



Alltech® MYCOTOXIN MANAGEMENT

Safeguarding the health of your animals starts with the quality of your feed. Produced by molds, mycotoxins affect animal performance and producer profitability in a number of ways. Effective mycotoxin management is about seeing the whole challenge. From the farm to the feed mill and from risk assessment to feed management, the Alltech Mycotoxin Management program consists of solutions tailored to address challenges impacting animal health and performance.



Identifying a mycotoxin issue

Increased demand in animal performance brings new challenges and risks to today's farm. Mycotoxins, and their impact on the health and performance of animals, are inherently linked to these demands and if left untreated can affect farm profitability.



Commonly seen mycotoxin symptoms in pigs

Aflatoxins/DON-Group/T-2 Group/Fumonisin:

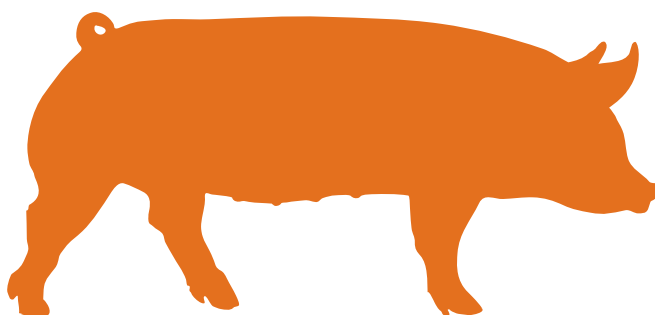
- Damage to gut integrity
- Ulcers and hemorrhages
- Decreased villus height and surface area
- Poor intestinal digestion and absorption
- Undigested feed particles in feces
- Diarrhea
- Enteritis/colibacillosis
- Salmonella infection

Aflatoxins/Zearalenone/DON-Group:

- Poor fertility
- Embryonic mortalities
- Still born piglets/mummies
- Abortions
- Vulvovaginitis/increased vulva size/prolapses
- Decrease in number of piglets born alive

Aflatoxins/Ochratoxins/T-2 Group/DON-Group:

- Poor antibody production/vaccine titers
- Poor cell-mediated immunity
- Altered cytokine profile
- Increased mortality



Ochratoxins/Citrinin/Penicillic acid:

- Kidney damage
- Uric acid crystals in kidneys (gout) and joints
- Increased water consumption/loose feces

Aflatoxins/Ochratoxins/Fumonisin:

- Liver damage
- Liver enlargement
- Fatty liver

T-2 Group/DON-Group:

- Poor feed intake

Fumonisin/Moniliformin:

- Heart enlargement
- Heart failure

Fumonisin:

- Pulmonary edema (water accumulation in lungs)





Mycotoxin quick guide – Symptoms in swine

Symptoms	Aflatoxins	Ochratoxins	Type B Trichothecenes	Type A Trichothecenes	Zearalenone Group	Fumonisin	Other <i>Penicillium</i> mycotoxins	Other <i>Aspergillus</i> mycotoxins	Ergot Alkaloids	Fusaric Acid*
Abortions					✓				✓	
Acute Hepatitis	✓									
Anemia	✓									✓
Anorexia	✓		✓	✓					✓	✓
Bloody Diarrhea				✓				✓		
Convulsions								✓	✓	
Dehydration		✓								
Delayed Sexual Maturity					✓					
Depression			✓	✓						✓
Diarrhea			✓	✓			✓			
Digestive Disorders	✓		✓	✓		✓	✓			
Pulmonary Edema						✓				
Enlarged Nipples/Udders or Mammary Glands					✓					✓
Enlarged Prepuce					✓					
Feed Refusal	✓	✓	✓	✓			✓			✓
Hyperestrogenic Syndrome					✓					
Impaired Thermoregulation									✓	✓
Increased Mortality	✓	✓	✓	✓					✓	
Increased Urine Production & Water Intake		✓								
Infertility			✓		✓				✓	
Inhomogeneous Groups	✓	✓	✓	✓						
Internal Organs Hemorrhaging	✓	✓	✓	✓		✓				
Irregular Heats					✓					
Kidney Damage		✓								
Lameness	✓		✓	✓		✓			✓	✓
Lethargy		✓	✓	✓		✓				✓
Liver Damage	✓	✓	✓	✓		✓		✓		
Malformation Of Embryo/Fetus			✓	✓	✓				✓	
Milk Contamination	✓				✓					
Oral Lesions			✓	✓						
Prolapsed Vagina or Rectum					✓					
Pseudopregnancy					✓					
Reduced Milk Production	✓		✓	✓		✓	✓		✓	

*The toxicity of Fusaric Acid is significantly enhanced when the feed is co-contaminated with the Type B Trichothecene, Deoxynivalenol (DON).

Alltech® 37+®

The Alltech 37+® mycotoxin analysis considers the mycotoxin challenge in each sample as a whole, rather than looking at the individual mycotoxins present. In this way it more closely reflects commercial production and the challenges facing producers around the world. Utilizing the most advanced mycotoxin detection technology available (LCMS/MS), Alltech 37+® provides producers with a more accurate picture of mycotoxin contamination. It shows how likely it is to impact their animals' health and performance through tailored species-specific risk assessment reports and recommendations.



Your herd is your business. Protecting it is ours.

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