FUMONISIN LEVELS IN FEED SAMPLES INTENDED FOR DOGS


Mycotoxins are toxic secondary metabolites produced by fungi that can contaminate cereals used as raw material along the production chain of dog feed. Mycotoxins can interfere with liver renal, circulatory and neurological functions, therefore they pose a serious threat to animal health. The aim of this study was to evaluate the natural occurrence of fumonisins in 100 commercial feed samples intended for dogs in Northern Paraná State, Brazil. Fumonisins were analyzed by a reversed-phase isocratic HPLC system, using a Luna C-18 Phenomenex column. Fumonisin B₁ was detected in 68% of samples, with levels ranging from 0.02 to 0.22 μg/g (mean 0.09 μg/g, median 0.09 μg/g), while fumonisin B₂ was detected in 35% of samples with levels ranging from 0.04 to 0.16 μg/g (mean 0.07 μg/g, median 0.07 μg/g). Total fumonisin levels (FB₁ + FB₂) ranged from 0.03 to 0.38 μg/g (mean 0.12 μg/g), however, most of samples (80%) showed low levels ranging from 0.03 to 0.2 μg/g. Although there is no specific legislation for fumonisins in pet food in Brazil, all the feed samples showed levels below the maximum recommended (10 μg/g) for any animal feed in the USA.

Financial Support: CNPq, CNPq/MAPA, CAPES - Nanobiotechnology Network Program (04/CII – 2008), Ministry of Agriculture, Araucária Foundation, PPSUS/Brazilian Ministry of Health, Paraná Fund/SETI.