PHENOTYPIC CHARACTERIZTION OF DIAZOTROPHIC BACTERIA ASSOCIATED WITH WILD RICE SPECIES FROM THE PANTANAL.

Campelo, A.P.S.; Galeano, R.M.S.; Zanella, M.S.; Paggi, G.M.; Brasil, M. S.

Federal University of Mato Grosso Do Sul: Graduate Program In Plant Biology, Bioscience Institute, Campo Grande-MS, Brazil; Biological Sciences, Campus of Pantanal, Corumbá-MS, Brazil.

There are a large number of studies reporting the association of diazotrophic bacteria with cultivated rice, but there are few registers considering rice wild species. The objective of this work was to characterize morphologically the diazotrophic bacteria associated with two species of wild rice, *Oryza glumaepatua* Desv. and *Oryza latifola* Steud., found in the South Pantanal of Mato Grosso do Sul State, Brazil. Four samples of each species were collected and their roots were washed and macerated in saline solution (0.5%), and diluted until 10^{-6} inoculated in semi-solid culture medium nitrogen-free BMGM, and incubated at 30° C for 7 days. Positive growth was verified through the formation of a pellicle in veil and was counted the most probable number. The highest dilution with growth characteristic of diazotrophic were replicated to specific medium NFb, JNFb, LGI and JMV semi-solid and incubated at 30° C for 7 days, this procedure was repeated four times at least. Subsequently, the positive growth isolates were transfered to solid and semi solid media, until they become pure, the morphological characterization was performed on the NFb, JNFb, LGI and JMV solid culture media considering the following parameters: shape, texture, elevation, size, pigmentation, transparency and brightness. Those information were used to group the similar phenotypically individuals by the coefficient of JACARD, using the UPGMA method in the Past program. A high number of bacteria associated with both wild rice species was observed. It was isolated 201diazotrophic bacteria with greater representatives in the culture medium NFb (60), followed by JMV (49), JNFB (46) and LGI (45).). The diazotrophic bacteria associated to both wild rice species did not differ in total number, as well as in the isolated numbers in each culture medium. The isolates found in the culture medium NFb, showing the highest phenotypic diversity, followed by the isolates of the JNFb, and the lowest diversity found in the LGI medium.

Keywords: *Oryza glumaepatua*; *Oryza latifola;* Biological Nitrogen Fixation.