



## **UWI/AACCI Workshop**

**on**

### **“Detection Methods for GMOs in the Food Chain”**

**Institute of Critical Thinking (ICT), The University of the West Indies,  
St. Augustine, Trinidad and Tobago**

**10-13 February 2015**

#### **DAY 1: TUESDAY 10 FEBRUARY 2015**

##### **SESSION 1            OPENING SESSION**

Chair:                    Dr. Michelle John, Regional Project Manager, Regional Biosafety Project

9:00 – 9:10            Welcome remarks

Professor Pathmanathan Umaharan, Head Cocoa Research  
Centre/Technical Lead, Regional Biosafety Project

9:10 – 9:20            Welcome remarks

- Dr. Anne Bridges, Director of Technical Resources, AACC International (formerly American Association of Cereal Chemists, AACCI)
- Dr. Raymond Shillito, Bayer Research and Development Fellow

9:20 – 9:30            Introduction of facilitators and participants

##### **SESSION 2            PRESENT STATUS, FUTURE OUTLOOKS**

9:30 – 10:15            Global Status of GMO Crops Approved for Planting and Food and Feed

Dr. Clara Alarcon, Research Director, Analytical and Genomics  
Technologies Department, Pioneer Hi Bred

##### **10:15 – 10:45            COFFEE BREAK**

10:45 – 11:30            Cartagena Biosafety Framework (Cartagena Protocol on Biosafety - general  
overview - application process, risk assessment, decision making, decision  
implementation, biosafety clearing house)

Dr. Raymond Shillito, Bayer Research and Development Fellow

11:30 – 12:00 Cartagena Biosafety Protocol in the Caribbean (seed and grain trade, overview of policy related to the biosafety and regulatory framework, regulatory implementation in Caribbean)

Professor Pathmanathan Umaharan, Head Cocoa Research Centre/Technical Lead, Regional Biosafety Project

**12:00 – 1:00 LUNCH**

**SESSION 3 SUPPLY CHAIN - TESTING OPTIONS AND MANAGEMENT**

1:00 – 1:30 Supply Chain, Seed, Grain, Feed and Food – what we are testing?

Dr. Anne Bridges, Director of Technical Resources, AACCI

1:30 – 2:00 It All Starts With Sampling

Dr. Raymond Shillito, Bayer Research and Development Fellow

2:00 – 2:30 Sampling in the Field

Mr. Doug Miller, Chief Executive Officer, Illinois Crop Improvement Association

**2:30 – 3:00 COFFEE BREAK AND GROUP PHOTO**

**SESSION 4 MOLECULAR DETECTION METHODS**

3:00 – 3:30 Developing GMO Detection Methods

Dr. Raymond Shillito, Bayer Research and Development Fellow

3:30 – 4:00 Protein-based Detection Methods

Dr. Clara Alarcon, Research Director, Analytical and Genomics Technologies Department, Pioneer Hi Bred

4:00 – 4:30 DNA-based Detection Methods Qualitative/Quantitative PCR

Mr. Pearce Smith, Laboratory Manager, Eurofins GeneScan

4:30 – 4:45 Review of day

- Dr. Anne Bridges, Director of Technical Resources, AACCI
- Dr. Raymond Shillito, Bayer Research and Development Fellow

**END DAY 1**

## **DAY 2: WEDNESDAY 11 FEBRUARY 2015**

- SESSION 5            SAMPLING**
- 8:30 – 9:15            Design of Sampling Plans (including seed calculation)  
Dr. Raymond Shillito, Bayer Research and Development Fellow
- SESSION 6            CRITERIA FOR DETECTION METHODS**
- 9:15 – 9:45            International Standards (ISO, etc.)  
Mr. Doug Miller, Chief Executive Officer, Illinois Crop Improvement Association
- 9:45 – 10:15           Principles and Methods of Quantitation of GMO Content Using Real-time Quantitative PCR  
Mr. Pearce Smith, Laboratory Manager, Eurofins GeneScan
- 10:15 – 10:45        COFFEE BREAK**
- 10:45 – 11:15           Performance Criteria, Validation, Reference Materials  
Dr. Anne Bridges, Director of Technical Resources, AACCI
- 11:15 – 11:45           Design and Management of the GMO Testing Lab  
Mr. Pearce Smith, Laboratory Manager, Eurofins GeneScan
- 11:45 – 12:15           Introduction to the Laboratory Session I  
Dr. Clara Alarcon, Research Director, Analytical and Genomics Technologies Department, Pioneer Hi Bred
- 12:15 – 1:15           LUNCH**
- SESSION 7            LABORATORY MODULE I**
- 1:15 – 5:30            Introductions: Overview, Safety and Logistics  
All facilitators

**END DAY 2**

## **DAY 3: THURSDAY 12 FEBRUARY 2015**

- SESSION 8            IMPLEMENTATION OF THE REGULATORY FRAMEWORK**
- 8:30 – 9:15            Role of Laboratory Testing in the Implementation of the Regulatory Framework  
Dr. Raymond Shillito, Bayer Research and Development Fellow

<b>SESSION 9</b>	<b>NEW TECHNOLOGIES</b>
9:15 – 9:45	New Detection Technologies Dr. Clara Alarcon, Research Director, Analytical and Genomics Technologies Department, Pioneer Hi Bred
9:45 – 10:15	New Plant Breeding Technologies Dr. Raymond Shillito, Bayer Research and Development Fellow
<b>10:15 – 10:45</b>	<b>COFFEE BREAK</b>
<b>SESSION 10</b>	<b>PRACTICAL APPLICATIONS</b>
10:45 – 11:15	Selecting the Best Method for “The Situation” – the Rice Case (Case Study 1) Dr. Anne Bridges, Director of Technical Resources, AACCI
11:15 – 11:45	Challenges of “Unknowns” Mr. Pearce Smith, Laboratory Manager, Eurofins GeneScan
11:45 – 12:15	Proficiency Testing as a Quality Control Measure Dr. Raymond Shillito, Bayer Research and Development Fellow
<b>12:15 – 1:15</b>	<b>LUNCH</b>
<b>SESSION 11</b>	<b>LABORATORY MODULE II</b>
1:15 – 5:30	Introductions: Overview, Safety and Logistics All facilitators

**END DAY 3**

**DAY 4: FRIDAY 13 FEBRUARY 2015**

<b>SESSION 12</b>	<b>REVIEW OF LABORATORY RESULTS</b>
8:30 – 9:30	Group presentation of results (workshop participants)
9:30 – 10:15	Discussion of findings
10:15 – 10:45	<b>COFFEE BREAK</b>
<b>SESSION 13</b>	<b>FUTURE PLANS</b>
10:45 – 11:30	GMO detection, sources of methods, equipment sources, reference materials, laboratory networks, additional resources <ul style="list-style-type: none"> <li>• Dr. Raymond Shillito, Bayer Research and Development Fellow</li> <li>• Dr. Clara Alarcon, Research Director, Analytical and Genomics</li> </ul>

Technologies Department, Pioneer Hi Bred

- Mr. Pearce Smith, Laboratory Manager, Eurofins GeneScan
- Mr. Doug Miller, Chief Executive Officer, Illinois Crop Improvement Association

11.30 - 12:15      Presentation of Certificates  
Workshop Feedback Survey

**12:15 - 1:15      LUNCH**

**END DAY 4**