



REGULATORY PESTICIDE
ANALYSIS JUST
GOT EASIER



QSight Pesticide Analyzer



SENSITIVITY, THROUGHPUT,
AND PRODUCTIVITY FOR WORLD-CLASS
PESTICIDE ANALYSIS



WHAT WOULD YOU DO WITH 15% MORE TIME FOR TESTING?

Lab managers in testing laboratories know the complexity that comes with regulatory pesticide analysis. It's partly the global nature of the food supply: Our tastes are changing and we are now sourcing large quantities of a variety of food products from many countries with varying regulatory limits on pesticides.

To feed the global demand, large scale agriculture often requires spraying of a variety of pesticides to protect crops. Pesticides can adversely affect human health through the food we consume but can also leach into soil and groundwater and impact us through the environment.

To keep up with a complex and constantly changing regulatory environment, your pesticide analysis solution needs to keep up with your burgeoning sample load. And our QSight™ Pesticide Analyzer solution enables you to do just that.

The solution is based on the QSight triple quad LC/MS/MS system, with our QSight LX50 high performance UHPLC front-end. The QSight system doesn't require frequent cleaning as with other triple quad instruments on the market and delivers 15% more uptime – and that can translate to 35 more days of sample testing per year. Plus, it's the most efficient high-sensitivity pesticide analysis solution on the market today.

But best of all, it's a complete pesticide solution, taking you from initial sample prep and extraction to analysis and reporting – all backed by the most knowledgeable service and support organization in the business.

The QSight Pesticide Analyzer solution: Here's where a safe and healthy food supply chain begins.

THE COMPLETE PESTICIDE ANALYZER

Right from the start, we deliver a complete triple quad solution for routine quantitation – run by technician-level operators who perform analysis, day in and day out.

QuEChERS for Multiple Pesticide Residue Analysis

1

We deliver a complete range of extraction and cleanup solutions for fruits and vegetables with or without fats, pigments, or waxes, using AOAC 2007.01 and EN 15662 methodologies.

QSight System with Powerful UHPLC/MS/MS Technology

2

The QSight system helps ensure that the food, nutraceuticals, and botanicals we consume are healthy and within regulatory pesticide limits, and that your lab can meet rigorous FSA, EFSA, and FSMA requirements for food safety – with minimal impact to your bottom line.

Simplicity 3Q™ Software with Guided Workflow

3

This modular software suite is designed for intuitive, straightforward operation, with wizards guiding you through the workflow – from method development to results processing and reporting.

Global, Application-Specific Service and Support

4

When you engage with us, you're engaging with scientists who know your industry, your application, and your methods – and how they drive your business. There's simply no better service and support organization in the business.

WE MAKE IT EASY TO GO WITH THE WORKFLOW

To analyze more samples and ensure pesticide residues are within regulatory threshold limits, labs need increasingly sensitive triple quad mass spectrometers that deliver lower cost per analysis, higher throughput, and decreased sample prep time.

That's precisely what the QSight Pesticide Analyzer solution provides: It's built to run hundreds of pesticides in one run, with the utmost in sensitivity and efficiency. How efficient? The system saves between two and three workdays per month on cleaning and routine maintenance alone, for an estimated 15% higher throughput than conventional systems. Put that together with fewer wash cycles and reduced complexity for multiplexing, and you've got a system that sets the standard for high-sensitivity pesticide analysis.

QSight: The heart of a great analyzer

The QSight LC/MS/MS delivers all the functionality you need in a triple quad solution, plus an array of innovations you won't find in competitive systems—all in a compact form factor that doesn't take up much valuable bench space.

The system's StayClean™ technology uses hot-surface-induced desolvation (HSID™), a sampling interface that never needs cleaning, resulting in 15% more uptime than conventional systems. The continuous hot gas acts as a cleaning agent, while charged species are entrained and desolvated in the gas's hot flow, which reduces chemical noise and provides a higher signal-to-noise ratio.

Instrument drift in signal and frequent re-optimization are eliminated with the use of our patented Laminar Flow Ion Guide™, which sits behind the HSID interface. Unlike traditional ion guides, the Laminar Flow Ion Guide is at zero potential and ions are transported by flow, ensuring the highest levels of performance. Together, HSID and Laminar Flow Ion Guide make the QSight a maintenance-free instrument – and that means more analysis and productivity.

The two-source solution

The QSight system's dual-source configuration can be set in ESI or APCI modes, enabling combinations such as ESI/ESI, ESI/APCI, and APCI/APCI – with the same or opposite polarities. Unlike single-source instruments, our dual-source technology enables you to collect data in two complementary modes, maximizing the output from a single injection. And because you can use one probe for tuning and another for high flow, it's like having two MS systems in one.

Say goodbye to high-voltage polarity switching

With its high-energy dynode to attract positive ions, the QSight system's UniField Detector™ causes positive ions to collide with a high-energy dynode to form electrons that cascade into the detector, while negative ions are detected as usual for pulse counting. That means near-simultaneous detection of positive and negative ions without high-voltage switching. Polarity switching is limited only by the ion source polarity switching and time of flying through the ion path, not by the detector.



QSight Triple Quadrupole
LC/MS/MS



The perfect blend of LC technology and system design

The perfect complement to our QSight MS/MS system, the QSight LX50 UHPLC system delivers all the sensitivity and specificity you require to meet the needs of demanding multipesticide residue analysis. And it delivers advanced fluidics and high-performance separation through analytical columns for exceptional results at high or ultrahigh pressures.

The system delivers three key technologies that help optimize your workflow and enable even higher levels of productivity:

- **Precision Sampling Module** With industry-leading advanced fluidics, the Precision Sampling Module protects samples from degradation and precipitation, delivering accurate, stable temperature that ensures stability and uniform cooling. And its injection-to-injection reproducibility and zero carryover and contamination give you outstanding analytical performance and column life.
- **Solvent Delivery Module** The self-cleaning Solvent Delivery Modules use a rugged linear drive to deliver extremely precise UHPLC gradient changes at 1300 bars. Four pump heads are individually motor-driven and controlled, providing super-accurate flow control and pulse reductions. And the system is self-priming and self-purging in minutes – so your scientists can concentrate on the job at hand.
- **Column Stability Module** The system's Column Stability Module maintains a precise, consistent temperature for the column and mobile phases for reproducible retention times, enhanced selectivity, improved peak shape, and shorter analysis times. And elevated temperatures reduce column back pressure, allowing for higher solvent flow rates regardless of column and particle size.



QSight LX50 UHPLC System

QuEChERS: Sample prep the easy way

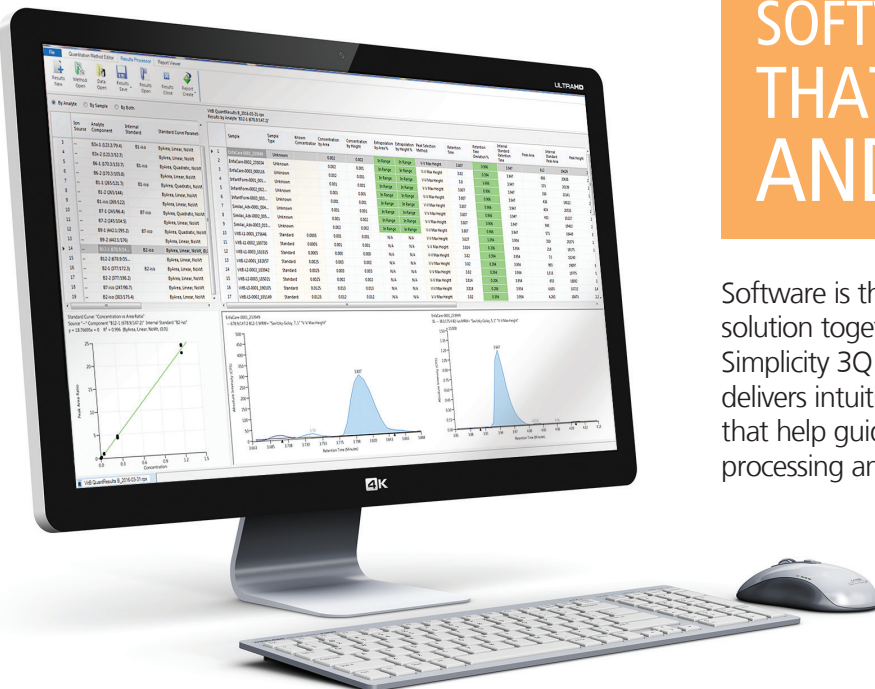
Our Supra-d™ QuEChERS dispersive SPE makes sample preparation a simple, two-step process. It's the platform of choice for sample prep in pesticide analysis, because it eliminates complex liquid extraction methods and extends the range of recovered pesticides. This quick and simple procedure improves lab productivity – and delivers improved accuracy as well. Plus, our Supra-d QuEChERS dispersive SPE extraction and cleanup kits for all QuEChERS methodologies include pre-prepared products for simple, error-free use, and a certificate of quality is included in each kit to ensure high-quality extractions, every time.



Supra-d QuEChERS dispersive SPE

SOFTWARE AND SERVICES THAT MAKE YOUR LAB AND LIFE SIMPLER

Software is the glue that holds any good pesticide analysis solution together – and that’s the whole idea behind our Simplicity 3Q software. Modular in design, the software suite delivers intuitive, straightforward operation, with wizards that help guide from method development to results processing and reporting. It’s a workflow that really works.



Simplicity 3Q Acquire Module

A great solution for data acquisition, Simplicity 3Q Acquire software streamlines acquisition method development and batch acquisition, with the highest levels of automation. It’s capable of real-time acquisition of more than one thousand MRMs and provides a real-time simultaneous display of large numbers of transitions. And for batch acquisition, it delivers a simple sample editor with an integrated concentration table and easy table controls.

Simplicity 3Q Quant Module

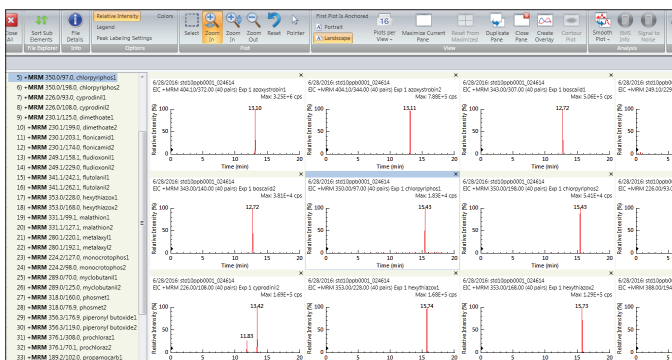
For data analysis and reporting, Simplicity 3Q Quant software uses autopopulation from data acquisition files for an exceptionally fast, smooth, streamlined workflow for high-throughput situations. And with a full-on view of all navigation data, the software’s RapidView Heads-up Display™ lets you concentrate on your data – and your results.

Simplicity 3Q View Module

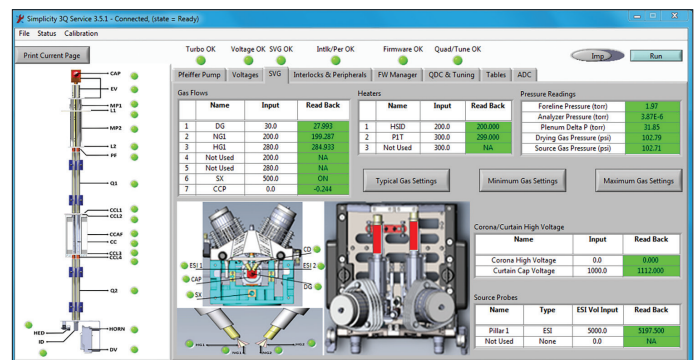
Simplicity 3Q View software delivers flexible multi-analyte viewing, overlay plotting, and signal-to-noise analysis. Plus, it provides total ion currents (TICs) and extracting ion currents (XICs) for data exploration and evaluation.

Simplicity 3Q Service Module

The Simplicity 3Q Service software module uses AdvIO™ Electronics to review all settings and feedback, quickly diagnosing or ruling out hardware concerns. And because diagnostics are extremely accurate, downtime is vastly diminished, while repairs are done efficiently and effectively – without return calls.



Simultaneous review of several analyte MRMs.



Intuitive and real-time read-back facilitates instrument troubleshooting.

The End-to-End LC/MS/MS for All Your Regulatory Pesticide Analyses

The QSight Pesticide Analyzer system allows you to analyze hundreds of pesticides in a single run, with no instrument-to-instrument method optimization – and because there's no downtime for MS planned cleaning, it can save hardworking labs like yours up to 35 workdays per year.

And it delivers easy method setup and adoption in the following areas:

- Acidic pesticides in food products
- Carbamate pesticides in food products and beverages
- Organophosphorous pesticides in food products
- Phenyl urea compounds in food products
- Herbicides in water
- Glyphosate and related metabolites in food products
- And much, much more



EVERYTHING
YOU NEED
UNDER ONE ROOF



With our OneSource® organization, you're benefiting from multivendor service and support from the absolute best in the business. That means thousands of certified technicians in the field, who are familiar with all the techniques you employ. More than 400,000 multivendor assets under our care. And operations in more than 120 countries across the globe.

Analytic method services, asset procurement and disposition, business intelligence, qualification and validation, lab relocation, and, of course, instrument service and repair – all these services and more, plus a deep-seated knowledge of the business requirements of our customers, uniquely qualify us to help empower your science and drive your business.

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