

## CHARACTERIZATION OF ENDOPHYTIC BACTERIA ISOLATED ON THREE SPECIES OF BROMELIACEAE THAT OCCURRED ON THE IRONSTONE OUTCROPS (BANCADA LATERÍTICA) OF MORRARIA DO URUCUM, CORUMBÁ, MATO GROSSO DO SUL

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Endophytic bacteria plant growth promoters (BPGP) has an important role in nutrient cycle contributing, in this way, for the plant nutrition, besides to act as biological control agents of plant diseases. The present work aimed characterize morphological and physiologically endophytic bacteria on root in the following species of Bromeliaceae: *Deuterocohnia meiziana*, *Dyckia excelsa* and *Dyckia leptostachya*. For the morphological characterization, the isolates endophytic bacteria, were primarily peaked for the Dig medium and submitted to incubation in orbital growth chamber for 24 hours at 30°C in a rotation of 150 rpm. Subsequently grown aliquots were scratched in Dig medium for the Dig solid for the morphological colony evaluation following the criteria of form, elevation, color and size. Also were made test of gram coloration and catalase activity of bacteria, two physiological evaluations gram coloration and catalase activity. According to the morphological characterization of the thirty-five bacterial isolated were observed that 63% showed circular form and 37% own irregularly form, 66% showed plan character and 34% showed another characteristics referred to the elevation, in relation of the margin 57% are integer and 43% are undulated, regarding color, 94% are cream and the others (3%) showed different characteristics referred to the color, and, as to size 86% are small and 14% are medium. On the test gram it was observed that 60% of the isolates presented themselves as gram-negative and 40% presented themselves as gram-positive. In relation of the catalyze activity the vast majority (71%) of the isolates presented this property. The studies already realized show that although it refers to endophytic bacteria of the isolated Bromeliaceae of different species, in general, the bacteria show slightly different results, in relation of their morphology and physiological characteristics.

**Keywords:** characteristics, bacterial isolates, gram coloration, catalase

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