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Full Length Research Paper

Survey of the post harvest diseases and aflatoxin contamination of marketed pawpaw fruit (*Carica papaya* L) in South Western Nigeria

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Abstract

Survey and collection of the marketed pawpaw fruit with rot symptoms were conducted in the South Western Nigeria in 2000 and 2001 respectively. Pawpaw fruits showing rot symptoms that are displayed for sale in three different market places in three major cities in south western Nigeria namely, Ibadan, Abeokuta and Akure were collected and examined for the presence of the inducing pathogens and for aflatoxin contamination. The most commonly fungi found in rotten pawpaw fruits were: *Rhizopus nigricans*, *Curvularia lunata*, *Aspergillus flavus*, *Aspergillus niger*, *Fusarium moniliforme*, *Colletotrichum capsici* and *Trichoderma viride*. *Rhizopus nigricans*, *F. moniliforme*, *A. flavus* and *A. niger* had the highest rate of occurrence among the isolated fungi while *C. lunata* was the least encountered. Pathogenicity tests revealed that of all the isolated fungi, *R. nigricans*, *C. lunata* and *F. moniliforme* were highly pathogenic with the first two leading to rapid disintegration of treated fruits in 3-5 days. *A. niger* was moderately pathogenic, while *A. flavus* and *T. viride* caused the least amount of rot on pawpaw fruits. Aflatoxins were detected from infected pawpaw fruits, both before and after autoclaving fruit for 15 min at 121°C.

Key words: *Carica papaya*, aflatoxins, post-harvest diseases, survey

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