American Journal of Food Technology RSS

Title: Antifungal Activities of Griseofulvin and Associated Bacteria of Cassava (*Manihot esculenta* Crantz)

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Source: American Journal of Food Technology 2 (5): 446-451, 2007

Abstract: The antifungal activity of bacterial isolates of cassava products origin as well as a known antifungal agent Griseofulvin was determined. The fungi used were *Aspergillus flavus*, *A. niger* and *Rhizoctonia solani*. The antagonists were: *Pseudomonas flourescens*, *Escherichia coli*, *Bacillus subtilis* and *B. pumilus*. The results obtained showed that the degree of antagonistic activity against the fungal isolates varied. *In vitro* bioassay using the disc diffusion technique showed that *Bacillus pumilus* had considerable degree of antagonistic activity against *Aspergillus flavus* with MIC value of 2.0 while *Escherichia coli* had significant activity against *Rhizoctonia solani* (2.0) and *Aspergillus flavus* (4.0). The antagonistic activity of *Pseudomonas flourescens* against *Aspergillus niger* was observed within 24-48 h of growth. Varying degrees of activity were observed after incubation period using the known antifungal agent Griseofulvin against fungal isolates and its activity against *Aspergillus niger* far exceeded 48 h. The minimal inhibitory concentration obtained using the agar well diffusion technique and measured in percentage varied considerably. The least concentration for inhibition was 2.0 using bacterial metabolites while the antifungal agent was able to inhibit the growth of a fungus at concentration of 0.5. The metabolites exhibited stronger antifungal effect at higher concentration and the preliminary results of the investigation appears to indicate the suitability of bacteria isolates in the antagonism of fungal pathogens of cassava.

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