

ABSTRACT

Research on the Reformation of the Selection Index for Hanwoo Proven Bull

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Hanwoo proven bulls have been selected since 1987 and consequently contributed to farmers for the improvement of beef cattle in Korea. The demand for the quality beef production as well as higher production efficiency was erupted after early 2000 as relatively cheap imported beef released. Therefore the pressure on the reformation of selection index for Hanwoo proven bulls have been piled up to furnish with Hanwoo's competitive. A total of 734 progeny test data were analyzed to select traits and their weights in the selection index to meet the beef market requirement. Regression analysis with stepwise selection method was used to select proper trait and its weight for selection index. A series of computer simulation was carried out to compare the currently using selection index with the alternate two selection indices proposed in this study. New selection index using standardized breeding values of Loin eye Muscle Area (LMA), Backfat Thickness (BFT) and Marbling Score (MS) with weight ratio 1:-1:6 was proposed. Results showed higher performance in improving MS and BFT gain by 22% and 31% still holding 86% ~89% of genetic gain achieved by current index in Carcass Weight (CW) and LMA when new selection index was fitted. Because, new index has little consideration for production cost, further research should be performed to build selection index including cost and income simultaneously.

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