

A STUDY ON CONTAMINATION OF AFLATOXIN M₁ IN PASTEURIZED MILK FROM LOCAL MARKETS IN CHIANG MAI PROVINCE OF THAILAND

Watinee Nakprasert ¹, Urai Tengjaroenkul ², Witaya Suriyasathaporn ¹

¹ *Ruminant Clinic, Faculty of Veterinary Medicine, Chiang Mai University*

² *Faculty of Science, Chiang Mai University*

Abstract One hundred and ten commercial pasteurized milk were collected from local markets in Chiang Mai province, Thailand to evaluate the contamination of aflatoxin M₁ (AFM₁). The concentration of AFM₁ was measured by using immunoaffinity columns and high performance liquid chromatography (HPLC) coupled to fluorescence detection. Results showed that, AFM₁ contamination was detected in 85.45 % (94/110), ranging between 0.004-0.211 µg/L. An average of AFM₁ concentration was 0.04 µg/L with 0.04 standard deviation and median of 0.027 µg/L. The 30 % samples exceeded the European communities commission regulation that the level of AFM₁ in milk should not be exceed 0.05 µg/L. It can be concluded that there found the AFM₁ contamination but all of the samples were lower than US regulations limit (0.5 µg/L) in Chiang Mai province, Thailand.

Keywords : pasteurized milk, aflatoxin M₁, High performance liquid chromatography, immunoaffinity columns, Thailand
