

Chemical Contaminants & Residues in Food Community

**BRINGING SCIENTISTS AND INDUSTRY TOGETHER
TO DEVELOP AND VALIDATE BETTER METHODOLOGIES**

Pesticide Subgroup Report

Tuesday, September 15

4:30 – 6:30 pm

Subgroup Chair – Jon Wong, FDA/CFSAN

Chemical Contaminants & Residues in Food Community

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Topics

- **Pesticide Meetings-
LAPRW 2009 and FPRW 2009**
- **FDA LC-MS/MS Procedures
QuEChERS**
- **Tea Collaborative Findings**

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



Sep 13-16,2009 in Philadelphia,USA
123nd AOAC INTERNATIONAL Annual Meeting

The study of the stability of the 460 pesticides in the standard solutions and their metabolic process in tea by GC-MS and GC-MS/MS

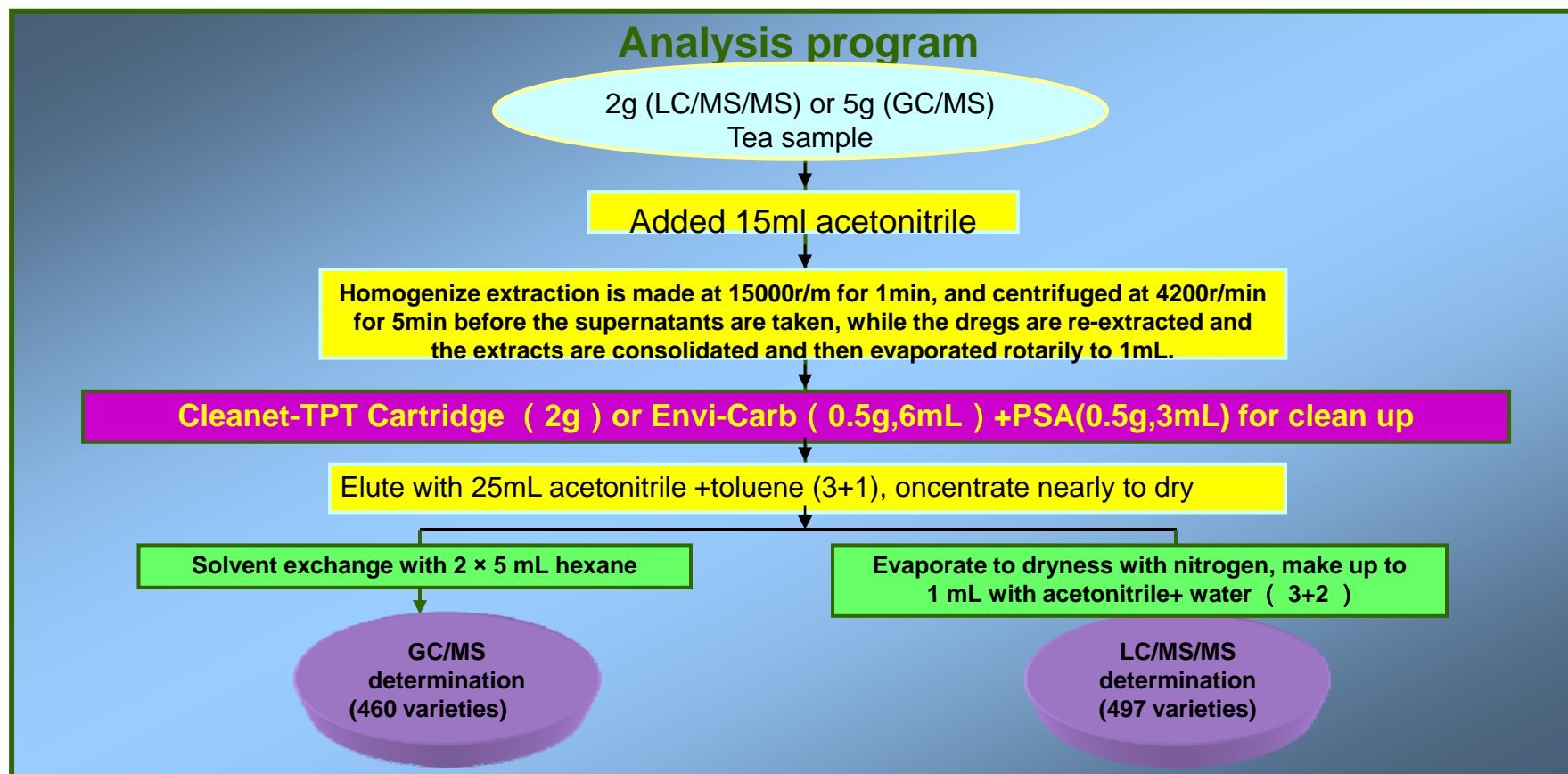
—The Ruggedness of the analytical methods of multiresidue pesticides in tea

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1. The multiresidue analytical method submitted to AOAC International for inter- collaborative study

The Chinese national standard GB/T23204-2008---the analytical method of 460 pesticide multiresidues in tea, which was introduced at the last 122nd AOAC Annual Meeting.



The organization of the AOAC inter-collaborative study breaks into two stages--- GC-MS/MS is chosen before LC-MS/MS.

2. For the purpose of organizing this AOAC inter-collaborative study, three stages of study work were undertaken after the 122nd AOAC Annual Meeting.

Stage I: The study of the stability of the mixed standard solutions of 460 pesticides (Nov. 26, 2008 - Feb. 26, 2009).

Stage II: The stability study of 385 pesticides in tea (Mar. 31, 2009 - Jun. 31, 2009).

Stage III: Preparing the youden pair samples for the inter-collaborative study and studying the ruggedness of the method (Jul. 9, 2009 to Sep. 10, 2009).

3. Why were these three stages of study work undertaken?

- ① To select the pesticides stable for a succession of three months out of the mixed standard solutions of six groups totaling 460 pesticides.**
- ② To study the metabolic patterns of 345 pesticides in tea and sort out the pesticides stable in tea for 2-3 months.**
- ③ To study the change patterns of the pesticides ratios in tea youden pair samples over three months, and investigate the scientificness of the youden pair sample preparation scheme.**

4. Summary of the three stages of study

(1) Study of the stability for 460 pesticides in mixed standard solutions over a succession of 3 months

75 pesticides have been eliminated because of their instability in the mixed standard solutions

(2) study of metabolic pattern for 345 pesticides at ppb level in tea over a succession of 3 months

70 pesticides have been eliminated because of the quick metabolic process in tea

(3) Study of the metabolic pattern for 275 pesticides in tea youden pair samples over a succession of 3 months

It will need another month to finish the test, but no abnormalities have been found yet.

Pesticide varieties have been tentatively selected for organizing the inter-collaborative study on tea, and the ruggedness of the method has been verified, which has laid the fundamental conditions for organizing the AOAC inter-collaborative study.

Work to be done in Stage IV

1. Design the AOAC inter-collaborative study protocol and prepare Green Tea and Wu Long Tea youden pair samples containing 100-200 multiresidue pesticides. Choose a part of laboratories to carry out rehearsals in order to accumulate experience for officially organizing the inter-collaborative study.
2. Prepare the practice samples for testing the capability of inter-collaborative study participating laboratories in order to supply to the participants for practice before officially undertaking the inter-collaborative study samples.
3. Submit the inter-collaborative study protocol to AOAC International, and prepare the organization of inter-collaborative study for the world volunteering laboratories.
4. I would like to invite you experts, who are interested in this study, to participate, and right now you may register with us. We will be very happy to cooperate with you, and make this study an AOAC official method.

Sep. 15, 2009

◆ A THOUSAND THANKS

◆ FOR THE FRIENDS OF THE WORLD !

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