ARTÍCULO CIENTÍFICO

CARACTERIZACIÓN MORFOLÓGICA DE ESPORAS DE *THECAPHORA SOLANI* A TRAVÉS DE MICROSCOPIA CONFOCAL Y TÉCNICAS HISTOLÓGICAS

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Ingresado: 30/04/2015 *Aceptado: 14/08/2015*

MORPHOLOGICAL CHARACTERIZATION OF *THECAPHORA SOLANI* SPORES VIA CONFOCAL MICROSCOPY AND HISTOLOGICAL TECHNIQUES

Abstract
Potato smut is a quarantine pest caused by *Tecaphora solani*, a relevant phytopathogenic fungus geographically distributed from Mexico to Andean Southamerican countries. Their spores develop latency and survive in the soil for many years. Because of this, *T. solani* represents an important model of phytopathogenic fungus. Because a great deal of the fungus biology knowledge relies on its internal structures, we aimed to use morphological techniques (histotechnology and confocal microscopy – CM) for the study of the *T. solani* model. Slides with spore suspensions were prepared for observation with CM. Other samples were embedded in agar and histologically processed and observed under bright field microscopy. Internal aspects of autofluorescent structures of the spores could be identified with CM. The same structures could be seen in histological sections. CM is a fast technique for identification and description of internal structures of fungal spores. The techniques used open venues for the study of new aspects of morphology and physiology of phytopathogenic fungus.

Keywords: Fungus, spores, *Thecaphora solani*, confocal microscopy, histology

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