

CHEMICAL AND BIOLOGICAL CONTROL OF PATHOGENIC *ASPERGILLUS* SPP.

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Abstract: Six antibiotics [viz. amphotericin-B (AP), clotrimazole (CC), fluconazole (FLC), itraconazole (IT), ketoconazole (KT) and nystatin (NS)] and six bacteria (viz. *Bacillus licheniformis*, *B. haloduran*, *B. cohnii*, *B. subtilis*, *Pseudomonas* sp., and *Rhizobium* sp.) were tested for their antifungal activities against two pathogenic fungi *Aspergillus flavus* (102566) and *A. niger*, which cause a significant yield loss in many important crops during pre- and post-harvest periods. Antibiotics susceptibility test for six antibiotics revealed the antifungal activities of five antibiotics, FLC being ineffective against the test pathogens. Out of the six bacteria, two (*Pseudomonas* sp. and *Rhizobium* sp.) were found to show antifungal activities against both the test pathogens; while, all four *Bacillus* spp. were found to be ineffective against *A. flavus* and *A. niger*. The investigation revealed that the chemical and biological agents can be effectively used against the fungal pathogens.

Keywords: *Aspergillus* spp., antifungal activity, antibiotics, biological control, *Pseudomonas* sp., *Rhizobium* sp.

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