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CURVE ANALYSIS AND PREDICTION OF LACTATION YIELD VARIABLES AMONG BROWN SWISS, WHITE FULANI AND BROWN SWISS X N'DAMA CROSSES

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ABSTRACT

879 total lactation records consisting of 5481 weekly milk production records of three dairy breeds namely Brown Swiss, White Fulani and Brown Swiss x N'Dama, were fitted to three lactation curves prediction functions. The resultant lactation curves and production variables were analysed. Incomplete gamma followed by exponential function was able to estimate better persistency values of 4.09-4.62 and 2.999-3.479 respectively for the three breeds. Incomplete gamma function was best in predicting lactation curve parameters for the three breeds considered in this study. The lactation curves showed that all the functions at one time or the other underestimated the curve. However, incomplete gamma had better predictive strength in tracking the actual curve of the milk yield.

Keywords: Lactation, prediction function, curves.