

Pesticides? Not In This Plant



Thermo Fisher Scientific Inc. has recently announced that Conserve Italia, a leading company in the agri-food industry in Europe, is using Thermo Scientific GC/MS and LC/MS systems for fast and reliable pesticide analysis of food products. Conserve Italia processes around 650,000 tons of raw materials each year, including fruits, vegetables and tomatoes and provides the European market with finished goods such as fruit juices, canned vegetables and tomato sauces and purees. The organization is using the Thermo Scientific TSQ Quantum GC and TSQ Quantum Access Max triple stage quadrupole mass spectrometers to achieve compliance with maximum residue limits (MRLs) specified for pesticides in food. By using the instruments, the laboratory has significantly increased sample throughput as well as experienced substantial time and cost savings. This application is detailed in a case study, which is available to download via www.thermoscientific.com/rapidpesticideanalysis [1].

Pesticide analysis poses a number of challenges for laboratories and operators due to the wide ranging chemistries within the contaminants and their complex elution. High speed, sensitive and cost-effective analytical instrumentation is required to generate a sufficient number of data points and ensure reliable integration of overlapping chromatographic peaks.

Conserve Italia selected the TSQ Quantum GC and TSQ Quantum Access Max because of the instruments' ability to perform rapid and accurate GC/MS and LC/MS pesticide analysis, coping with the laboratory's extremely high throughput of more than 10,000 samples per year.

Following implementation of the instruments, Conserve Italia has significantly improved productivity and has achieved substantial cost savings. Combining the systems with the QuEChERS (Quick, Easy, Cheap, Effective, Rugged and Safe) sample preparation method has resulted in pesticide analysis that is three times faster than with previous instruments. The speed of mycotoxin analysis has

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increased tenfold, reducing the total analysis time to approximately three hours.

Renzo Boni, laboratory manager at Conserve Italia, comments: "We selected the Thermo Scientific mass spectrometers for their robustness and ability to speed up the detection and analysis of pesticides and mycotoxins. Since installing the instruments we have experienced great results and have significantly increased sample throughput. Both instruments have become extremely important in our laboratory as they drastically reduce analysis time and their high accuracy means we can ensure that our food products are completely safe to enter the food market. The health of consumers is safeguarded and our brands are protected, ensuring that Conserve Italia can maintain its leadership position in Europe."

For the latest information about the Thermo Fisher Scientific solutions and the wide range of applications for food safety, please call 800-532-4752, e-mail analyze@thermofisher.com or visit www.thermoscientific.com/foodsafety [2].

Source URL (retrieved on 12/17/2014 - 4:31pm):

http://www.impomag.com/articles/2010/11/pesticides-not-plant?qt-most_popular=0

Links:

[1] [http://www.chemweb.com/press-](http://www.chemweb.com/press-releases/www.thermoscientific.com/rapidpesticideanalysis)

[releases/www.thermoscientific.com/rapidpesticideanalysis](http://www.chemweb.com/press-releases/www.thermoscientific.com/rapidpesticideanalysis)

[2] <http://www.chemweb.com/press-releases/www.thermoscientific.com/foodsafety>