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BMT/11/25
ORIGINAL: English
DATE: September 10, 2008

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

WORKING GROUP ON BIOCHEMICAL AND MOLECULAR TECHNIQUES AND DNA PROFILING IN PARTICULAR

Eleventh Session
Madrid, September 16 to 18, 2008

ISO TC34 SC16
(A CENTRAL BODY FOR INTERNATIONAL HARMONIZATION AND STANDARDIZATION OF BIOMOLECULAR METHODS APPLIED TO FOOD AND SEEDS)

Document prepared by experts from the United States of America

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SC16 Leadership

- In response to the establishment of the new SC, a new US Technical Advisory Group (TAG) for ISO/TC 34/SC 16 was formed.
  - Ms. Gina Clapper, AOCS Technical Services Division, was appointed as its secretary.
  - During its first meeting in Des Moines, Iowa, July 23, 2008, the TAG chose Dr. Raymond Shillito, Regional External Technical Director for Bayer CropScience, as its Chairperson.
- TAG members nominated Dr. Michael Sussman, Director of United States Department of Agriculture, Agricultural Marketing Service, Field Laboratory Services, to be the Chairperson for the SC16.
- Other national bodies are also expected to establish TAGs.

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Participants

- Current member bodies: Argentina, Canada, the Czech Republic, France, Germany, Japan, Morocco, Poland, Spain, Switzerland, Thailand, The Netherlands, United Kingdom and United States

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SC 16 Scope

- Standardization of biomolecular testing methods applied to: foods; seeds and propagules of food crops; commodity crops; fruits; vegetables and derived foods.
- The proposed scope includes methods that test nucleic acids, e.g., polymerase chain reaction (PCR) detection, real time PCR detection, genotypic analysis and sequencing, or protein e.g. enzyme linked immunosorbent assay (ELISA) and other suitable methods.
- The SC is envisioned as being horizontal in scope.

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Scope (continued)

- The scope may include detection of gene technology derived products, variety identification and detection of pathogens in foods; seeds and propagules of food crops; commodity crops; fruits; vegetables and derived foods.

- The scope does not include food microbiological methods. It is expected that the SC will liaise with other SC's where similar technologies (e.g. PCR and other molecular methodologies) are involved.

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SC 16 Structure

- SC16 will assume the work of ISO/TC 34/WG7 "Detection of genetically modified organisms and derived products"
  - This will be **WG 1**
- Two additional areas of work are proposed:
  - **WG 2:** Varietal identification
  - **WG 3:** Detection of potential pathogens of seeds and plants

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Working Group 1: Detection of specific molecular biomarkers in seeds and food plants and Foodstuffs

- The five ISO standards already published by ISO/TC 34/WG7 require systematic review at five year intervals. These are:
  - ISO 21572, Foodstuffs - Detection of genetically modified organisms and derived products - Protein based methods
  - ISO 21569, Foodstuffs — Methods of analysis for the detection of genetically modified organisms and derived products — Qualitative nucleic acid based methods;
  - ISO 21570, Foodstuffs — Methods of analysis for the detection of genetically modified organisms and derived products — Quantitative nucleic acid based methods;
  - ISO 21571, Foodstuffs – Methods of analysis for the detection of genetically modified organisms and derived products – Nucleic acid extraction (ISO 21571:2005)
  - ISO 24276 "Foodstuffs - Methods of analysis for the detection of genetically modified organisms and derived products - General requirements and definitions.

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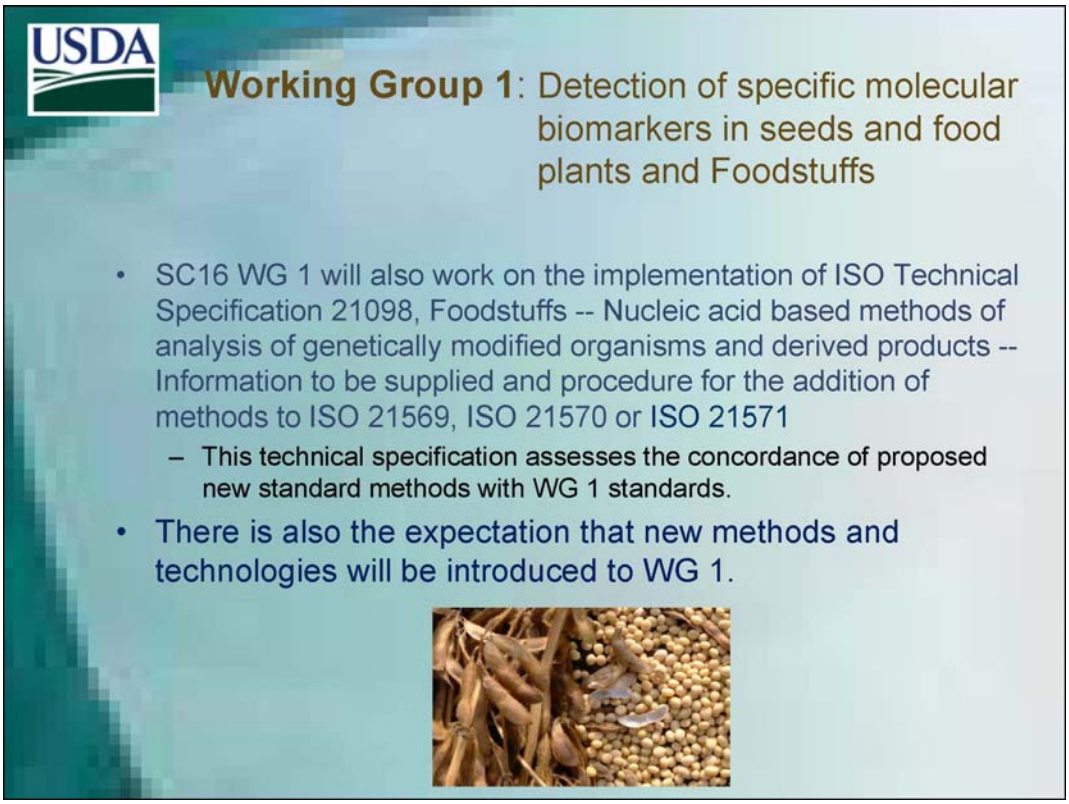

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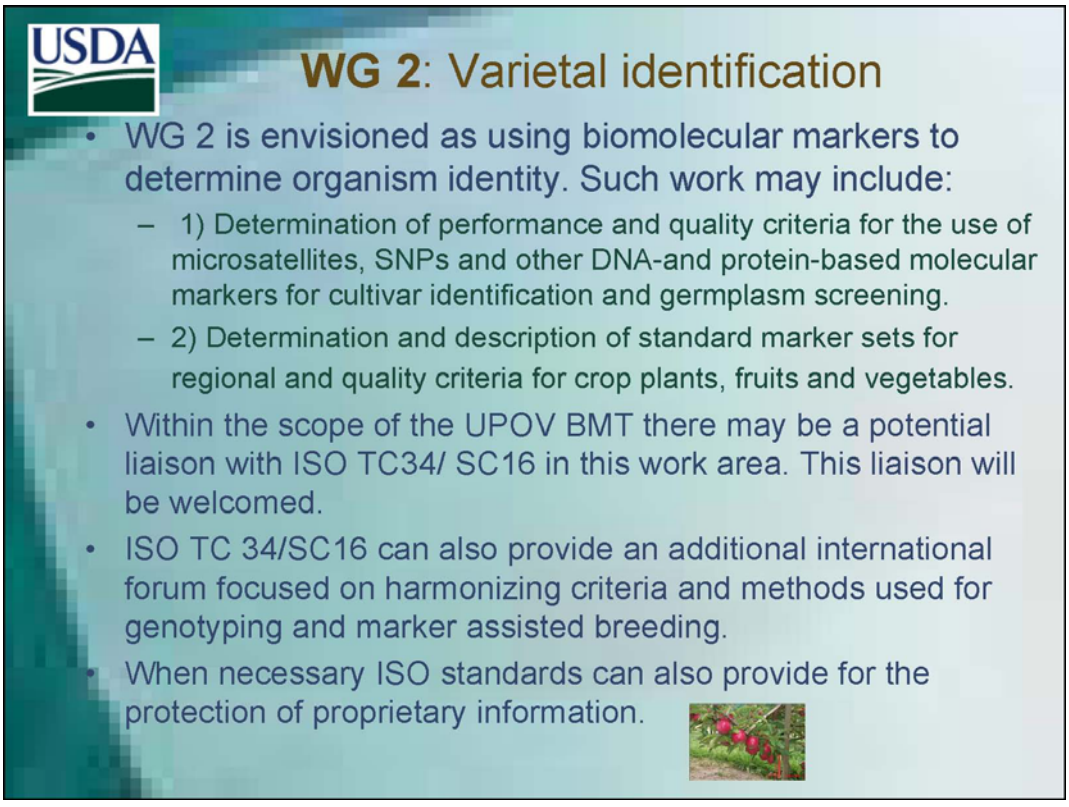

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WG 3: Detection of potential pathogens of seeds and plants

papaya ringspot disease

- Rapid and accurate biomolecular detection methods for detecting and identifying plant pathogens early in crop production are valuable for making disease management decisions especially when plant pathogens are difficult to detect using morphological criteria.
- With large amounts of genomic and biometrological information on plant pathogens accumulating in databases it is likely that numerous new plant pathogen detection methods will appear in the future.
- As new methods are developed this group can provide minimum criteria for accuracy, sensitivity, selectivity and reproducibility.
- SC 16 will provide a forum and support for discussion for standardization of tests, criteria for laboratories that perform the tests, interoperability for governments that regulate the transfer of healthy and diseased crops and potential benefits for producers.

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Contacts and Meetings

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- First Plenary Meeting of TC34/ SC16

  Chicago, IL, USA

  November 11-13, 2008

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