World Academy of Science, Engineering and Technology International Journal of Agricultural and Biosystems Engineering Vol:11, No:11, 2017

Influence of Cucurbitacin-Containing Phytonematicides on Nematode Biocontrol Agent: Trichoderma harzianum

Authors: Jacqueline T. Madaure, Phatu W. Mashela

Abstract: Cucurbitacin-containing phytonematicides consistently suppress root-knot (Meloidogyne species) nematode population densities. However, the impact of these products on nematode biocontrol agents is not documented. The objective of this study was to determine the influence of Nemarioc-AL and Nemafric-BL phytonematicides on growth of Trichoderma harzianum under in vitro conditions. The two phytonematicides were separately prepared to concentrations of 3% and used in poison plate assays. After exposure at different times from 0 to 72 h, there was 100% mycelial growth of T. harzianum. In conclusion, at the recommended concentrations of phytonematicides used in managing nematode population densities, there was no evidence of suppressive effects on growth of T. harzianum by the two phytonematicides.

Keywords: botanicals, crude extracts, cucumis africanus, cucumis myriocarpus, cucurbitacin a, cucurbitacin b, ethnomedicinal plants

 $\textbf{Conference Title:} \ \textbf{ICSAEF 2017:} \ \textbf{International Conference on Sustainable Agriculture, Environment and Forestry and Sustainable Agriculture, Environment and Environment an$

Conference Location : Cape Town, South Africa **Conference Dates :** November 02-03, 2017