

عنوان مقاله:

Natural Deoxynivalenol Contamination of Corn Produced in Golestan and Moqan Areas in Iran

محل انتشار:

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خلاصه مقاله:

Deoxynivalenol contamination was determined in corn produced in Golestan and Ardabil (Moqan) Provinces, Iran, in ۲۰۰۴-۲۰۰۵. Samples were collected from different stages of production, including before harvest, at harvest, post harvest as well as after drying. Ground sub samples were extracted with water; each extracted sample was cleaned up through an immunoaffinity column. Deoxynivalenol was estimated through reversed-phase High Performance Liquid Chromatography (HPLC). The linearity of standard curve for ۵۰-۱۰,۰۰۰ ng ml⁻¹ of standard solutions was proved ($R^2 = ۰.۹۹۹۹$). Detection limit was ۱۰ ng g⁻¹. Recovery of the method for ۱,۰۰۰ and ۵۰۰ ng g⁻¹ spiked samples was ۷۳.۵% and ۹۳.۵% (n= ۵). Deoxynivalenol contamination was found in ۷۶.۷% of samples in the range of ۵۴.۴-۵۱۸.۴ ng g⁻¹. The mean of contamination was ۱۱۶.۲۵ ng g⁻¹. This is the first report of natural DON contamination of corn from Iran

کلمات کلیدی:

IRAN, Corn, Deoxynivalenol, HPLC, Natural contamination

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