

Post-harvest fungal diseases of sweet potato (*Ipomoeae batatas* (L.) Lam.) Within Jos Metropolis

Ijeoma Adaku Nnebechukwu*, Adaku and Musa Stephanie Yoro

University of Jos, Nigeria

This study was carried out to determine the post-harvest fungal diseases of sweet potato within Jos metropolis of plateau state, Nigeria. The samples were obtained from three different markets (Farin gada market, Building material market and Terminus market) at random, in sterile polythene bags and were transported to the laboratory for the studies. Potato dextrose agar (PDA) was used as medium for the isolation of different fungi species. Six fungi species were isolated and identified using light microscope with *Aspergillus* spp as the predominant fungi isolated. The percentage frequency of occurrence of each organisms were determined and *Aspergillus niger* had the highest percentage frequency of occurrence with 22.44%, followed by *Fusarium* spp with 17.0%, then *Aspergillus flavus* and *Aspergillus fumigatus* has the same percentage frequency of occurrence at 16.33% each

followed by *Rhizopus* spp at 12.93% and *penicillium* spp had 8.84%. There were two unknown organisms with the least frequency of occurrence of 4.08% and 2.04% respectively. There was no significant difference in the occurrence of fungi isolated from sweet potato collected in the three markets. Farin gada market had the highest number of colony with the total of 51 colonies followed by Building material market at 50 colonies and Terminus had the least number of colony at 46. Pathogenicity test was carried out and at $P \leq 0.05$, there was a significant difference in the percentage weight loss and the diameter of rot. This research shows that fungi are mostly responsible for the spoilage of stored sweet potatoes. The diseases observed were Black Rot, *Fusarium* Surface Rot and Soft Rot.

Received Date: June 02, 2022; **Accepted Date:** June 06, 2022; **Published Date:** July 29, 2022