

The New Mycotoxin Training Hub online platform

Which farmer, merchant, or food processor hasn't been anxious about their mycotoxins results? Aflatoxins, ochratoxin A, deoxynivalenol, zearalenone, T-2 and HT-2, patulin, fumonisins, and lately the ergot alkaloids... these mycotoxins separately or together have brought more than one challenge to many within the Agri-food industry leading to potential corporate risk!

Up to 80% of food crops are contaminated with mycotoxins with about 20 to 25% of the samples exceeding the EU or Codex Alimentarius limits¹. This number is likely to increase due to [climate change](#), the rise of energy costs, and the pressure to feed 9.8 billion people by 2050.

1. Are we doomed?

No. Science and industry have come a long way since the 1960s scandal of the Turkey "X" disease originating from groundnut cake contaminated with high levels of aflatoxins and cyclopiazonic acid produced by *Aspergillus flavus*². Driven by the need for compliance with the recommendations and/or regulations from the Codex Alimentarius, the FSA, the European Commission, and the FDA, the supply chain has developed safety assurance programs and integrated mycotoxin risk management into their HACCP program supported by a well-developed industry of mycotoxin testing offers.

2. Are we off the hook?

Not yet. Mycotoxin-related notifications are the third category of notification by the Rapid Alert System for Food and Feed network with 485 notifications in 2022 alone (10.5% increase compared to 2021)³. The inadequate handling of the first key stages of the supply chain from field to docks is still a challenge. With 50-70% of the global food produced by smallholder farmers (1 < ha)⁴, this challenge needs innovative solutions to promote capacity building and knowledge transfer towards implementation of affordable solutions.

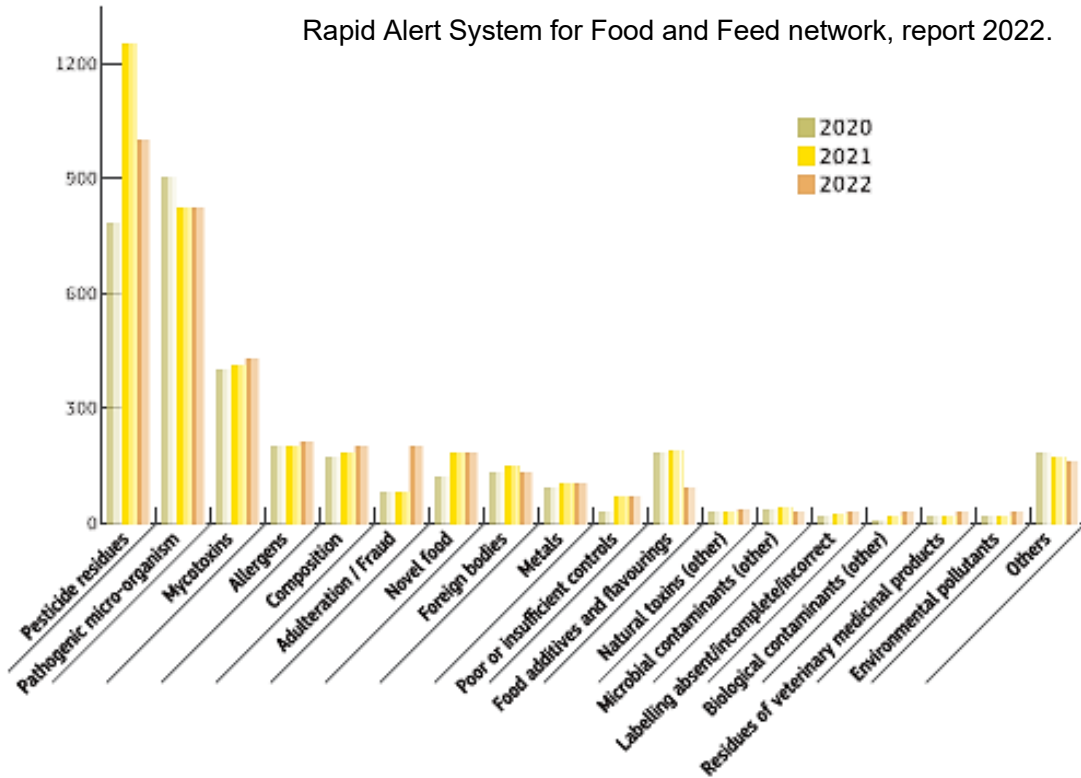
¹ Eskola et al., "Worldwide Contamination of Food-Crops with Mycotoxins: Validity of the Widely Cited 'FAO Estimate' of 25%."

² Bradburn, Coker, and Blunden, "The Aetiology of Turkey 'x' Disease."

³ Rapid Alert System for Food and Feed network, "Alert and Cooperation Network Health and Food Safety."

⁴ Giller et al., "The Future of Farming: Who Will Produce Our Food?"

Rapid Alert System for Food and Feed network, report 2022.



3. How to move forward?

Communication, training and partnership. The [Applied Mycology Group](#) at [Cranfield University](#), has more than 35 years of experience in supporting the agro-industry business to develop preventive solutions for managing mycotoxin-related issues. Partners from over 35 countries work together with us in knowledge transfer activities towards implementing the most relevant strategies to fit the supply chain constraints and opportunities. A recent example of success is the [NutriNuts project](#) where, jointly working with universities, extension workers, and industry new innovative low-cost solutions have been tested and developed for the Ethiopian peanuts food chain landscape. The lessons learned from these projects are now transcribed into our courses to benefit the wide worldwide community.



4. Why the mycotoxin training hub is part of the solution?

Because the hub promotes partnership and training through a unique online interactive concept. The students register to one of [our courses](#) and gain skills from state-of-the-art research translated into supply-chain-specific applied solutions. At the end of the self-paced course (circa 30h), the student gets a one-to-one interactive session with one of the Mycotoxin Training Hub research teams. This session is tailored to help implement the course outcome in their supply chain and nurture partnership and communication with our team of experts.

Dr Carol Verheecke-Vaessen, director of the Mycotoxin Training Hub