BRACHIARIA PRODUCTION IN SEED INOCULATION FORMS

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The use of nitrogen-fixing bacteria diazotrophic, especially bacteria Azospirillum brasilense, stands in the agricultural environment as a sustainable alternative in reducing nitrogen application in grasses. The objective was to evaluate the biomass culture in order to Brachiaria brizanta cv. BRS Paiaguás intercropped with corn and inoculated with A. brasilense and Bradyrhizobium japonicum, in istroferric Latosol and Distrofic Latosol. The experiment was established in a greenhouse not heated in 02/25/2016 in pots with 0.75 dm3 of soil. The Brachiaria was sown in five inoculation treatments; 1) with nitrogen and without inoculation, 2) Bradyrhizobium inoculation in the summer; 3) Azospirillum in the summer; 4) Bradyrhizobium and Azospirillum inoculation in the summer; 5) Bradyrhizobium and Azospirillum in the summer and Azospirillum in autumn winter. After 45 days the corn harvest, the forage collected. Data were subjected to ANOVA and means were compared by Tukey's test ($p<0,05$). The Brachiaria was more productivity in clay soil. There was a significant interaction between treatment and soil for the stems production per area and total dry mass, wherein higher values were observed when grown on con-inoculation (13.9 g plot-1), but without differ statistically from nitrogen fertilization (13.7 g plot-1). The co-inoculation in intercropped Brachiaria-corn in Distrofic Latosol is an efficient methodology to replace the nitrogen fertilization of the forage.

Keywords: Azospirillum brasilense; Bradyrhizobium japonicum; inoculation.

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