

# Native strains of Trichoderma from northern Chile: Adaptive tolerance in boric saline soils

Salvatierra-Martínez, Ricardo

Sepúlveda-Chavera, Germán

Huanca-Mamani, Wilson

Rodríguez-Molina, Manuel

© 2015, Interciencia Association. All rights reserved. Commercial strains of Trichoderma show erratic results on soil diseases in northern Chile. Tolerance and antagonistic capacity were assessed in 10 isolates of native Trichoderma spp. and a commercial bioformulate of exogenous strains under saline-boric conditions. The following treatments were used in in vitro tolerance tests: APD amended with 8, 15 and 20g·l<sup>-1</sup> NaCl and the same three doses of NaCl + 15mg·l<sup>-1</sup> boron. Cation content of the three most tolerant isolates was measured. The antagonism and growth in vitro of Trichoderma vs F. oxysporum in APD with 8g·l<sup>-1</sup> NaCl were evaluated. In addition, a test in tomato plants inoculated with F. oxysporum and Trichoderma, and irrigated with 8g·l<sup>-1</sup> NaCl and 15ppm boron was made. In vitro ANOVA, Tukey test and t (student) test were used on the growth of F. oxysporum. Kruskal-Wallis and Mann-Witney U tests were used in the case of plants; all with 95% confid