit, maternal profit and an all-purpose index of IPI will give NALF breeders one of the most progressive index suites in the industry. They are all updated annually with current market price data for feeder cattle prices, fed cattle prices, and carcass prices. All price data uses the most recent 10-year average for price data updates and incorporate marginal economic values that are relevant to each index produced.

**Maternal Profit Index (\$MPI):** In this production scenario, Limousin bulls are mated to Angus-based cows with replacement heifers retained from the calf crop and surplus calves marketed at weaning. EPDs weighted in this index are Calving Ease Direct and Maternal, Weaning Weight, Milk, Mature Weight, Dry Matter Intake, and Stayability. Mature weight is the primary driver and represents the significant cost of maintenance energy requirement in the cow-calf sector. Weaning Weight and Milk (expressed in pounds of calf weaning weight) represent the principal revenue stream. Stayability helps account for differences in replacement costs in the system and the effect of heifer retention on revenue streams. This index should be used by commercial cattlemen whose production scenario includes marketing calves at weaning and retaining replacements from the herd. Figure 1 reports the relative emphasis of traits included in \$MPI.

Marginal Economic Values for \$MPI are determined by parameters in the iGENDEC program and simply multiplied by each EPD trait and then added up for a total \$ value on each animal in the herdbook.

**Industry Profit Index (\$IPI):** The production scenario for \$IPI includes mating Limousin sires to Angus-based cows with retention of replacements from the herd and all other calves fed out and marketed on a value-based grid that rewards quality and yield. IPI balances both maternal and terminal selection criteria by combining replacement female retention from the herd with carcass endpoint for marketed surplus heifers and all steers. Due to the challenges faced by commercial cattlemen in this production scenario, \$IPI incorporates the largest and most diverse set of EPDs, including carcass traits as the primary revenue drivers, along with cow Mature Weight, Stayability, and Dry Matter Intake as cost drivers. Figure 2 reports the relative emphasis of traits included in \$IPI.

Marginal Economic Values for \$IPI are determined by parameters in the iGENDEC program and simply multiplied by each EPD trait and then added up for a total \$ value on each animal in the herdbook.

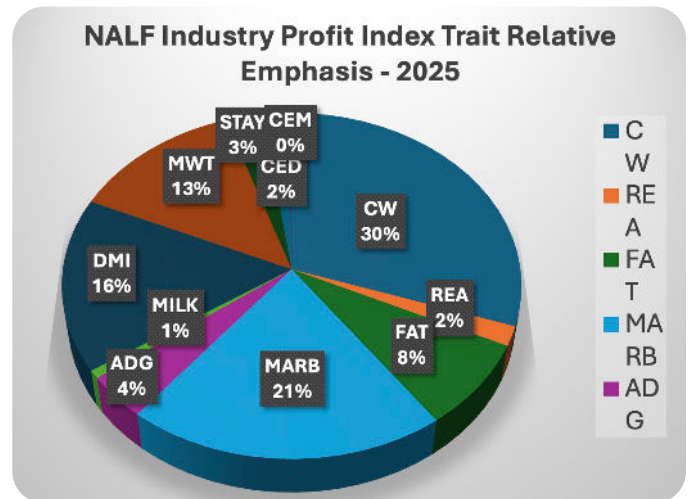
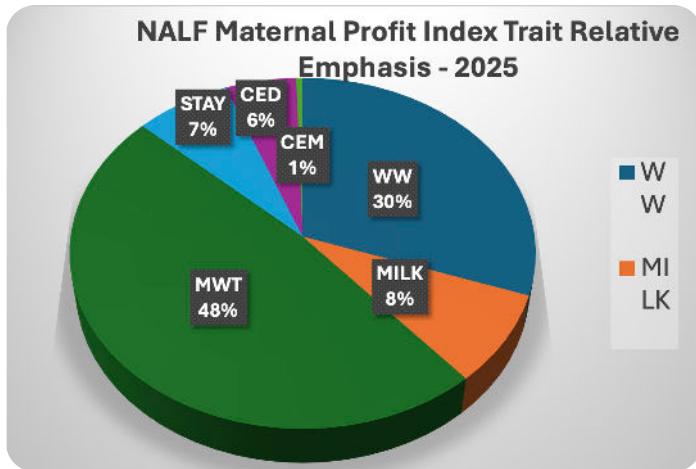


**MARGINAL ECONOMIC VALUES OF MATERNAL PROFIT INDEX:**

Trait	Component	Marginal Economic Value
WW	Direct	1.161
WW	Maternal	0.369
FI	Direct	-0.009
MW	Direct	-0.35
STAY	Direct	0.712
CE	Direct	2.764
CE	Maternal	0.391

**MARGINAL ECONOMIC VALUES INDUSTRY PROFIT INDEX:**

Trait	Component	Marginal Economic Value
HCW	Direct	2.189
REA	Direct	11.148
FAT	Direct	-145.2
MS	Direct	115.107
WW	Direct	-0.427
WW	Maternal	-0.118
YW	Direct	-0.075
FI	Direct	-26.746
MW	Direct	-0.35
STAY	Direct	1.212
CE	Direct	3.818
CE	Maternal	0.57
ADG		0.352



**Mature Weight:** Body weight of cows adjusted to six years of age at body condition score 5. MWT is reported in pounds and is computed from a genetic model that leverages information from weaning weight, post-weaning gain, and mature weights of cows. Reported weights are adjusted for both age at observation and for body condition. Body weights of cows 2 to 12 years of age are utilized in the evaluation so producers can report data at any age for the evaluation. Preferably, cows should be evaluated at or shortly following weaning, as that's a convenient time for many producers to process cows. Weight collected at other times in the production cycle are acceptable. Producers should measure full contemporary groups on the same day as the observation date, which helps form the contemporary group.

**Cow Energy Requirement-Yearly (CERY):** Mature body weight, lactation potential, and birth weight are primary predictors of energy requirements. Mature Weight, Milk, and Birth Weight EPD are utilized to inform prediction equations from beef cow nutrition research to estimate differences in energy requirement over a production year. The CERY EPD is reported in pounds of Total Digestible Nutrients (TDN) required for an age 6 cow.

