

# ABSTRACT

Aflatoxins are a group of toxic metabolites produced by fungi in foods and feeds, which cause aflatoxicosis in livestock, domestic animals and humans throughout the world. The analysis of reference standard and samples were made using HPLC method. The reference standards of aflatoxins G1, G2, B1, and B2 were obtained from VICAM and samples of animal feed with 10% corn, 20% corn, 30% corn and 40% corn, were produced by National Group of Industries, Lahore, to study the effects of storage temperature, duration at different moisture levels.

The maximum detector response of HPLC system was obtained under following chromatographic conditions, **Column:** Kromasil 100 C18, (ODS), **Mobile Phase:** Acetonitrile: methanol: water (20:20:60), Flow rate: 1ml / min, **Pressure:** 3.0- 3.4 MPA, **Wavelength:** 365 nm.

Under these conditions the relative standard deviation was 0.25%. Results obtained after analysis show that growth of aflatoxins is increased with the increase of temperature, storage duration at higher moisture levels and higher maize concentrations. The method developed for the determination of aflatoxins appears to be more valuable as it is cheaper than that mentioned in the literature. Moreover this method exhibits good linearity, accuracy and precision.