

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## LEVELS OF MACRONUTRIENTS AND MICRONUTRIENTS IN FRACTIONS OF THE MARANDU GRASS IN CONSORTIUM WITH FORAGE PEANUTS

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Maintaining plant growth on pasture depends on the nutrient supply. The consortium of grasses and legumes has been recommended as a viable and economical alternative to the pasture system. In this context, the objective was to evaluate macro and micronutrients contents of Marandu grass in a consortium with forage peanuts. The experiment was conducted at the Experimental Station of Animal Science of the Extreme South of Bahia, from the Executive Committee of the Plan of Cacao Cropland - CEPLAC / Itabela, between March 2013 and April 2014. The treatments was consortium and monoculture, in an experimental design completely randomized with repeated measurements in the time, considering the seasons of the year. ANOVA was performed and Tukey's test was used to compared averages at 5% probability. For the evaluation, samples were taken of the aerial part and root, of each management system and season of the year. The collections were always performed at the end of the grazing cycle of the animals, thus having 12 replicates per treatment. For the leaf fraction of marandu grass, there was no significance ( $P > 0.05$ ) between the systems (consortium and monoculture) for the macronutrients nitrogen (N) and phosphorus (P) and micronutrients copper (Cu), zinc (Zn) and sulfur (S). Potassium (K) and manganese (Mn) differed statistically ( $P < 0.05$ ), presenting greater levels in the consortium system when compared to monoculture. The other nutrients, calcium (Ca), magnesium (Mg), iron (Fe), differed statistically ( $P < 0.05$ ), being greater in the monoculture system. In the stem fraction, only the N and S did not differ statistically ( $P > 0.05$ ), the other macro and micronutrients presented statistical difference between systems. For the consortium, only the Zn presented greater content, the others were all greater in monoculture. When evaluated for total forage, there was no significance ( $P > 0.05$ ) for K and Ca, while N, S, Cu and Mn differed among them, having higher levels when grown in a consortium with the legume. There is divergence in the literature regarding the results of the description of the behavior of macro and micronutrient concentrations along the growth of fodder plants, probably due to the lack of pattern of the concentration of nutrients present in consortium systems.

**Keywords:** nutrient cycling, legume, minerals

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