“Using genomics, a heifer’s genetic potential is revealed early in life, genetic progress can be accelerated with confidence and profitability is enhanced by capitalizing on higher production potential.” - Zoetis

For more information refer to additional handouts.

Understanding Genetic Indexes

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TPI—HOLSTEIN

Total performance index is a method of ranking cows according to a formula. It seeks to identify cows who excel in three categories: production, health and conformation. The formula focuses 43% on production, 28% on health and 29% on confirmation.

\[
TPI = \frac{[27(PTAP) + 16(PTAF) + 2(FE) + 8(PTAT) - 1(DF) + 11(UDC) - 3]}{.19 \times 22.5 \times 44 \times .73 \times 1 \times .85}
\]

PTAP = PTA Protein
PTAF = PTA Fat
FE = Feed Efficiency
PTAT = PTA Type
DF = STA Dairy Form
UDC = Udder Composite
FLC = Feet & Legs Composite
PL = Productive Life
SCS = PTA Somatic Cell Score
FI = Fertility Index
DSB = Daughter Stillbirth

LIFETIME NET MERIT

Lifetime net merit is a measure of expected lifetime profit as compared to breed base cows. It is the sum of 12 selected PTA traits multiplied by their determined economic value minus 3 points for somatic cell score. There is a high emphasis on yield traits along with fertility, productive life and somatic cell score. Cows and bulls are ranked on the same scale. The relative values of the traits were last updated in 2014.

CHEESE MERIT, FLUID MERIT, GRAZING MERIT

These specialized indexes are a great tool for operations that are targeting different milk markets. They are specially designed spin-offs of net merit that help select the best cow to produce for specific markets.