DETERMINATION OF OCHRATOXIN A IN ROASTED COFFEE AND CORN BY IMMUNOAFFINITY COLUMN CLEANUP WITH HIGH–PERFORMANCE THIN LAYER CHROMATOGRAPHY

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Ochratoxin A (OTA) is one of the important mycotoxins found in foods and is expected for determination in many exported foods. The AOAC method was reviewed and modified to determine OTA in roasted coffee and corn surveyed in Bangkok and nearby provinces during the year 2004 - 2005. The extraction method was cooperated with Immunoaffinity Column (IAC), analyzed by HPTLC then followed by densitometer for quantitative analysis. This method was employed to analyze OTA in corn and resulted good recovery (58.4-86.0%) and LOD and LOQ showed value of 0.28 and 0.5 µg/kg, respectively. Of 24 corn samples were found OTA positive 58% (14/24), but none of those had level > 5 ppb (as the EU standard allowed). In case of roasted coffee, the result revealed only 3 samples positive among of 44 surveyed samples (< 1-4.6 ppb). Due to the interferences during extraction which may affect on OTA in roasted coffee analysis, the recovery at concentration of 5 ppb was 76.8% (ranged 1-20 ppb), the LOQ was 1 ppb whereas LOD was 0.33 ppb. It can be concluded from this study that the situation of OTA contamination in both corn and roasted coffee marketed in Bangkok and nearby provinces is low and these foods are safe and wholesome to utilize as food or feed.