



WELFARE & NUTRITION

AWN-054

MYCOTOXIN SURVEY 2017 - WHAT'S GOING ON IN EUROPE?

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Pigs are particularly sensitive to mycotoxins, therefore it is of high importance to know where, and at what level, mycotoxins occur. BIOMIN has been conducting an annual mycotoxin survey for more than ten years, monitoring the incidences of different mycotoxins in finished feed and agriculture commodities used in animal feed.

O In the first three quarters of 2017, 13,153 samples sourced worldwide were analysed for major mycotoxins, aflatoxins (Afla), zearalenone (ZEN), deoxynivalenol (DON), T-2 toxin (T-2), fumonisins (FUM) and ochratoxin A (OTA). Of these samples, 2,592 originated from Europe. Samples were analyzed using liquid chromatography coupled to tandem mass spectrometry, high performance liquid chromatography and enzyme-linked immunosorbent assay.

S In total, 91% of all samples in Europe contained at least one of the six main mycotoxins (based on samples for which at least three mycotoxins were analyzed. DON was the most common mycotoxin and was detected in 72% of all samples at a mean concentration of 448 ppb for positive samples. In order of prevalence for the other *Fusarium* mycotoxins, ZEN was in 52% (mean of 54 ppb), FUM was in 50% (mean of 582 ppb) and T-2 was in 35% (mean of 37 ppb). Aflatoxin (from *Aspergillus* species) and ochratoxin A (from *Penicillium* and *Aspergillus* spp.) occurrence are often related to storage conditions but also grain damage in the field; Afla was present in 18% of all samples (mean of 4 ppb) and OTA was in 27% (mean of 9 ppb). Mycotoxin co-occurrences were identified in 74% of samples, this presence of two or more mycotoxins can result in synergistic or additive toxic effects on animals consuming the affected material.

T E R The survey results indicate that mycotoxins remain a serious concern in agricultural production. An effective mycotoxin risk management program should be applied to protect animals from negative effects of mycotoxins.