

# Altech® MYCOTOXIN MANAGEMENT



## What are mycotoxins?

Mycotoxins are produced by moulds commonly found in grains, mixed feed, forages and bedding. They are generally referred to as being of either 'field' (Fusarium and Endophyte toxins) or 'storage' (Penicillium and Aspergillus) origin. They are implicated in a variety of acute equine health problems including colic, hypersensitivity, abortions and neurological disorders. Chronic cases can lead to cumulative effects such as damage to organ function, reduced growth, infertility and respiratory problems. Affected horses can appear agitated with possible head shaking, decreased feed intake and performance.

## The mycotoxin dilemma

### Mycotoxins are difficult to measure

- Many different mycotoxins can be present simultaneously in feed, making analysis difficult and expensive.
- Visible mould or spore counts are not definitive.
- Sampling of bulk feeds is difficult.

### Mycotoxicosis is hard to diagnose

- Symptoms are usually non-specific.

### Mycotoxin synergism

- Mould species coexist; and most can produce more than one mycotoxin.
- Mycotoxins are synergistic, meaning combinations have a greater impact than single toxins. As a result, seemingly low levels of individual mycotoxins become important.

## Major Mycotoxins affecting Horses

### Trichothecenes (DON, T-2, DAS, HT-2)

- Loss of appetite, intestinal lesions, immunosuppression, lethargy and ataxia

### Zearalenone

- Decreases fertility, vulvovaginitis

### Moniliformin

- Inhibits TCA cycle enzymes

### Fumonisin

- Equine leukoencephalomalacia

### Fusaric acid

- Effects synergistic with trichothecenes

### Aflatoxins (Aspergillus flavus & parasiticus)

- Immunosuppression, poor growth

### Ochratoxin (Aspergillus ochraceus)

- Kidney damage, increased urination

### Ergovaline

- Fescue toxicosis

### Lolitrems

- Fever, staggers

## Mycotoxins in Forages and Pasture

'Mouldy' hay is avoided by horse owners because of the danger of mycotoxins and dust caused by mould spores, which predisposes respiratory problems or 'barn lung'. Mycotoxin-producing fungi also grow on pasture grasses, exposing grazing mares and others to occasional or cumulative toxin effects. Australian climate conditions, in particular sub- and tropical areas, favour the explosive proliferation of fungi and mycotoxins, such as:

### Fusarium toxins

- Zearalenone
- Trichothecenes

### Endophyte toxins

- Ergot alkaloids in fescue
- Lolitrems in perennial ryegrass

# MYCOSORB

## Mycosorb® is backed up by over 20 years of research:

With over 151 peer-reviewed published papers, Mycosorb's mode of action is supported by 21 PhD and 22 Master projects, and has been awarded eight patents worldwide that protect its novel composition and proprietary production. Mycosorb has peer-reviewed research for its binding capacity with pasture toxins and is the only product with peer-reviewed research in horses with Fusarium toxins.

Our proven solution Mycosorb is a Ministry for Primary Industries (MPI) registered mycotoxin binder for use in complete animal feed (cattle, pigs, poultry, pet and equine). It has been proven to aid in the management of adverse effects that may result from mycotoxin contaminants that may be present in stock feed. It is a proven broad-spectrum mycotoxin binder, which tackles mycotoxin challenges as a whole, rather than dealing with individual mycotoxins.

## Recommended usage rate of Mycosorb® for equine:

inclusion rate 0.5 - 2kg per tonne of feed

- **Foals, Weanlings:** 5 grams/head/day
- **Stallions, Yearlings, Performance Horses:** 10 grams/head/day
- **Breeding Horses, Race Horses:** 15 – 30 grams/head/day

Usage rates may differ under extreme circumstances (sub - and tropical areas, clinical signs). In these cases we recommend the step down program: high inclusion rate for two weeks followed by reduced dosage based on mycotoxin risk and horse response.

## Question/Answer

Many equine riders have been asked the question:  
"Do you use Alltech products?"

And the typical answer is:  
"Yes. Love Mycosorb - have used it for many years"  
- Emily, Kumeu, Auckland.



For more information on mycotoxins,  
please visit:  
[www.knowmycotoxins.com](http://www.knowmycotoxins.com)

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