

MYCOTOXINS UNDER THE MICROSCOPE...

Mycotoxins can occur on growing, harvested or stored cereal and forage crops. Invisible to the naked eye, these toxic chemicals are produced by some types of mould growth under certain environmental conditions. Generally these moulds are referred to as being either 'field' (Fusarium and Endophyte toxins) or 'storage' (Penicillium and Aspergillus) in origin. One of the key difficulties in identifying risk is that mycotoxins can be present in feed or forage without the presence of mould. Equally, not all mould growth indicates the presence of mycotoxins. Mycotoxin poisoning has the potential to suppress the immune system and cause a wide range of conditions, ranging from sub-clinical symptoms, such as general lack of form, hypersensitivity and loss of liver being, through to colic, liver damage and even death. High risk groups include horses whose immune system may already be under pressure, such as broodmares, youngstock, veterans, performance horses, poor doers or sick and convalescing horses.

How to prevent exposure to mycotoxins
Suffice to say, all horses encounter mycotoxins on a daily basis and by following a few



Keep all water and feed buckets clean

Acute mycotoxicosis (mycotoxin poisoning) is rare in the UK and the more likely scenario is chronic exposure to low levels of multiple mycotoxins that presents an ongoing challenge. Mycotoxicosis has the potential to suppress the immune system and has been associated to a wide range of conditions, from general lack of form, hypersensitivity and loss of liver being, through to colic, liver damage and even death. High risk groups include horses whose immune system may already be under pressure, such as broodmares, youngstock, veterans, performance horses, poor doers or sick and convalescing horses.

How to prevent exposure to mycotoxins
Suffice to say, all horses encounter mycotoxins on a daily basis and by following a few

good management practices, you can go some way to reducing, but never eliminating, exposure.

Always feed good quality cereals, compound feeds and forage from a reputable source; store in a cool dry place and do not use beyond the use-by date. Big bales of haylage should be well wrapped with at least eight layers of plastic and open bales should be used within two to three days.

Mycotoxins occur in damp, humid and drought conditions and are more prevalent on mature crops, so hay is more prone to a higher level of contamination than haylage. Be aware of harvesting conditions and check that hay is or was fully dried before baling and that it has been stored in a dry, well-ventilated environment.

Practice good hygiene and keep feed, water buckets and feed bins clean.

Incidence of contamination has been found on feed and water buckets, as well as feed bins that have not been emptied properly before refilling. Keep bedding fresh and clean as

bedding is fast becoming noted as a potentially significant source of mycotoxin toxicity, and some believe that contaminated straw may cause allergic skin reactions.

As contamination is unavoidable, one option would be to include a mycotoxin adsorbent, such as Alltech's Forage Guard in the horse's diet. Forage Guard is a natural feed material produced from yeast cell wall and micro-algae, which specifically binds mycotoxins and removes them from the gut. The active ingredient in Forage Guard has a substantial and broad-spectrum capacity to rapidly bind multiple mycotoxins.

Its binding capacity is related to specific carbohydrates found on micro-algae and on the inner cell wall (glucans) of a selected strain of yeast. Mycotoxins bind to these carbohydrates, reducing



Check that hay is dry and fully dried before baling and straw is a dry well-ventilated environment

absorption of the mycotoxins into the body, and the carbohydrate-mycotoxin complex is excreted from the digestive tract. The bonds between mycotoxin and carbohydrate are stable across a wide pH range, meaning the mycotoxins remain bound throughout the gut. Additionally, Forage Guard has a

low effective inclusion rate. This means only a small amount of Forage Guard is required to bind many mycotoxins.

A 5kg tub of Forage Guard retails at £39 and contains a 100 day supply.

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What are mycotoxins?

Mycotoxins are produced by moulds commonly found in grains, mixed feed, forages and bedding.

What is the solution?

Visible and non-visible mould spores can occur naturally in forages and on pasture which can generate mycotoxins, products of mould metabolism, and are often hard to detect. FORAGE GUARD® helps to mitigate the damaging effects of mycotoxins on health and performance.

FORAGE GUARD® Research

FORAGE GUARD® has been awarded eight patents worldwide that protect its novel composition and proprietary production. FORAGE GUARD® has been awarded peer-reviewed research for its binding capacity with pasture toxins and is the only product with peer-reviewed research in horses with Fusarium toxins.

FORAGE GUARD® can be purchased online by visiting lifeforcehorse.co.uk

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