

MULTIVARIATE METHODS FOR GROUPING HEREFORD CATTLE ACCORDING TO THEIR GROWTH CURVES

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- **ABSTRACT:** *The fit of a single average curve for an entire population of animals often provides misinformation with super or underestimation of the characteristics of some of the animals in study. In this paper, we suggest that distinct growth curves may be adjusted for different groups of individuals presenting homogeneous growth profiles. For this purpose, we suggest as analytical method, the fit of nonlinear models for the profiles, followed by principal component analysis - where the variables are the parameters of the model fitted before - and finally the grouping of similar cattle through hierarchical cluster analysis by the Ward's method using the scores of each animal. This procedure allowed the formation of five groups of animals with distinct characteristics and the identification and characterization of those that stood out, positively or negatively, in terms of their asymptotic weight and growth rate.*
- **KEYWORDS:** *Biplot analysis; cluster analysis; principal component analysis; nonlinear model.*

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