Occurrence of aflatoxin M1 in ovine milk from Spanish dairy sheep herds

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The presence of **aflatoxin M1** (**AFM1**) in sheep milk is becoming a concern for **farmers**, **industry** and **consumers**.

Objective: The main objective was to examine the presence of **AFM1** in **ovine milk**

Material & methods:

Bulk tank milk samples from **51 dairy sheep farms** from Castilla and León.

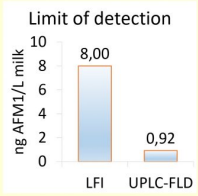
Recording **farm characteristics**: nº milking ewes, milk production, milking parlour, farm workers, bedding frequency, use of total mixed rations, use of adsorbents and previous mycotoxicosis.

AFM1 determination:

(a) rapid test (lateral flow immunoassay, LFI)

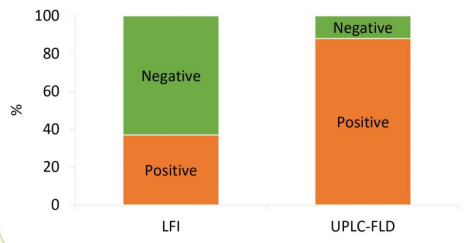
(b) ultra-high-performance liquid chromatography with a fluorescence detector (UPLC-FLD)

Samples below limit of detection were considered as negative and assigned a value of 0

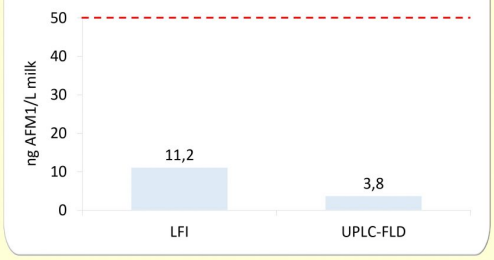


Results:

Different number of **detected positive samples**:
37 % by LFI and 88 % by UPLC-FLD



Average **ng AFM1/L milk** in the positive samples:
11.2 by LFI and 3.8 by UPLC-FLD



Tentatively, no link was observed between AFM1 in milk and farm characteristics.

AFM1 was found **in ovine milk**; the observed concentrations were **far below** the **EU maximum level** (50 ng/L)

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