

10th World Congress on VIROLOGY AND MYCOLOGY

May 11-12, 2017 Singapore

Isolation of *Aspergillus flavus* from *Arachis hypogea* & its aflatoxin production

Padma Singh

Gurukul Kangri University, India

Peanuts may be contaminated with the mold *Aspergillus flavus* which produces carcinogenic substance called aflatoxin. For these purpose fungus contaminants of peanut sample was isolated by direct plate method. Lactophenol cotton blue staining was used for the identification of *A.flavus*. *Aspergillus flavus* was inoculated into Czapek-Dox broth to measure its growth as well as aflatoxin production at different duration as 5, 10, 15 & 20 days. Then aflatoxin was detected by paper chromatography & on paper 3 spots were identified & aflatoxin production was further confirmed by Thin layer chromatography (TLC) where on TLC plate 2 spots were identified, out of which one was pink & the other was yellow which fluoresces green under UV-light & from standard table it was confirmed that it was Aflatoxin G₂ & the other was Aflatoxin B₂. ELISA method was also performed to assess the presence of aflatoxin level in culture metabolite & then absorbance of culture metabolite was taken & it was found to be low, as compared to standard values, this indicate that aflatoxin level was low in culture metabolite.

Keywords- *Aspergillus flavus*, *Arachis hypogea*, Aflatoxin, enzyme-linked immunosorbent assay (ELISA), thin layer chromatography (TLC)

dr.padmasingh06@gmail.com