

ABSTRACT

Water potential and pH are probably the most important environmental parameters affecting the activities of mycoparasitic *T. asperellum* TNJ63. Therefore it is important to collect information on the effects of these factors on mycelial growth of *T. asperellum* TNJ63 with biocontrol potential. The highest mycelial growth was observed at pH 5,0 in both cellulose and chitinase media. The lowest mycelial growth was observed at pH 8.5 in both cellulose and chitinase media. Nearly linear correlation was found between water potential and colony growth diameter with higher growth diameter and higher potential water. Optimal water potential values are suggested to be at -1 MPa for both media. The lowest mycelial growth was observed at -11 MPa in both media. The mycelial growth depended on the water potential value and not on the quality of salt (NaCl or KCl) used as osmoticum. These results suggest the possibility of using this strain for biocontrol purposes in soil with lower pH and lower water potential.

Keywords: *Trichoderma asperellum*, pH dependence, water potential., biocontrol.