



## I-INTERNATIONAL MEETING OF ANIMAL SCIENCE IN SEMI-ARID REGIONS

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Área do trabalho: Nutrição e produção de ruminantes

### **Título: Chemical-bromatological composition of legumes in different vegetative strata available for feeding small ruminants in the semiarid region**

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The Brazilian semiarid region, especially in the Northeast region, faces challenges related to the scarcity of quality forage during prolonged periods of drought. Therefore, it is crucial to identify plant species adapted to the region that can ensure adequate production of quality biomass for feeding ruminants. Thus, the objective of this study is to determine the parameters of chemical-bromatological composition of forage legumes. The collection of plant species was carried out at the experimental farm of the Federal Rural University of Pernambuco, in the municipality of Garanhuns/PE, in four replicates per species, with each replicate consisting of a sample of at least three plants. In the Animal Nutrition Laboratory, all materials were pre-dried in a forced ventilation oven at 55°C for 72h. Subsequently, they were ground in a Willye knife mill, equipped with a 1mm sieve, previously identified for carrying out chemical-bromatological analyses. The analyses performed were: dry matter, mineral matter, determination of organic matter, crude protein, ether extract, lignin, neutral and acid detergent fiber. The data will be subjected to a normality test of the residues and analyzed with the aid of PROC MIXED in SAS® and the means will be compared by the Tukey test, at 5% probability. Regarding DM, there was a significant difference ( $P < 0.05$ ), in which jureminha presented the highest mean value of 508.20 g/kg of MN, followed by cunhã and gliricidia. There was a significant difference ( $P < 0.05$ ) in relation to MM, cunhã obtained the highest mean of 80.68 g/kg of DM and OM with the highest for jureminha of 944.98 g/kg of DM. Regarding CP ( $P < 0.05$ ), cunhã presented the highest content, obtaining 350.65 g/kg of DM. There was no significant effect ( $P > 0.05$ ) between the variables EE, FDNcp, CIDN and PIDN. On the other hand, we observed a significant difference ( $P < 0.05$ ) in the concentrations of ADF, with higher levels in jureminha, while cunhã and gliricidia did not differ from each other. The lowest proportion of LDA ( $P < 0.05$ ) was observed in cunhã, followed by gliricidia, while jureminha presented the highest percentage. Regarding the variable CHOT, there was a significant difference ( $P < 0.05$ ), with the highest concentrations in gliricidia and jureminha. Likewise, there was also a difference ( $P < 0.05$ ) for CNF, with the same species presenting the highest levels of this nutrient, higher for gliricidia, followed by jureminha. Cunhã and gliricidia have the potential to constitute part of the protein in diets formulated for small ruminants, offering a combination of nutrients to diversify and improve the quality of ruminant diets in the Brazilian semiarid region.

**Keywords: fabaceas, forage, ruminant nutrition, nutritional value.**

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