

Mould incidence and aflatoxin contamination in freshly harvested Maize kernels from Karnataka

M. LOKAPUR CHIDANAND, S. T. NAIK AND M. RANGANATHSWAMY*

Department of Plant Pathology, University of Agricultural Sciences, Dharwad 580005, Karnataka

Received : 23.06.2017 RMs Accepted : 03.07.2017 Published : 30.10.2017

In this study, mould incidence and mycotoxin contamination were determined in freshly harvested maize samples collected from different districts of Karnataka. The mould incidence was noticed in all the samples collected from different locations. The mould incidence in samples collected during *kharif* 2013 ranged from 2.78 to 15.28 per cent for *Aspergillus flavus* and 4.17 to 19.44 per cent for *Fusarium* spp. The samples from Bagalkot district showed maximum incidence of both the *Aspergillus flavus* (11.73%) and *Fusarium* spp. (12.89 %). The minimum mould incidence was recorded in samples of Dharwad (5.09 %) and Belagavi district (8.62 %) for the *Aspergillus flavus* and *Fusarium* spp. respectively. Incidence of *A. flavus* and *Fusarium* spp. during *rabi* 2013-14 ranged from 2.78 to 11.11 and 4.17 to 16.67 per cent, respectively. The aflatoxin content in samples was quantified through indirect competitive ELISA technique. Aflatoxin content was highest (104 µg/kg) in the samples collected from Bagalkot district and it was least in the samples collected from Belagavi district (13.20 µg/kg)

Key words: Aflatoxin, *Aspergillus flavus*, *Fusarium* spp., maize, survey