Thesis Title Control of Aspergillus flavus Link. and Aflatoxin on Corn Seeds by Medicinal Spices Extracts Under Storage Condition.

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ABSTRACTS

Thirty-three crude extracts at 5000 ppm which were extracted by solvent extraction using dichloromethane, n-hexane and methanol from 11 medicinal spices were screened by poisoned food technique against Aspergillus flavus. 8 crude extracts revealed effective inhibition of the pathogen and were retested at different concentrations. The results showed that clove tree extracted by dichloromethane and n-hexane were most effective against A. flavus growth inhibition at 100% and most toxic to the pathogen with ED_{50} of 4.40 and 13.32 ppm respectively. However, in compare to benomyl, there was no significant difference appeared in all cases.

In case of controlling the storage mold and reducing the contamination of aflatoxin on corn seeds using the first three extracts with ED_{50} <500 ppm. the results showed that only the clove tree extracted by n-hexane and the cinnamom tree extracted by dichloromethane at the concentration of 500 ppm were appeared to be more effective than control. While benomyl

showed an effective control over all three extracts. However. the second week of experiment all three extracts seem to be more effective in controlling of aflatoxin than control.