AGIL PRODUCT NEWS

MYCOTOXIN MYSTERY

Mycotoxins have always caused problems for the animal feed industry. They are present in most feed raw materials but fortunately at levels that do not normally cause performance shortfalls in animal production. When do we need to take additional precautions?

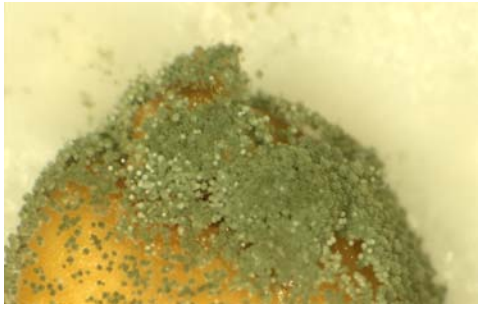
After a wet summer and poor harvest conditions, moulds such as Fusarium can be found on the standing crop and results in the appearance of pink grains. The relationship between these pink grains and Fusarium mycotoxins has been the basis of a five-year study at Harper Adams University*.

After three years the investigation suggests that there is a weak link between the presence of Fusarium on the grains and mycotoxins in the raw materials. Out of 328 samples tested only 10 exceeded the EU proposed mycotoxin limit of 1000ppb of deoxynivalenol (DON), the most common Fusarium mycotoxin. The direct link between pink grains and Fusarium mycotoxins does not, therefore, appear to exist.

The most common mould remains Aspergillus; this mould produces Aflatoxins and can occur in crops in the field, at harvest, during post harvest operations and in storage**. Using effective anti-mould preservatives immediately post harvest and by adherence to proper post harvest processing, transport and distribution practices, this problem can be effectively reduced. MYCOSTAT is ideal for this.

Insect vectors exacerbate the problem of mycotoxins, including Aflatoxins, during storage. Damage caused by insects can expose susceptible tissues to colonization by toxigenic fungi with subsequent mycotoxin formation. Storage insects can be controlled effectively with DEMETER.

During shipment and storage of raw materials, toxigenic mould growth and potential mycotoxin production are influenced by many factors including moisture level, temperature, aeration, storage time, chemical treatments, spore infection density and storage conditions (especially leakage of water or condensation).



Aspergillus tends to be visible as a white fungal mat covered with either black or dark green spore heads (conidia). These conidia are resistant to drought and heat and can germinate very rapidly once the moisture level (Aw) of the stored grains reaches a suitable level for growth, typically 12 – 13%.

The major aflatoxin-producing fungi are *Aspergillus flavus* and *Aspergillus parasiticus*. Under favourable temperature and humidity conditions these fungi grow on most raw materials.

When mycotoxins are suspected, or known to be present, then SORBATOX is the ideal product for feed millers and home mixers. It is safe to use and highly effective at neutralising the toxigenic effects of Aflatoxins. It is approved in Europe as an anti-caking agent and is free from enzymes that have yet to achieve European approval and have been used in some preparations that are specifically targeted at Fusarium mycotoxins.

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