







Special Issue Reprint

# **Food Safety and Natural Toxins**

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Natural toxins are poisonous secondary metabolites produced by living organisms which are typically not harmful to the organisms themselves but can impact on human or animal health when consumed. Common sources of such toxins include poisonous plants, fungi, algae, and bacteria, and the diversity of these biological systems presents challenges to analytical chemists in identification in addition to wide-ranging food safety implications when present as contaminants in food commodities. The propensity for such toxins to be present in both animal feed and human food has led to the introduction of regulations for a small number of the most potent natural toxins, particularly mycotoxins. Implementation of these regulations necessitates the establishment of high-throughput analytical chemistry methods with increasingly lower limits of detection. The impacts of plant toxins are not limited to grazing livestock but can be carried through the food chain, with some toxins, such as indospicine, being demonstrated to accumulate in tissues of grazing animals, causing secondary poisoning in animals consuming meat from this livestock. This Special Issue focuses on the analysis of natural toxins and their incidence, from source organisms to food and feed commodities, in addition to their implications for food safety.





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