

GENETIC TRAITS

WHAT IS THE ECONOMIC IMPACT ON MY HERD?

FERTILITY INDEX (FI)

COMBINES VALUES FROM

4 MEASURES OF **REPRODUCTIVE** PERFORMANCE TO PROVIDE
1 OVERALL FERTILITY SCORE



FERTILITY

FI = 70% DPR + 10% CCR + 10% HCR + 10% EFC

DAUGHTER PREGNANCY RATE (DPR)

DPR OF

1.0 = 1%



INCREASE IN PREGNANCY RATE DURING A 21 DAY ESTRUS CYCLE. MEASURES THE ABILITY TO BEGIN CYCLING, SHOW ESTRUS, CONCEIVE AND MAINTAIN PREGNANCY.

HIGHLY CORRELATED WITH PL

SIRE CONCEPTION RATE (SCR)

IS **NOT** A GENETIC TRAIT. SCR MEASURES THE SEMEN FERTILITY OF A BULL.

AN SCR OF 1.0 = 1% INCREASE IN CONCEPTION RATE WHEN COMPARED TO AVERAGE.

PRODUCTIVE LIFE (PL)

PL IDENTIFIES PRODUCTIVE MONTHS OF LIFE OF A COW IN COMPARISON TO HER HERDMATES.

PL OF

1.0 = 1 ADDITIONAL MONTH OF PRODUCTION IN THE HERD.



PRODUCTIVE LIFE GIVES THE GREATEST WEIGHT TO THE FIRST 305 DAYS (10 MONTHS) OF LACTATION.

SOMATIC CELL SCORE (SCS)

LOWER VALUES = GREATER MASTITIS RESISTANCE



SCS INDICATES A BULL'S MILKING DAUGHTER'S SCC AND SUSCEPTIBILITY TO MASTITIS.

SIRE CALVING EASE (SCE)



OF DIFFICULT BIRTHS IN HEIFERS

EACH STANDARD DEVIATION IN IMPROVEMENT EQUATES TO A 1% DECREASE IN DIFFICULTY.

LOWER NUMBERS = EASIER CALVING

PRODUCTION TRAITS

PREDICTED TRANSMITTING ABILITY (PTA)
FOR: MILK • FAT • PROTEIN

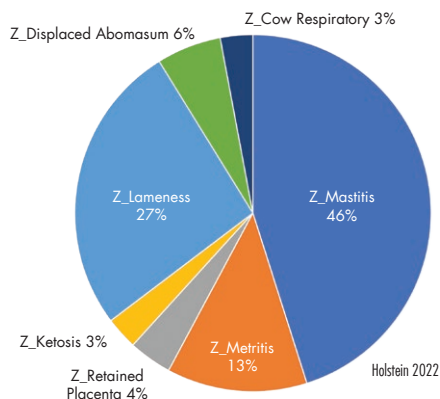
IS THE EXPECTED **PRODUCTION** DURING MATURE LACTATION RELATIVE TO THE AVERAGE OF THE BASE POPULATION.

PRODUCTION	
PTA Milk (lbs)	1714
PTA Protein (lbs)	45
PTA Protein (%)	-0.03
PTA Fat (lbs)	76
PTA Fat (%)	0.03
Production Reliability %	99
Dtrs/Herds	3002/233

EXAMPLE:

WT\$® WELLNESS TRAIT INDEX

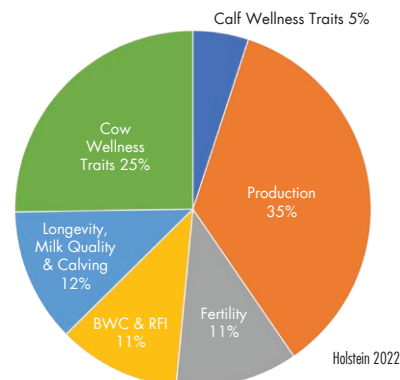
- PLACES ECONOMIC WEIGHTS ON WELLNESS TRAITS
- DIRECTLY ESTIMATES POTENTIAL PROFIT CONTRIBUTION OF THESE TRAITS FOR AN INDIVIDUAL ANIMAL



MASTITIS
MILK FEVER
LAMENESS
DISPLACED ABOMASUM
KETOSIS
METRITIS
RETAINED PLACENTA
ECONOMIC VALUE FOR POLLED

DWP\$® DAIRY WELLNESS PROFIT INDEX

- A MULTI-TRAIT SELECTION INDEX
- INCLUDES PRODUCTION, FERTILITY, TYPE, LONGEVITY AND THE WELLNESS TRAITS, INCLUDING POLLED TEST RESULTS



WELLNESS
FERTILITY
LONGEVITY
MILK QUALITY
CALVING
PRODUCTION
BODY WEIGHT COMPOSITE
RESIDUAL FEED INTAKE



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