

Using Limousin & Lim-Flex® EPDs to Aid Selection

The North American Limousin Foundation (NALF) uses all available information to predict an animal's EPD. This information includes: individual performance, pedigree, progeny and grand progeny performance, and genomic information. All this information is combined into one, easy to use, number that helps producers make genetic improvement in their herd.

Since the spring of 2015, NALF joined 11 other U.S. and Canadian breed associations to form the largest international multi-breed cattle evaluation in the world through International Genetic Solutions (IGS). This allows growth and carcass EPDs for Limousin and Lim-Flex® (Limousin x Angus hybrid) animals to be directly compared with Red Angus, Simmental, Gelbvieh, Shorthorn, Maine Anjou, and Chianina animals (and all their hybrid animals). This makes selection decisions easier for commercial producers.

Listed below are the definitions for Limousin and Lim-Flex EPDs and the units in which they are published. For more information visit www.NALF.org or call 303-220-1693.

Maternal and Growth Traits

Calving ease direct (CED): Percent of unassisted births of a bull's calves when he is used on heifers. A higher number is favorable, meaning better calving ease.

Birth weight (BW): Predicts the difference, in pounds, for birth weight of the calf.

Weaning weight (WW): Predicts the difference, in pounds, for weaning weight (adjusted to age of dam and a standard 205 days of age). This is an indicator of growth from birth to weaning.

Yearling weight (YW): Predicts the expected difference, in pounds, for yearling weight (adjusted to a standard 365 days of age). This is an indicator of growth from birth to yearling.

Milk (MK): The genetic ability of a sire's daughters to produce milk expressed in pounds of weaning weight.

Total maternal (TM): An index that combines growth and milk information as a prediction of the weaning weight performance of calves from a sire's daughters. A greater TM value means a mother that returns comparatively higher weaning weights on her calves. $TM \text{ Index} = MK \text{ EPD} + \frac{1}{2} WW \text{ EPD}$.

Calving ease maternal (CEM): Represented as percent of unassisted births in a sire's first-calving daughters. A higher number represents more favorable calving ease.

Scrotal circumference (SC): Is a good indicator of age at puberty, and is a highly heritable trait. EPDs for scrotal circumference are expressed in centimeters, with higher values indicating genes for larger yearling scrotal circumferences of sons and earlier puberty of daughters.

Stayability (ST): Predicts the genetic difference, in terms of percent probability, that a bull's daughters will stay productive within a herd to at least six year of age. The stayability EPD is one of the best measures currently available to compare a bull's ability to produce females with reproductive longevity.

Docility (Doc): Predicts genetic differences in the probability that offspring are scored a 1 (docile) or 2 (restless) as opposed to 3, 4, 5 or 6 (nervous to very aggressive). Higher EPD values for docility represent genetics for calmer behavior.

Carcass Traits

Yield grade (YG): Differences in yield grade score, which is a predictor of percent retail product. Smaller values suggest that progeny will have a better lean to fat ratio.

Carcass weight (CW): Differences in pounds of hot carcass weight, adjusted to an industry standard age endpoint.

Ribeye area (REA): Differences in ribeye area in inches between the 12th and 13th rib. Greater ribeye areas are preferable.

Marbling (MB): Predicts the differences in the degree of marbling within the ribeye as expressed in marbling score units. Greater marbling numbers are preferable and are an indicator of higher carcass quality grades.

Fat (FT): Differences for fat thickness, in inches, for a carcass over the 12th rib. Smaller numbers of fat thickness are preferable as excess fat can be detrimental to yield grade.

Mainstream Terminal Index (\$MTI): Predicts genetic differences in profit per carcass by combining the potential for and value of post-weaning growth, quality grade and yield.



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