



EFFECT OF CHITOSAN ON THE IN VITRO DEVELOPMENT OF RHIZOPUS STOLONIFER (EHRENB.:FR.) VUILL. ON TWO CULTURE MEDIUM.

ABSTRACT

In this work the antifungal effect of chitosan (0, 0.5, 1.0, 1.5, 2.0 mg mL⁻¹) on the in vitro development (mycelial growth, fruit bodies formation, sporulation, germination and proteins release) of *Rhizopus stolonifer* on two culture medium (Potato Dextrose Agar and Minimal medium) was evaluated. The obtained results demonstrated that chitosan inhibited the mycelial growth of *R. stolonifer* in both culture medium. The highest antifungal effect was observed on potato dextrose agar medium. Chitosan was not affected the fruit bodies formation of *R. stolonifer* on the studied medium. Sporulation and spore germination were affected in both culture medium by effect of chitosan, it was more noticeable in minimal medium. It was demonstrated proteins release by effect of chitosan in minimal medium and potato dextrose broth medium. In general, in this study it was showed the antifungal effect of chitosan on in vitro development of *Rhizopus stolonifer* regardless of the culture medium used. However, in minimal medium could be observed best the antifungal effects of chitosan.

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