

ENZIMATIC ANTIOXIDANT PROFILE FROM WHEAT PLANTS INOCULATED WITH HERBASPIRILLUM SEROPEDICAE AT BOOTING PHASE Hendges, FB¹; Rambo, CR²; Alcassa, PL²; Liebl, J²; Vendruscolo, ECG² ¹Departamento de Ciências Agrárias, Universidade Estadual do Paraná -Unioeste, Campus Marechal Cândido Rondon, Paraná, Brasil; ²Universidade Federal do Paraná-Setor Palotina, Departamento de Biociências - Laboratório Labiogen, Paraná, Brasil.

Herbaspirillum seropedicae is a rhizobacteria that can promote growth. The interaction between plant bacteria is strain and plant genotype dependent. Booting is a fundamental stage to the development of floral buds consequently the grains and productivity. CD120 and CD 104 wheat cultivars were described as showing a positive and negative to H. seropedicae interaction, respectively. The objective of this study was to evaluate the effect of bacteria inoculation over antioxidant profile of wheat booting plants. Plants from CD120 and CD104 genotypes were grown in a completely randomized design and leaves samples were evaluated to catalase (CAT), superoxide dismutase (SOD), ascorbate peroxidase (APX) and Stransferase glutathione (GST), as well as the level of lipid peroxidation (MDA), Membrane stability index (MSI), proline level (PRO), fresh and dry weight of plants. The results pointed out to differences in antioxidant profile: the CAT levels reduced drastically in CD120 due to inoculation but no changes were observed in CD104. The SOD and APX did not presented changes due to the presence of ureia or bacteria, but CD120 in control exhibited a great level of APX. In CD120, GST varied increasing levels by the presence of urea and /or bacteria. CD 104 perceived bacteria increasing MDA, although changes were not verified at RWC and IEM. PRO levels were bigger in CD120 than CD104 and increased concentration of PRO was found in treatments with *H. seropedicae* was present. These results indicates a differential way to the interaction between wheat varieties and shows that ROS metabolism are less active in the CD 120 on this development stage indicating a priming effect from *H. seropedicae* inoculation. Key words: rhizobacteria promoting plant growth, antioxidant enzymes, Triticum aestivum

