CYTOLOGICAL ASPECTS AND SCANNING ELECTRON MICROSCOPY OF CONIDIA OF Trichoderma stromaticum

Itamar Soares de Melo*
Aiessa Alves Sardagna
Rosely Nascimento dos Santos

Trichoderma stromaticum when applied to dried infected brooms of cacao has reduced the formation of new inoculum of *Crinipellis perniciosa.* The life cycle of the biocontrol agent has not been studied properly. During a preliminary survey of *T. stromaticum* we discovered features of the conidial surface that can be useful morphological characters.

The conidiogenesis of *T. stromaticum* was studied in vitro. The study of the number of nuclei per conidia was possible with Giemsa stain, and the ultrastructure of the surface of conidia was observed by field emission scanning electron microscopy.

All conidia observed showed to be uninucleated, and the somatic hyphae multinucleated. The conidia germinate in four hours after incubation and in ten hours there is nuclear migration, with bipolar germination.

Conidia surface morphology, although appeared to be smooth when viewed in light microscopy, was rough, verrucose, when viewed in high magnification using a field emission SEM. Conidia are broadly ellipsoidal to obvoid, presenting both ends broadly rounded or one end rounded and the base narrowed or apiculate. It was common to observe sheath-like structures that completely covered groups of conidia. Conidia are formed in compacted pustules, formed of wide cells arranged in chains that tend to branch dichotomously.

Embrapa Meio Ambiente, Rodovia SP 340, Km 127.5, CEP 13820-000, Jaguariúna, SP.
E-mail: itamar@cnpma.embrapa.br