



### ANTIFUNGAL ACTIVITY AND RELEASE OF COMPOUNDS ON *RHIZOPUS STOLONIFER* (EHRENB.:FR.) VUILL. BY EFFECT OF CHITOSAN WITH DIFFERENT MOLECULAR WEIGHTS.

#### ABSTRACT

The effect of chitosan on mycelial growth, protein release, glucose consumption, hexokinase activity and the release of compounds was studied in three isolates of *Rhizopus stolonifer*. The chitosan of low, medium and high molecular weight at all evaluated concentrations inhibited the mycelial growth in the three isolates of *R. stolonifer*. In presence of any type of chitosan the release of proteins was notably increased. Medium molecular weight chitosan showed a major effect on the release of proteins when compared with the other two types of chitosan. The glucose consumption in presence of chitosan with different molecular weight was increased significantly in the three isolates of *R. stolonifer*. The highest glucose consumption was induced with chitosan of low molecular weight. Hexokinase activity was stimulated at least 2-fold in presence of any types of chitosan. The three isolates showed an increased release of compounds at 260 and 280 nm with chitosan of different molecular weight. These results suggest that all types of chitosan showed antifungal activity and increased significantly the glucose consumption and the release of compounds in the three isolates of *R. stolonifer*.

<http://www.sciencedirect.com/science/article/pii/S0048357508001181>

# CEPROBI - IPN

**Autores: M.G. Guerra-Sánchez, J. Vega-Pérez, M.G. Velázquez-del Valle, A.N. Hernández-Lauzardo\***

**Revista: Pesticide Biochemistry and Physiology. Volume 93, Issue 1, pages 18 – 22.**