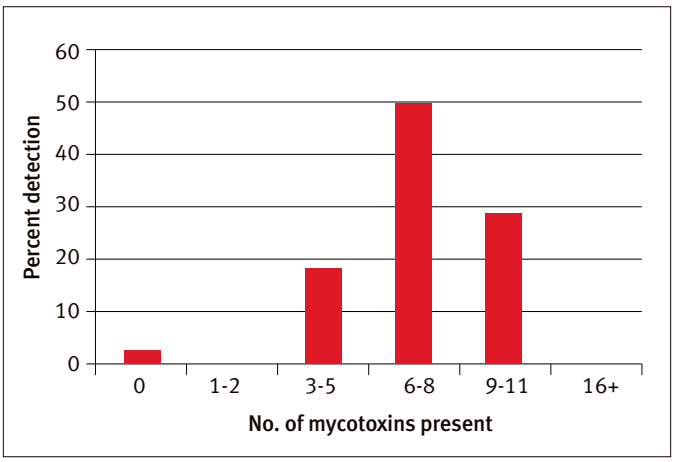
# 2013 North American Harvest Analysis Detects Mycotoxin Threat

All of the corn and corn silage samples submitted during the 2013 harvest tested positive for multiple mycotoxins, according to a recent harvest analysis conducted by Alltech, a global animal health and nutrition company.

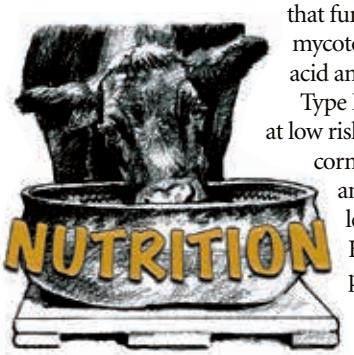
The Alltech Harvest Analysis North America (HANA) survey tested 101 samples from across the United States and Canada, and demonstrated the need for producers to implement a mycotoxin-management program to monitor the effects of toxins on all species throughout 2014. Despite more rainfall across the Corn Belt and yields pushing record production, farmers must consider quality rather than quantity. Quality not only includes nutritive value, but also the presence and levels of mycotoxins in this year's crop.

**Fig. 1: Percent of selected samples containing multiple mycotoxins**




**Source:** Alltech, 2013.

Samples sent in from across the United States and Canada show that corn silage yields and corn grain tested positive for multiple mycotoxins (see Fig. 1). This follows what is being observed in that a greater percentage of feeds and feedstuffs are contaminated with multiple mycotoxins. The breakdowns for corn silage and corn (see Figs. 2 and 3) are almost identical in that fumonisin is the most prominent mycotoxin and is followed by fusaric acid and Type B trichothecenes.




Type B trichothecenes are present at low risk levels in both corn silage and corn grain in the average sample and may be considered at safe levels by many producers. However, the second-most-prevalent mycotoxin is fusaric acid, and fusaric acid will act synergistically with deoxynivalenol (DON) to magnify the effects of DON.

"What appears to be a relatively safe, low-risk level of Type B trichothecenes may be elevated to a moderate risk by fusaric acid. This effect will be manifested as lower dry-matter intake, decreased rate of gain, gut irritation and lowered immune response," said Max Hawkins, nutritionist with Alltech's Mycotoxin Management Team.

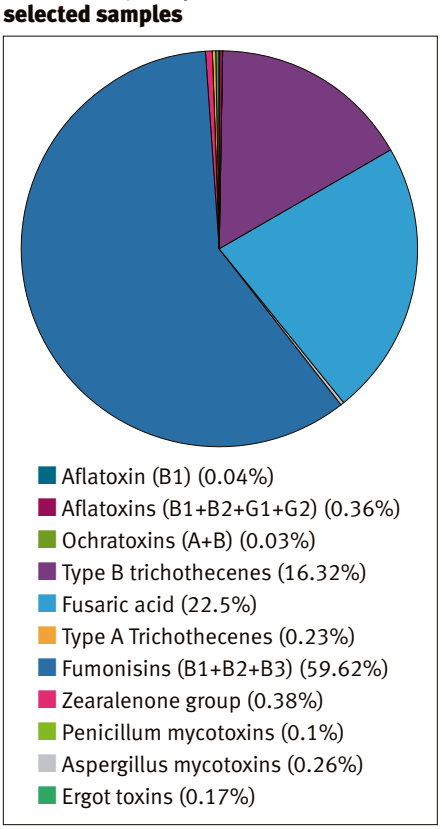
Many times it is not an acute case that can be readily identified, but a chronic situation associated with the ingestion of a low level of mycotoxins over an extended period of time. This results in a wide array of subclinical symptoms that slowly reduce performance, eat away at the producer's bottom line and compromise herd health.

"Producers need to implement a mycotoxin-control program now to reduce the threat to their herds," Hawkins said. "This is the time to be proactive."

Hawkins said to be aware of the effects of multiple mycotoxins, implement a mycotoxin-control program and stay vigilant with storage management for the new crops.

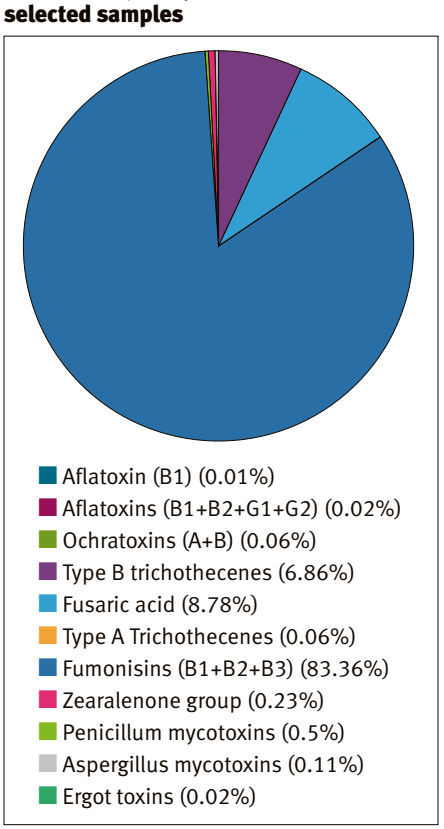
**Editor's Note:** *This article is from Alltech.*

**Fig. 2: Multiple mycotoxin content of selected samples**




**Source:** Alltech, 2013.

**Fig. 3: Multiple mycotoxin content of selected samples**




**Source:** Alltech, 2013.