nufense

Mycotoxin Management Solutions

standard

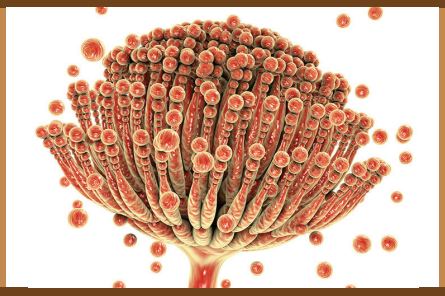
CERTIFIED M.S.
ISO 22000:2018
742/T

CERTIFIED M.S.
ISO 9001:2015
2387/Δ

nuevo

Solutions for the Mycotoxin Challenges

Mycotoxins are secondary metabolites of low molecular weight produced by fungi, mostly by saprophytic moulds growing on a variety of feed and foodstuffs (Turner et al., 2009).



Contamination of feeds with mycotoxins is a worldwide problem with serious impact on livestock production. Mycotoxin -detoxifying agents are used to control their negative effects.

The most well-known approach for detoxification involves the use of nutritionally inert adsorbents with the capacity to bind and immobilize mycotoxins in the gastrointestinal tract (GIT) of animals, thus reducing their bioavailability (Magnoli et al., 2011).

nufense standard

- Thermally & Mechanically activated Aluminosilicate
- Dry Yeast Cell wall
- Liver tonic

The **mineral clay** used is highly porous, thermally, and mechanically activated with a highly sorbitive capacity and enhanced hydrophilic (anti-diarrhea) and oleophilic (toxin-binding) activity.

Dry Yeast Cell wall: a premium yeast fraction rich in β-glucans and mannan -oligosaccharides (MOS).
It prevents colonization of the GIT by pathogens, stimulates the immune activity of the phagocytic cells, and enhances the action of beneficial bacteria such as Lactobacillus and Bifidobacterium, creating an immunological wall against diseases.

Liver tonic: mycotoxins not only reduce animal performance, but they also cause significant liver damage. Certain mycotoxins have a strong hepatotoxic effect in chicken and hepatocarcinogenic effect in exposed animals. The liver tonic used in **nufense standard** based on Silymarin, is an antioxidant that protects liver from the free radical damage produced by mycotoxins.

Aiming to determine the mycotoxin detoxifying activity of **nufense standard** in broiler, layer and breeder feed, a mycotoxin eliminating analysis was carried out. Two pH values (pH=4.5, pH=7.5) were tested, simulating gastric and intestinal juice. In order to determine the mycotoxin eliminating efficiency of the product during the transition in poultry gastrointestinal tract, 6 incubation times were used (0,30,60,120,240 and 300 min).
The mycotoxin concentration was calculated using HPLC-DAD chromatographic analysis.
Results: Strong adsorption efficiency: Aflatoxin concentration decreased by more than 95% for 30 min incubation time.

Trilogy Results:

	AF1.	ZEN
% Efficiency	99.6	70.7
Incl. rate	0.02%	0.20%
Toxin conc.	4000 ppb.	500 ppb

EURL
European Union Reference Laboratory

EURL Method:
Adsorption of 4000 ppb AB1
with 0,02% product at pH 5.0

Dosage for all species: 0,5 – 1 kg / ton of feed

Note: Dosage depends on the mycotoxin risk level