

## Centro de Desarrollo de Productos Bióticos



## IN VITRO RESPONSE OF FUSARIUM OXYSPORUM ISOLATES TO ISOTHIOCYANATES APPLICATION.

## **ABSTRACT**

Some strains of Fusarium oxysporum are pathogenic to different plant species during their pre- and postharvest stages and are responsible for serious economic losses. Management of this fungus is usually with the aid of environmentally-harmful chemicals. However, other biodegradable compounds such as isothiocyanates (ITCs) have demonstrated their nematicidal, bactericidal and fungicidal potential. In this research, the in vitro fungitoxic effect of ITCs of allyl, benzyl, phenyl, phenylethyl and propyl at concentrations of 0, 0.1, 0.3, 0.5, 1.0, 1.5 and 2.0 µl L-1 was tested on various isolates of F. oxysporum obtained from gladiolus corms, jatropha seeds, mango leaves, papaya and coahuayote fruit. Daily mycelial growth and conidial germination of these five isolates was evaluated at different incubation period. To verify the fungistatic or fungicidal response, the ITCs were removed and the fungi were re-grown only in nutrient media. As average, conidia of F. oxysporum were more sensitive to the ITCs tan mycelium. At the end of the incubation period, there were significant differences (P < 0.05) in mycelia growth of the ITC-treated fungi compared to the untreated ones. The F. oxysporum isolates that were the most sensitive to the benzyl oxysporum varient dans leur sensibilité et tolérance à ces composants.

http://www.sociedadmexicanadefitopatologia.org/archives/rmf\_30\_1\_art\_1.pdf

## CEPROBI - IPN

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Revista: Sociedad Mexicana de Fitopatología. Volume: 30, Issue 1, pages 1-10.