

Salt stress response of brachiaria plants with and without inoculation of arbuscular mycorrhizal fungi.

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Abstract

The experiment was carried out to investigate the effects of different levels of NaCl in *Brachiaria humidicola* with and without inoculation of the arbuscular mycorrhizal fungi (AMF) *Glomus etunicatum*. The soil used was alluvial eutrophic with a pH of 7,6 and the plant was the *Brachiaria humidicola* cv. 409. The levels of NaCl and electrical conductivity of the saturated extract were 0, 0.22, 1.09, 1.96 and 2.84 g.Kg⁻¹ of soil with 2, 4, 8, 12 and 16 dS m⁻¹, respectively. *Brachiaria humidicola* showed tolerance to salinity when subjected to an EC of the soil of 8 dSm⁻¹. The soil salinity reduced plant height, as well as the percentage of root and shoot dry matter. The AMF had a significant influence on the percentage of root dry matter in the *Brachiaria* plants under different levels of NaCl in the soil. The percentage of root colonization and the number of AMF spores were not affected by the increased doses of NaCl in the soil.