27th ANNUAL
PESTICIDE RESIDUE
WORKSHOP
JULY 15-18, 1990
ST. PETERSBURG, FLORIDA
SPONSORED BY:
FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

DOYLE CONNER, COMMISSIONER

TRADE WINDS
ST. PETERSBURG BEACH, FLORIDA
Welcome to the 27th Annual Pesticide Residue Workshop. I am gratified for the good attendance. You will find the papers are of excellent quality covering an array of timely subjects of analytical technology of pesticides and related chemicals. I am sure this workshop will again provide the opportunity for you to share knowledge, interest and problems with each other.

Enjoy St. Petersburg Beach and Florida's west coast while you are here. Be sure to allocate time to watch the spectacular sunsets.

Sincerely,

[Signature]
W. George Fong

We appreciate the continuous interest and support by the exhibitors. Please be sure to visit the exhibitors and discuss your interest(s) with them.

EXHIBITORS

Analytical Biochemistry Laboratories, Inc. .....................Ralph Waltz
Analyticalhem International, Inc. ...............................Andy Sendelbach
Beckman Instruments, Inc. ...........................................Dick Smith
Bio-Rad Laboratories, Inc. ...........................................Ralph Cowden
Bio-Rad Laboratories-Digilab Division ..........................Randy Curles
Crescent Chemical Co. ................................................Susan Cohen
Dela Technology (representing Questron & LDC Analytical) .........Wes Floyd
Dionex .................................................................Greg Cuzzort / Rabun Rumpey
Finnigan Mat ..........................................................Randy Porch
Gervin Massey & Associates ........................................... Gervin Massey  
Hewlett-Packard ..................................................... Tom Stocks / Jeff Downing / Chip Townsend  
O. I. Analytical ....................................................... Jerry Dasson / Allen Vickers / Kelly Davis  
Ohmicron Corp. .......................................................... Robert C. Sandberg  
Perkin-Elmer Corp. .................................................... Larry Myers / Lyle Rinker / Bob Riggs  
Sadtler Research Lab. ................................................... Jim Wingo  
Sci-Con ................................................................. James Westmoreland  
Scientific Glass Engineering, Inc. ................................. Ken Mahler  
Shimadzu Scientific Instruments, Inc. ............................. Chris Gaylor / Jim Velinsky  
Sievers Research, Inc. ................................................ Marianne Novelli  
Southern Measurement Company of Florida ....................... David Westerheide  
Tekmar Company ....................................................... Jim Stainfield  
V G Instruments ........................................................ Howard Eubanks  
U. S. Analytical Instruments ........................................ Mark Alper  
Varian Instrument Group .............................................. Gary Cook / Mickey McAllister

Sunday / July 15, 1990 / Afternoon

4:00 - 6:00  REGISTRATION  
Meetings and Exhibits are to be held in the ISLAND BALLROOMS  
Door Prizes will be drawn at the end of each session - YOU MUST BE PRESENT TO WIN

Monday / July 16, 1990 / Morning

7:30 - 8:30  REGISTRATION  
8:30 - 9:00  Welcome Introduction and Announcements - George Fong

1. 9:00 - 9:15  Mississippi State Chemical Laboratory Pesticide Residue Program - Reba L. Ingram, Rubel Cowart

2. 9:15 - 9:30  South Carolina Pesticide Residue Report - Betsy Cooper

3. 9:30 - 9:45  Report from the State of Maryland - Stanley Daniello

4. 9:45 - 10:05  Florida Department of Agriculture State Report - Gail Parker
10:05 - 10:45 BREAK
Refreshments Courtesy of Analytical Biochemistry Laboratories, Inc. and Beckman Instruments

VISIT EXHIBITS

5. 10:45 - 11:00 AOAC Report - Howard Moore

6. 11:00 - 11:20 Organic Mercury in Fish Tissue - Tammie Stauter

7. 11:20 - 11:35 Determination of Methylmercury in Water by Liquid-Liquid Extraction and N-pentyl Derivatization with Capillary Gas Chromatography/Atomic Emission Detection (AED) - David H. Greer

8. 11:35 - 11:50 Determination of Phenylmercuric Acetate and Total Mercury in Water-Based Paint Products - Dr. John Gillis, Kenneth Wang, Cyndy Lemmon

12:00 - 1:30 LUNCH (on your own)

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Monday / July 16, 1990 / Afternoon

9. 1:30 - 1:50 Groundwater Sampling Considerations - Dr. Edward Zahnow


11. 2:10 - 2:25 The Frequency of Analytical Detection of 198 Pesticide Residues in Dade County Groundwater - Dr. Carl Pfaffenberger, Dr. Dennis Howard

12. 2:25 - 2:45 Organophosphorus Pesticides in Coastal Water - Dr. Tsen Wang

13. 2:45 - 3:05 Multi-residue Determination of Corn Production Herbicides in Soil and Water - Dr. Terry D. Spittler

3:05 - 3:30 BREAK
Refreshments Courtesy of Bio-Rad Laboratories and Dionex Corporation

VISIT EXHIBITS
14. 3:30 - 3:50 Parameters for Consideration in Assessing Environmental Distribution of Pesticide Products - Dr. Surya Prasad, Dr. Christine F. Chaisson

15. 3:50 - 4:10 Solid Phase Extraction Cleanup of Chlorinated Organic Pesticides - Nirmal K. Saini

16. 4:10 - 4:25 Improved Liquid/Solid Extraction of Pesticides from Aqueous Samples - Thomas Tait

17. 4:25 - 4:45 SFE of Agricultural Products - Dr. Julia Wheeler

18. 4:45 - 5:00 The Use of Off-line and On-line Supercritical Fluid Extraction (SFE) as a Means of Analyzing for Pesticides in Food Matrices - Brett Murphy

19. 5:00 - 5:15 Quantitation of Selected Pesticides in Agro-commodities & Food Using HP7680A Supercritical Fluid Extractor - Wayne Miles

6:00 - 7:00 Get Acquainted Party - Compliments of Trade Winds - Location to be Announced

Tuesday / July 17, 1990 / Morning

7:30 - 8:30 REGISTRATION
Check Sample Committee Meeting

20. 8:30 - 8:50 Quality Management (QA/QC) in the Commercial Laboratory - Mary G. Schultz

21. 8:50 - 9:10 Methods Validation for Chemical Residues - Gail Parker

22. 9:10 - 9:25 High Purity Standards and Solvents for Residue Analysis - Patricia Loh

23. 9:25 - 9:45 An Overview of EPA Good Laboratory Practice Standards - Dr. John Gillis

9:45 - 10:30 BREAK
Refreshments Courtesy of Gervin Massey and Associates and O. I. Analytical

VISIT EXHIBITS
24. 10:30 - 10:45  A New Immunoassay-Based System for the Analysis of Pesticide Residues - Robert G. Sandberg, David P. Herzog
25. 10:45 - 11:05  Development of An Immunoassay for Metsulfuron Methyl Herbicide in Soil and Water - Johanne Strahan
26. 11:05 - 11:25  Experience with commercially Available Immunoassay kit for the Quantification of Triazine Residues in Water - Dr. James Brady, Dr. James H. Pittman, Dr. Gary S. LeMasters
27. 11:25 - 11:40  Development and Application of Immunoassays to the Analysis of Alachlor in Water - Ray Sharp
11:40 - 1:30  "Quiche" LUNCHEON
(Tickets purchased in advance)

Tuesday / July 17, 1990 / Afternoon
28. 1:30 - 1:45  Procymidone in Wine and Other Interesting FDA Findings in 1989-90 - Sander W. Bellman

30. 2:05 - 2:20  Determination of Paraquat and Diquat in Produce Using Solid Phase Extraction and Ion-pairing HPLC - Tina M. Chichila, Stephen M. Walters
2:20 - 3:00  BREAK
Refreshments Courtesy of Ohmicron Corporation and Shimadzu Scientific Instruments
31. 3:00 - 3:15  Fast Turnaround Multiresidue Screen for Pesticides in Produce - Herbert J. Schattenberg III
32. 3:15 - 3:30  A New Method Validation-Residue Analysis of Sumithrin in Food Products - Han Tai
33. 3:30 - 3:50  Soil and Vegetable Matrix Monitoring by Micro-Laser Bioassay - Dr. I. Cecil Feikner

Wednesday / July 18, 1990 / Morning
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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:30 - 8:30</td>
<td>Check Sample Meeting for Check Sample Program Participants ONLY</td>
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<tr>
<td>8:30 - 8:45</td>
<td>Analysis of Mirex in Human Blood Serum in the Presence of PCBs Using Packed Column Gas Chromatography - Margaret P. Korver</td>
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<td>8:45 - 9:05</td>
<td>Methodology for Pesticide Analysis of Soil Samples - Sue G. Taylor, Ging-Hoen Huang</td>
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<td>9:05 - 9:20</td>
<td>Benzyl &amp; Pentafluorobenzyl Derivatives of Carboxylic Acids &amp; Phenols - Dr. Alan P. Thio</td>
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<td>9:20 - 9:40</td>
<td>Use of Smartware II Integrated Software for Sample Tracking and Management - Allan M. Mitch</td>
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<td>9:40 - 10:00</td>
<td>Trying to Understand the OSHA Laboratory Safety Standards - Larry Lagman</td>
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<td>10:00 - 10:30</td>
<td>BREAK Refreshments Courtesy of V G Instruments and Varian Instrument Group</td>
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<td>VISIT EXHIBITS</td>
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<td>10:30 - 10:50</td>
<td>Optimization of Sample Introduction Parameters for Automated Trace Analysis of Pesticides by Capillary GC - Zelda Penton</td>
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<td>10:50 - 11:10</td>
<td>A Comparison of the Atomic Emission Detector with Other Element-Selective Detectors for Pesticide Residue Analysis - Dr. Philip L. Wylie</td>
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<td>11:10 - 11:30</td>
<td>&quot;LIS&quot; The Next Generation in Multi-Dimensional Detectors - Robert Kalbacher</td>
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<td>11:30 - 11:45</td>
<td>Evaluating Dual OI-4420 ELCD Detectors for Halogenated Pesticide Residues - Michael N. Briggs</td>
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<td>11:45 - 12:00</td>
<td>Use of an Electrolytic Conductivity Detector for the Determination of N-Pesticides - Kelly Davis</td>
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<td>12:00 - 1:00</td>
<td>LUNCH (on your own)</td>
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**Wednesday / July 18, 1990 / Afternoon**

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<th>Time</th>
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<tr>
<td>1:00 - 1:20</td>
<td>Gas Chromatography Detectors on Chemiluminescence-Pesticides in Water - David L. Westerheide, Marrianne F. Legier</td>
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45. 1:20 - 1:40 Halogen Specific Detection of Pesticides and PCBs with an Electrolytic Conductivity Detector - Allen Vickers

46. 1:40 - 2:00 New Development of Electrochemical Detector for HPLC - Tom Stocks
2:00 - 3:00 Open Forum
3:00 - 3:30 FDACS Chemists' Meeting

Program Participants

Bellman, Sander W.; U. S. FDA; 60 Eighth Street; Atlanta, GA 30309; 28

Brady, Dr. Jim; Ciba-Geigy, Agricultural Division; P. O. Box 18300; Greensboro, NC 27419-8300; 26

Briggs, Michael N.; Michelson Laboratories, Inc.; 6280 Chalet Drive; Commerce, CA 90040; 42

Chichila, Tina M.; FDA; 1560 E. Jefferson Avenue; Detroit, MI 48207; 30

Cooper, Betsy; South Carolina Department of Agriculture; P. O. Box 11280; Columbia, SC 29211; 2

Daniello, Stanley; Maryland Department of Agriculture; 0233 Chemistry Building; College Park, MD 20742; 3

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Felkner, Dr. I. Cecil; Technical Assessment Systems, Inc.; The Flour Mill; 1000 Potomac Street, NW; Washington, DC 20007; 33

Gillis, Dr. John; U. S. EPA-NEIC; P. O. Box 25227; Building 53, DFC; Denver, CO 80225; 8, 23

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Ingram, Reba L.; Mississippi State Chemical Laboratory; P. O. Drawer CR; Mississippi State, MS 39762; 1

Kalbacher, Robert; Spectra-Physics; 366 S. Randolphville Road; Piscataway, NJ 08854; 41

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Saini, Nirmal K.; California Department of Food & Agriculture; 3292 Meadowview Road; Sacramento, CA 95832; 15

Sandberg, Robert G.; Ohmicron Corporation; 375 Pheasant Run; Newtown, PA 18940; 24

Schattenberg, Herbert J. III; Southwest Research Institute; 6220 Culebra Road; San Antonio, TX 78284; 31

Schultz, Mary G.; ABC Research; P. O. Box 1557; Gainesville, FL; 20

Sharp, Ray; Monsanto Company; 700 Chesterfield Village Parkway, BB4K; Chesterfield, MO 63198; 27

Spittler, Dr. Terry D.; Cornell Analytical Laboratories; NYSAES-CORNELL; Geneva, NY 14456; 13

Staute; Tammie; Florida Department of Health & Rehabilitative Services; 1217 Pearl Street; Jacksonville, FL 32202; 6

Stocks; Tom; Hewlett-Packard, Division of Analytical Instruments; 6177 Lake Ellenor Drive; Orlando, FL 32809; 46

Strahan; Johanne; Du Pont Co.; Agricultural Products Department; Experimental Station 402/3129; Wilmington, DE 19898; 25

Tai, Han; EPA/Office of Pesticide Programs/BEAD/ACB/Environmental Chemistry Section; EPA/ECS, Building 1105; Stennis Space Center, MS 39529-6000; 32

Tait; Thomas; Analyticchem International; 24204 Frampton Avenue; Harbor City, CA 90710; 16

Taylor, Sue G.; Florida Department of Agriculture and Consumer Services; Pesticide Laboratory; 3125 Conner Boulevard; Tallahassee, FL 32399-1650; 35

Thio; Dr. Alan P.; University of Kentucky-Division of Regulatory Services; Regulatory Services Building; Lexington, KY 40546-0275; 36

Vickers; Allen; O. I. Analytical; P. O. Box 2980; College Station, TX 77841; 45

Wang, Dr. Tsen; Harbor Branch Oceanographic Institution; 5600 Old Dixie Highway; Ft. Pierce, FL 34946; 12
Westerheide, David L.; Southern Measurement Company of Florida; P. O. Box 2777; New Smyrna Beach, FL 32170; 44

Wheeler, Dr. Julia R.; E. I. Du Pont; Experimental Station; Wilmington, DE 19880-0402; 17

Wylie, Dr. Philip L.; Hewlett-Packard Co.; P. O. Box 900; Rt. 41 & Starr Road; Avondale, PA 19311; 40

Zahnow, Dr. Edward; Du Pont Co.; Agricultural Products Department; Experimental Station 402/3129; Wilmington, DE 19898; 9