

MIXED LINEAR MODELS: AN APPLICATION TO THE LACTATION CURVE LACTATION SINDHI'S COWS

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- *ABSTRACT: Lactation curves graphically represent individual milk or dairy herd production during their lactation period and they carry an unquestionable importance in terms of understanding the behavior of that particular herd production, which is fundamental to take decisions over conditions of the herd. Among many Brazilian dairy breeds that exist nowadays, the Sindhi breed has a special role in milk production because of its adaptation to the hard semi-arid climate, turning it into a feasible alternative for milk production in Brazil's Northeast. Therefore, the deal of this work was to use a linear mixed model in a database of a Sindhi breed herd, in order to verify milk production and animals individual forecast of this herd. Furthermore, the analysis of the waste and the sensitivity to verify model adaptability were done. The main result was that mixed linear model was suitable to study the behavior of each animal and the prediction of milk production.*

KEYWORDS: Residue analysis and sensitivity; lactation curves; linear mixed model.

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