

# How to protect production animals from mycotoxins?

One of the historical challenges faced by livestock keepers is dealing with diseases caused by mycotoxin poisoning, the so-called mycotoxicosis.

These poisonings produce multiple harmful effects on animal health and productivity, in addition to posing a threat to humans.

This article will help you better understand the problem that mycotoxins represent in the agricultural environment. In addition, **if you dedicate yourself to raising farm animals, you will find a perfect solution to avoid the economic damage caused by a mycotoxicosis problem in your animals :**

- Lower productivity due to immunosuppression and increased diseases.
- More veterinary visits due to difficulties in diagnoses and fertility problems.
- Less development of the animal due to lack of appetite or loss of energy.
- Contamination of products for human consumption.

## Mycotoxins and their effects

When we speak of mycotoxins we refer to the naturally occurring toxic metabolites produced by fungi. These grow in raw materials from the field such as plants or grains, as well as [during their storage](#) or transport process.

According to the FAO, mycotoxins are present in 25% of world cereal production.

It is important to highlight that for the fungus to generate mycotoxins, the appropriate temperature and humidity conditions must be met, in addition to other factors such as the type of soil, the susceptibility of the crop, etc.

## How do mycotoxins affect the profitability of production animals?

The ingestion of mycotoxins in production animals represents a potential risk to their health and, consequently, a threat to the profitability of the farm.

The effect of mycotoxins on the health of the animal depends on several factors:

- The ingestion time and the ingested dose.
- The age, nutritional status and richness of the animal's intestinal microbiota.
- The previous presence of infections or parasites.

**In cases where the intake of toxins is high and prolonged in time, the animal will present obvious clinical signs .**

**When intake levels are very low, the presence of mycotoxins in food will cause biochemical and functional changes in the intestine and in the blood of the animal.** This will damage your intestinal barrier, allowing toxins to pass into the bloodstream, causing inflammation and seriously affecting your immune system.

**In both situations the growth and profitability of the animal are conditioned ,** which causes a significant impact on the economic results of the farm. To this problem must be added others that can also compromise the profitability of the exploitation:

- **Increased costs of veterinary care.**
- **Economic losses from the disposal of contaminated food and feed.**
- **Lack of response to vaccination programs and other treatments.**
- **Loss of human and animal life,**
- **Need for greater investment in prevention and control measures.**

In addition, **when products for human consumption have toxic residues, the breeder is immersed in a very serious problem related to food safety .** This can lead to penalties and compensation for claims and put the public image of the farm in question.

### **Effects of mycotoxins on the health of dairy cattle**

A part of the products we offer at Animalvit are aimed at improving the health of dairy cattle and the profitability of the farms that house them. Therefore, in this section **we want to summarize the main effects that mycotoxin intake generates on the health of cows. This will help you better understand the footprint mycotoxicoses leave on the profitability of your animals.**

Importantly, ruminants metabolize mycotoxins in a different way than monogastric animals. This is because, **under certain circumstances, bacteria and protozoa in the rumen are capable of totally or partially detoxifying some types of mycotoxins.**

**Good nutrition helps the liver and rumen act better against mycotoxins .** However, when these exceed the ruminal barrier and reach the intestine, an alteration in the animal's health occurs.

As a general rule, **the presence of mycotoxins in the cow's body reduces milk production and slows down its development .** This is because the intoxicated animal eats less food and does not assimilate its nutrients correctly.

Below we list the main mycotoxins that affect cows and their most prominent effects:

- **Aflatoxins** : Immunosuppression, liver dysfunction, carcinogenic residues in milk, etc.
- **Zearalenone** : Immunosuppression, irregular jealousy, increased miscarriages, etc.
- **T-2 toxin** : Immunosuppression, ulcers, [diarrhea](#) , [mastitis](#) , [increase in somatic cells](#) , fertility problems, etc.
- **Deoxynivalenol** : **Immunosuppression** , liver dysfunction, mastitis, increased somatic cells, fertility problems, etc.
- **Fumonisin**: Immunosuppression, liver dysfunction, intestinal problems, etc.

This information shows that **the economic impact of mycotoxicosis on the livestock economy can be enormous** . This forces the agricultural sector to establish prevention measures and apply treatments to animals to eliminate the effects of mycotoxins in their bodies.

### **NCC ( Natural Carbon Clay ) protects production animals against mycotoxins**

When it comes to fighting mycotoxins, there are two important fronts to pay attention to.

- **Prevention and elimination of mycotoxins in food .**
- **Elimination of mycotoxins in the metabolism of the animal .**

In relation to the presence of mycotoxins in food from the field, the sector has the difficult mission of verifying them in search of fungal contamination. There is also a need for constant review and improvement of growing, harvesting and storage methods. Finally, toxins can be removed or diluted from contaminated food or feed before ingestion.

It is important to note that **mycotoxins are very stable and resistant to different storage and processing conditions** and that **their presence is difficult to detect in the pre-ingestion phases** .

Among the main advantages of NCC in animal health are the following:

- **Boosts the immune system.**
- **Protects the liver and strengthens its ability to detoxify the animal.**
- **Helps suppress inflammation.**
- **Has properties to heal wounds.**
- **Provides vitamin C to reduce symptoms derived from intoxication.**
- **Produces antioxidant effect.**
- **Improves zootechnical performance in case of mycotoxicosis.**
- **Reduces somatic cell count in cows**
- **The number of cows with severe clinical mastitis decreases.**

