

## ANALYSIS OF THE INFLUENCE OF COFFEE ON WEIGHT GAINS ANIMALS (IN RATS) THROUGH LINEAR MIXED MODEL

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- **ABSTRACT:** *The purpose of the present work was evaluating by means of the statistical methodology of linear mixed model, the influence of the use of coffee, of the species *Coffea arabica*, upon the control of animals' weight (rats) submitted to the different diets either with or without aqueous coffee extract. Data of rats' weight obtained from an experiment carried out in the Pharmacy Department of the Minas Gerais Federal University (Universidade Federal de Minas Gerais), to evaluate six diets, utilizing the completely randomized design with com 10 replicates, their being evaluated weekly for a 15 weeks period, from the 4th to the 18th week after birth. After the preliminary graphical analysis, the adjustment of polynomial growth was conducted through the SAS software by using distinct covariance structures for the description of the correlation profile among measures in a same experimental unit (rat). Significant effect of the treatments (diets, weeks and interaction between diets weeks) on the animals' weight was found. The structure of unstructured covariances (UN) and the variance component structure (VC) were the most adequate by the Aikake information criterion. Only in the diet (N) which received dog feed-enriched laboratory animal house food, the use of coffee presented tendency to decrease the animals' mean weight (rats) along the weeks evaluated.*
- **KEYWORDS:** *Longitudinal dat; random coefficient model. Coffea arabica.*

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