

The role of tomato and corn root exudates on *Glomus mosseae* spores germination and *Ralstonia solanacearum* growth in vitro.

Abstract

An in vitro experiment was conducted to study the effect of different plant root exudates on germination of *Glomus mosseae* and the growth of bacterial wilt *Ralstonia solanacearum*. Mycorrhizal spore germination increased when the volume of Mycorrhizal Tomato Root Exudates (MTRE) increased and in contrast, a negative relationship was recorded when the volume of Non-Mycorrhizal Tomato Root Exudates (NMTRE) increased. Similarly, the Mycorrhizal Corn Root Exudates (MCRE) was able to increase the percentage of germinated spores as compared to the Non-Mycorrhizal Corn Root Exudates (NMCRE). The antagonistic effect between *Ralstonia solanacearum* and *Glomus mosseae* was also studied in this research. There was no inhibition effect of mycorrhizal and non-mycorrhizal tomato and corn root exudates on growth of *R. solanacearum*. The study indicated that *Glomus mosseae* spore germination could be influenced by the host plant or pH medium.

Keyword: In vitro; Bacteria; Mycorrhizae; Root exudates; Antagonistic.