

## MEETING AT-A-GLANCE

### Sunday Evening, July 20, 2008

5:00 - 8:00 pm	Registration	Grand Palm Colonnade
6:00 - 7:30 pm	<b>Restek Evening Seminar</b>	Banyan & Citrus Rooms (Jacaranda Hall)
6:00 pm	Exhibition Set Up Begins	Banyan Breezeway
8:00 pm	Poster Set Up Begins	Banyan Breezeway
6:00 - 10:00 pm	Technical Session Setup	Long / Bird / Indian Key Ballrooms
8:00 - 8:30 pm	Moderator Training	Long / Bird / Indian Key Ballrooms

### Monday, July 21, 2008

All Day	Exhibition	Banyan Breezeway
All Day	<b>Session "A" Posters</b>	Banyan Breezeway
7:30 - 8:30 am	Registration	Grand Palm Colonnade
7:30 - 8:30 am	Early Morning Coffee	Banyan Breezeway
7:30 - 8:15 am	<b>Agilent Breakfast Seminar</b>	Banyan & Citrus Rooms (Jacaranda Hall)
8:30 - 12:00 noon	<b>FPRW Technical Session - Emerging Residue Issues</b>	Long / Bird / Indian Key Ballrooms
12:15 - 1:15 pm	<b>Waters Luncheon Seminar</b>	Banyan & Citrus Rooms (Jacaranda Hall)
1:30 - 4:30 pm	<b>FPRW Technical Session - QuEChERS &amp; its Variations</b>	Long / Bird / Indian Key Ballrooms
4:30 - 5:30 pm	<b>QuEChERS Open Forum</b>	Long / Bird / Indian Key Ballrooms
6:30 - 7:30 pm	<b>Evening Reception &amp; Poster Session "A"</b>	Banyan Breezeway

### Tuesday, July 22, 2008

All Day	Exhibition	Banyan Breezeway
All Day	<b>Session "B" Posters</b>	Banyan Breezeway
7:30 - 8:30 am	Registration	Grand Palm Colonnade
7:30 - 8:30 am	Early Morning Coffee	Banyan Breezeway
7:30 - 8:15 am	<b>ThermoFisher Scientific Breakfast Seminar</b>	Banyan & Citrus Rooms (Jacaranda Hall)
8:30 - 10:25 am	<b>FPRW Technical Session - Instrumental Technologies</b>	Long / Bird / Indian Key Ballrooms
11:00 - 12:00 noon	<b>Poster Session "B"</b>	Banyan Breezeway
12:15 - 1:15 pm	<b>Applied Biosystems Seminar</b>	Banyan & Citrus Rooms (Jacaranda Hall)
1:30 - 3:15 pm	<b>FPRW Technical Session - Emerging Pesticide Issues</b>	Long / Bird / Indian Key Ballrooms
4:00 - 5:00 pm	<b>MS Users Meeting</b>	Long / Bird / Indian Key Ballrooms
5:00	Beach Volleyball	On the Beach
5:30 - 6:30 pm	<b>Organizing Committee Meeting</b>	Long / Bird / Indian Key Ballrooms

### Wednesday, July 23, 2008

7:30 - 8:30 am	Registration	Grand Palm Colonnade
7:30 - 8:30 am	Early Morning Coffee	Grand Palm Colonnade
7:30 - 8:15 am	<b>Agilent Breakfast Seminar</b>	Banyan & Citrus Rooms (Jacaranda Hall)
8:30 - 12:00 noon	<b>FPRW Technical Session - Theory and Practice</b>	Long / Bird / Indian Key Ballrooms
12:15 - 1:15 pm	<b>Varian, Inc. Luncheon Seminar</b>	Banyan & Citrus Rooms (Jacaranda Hall)

## **2008 / 45<sup>th</sup> Florida Pesticide Residue Workshop**

Location: Banyan & Citrus Rooms (Jacaranda Hall)  
Food and beverage provided by each company

**Vendor Seminars:** Please sign up at the meeting registration desk

### **1. Sunday Evening, July 20, 2008**

6:00 - 7:30 pm                      **Restek**

#### **Comprehensively Defining the Dispersive SPE of QuEChERS Samples with GC-MS**

Mr. Jack Cochran

The QuEChERS (quick, easy, cheap, effective, rugged, and safe) method of preparing fruit and vegetable extracts for pesticide analysis uses a novel dispersive solid phase extraction (dSPE) step for extract cleanup. The primary sorbent is PSA, but other materials can also be employed, such as graphitized carbon black, C18, and aminopropyl. Often though these materials are employed without fully determining how they are performing to remove matrix components that might lead to quantitative bias, chromatographic overload and retention time shifts, or instrumental degradation. This presentation will look at a variety of dSPE procedures and evaluate them not only for pesticide recoveries, but also matrix component removal. The work is facilitated by using a sensitive, full mass range, GC-TOFMS system.

### **2. Monday Breakfast, July 21, 2008**

7:30 - 8:15 am                      **Agilent Technologies, Inc.**

#### **Multi-residue Pesticide Screening and Confirmation with Advances in LC/MS/MS**

Jerry Zweigenbaum, Ph.D.

Sensitivity for many pesticides is very good in liquid phase tandem MS analysis. Yet, there are compounds that fall in that grey area of poor sensitivity and make it difficult to meet stringent requirements (such as those for baby foods). In this presentation we will describe advances in instrument design that improve overall sensitivity and thus make it easier to meet worldwide detection limits for pesticides in question and provides overall improvement in the multi-residue analysis. Also, there are limitations in the number of analytes that can accurately be monitored in one method with the use of selected reaction monitoring (SRM) techniques. Advances in this area and how they impact the analysis will be described. Although the use of triple quadrupole MS/MS is excellent for targeted analysis, it does not address the need for non-target analysis and the identification of unknowns. This subject will be discussed and a workflow to address this need will be described.

### **3. Monday Lunchtime, July 21, 2008**

12:15 - 1:15                        **Waters**

#### **A rapid method for the determination and confirmation of over 400 pesticide residues in food**

Brad Barrett and Kevin Jenkins

As there are currently well over 1,000 pesticides in use, laboratories are under increasing pressure to broaden the range of pesticides determined in a single analysis over a shortened run time. The need to meet mandated detection limits, develop sample preparation techniques for complex matrices and the desire to increase sample throughput are the main challenges facing food safety testing laboratories today. The use of a single multi-residue method per instrument can dramatically improve laboratory workflow. The screening of more than 400 pesticide residue compounds in fruit and vegetables was achieved using liquid chromatography combined with tandem quadrupole mass spectrometry (LC/MS/MS) operated in multiple reaction monitoring (MRM) mode. Using a generic d-SPE (dispersive solid phase extraction) procedure, valid for a wide range of compound classes in a representative set of food commodities, the single extract was injected twice using an Ultra Performance Liquid Chromatography (UPLC™) method of ten minutes with two MRM transitions per compound. The limits of determination achieved for the pesticides analyzed are well below that required for worldwide surveillance monitoring.

### **4. Tuesday Breakfast, July 22, 2008**

7:30 - 8:15 am                      **Thermo Fisher Scientific**

#### **Cradle to Grave Environmental & Food Safety Solutions using TSQ Quantum LC-MS Systems**

Dipankar Ghosh, Ph.D

Achieving low LODs of pesticides, antibiotics and veterinary residues in drinking water and food substances is of paramount importance in order to achieve the regulatory levels. These substances pose a significant health threat

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and, therefore, need to be accurately detected. Traditionally, LC-MS/MS has been used for the identification and quantification of these residues. However, this methodology typically requires extensive offline sample pre-concentration which can be particularly time consuming and expensive. Enhanced sensitivity & workflow optimization techniques for the analysis of ppt levels of pesticides, antibiotics, and pharmaceutical contaminants in water and food matrices using TSQ Quantum triple quadrupole mass spectrometers will be highlighted. These total online solutions coupled to a triple quadrupole mass spectrometer have the potential to significantly reduce sample preparation time from days to minutes, thus improving the productivity in high throughput laboratories.

### **Optimization of a Complete Analysis of Pesticide Residues in Produce by GC/MS**

Eric Phillips

This presentation will cover the complete method development of the analysis of pesticide residues in produce. The QuEChERS extraction technique was used to prepare samples for analysis. A simple flow chart for this extraction will be provided. The method development procedures for chromatography and ion trap and triple quad mass spectrometers will be discussed. Some helpful hints and will be provided to ensure the analysis can be performed for a large number of samples over a long period of time without venting the systems

### **5. Tuesday Lunchtime, July 22, 2008**

12:15 - 1:15 pm

**Applied Biosystems**

### **Strategies for Rapid Pesticide Measurement and confirmation by LC/MS/MS**

Lutz Alder, Federal Institute for Risk Assessment, Berlin, Germany

Nowadays, the tandem mass spectrometry has become an indispensable tool for pesticide residue analysis. After a short period of use as supplementary technique, LC-MS/MS instruments are now the workhorses in multi-residue pesticide analysis. Another aspect is the availability of several new analytical methods, which significantly reduces the time needed for sample preparation and clean-up. Subsequently, it is often easier to produce lots of final sample extracts than to measure them by HPLC combined with tandem mass spectrometry.

### **6. Wednesday Breakfast, July 23, 2008**

7:30 - 8:15 am

**Agilent**

#### **Part 1: Previewing Agilent's GC Triple Quadrupole MS**

#### **Part 2: Comprehensive Pesticide Analysis at the 10 ppb level by GC/MS with Deconvolution Reporting Software"**

Philip L. Wylie, Ph.D.

Complete pesticide residue analysis depends on broad screening in combination with target compound analysis. Comprehensive screening is accomplished in the scan mode using Agilent's 7890/5975C single quadrupole GC/MS with Deconvolution Reporting Software and the RTL Pesticide Library. Target pesticide analysis will benefit from the new Agilent 7000A triple quadrupole GC/MS/MS, which is based on the Agilent MSD. The 7000A has been designed from the ground up for routine, high-performance, high-throughput operation and is an ideal tool for low level pesticide analysis in complex matrices.

### **7. Wednesday Lunchtime, July 23, 2008**

12:15 - 1:15

**Varian**

### **Increasing Lab Efficiency and Production via Multiple Pesticide Residue Analysis by GC/MS/MS and LC/MS/MS**

Nik Hubbard

Learn how to save your lab time and money by taking advantage of the selectivity provided by both GC & LC triple quadrupole mass spectrometry. Many modern compounds which have better activity or less environmental impact are either not amenable to GC or are not detectable at sufficiently low levels by traditional GC or GC/MS methods in order to meet compliance with statutory maximum residue levels. More and more compounds therefore have to be tested separately by specific methods resulting in lengthy analysis times with high staff and consumable costs. This does not have to be the case. The selectivity, sensitivity and speed afforded by the use of modern triple quadrupole mass spectrometers enables a more generic approach to extraction with minimal clean up and provides individual methods for quantifying more than 200 compounds in a single analysis.