VENDOR SEMINAR:

Expect the unexpected – Climate change and (emerging) mycotoxins

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Climate change is increasingly recognized as a critical factor influencing the prevalence and distribution of mycotoxins, toxic compounds produced by certain fungi that pose significant health risks to humans and animals. This workshop explores the complex relationship between changing climatic conditions and mycotoxin contamination in agricultural commodities. We will discuss how rising temperatures, and altered precipitation patterns, affect fungal growth and mycotoxin occurrence. Additionally, the presentation will address the emergence of new mycotoxigenic fungi in regions previously unaffected, driven by climate-induced shifts in environmental conditions.

Many studies have been performed in more recent years that are showing that mycotoxins are occurring in areas of the world that historically have not had contamination such as Aflatoxin in wheat in Europe. Mycotoxins are also occurring due to storage conditions from shipping containers that are held up for months. Advances in technology have also proven that it is common to have multiple mycotoxins occur in samples.

We will present a multi-mycotoxin analytical method, including emerging mycotoxins in cereals, finished feeds and food matrices by liquid chromatography-Tandem Quadrupole Mass Spectrometry with lower limits of detection, as well as a toolbox of quality assurance tools called QualiT™.

This method development and study objective was to quantitatively detect multiple mycotoxins in cereals, finished feed and food products at lower limits of detection. As mycotoxin regulations have been lowered in some countries around the world and emerging mycotoxins detected, a method that could extract and detect these at lower levels was developed.