Raising awareness and mitigation of the potential risk of mycotoxins in animal feed

The Food Standards Agency (FSA) would like to raise awareness of the potential adverse effects of mycotoxins in animal feedstuffs.

Introduction

Feed legislation requires Feed Business Operators to ensure that feed they place on the market is safe. We are therefore recommending that businesses which grow, process and/or store plant-based feed materials review their testing regimes and consider undertaking more routine sampling and widen their scope on mycotoxin testing for feed for both food-producing and non-food producing animals.

Background

Mycotoxin compounds, which are toxic substances produced by certain fungal strains, are especially associated with growth on cereal crops, although other feed commodities can be affected (for example, fruit and vegetables or nuts). As fungi can produce different mycotoxins, multiple mycotoxins may be present in the commodity at the same time.

With climate change patterns and the dynamic global distribution of feed commodities it is anticipated that the frequency of presence and level of mycotoxins in cereals and other plant-based feed commodities may increase. This could possibly include a change in pattern of geographic distribution in the types of mycotoxins most commonly identified in animal feedstuffs imported and grown in the UK today.

Regulatory and guidance levels for mycotoxins in feed

Under animal feed legislation, legal limits exist solely for the mycotoxin Aflatoxin B1 in feed raw materials and finished compound feeds, as set out in Directive 2002/32 on Undesirable Substances (contaminants).

Guidance values for other key mycotoxins have been established for both livestock and domestic animals. Whilst the documents were published by the EU and are not laid down in UK legislation, the technical content remains applicable as a general guidance tool:

- presence of T-2 and HT-2 toxin in various cereals and cereal products
- presence of deoxynivalenol, zearalenone, ochratoxin A, T-2 and HT-2 and fumonisins in products intended for animal feeding (including pet food)

Best practices in mitigating mycotoxin contamination

Further background on mycotoxins and a number of published codes of practice to reduce fungal growth and mycotoxin contamination for foodstuffs can be found on the FSA webpage for Mycotoxins relating to agronomic and storage practices, the same principles broadly apply to commodities used in animal feed.

As new information arises, the FSA will review the approach to managing any identified risks from mycotoxin contamination in animal feed and inform industry so we can take any action required as a result of any findings.

Recommendation for mycotoxin testing

The FSA recommends that feed business operators consider the possible issues associated with the presence of mycotoxins in the feed ingredients that they process and undertake more routine testing on the mycotoxins outlined above including the lesser known group A Trichothecenes which includes T-2 and HT-2, diacetoxyscirpenol and neosolaniol.