# **Titre d’article**: Occurrence and seasonal variation of aflatoxin M1 in raw cow milk collected from different regions of Algeria

**Abstract :**

Background and Aim: Aflatoxins are metabolites of molds that exert potentially toxic effect on animals and humans. This study aimed to investigate the occurrence of aflatoxin M1 (AFM1 ) in raw cow milk collected during 1 year (2016-2017) from different regions of Algeria and risk factors associated with the contamination. Materials and Methods: During the survey period, 84 samples of raw milk were collected in three regions of Algeria (northeast, north center, and northwest) during four seasons. AFM1 levels were analyzed by competitive enzyme-linked immunosorbent assay. Results: AFM1 was detected in 39 (46.43%) samples (total mean concentration, 71.92 ng/L; range, 95.59-557.22 ng/L). However, the AFM1 levels exceeded the maximum tolerance limit set by the Food and Drug Administration in the USA (500 ng/L) in only 1 sample (1.19%). Statistical analysis revealed significant differences (p˂0.005) between AFM1 levels in milk samples collected in the spring and autumn. The mean AFM1 levels in samples collected in the spring were significantly higher than those in samples collected in autumn. Conclusion: The survey indicates that farmers involved in milk production should be made aware of the adverse effects of aflatoxin contamination in animal feed. A systematic control program of supplementary feedstuff for lactating cows should be introduced by the public health authorities.