CONTAMINATION CONTROL OF AFLATOXINS IN MILK INTENDED FOR HUMAN CONSUMPTION: COMPARISON OF DATA OBTAINED BETWEEN 2014 AND 2017

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Aflatoxin M₁ (AFM₁) is the hydroxylated metabolite on the hepatic level of aflatoxin B₁ (AFB₁), found in milk when the animal is lactating after ingestion of zootechnical feeds contaminated with aflatoxin B₁. Exposed with the present work is a study conducted at the laboratory So.gest s.r.l of Palermo, which lasted more than three years, on the presence of Mycotoxins in bovine milk which provenance is from farms in the Sicilian area of Catania, Enna and Caltanissetta in order to determine whether during this period some changes in concentration of aflatoxin M₁ (AFM) have occurred and access if the presence of the toxin is always within the legal limits. The analyzes were conducted with ELISA method on samples of milk just milked, and stored in the refrigerator of the laboratory some samples at 3°C±1°C. The study was carried out on the product to quantify Mycotoxins and ensure compliance with the limit imposed by EC Regulation 1881/2006, published in the EU Official Journal on 20.12.2006. The EC Regulation 1881/2006 establishes for aflatoxin M₁ (AFM₁) a maximum limit tolerated (LM) of 0.050 µg/kg (50 ppt) for milk and 0.025 µg/kg (25 ppt) for the milk intended for the first childhood. The analyses carried out in these four years have revealed that in all the samples the presence of AFM₁ has been found. In this last period, only one sample was found to have a mycotoxin concentration above the limit required by current regulations.