

Quantitation of over 1,000 Pesticides in Tomatoes in Accordance with the SANTE 11312/2021 Guideline



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Live Webcast

Tuesday, 23 January 2024

10:00 a.m. GMT | 11:00 a.m. CET | 3:30 p.m. IST

Presenters



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Event overview

Pesticides play an important role in the agriculture and food industries to improve crop yield and food production. However, the quantity of pesticide residue remaining in or on commodities are tightly controlled to avoid contamination of the food chain and the environment. Therefore, regulatory agencies have set maximum residue levels (MRLs) for hundreds of pesticides and their metabolites. To check whether foods comply with these legal requirements, different analytical techniques are necessary to detect all pesticides that could be mandated for analysis. This webinar describes a comprehensive end-to-end workflow for the targeted quantitation of more than 1,000 pesticides in tomato using GC/MS/MS and LC/MS/MS techniques with a common QuEChERS sample extraction protocol without further clean-up. The workflow performance was successfully evaluated according to the SANTE 11312/2021 guideline based on method sensitivity, limit of quantification, linearity, recovery, and repeatability using matrix-matched calibration standards for over 1,000 pesticides.

Key learning objectives

- Understand why combining GC/MS/MS with LC/MS/MS is necessary to determine the widest scope of pesticides.
- Understand how a robust universal sample preparation has been exploited to attain compliant pesticide residue results.
- Learn how over 1,000 pesticides can be analyzed within 20 minutes.
- Learn how dynamic MRM (dMRM) can improve the scope and efficiency of multiresidue quantification at the European Union maximum residue levels (MRLs).

Who should attend

- Private CRO food safety testing laboratories
- Government food testing laboratories
- Academic food science laboratories
- Food lab managers
- Food lab instrument operators

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