



EXPERTISE



TRUST



EXCELLENCE

MYCOTOXINS

MAKING THE DIFFERENCE

INNOVATIVE FOOD & FEED SAFETY

SGS

High levels of mycotoxins in food, pet food and livestock feed can be detrimental to the health of humans and animals. Testing of feed and food materials is necessary to keep these products safe, and many countries have set standards to control the levels of mycotoxins.

WHAT ARE MYCOTOXINS?

Mycotoxins are secondary metabolites produced by fungi which can contaminate crops. The formation of mycotoxins is dependent on weather and environmental conditions, making them difficult to control. In addition, mycotoxins can become concentrated during the processing of these crops.

- **Deoxynivalenol (DON)**, or Vomitoxin, is a trichothecene produced by various *Fusarium* species and is usually favored by cool, wet weather. It causes feed refusal, vomiting and immunosuppression
- **Aflatoxins**, are a group of mycotoxins (aflatoxin B1, B2, G1, G2, M1 and M2) produced by *Aspergillus* species. They are usually most severe when crops suffer drought conditions and extreme heat during grain fill, and are potent carcinogens
- **Fumonisin (B1 and B2)**, are a group of mycotoxins produced by several *Fusarium* species. They affect primarily corn and are brought on by drought stress followed by warm wet weather. Fumonisin has been known to cause pulmonary edema in swine and esophageal cancer in humans
- **Ochratoxins (A, B, and C)** are produced by some *Aspergillus* and *Penicillium* species. Ochratoxin A is most prevalent and is a carcinogen
- **Zearalenone**, is produced by *Fusarium* species and is favored by cool wet weather. It has negative effects on the reproductive system of mammals
- **T-2 toxin** is a trichothecene produced by various *Fusarium* species and causes severe immunosuppression, vomiting and reduced feed intake

SGS SOLUTIONS

Our global network of inspectors, scientists and technicians have the facilities, equipment and experience to meet all your mycotoxins needs. We apply customized sampling and sample preparation schemes to assure consistent results. Our worldwide

network of ISO 17205 accredited laboratories is also recognized by numerous food and feed associations as approved laboratories.

TESTING

With cutting edge technology and standardized testing methods, our laboratories are fully equipped to meet your needs. We routinely test the quality of dairy products, pet food, livestock feed, grains and their co-products utilizing LC MSMS (Liquid Chromatography with tandem Mass Spectrophotometry) a technology that allows for differentiation of mycotoxins within a group and offers very accurate results with fast turnaround times.

We report results quantitatively in parts per billion (ppb) or parts per trillion (ppt), depending on the mycotoxin tested.

MYCOTOXIN MONITORING PROGRAM

Working in line with the requirements for certification schemes including GMP+, OVOCOM, GTP (Cocerial), AIC, EFISC, and QS, our mycotoxin monitoring program provides an effective early warning notification system and risk mitigation tool.

Focused on corn and wheat crops, this program samples grain under Grain and Feed Trade Association (GAFTA) rules. 15-20% of samples are taken from standing crops from harvest until four months after harvesting, depending on conditions/situation in a country, either from the first collection point or during transshipment.

The data produced is targeted and specific and can help identify potential problem regions in a given country at a very early stage. Screening data is sent weekly to subscribers, who will also receive aggregated statistics for each country and even special alerts when high level contamination is detected.

SUPPLY CHAIN MONITORING

Mycotoxins can become an issue at almost any point in the supply chain – if conditions are right. The most important thing is to identify any issue as quickly as possible, allowing contaminated

product to be disposed of and alternatives sourced. Drawing on our global network of inspectors, scientists and food and feed testing laboratories we can devise a program of inspection, sampling and testing that minimizes your risk, and verifies the quality of your product.

TECHNOLOGY & INNOVATION

Innovation is at the heart of our business. New technologies deliver knowledge, insight, transparency and efficiency for our customers.

Laboratory Information Management System (LIMS)

Improves the productivity and efficiency of laboratory operations. SGS LIMS enables automation and instrument integration, reducing turnaround time and human error. Test results can be accessible 24/7 via a web portal.

SGS Digicomply

Simplify compliance with access to the constantly evolving pieces of legislation and standards relating to food and agriculture. With a modular architecture, choose different features to transform compliance information into user-friendly actionable knowledge.

SGS BENEFITS

SGS is the world's leading inspection, verification, testing and certification company. SGS is recognized as the global benchmark for quality and integrity. With more than 95,000 employees, SGS operates a network of over 2,400 offices and laboratories around the world

-  Global Network
-  Latest technologies
-  Harmonized procedures
-  Rapid turnaround times

CONTACT US

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