



Introducing the Pesticide Explorer Collection

Simplified workflows to support pesticide analysis from start to finish.

Conscious of the increasing demands placed on routine pesticide control laboratories, Thermo Fisher Scientific has developed the Pesticide Explorer Collection, comprising four complete solutions that cover all levels of pesticide analysis. Here, we share details of the first: the Triple Quadrupole “Standard Quan” solution.

The standard quantitation configuration – just like its stablemates – includes all the workflow components needed, from consumables and hardware through to software and built-in instrument and data processing methods. Dipankar Ghosh (Director, Enviro & Food Safety, LSMS, at Thermo Fisher Scientific) says, “The Pesticides Explorer Standard Quantitation configuration is designed

to meet the complete needs of high throughput laboratories running routine targeted quantitation of pesticides. It provides the analyst the complete tools from sample preparation and analytical methodologies to reporting templates to achieve the desired results fast.”

Pre-configured and pre-tested to get you up-and-running as soon as possible, the standard quantitation solution features a TSQ Endura triple quadrupole mass spectrometer to ensure compliance against regulated levels of detection in a routine environment.

Standardized sample prep and separations Irrespective of the depth of analysis, accurate results are essential. To that end, all configurations of the Pesticide Explorer Collection include the QuEChERS (Quick, Easy, Cheap, Effective, Rugged and Safe) sample preparation reagent kit and HPLC columns, both of which facilitate more accurate pesticide determinations in high moisture samples. QuEChERS is rapidly becoming the method of choice in food sample preparation and clean-up because of its high recoveries, time-savings, and simplicity. Moreover, QuEChERS generates minimal solvent waste but retains the power to cover a

wide pesticide range, including polar and pH-sensitive compounds.

Regarding column choice, Mike Oliver (Product Manager, Sample Preparation and Accucore LC Products) says, “Pesticide analysis requires the separation of highly complex samples. In order to quantify and qualify accurately and provide confidence in analysis, highly reproducible and robust separations are required. To meet this challenge, the Pesticide Explorer Collection contains Thermo Scientific Accucore solid core HPLC columns, which deliver greater separation efficiencies in combination with robust formats.”

Software that works with you

Pre-configured methods are simple to access on the included USB drive and can be easily set up and adapted in just a few steps.

Compounds can be selected from the database to automatically create the instrument and processing method. But flexibility allows you to upload, create or modify pre-configured methods with SRM transitions and retention times with ease.

Once the optimized data acquisition has been completed, the color flagging features in the bundled TraceFinder software enable you to quickly review data. The final step? The generation of high-quality standard or custom reports that turn your data into results.

Ed George, Senior Application Scientist in Environmental and Food Safety at Thermo Fisher Scientific, was heavily involved in the development of the Pesticide Explorer Collection, and believes the solutions reflect the constant drive for reproducible and robust results in pesticide control. George highlights the key goal of the Standard Quan solution: “The package for the TSQ Endura includes proven multi-class pesticide methods with compound databases and consumables to help you save time.”