

WHAT IS THE BEST MYCOTOXIN SOLUTION FOR HORSES?

Dr Stuart Wilkinson

stuart.wilkinson@feedworks.com.au

When selecting a mycotoxin solution for horses, it is important to understand the nature of the potential problem in order to select a product that is fit for purpose. Like most other products, not all are created equal. Elitox is a product that has worked well for us.

Most mycotoxin products are called toxin binders and as the name suggests their primary role is to bind toxins in the gastrointestinal tract. Although this is a legitimate method, we believe that using a product that not only binds but also deactivates toxins provides superior coverage and efficacy.

So, what makes binding of mycotoxins and deactivation necessary?

Generally, when a mycotoxin challenge is present, it is from a range of toxins and not one specific type. Therefore, you want a product that gives you a broad action rather than a very specific narrow solution. That's why Elitox works so well for us.

At this time, it is important to understand the different types of toxins that may be present in feedstuffs.

The first group of toxins are called polar toxins. Because of their chemical structure, these toxins have a differentially charged chain length – a positive/negative charge (polar). Common polar toxins include Aflatoxins and Fumonisin. These toxins can be bound by mycotoxin binders such as mineral based products or MOS products that adsorb the toxin onto the surface of the MOS product. Whichever the method, the toxin is less readily absorbed by the horse and is excreted bound to either the mineral or MOS type binder.

As mentioned earlier, this is an acceptable method to manage polar mycotoxins, however, not all toxins are polar and therefore binders are less effective. Examples of non-polar toxins include zearalenone, T-2 toxin and trichothecenes. Non-polar toxins require a different management approach to polar toxins and are best managed through deactivation.

	Mold Inhibitors	Mycotoxin Binders	Elitox
Fungi	Yes	No	No
Aflatoxins	No	Yes	Yes
Trichothecenes	No	No	Yes
Ochratoxins	No	Limited	Yes
Zearalenone	No	Limited	Yes
Fumonisin	No	Yes	Yes
Alkaloid toxins	No	No	Yes

So which mycotoxins are most common? The answer to this is complex and there are no hard or fast rules, but we can say that it is usually a combination of toxins. However, in cooler climates such as southern Australia, the challenge is typically Fusarium fungi which produce non-polar toxins (can't be bound by mycotoxin binders). In warmer conditions and tropical regions, Aspergillus fungi that produce Aflatoxins (polar toxins which can be bound) are more common. Temperate regions can experience a broader range of mycotoxin challenge and therefore require a broad acting mycotoxin elimination product like Elitox is so valuable.

So, what are the signs of mycotoxin exposure? Well these can vary and not be specific to mycotoxins. Some signs of mycotoxin exposure include, inappetence, depression, fever, tremor, ataxia and cough. As always, professional health advice should be sought to provide a diagnosis and treatment.

Better yet, to avoid the effects of mycotoxins, it is best practice to implement a mycotoxin strategy; as it is commonly said, prevention is better than cure. Given the different types of mycotoxins that maybe present, the best approach is to use a product that protects your horse against both polar and non-polar toxins. These products offer both binding and deactivation properties and therefore provide much greater coverage than simple binder-type products. While no product offers 100% coverage, the best we can do is maximise our defence against a wide range of mycotoxins to prevent or minimise the impact of mycotoxins on horses. This is where a mycotoxin eliminator like Elitox provides the best chance for your horse.

If you have any questions, please feel free to contact me on the following:

stuart.wilkinson@feedworks.com.au

Ph + 61 414 487 882