

Feedlot Merit Index

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➔ **To compliment the current Maternal Productivity Index (MPI)**, the CHA's Breed Improvement Committee enlisted the assistance of Dr. Mike MacNeil to develop a Feedlot Merit Index (FMI). Indices like our MPI and the new FMI enable producers and commercial customers to use one number, which encompasses many traits, to aid in their selection decisions. This selection strategy also avoids the danger of single-trait selection. Like MPI, differences in FMI are standardized to a mean of 100, and a standard deviation of 25. A difference in FMI between bulls represents a difference between the **progeny** of those bulls to be more profitable feeder cattle. The goals of the FMI are to monitor

and keep costs reasonable for the cow/calf and feedlot producer, while still deriving the best returns from carcasses, keeping in mind the price discrimination that occurs based upon carcass merit and the predominant breed composition of the Canadian commercial cow herd. This index is designed for use in terminal situations only (i.e. no replacements retained in a herd).

Dr. MacNeil is one of the leading experts on economic indices of this type. He identified the economically relevant traits affecting profitability as follows: calving ease, weaning weight, average daily gain, feed intake, yield grade, and marbling score. A number of simulations were run to arrive at the proper economic weightings which

would place positive pressure on the traits that provide profitable carcasses. Weaning, growing, and finishing phases, along with calf survival and related costs were all incorporated into the model. The genetic co-variances between the economically relevant traits listed above and the EPDs we currently publish were determined as well, to allow the weightings to be correctly applied to our published EPDs.

The new FMI is an excellent tool to increase the carcass potential of the progeny of bulls that are sold into terminal sire programs. Moderate and balanced selection for both MPI & FMI will produce progeny with desirable maternal and carcass traits.