

PATHOGENIC FUNGI OF SOME SELECTED VEGETABLES IN SOKOTO METROPOLIS

Shehu H & Waziri A. F

Research Scholar, Department of Biological Sciences, Usmanu Danfodiyo University, Sokoto, Nigeria

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ABSTRACT

*A study on fungal pathogens associated with vegetable crops was carried out in Sokoto metropolis, Sokoto State. Market and fresh field vegetable samples were randomly and purposively collected from three different locations using standard procedures for sample collections. All the samples were brought to mycology laboratory of Usmanu Danfodiyo University, Sokoto for analysis. Samples were separately cultured on Potato Dextrose Agar (PDA) medium for fungal growth, isolation and identification. Pathogenicity test of isolates was carried out. The result obtained revealed that thirty three (33) fungal isolates were identified based on cultural and microscopic characteristics. The isolates were *Rhizopus oryzae*, *Scopuriolupsis candida*, *Aspergillus niger*, *Scopuriolupsis flava*, *Rhizopus stolonifer*, *Aspergillus flavus*, *Aspergillus fumigatus*, *Alternaria alternata* and *Absidia ramosa*. Pathogenicity test result indicated that all the isolates except *S. candida*, *S. flava* and *M. racemosus* were able to cause rot on fresh vegetable samples within one week of inoculation at room temperature of $(32 \pm 2^{\circ}\text{C})$. The most virulent among the test organisms were *R. Oryzae* and *R. Stolonifer* with rot incidence of 80% and the least were *M. Racemosus* and *A. Alternata* with rot incidence of 20%. The study suggested that pathogenic fungi cause rot of vegetables within few days of incubation. Thus, this could lead to heavy loss of the crops for farmers and marketers due to deterioration. This research could help in educating farmers and sellers of vegetables on the effects of types of fungal pathogens on the produce in order to ease ways of the managing and controlling of such vegetables' pathogens.*

KEYWORDS: *Fungal Pathogens; Vegetables; Pathogenicity; Infection; Incubation*