

Unlocking the key insights from the 2021 global grain harvest



Each year, Alltech carries out comprehensive mycotoxin testing programs across the key grain growing regions globally that help uncover the mycotoxin threat in newly harvested crops. These programs empower feed and livestock producers with the most up to date mycotoxins insights, enabling informed and effective decision making during the coming feeding season. Turbulent weather, dominated by droughts and floods contributed to a higher overall mycotoxin risk in 2021 harvested grains compared to 2020.

What are some of the key themes appearing?

- Weather conditions led to a higher-than-normal presence of zearalenone, posing particular concerns for swine producers.
- Type B trichothecene levels in US corn more than doubled compared to harvest 2020
- Drought conditions in southeastern Europe created significant aflatoxin challenges in corn from that region.
- Fumonisin remain the primary challenge in corn from South America.
- Wheat and barley presented a lower – risk compared to corn, but not no risk, with small grain samples still containing an average of 3.6 mycotoxins per sample.

85.3%

The number of samples containing 2 or more mycotoxins*

5.2

The average number of mycotoxins in corn samples*

3.6

The average number of mycotoxins in wheat and barley*

*In samples tested with Alltech 37+®

A look around the regions

Europe

- Significant levels of aflatoxins in corn from southeastern Europe, with many samples exceeding the regulatory limits. Raw materials containing 20 ppb or above of aflatoxin are deemed unsafe for use in animal feed, according to EU regulation, raising particular concerns for the dairy industry there.
- Straw analysis from Denmark revealed potential issues for livestock producers who are using this as either an ingredient or bedding material. DON was the most prevalent toxin detected, with maximum levels up to 10,900 ppb.
- Small grains were generally lower risk compared to corn, but the multiple mycotoxin challenge at lower levels still poses a challenge to livestock health and performance.



North America (USA and Canada)

- *Fusarium* mycotoxins dominated in the US. Type B trichothecenes levels doubled compared to 2020, while conditions also favoured the development of zearalenone.
- Aflatoxin challenges in the US were lower than expected considering the drought conditions during the growing season.
- DON was the primary mycotoxin of concern in Canadian wheat and barley, at average levels of 480 ppb, and a maximum of 1300 ppb.
- Wheat originating in Alberta and Saskatchewan is presenting some aflatoxin challenges due to prolonged drought there.



South America

- In corn from Brazil and Argentina, fumonisins remain the primary toxin of concern. Average concentrations were 1630 ppb, with a maximum of 9400 detected.
- Average aflatoxin levels were at 7.6 ppb, while DON averaged 706 ppb.
- When Alltech's REQ metric is applied, corn from this region presents a higher overall risk to species groups such as broilers, grow finish pigs and dairy cows.



Managing the mycotoxin challenge

Mycotoxin contamination presents a dynamic challenge. Transport and storage can exacerbate an existing mycotoxin issue in grains, or potentially create new problems. To truly understand the potential risk in grains or feeds that you are using in your business, a routine mycotoxin testing program is advised. Being equipped with this information allows you to formulate and implement the most effective mycotoxin control strategies. Find out more about Alltech's range of mycotoxin management solutions at [knownmycotoxins.com](https://www.alltech.com/knownmycotoxins.com)

