

Assessment of Bio-Control Quality of Ethanolic Extracts of Some Tropical Plants on Fruit Rot Pathogens of Pineapple Fruits in Ado Ekiti

Authors : J. Y. Ijato, A. Adewumi, H. O Yakubu, O. O. Olajide, B. O. Ojo, B. A. Adanikin

Abstract : Post-harvest fruit rot pathogens are one of the major factors that are responsible for food security challenges in developing countries like Nigeria. These pathogens also cause fruit food poisoning. Biocidal effects of ethanolic extracts of *Khaya grandifoliola*, *Hyptis suaveolens*, *Zingiber officinale*, *Calophyllum inophyllum*, *Datura stramonium* on the mycelia growth of fungal rot pathogens of pineapple fruit was investigated, the ethanolic extracts of these test plants exhibited high significant inhibitory effects on the rot pathogens, the highest ethanolic extract inhibition of *Zingiber officinale* was on *Aspergillus flavus* (38.40%) at 1.0g/ml while the least inhibitory effect was on *Aspergillus fumigatus* (23.10%) at 1.0g/ml, the highest ethanol extract inhibition of *Datura stramonium* was on *Aspergillus tubingensis* (24.00%) at 1.0g/ml while the least inhibitory effect was 10.00% on *Colletotrichum fruticola* at 1.0g/ml, the highest ethanol extract inhibition of *Calophyllum inophyllum* was on *Trichoderma harzianum* (18.50%) at 1.0g/ml while the least inhibitory effect was on *Aspergillus flavus* (15.00%) at 1.0g/ml, the highest ethanol extract inhibition of *Hyptis suaveolens* was on *Aspergillus fumigatus* (35.00%) at 1.0g/ml while the least inhibitory effect was on *Aspergillus niger* (20.00%) at 1.0g/ml, the highest ethanol extract inhibition of *Khaya grandifoliola* was on *Aspergillus flavus* (35.00%) at 1.00g/ml while the least inhibitory effect was on *Aspergillus fumigates* (22.00%) at 1.0g/ml, the antifungal capacity of these test plant extracts on rot causing fungi on pineapple fruit reveals the possibility of their use by farmers and fruit traders as alternative to chemical fungicide that portends great threat to human and environmental health.

Keywords : fruit rot, pathogens, plant extracts, pineapple, food poisoning

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