

Chemical Contaminants & Residues in Food Community

BRINGING SCIENTISTS AND INDUSTRY TOGETHER
TO DEVELOP AND VALIDATE BETTER METHODOLOGIES

Co-Chairs: Jo Marie Cook and Stephen Capar

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2008

Who are we?

Where have we been?

Where are we going?

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Terms of Reference

To reach consensus on:

method needs,
performance criteria,
validation study design,
level of validation

And to develop and validate methods

**for chemical contaminants
and residues in food**

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History

- **2004-05 - Committees for Pesticides and Veterinary Drugs**
- **2006 - Proposed to Board**
- **2006 - Began Seafood Initiative**
- **2007 - 1st Community Meeting**
- **2007 - Pesticides in Soft Drinks Methods**
- **2008 – Seafood “Community”**

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Communication

www.flworkshop.com/community-1st.html

- April, July, Sept., 07: **Contaminants in Seafood Meeting**
- J AOAC Int: **Determination of Low –Level Pesticides in Soft Drink by LC/MS/MS**
- J. AOAC Int: **Determinations of Pesticide Residues (>0.5 ug/L) in Soft Drinks by GC/MS**
- **Committee G GR and Methods Report**
- **ILM: Community Method Needs**
- **ILM: Pesticides in Soft Drinks by GC/MS & LC/MS**
- **ILM: Metals Subgroup Issues**

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General Member Information

Subgroup Updates and Works in Progress

Special Projects: Seafood, Honey...

Minutes, Reports, Archives

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International Membership

- 577 Stakeholders
- 167 Applications
- 22 Counties (56% USA, 16% Canada)

(Argentina, Belgium, Brazil, Chile, China, France, Germany, Holland, Hong Kong, India, Ireland, Italy, Japan, Kenya, Korea, Sweden, Switzerland, Thailand, The Netherlands, United Kingdom)

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Balanced Participation

30 - Industry

1 - Trade Organization

23 - Laboratory, Private

26 - Laboratory, Govt, U.S. Federal

29 - Laboratory, Govt, State

51 - Laboratory, Govt, non U.S.

7 - Academia

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Organizational Affiliates

- Applied Biosystems
- Canadian Food Inspection Agency
- Coca-Cola
- Eurofins Scientific
- General Mills
- Health Canada
- Kellogg
- Kraft
- LECO Corp
- Pepsi-Cola
- Restek
- Slade Gorton & Co.
- Southern Shrimp Alliance
- Thermo Fisher
- Waters Corporation

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Cross-over Communities

- Ag Materials
- Dietary Supplements
- Marine and Fresh Water Toxins
- Mycotoxins
- **Marine and Fresh Water Foods**

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Subgroups

- **Pesticides**
- **Veterinary Drugs**
- **Metals**
- **Unknowns (finding the next melamine)**

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Other Needs

- **Emerging Organic Pollutants**
- **Food Contact Migrants**
- **Colors and Dyes**
- **QA and Validation Criteria**
- **Other Food Issues: composition, nutrients, allergens, filth...**

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Emerging Organic Pollutants & Food Contact Contaminants

- Bisphenol A in baby bottles
- Benzene in soft drinks
- Phthalates, other plasticizers
- Vinyl Acetate in chewing gum
- Perchlorate in water and lettuce
- Acrylamide in fried foods
- Perfluorooctanesulfonic acid in pizza boxes
- Nanomaterials in Packaging

Colors & Dyes

- **Sunset yellow (E110)**
- **Quinoline yellow (E104)**
- **Carmoisine (E122)**
- **Allure Red (E129)**
- **Tartrazine (E102)**
- **Ponceu 4R (e124)**

Analytes vs Matrices

(Scientists vs Business)

- **Seafood**
- **Honey**

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Seafood Issues

- **Veterinary Drugs**
- **Species identification**
- **Metals (Toxic Elements)**
- **Pesticides**
- **Pathogens**
- **Environmental conditions**
- **Good Aquaculture Practices**

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Honey Issues

- Pesticides
- Veterinary Drugs
- Mites, Bacteria
- Viruses
- Eco-system, diversity changes
- Good Apiary Practices

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Challenges

- **Networking**
- **Reaching Consensus**
- **Developing Best Methods**
- **Establishing Validation Criteria**
- **Completing Validation**
- **Publishing Work**

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SLV Protocols Needed

**We need AOAC recognized Single
Laboratory Validation Protocols
established as soon as possible!**

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Dr. Guo-Fang Pang

**Analysis of >1000 Pesticides
and Veterinary Drugs in Foods**