

## Draft Programme



# KARI

### **STAKEHOLDER MEETING: ASSESSING PLANT DISEASE DIAGNOSTIC CAPACITY AND NEEDS IN EAST AFRICA**

### **WORKSHOP: PLANT DISEASE DIAGNOSTIC TECHNOLOGY TRAINING NAIROBI KENYA**

### **IPM CRSP INTERNATIONAL PLANT DIAGNOSTIC NETWORK (IPDN)**

**March 6-9, 2007**

#### **DAY 1      Monday, March 5**

2.30 p.m.      **Arrival and registration of participants at NARL Conference Hall  
(KARI-NARL, Waiyaki Way, Nairobi)**

3.30 p.m.      Orientation and briefing of the hosting scientists

4.30 p.m.      End

#### **DAY 2      Tuesday, March 6**

8.30            Arrival at the venue (NARL Biotechnology Centre)

8.45            Introductions and welcome address: *Mrs. Mary Wabule, AD-HIC & Dr.  
P. T. Gicheru, Centre Director – KARI-NARL*

9.00            Official Opening: *Director KARI*

9.15            Stakeholder meeting objectives and introduction to the International Plant  
Diagnostic Network (IPDN): *Dr. Sally Miller, The Ohio State University,  
USA*

9:30            *Comments by            USAID Official-            Mr. A. Fleming  
Mr. Peter Ewell  
Mr. Walter Knausenberger (5 minutes each)  
(tentative)*

9:45            IPM activities in East Africa: *Dr. Mark Erbaugh, The Ohio State  
University, USA*

10.00          Coffee break

- (Distribution of survey documents)
- 10.30 Sanitary/phytosanitary practices and compliance in East Africa: **Dr. C.J. Kedera, MD-KEPHIS**
- 11.00 Plant disease diagnostic needs in East Africa: **Jane Ngigi,- Kenya Flower Council & Professor S. Mbithi, FPEAK**
- 11.30 Positioning of diagnostic support and regional centers of excellence: **Dr. Julian Smith, Central Science Laboratories, UK**
- 11:45 IPDN activities in the West Africa region: **Dr. Fen Beed, IITA**
- 12:00 Databases and communication: the planned IPDN system: **Dr. Sally Miller, The Ohio State University, USA**
- 12.30 The IPM CRSP Insect-Transmitted Viruses Project: **Dr. James Legg, IITA**
- 1.00 **Lunch**
- 14.00 **Institutional plant disease diagnostic capacity and needs: 15 minute presentations by representatives of East African institutions**  
**KARI**  
**KEPHIS**  
**Universities**  
**Uganda - Institutions to be identified (Makerere University & NARO)**  
**Tanzania - Sokoine University & Research Department**  
**Ministry of Agriculture**
- 17.00 End

## WORKSHOP: PLANT DISEASE DIAGNOSTIC TECHNOLOGY TRAINING

### DAY 3      Wednesday, 7 March

Basic principles of disease diagnosis

- 8.30 a.m.      Use of PCR (standard and real-time) in plant disease diagnostics –  
*Dr. Doug Maxwell*
- 9.30 a.m.      Use of serology in plant disease diagnostics –*Dr. Sally Miller*
- 10.30 a.m.      Coffee Break
- 11.00 a.m.      Diagnosis of bacteria and phytoplasmas by classical and modern  
techniques – *Dr. Sally Miller and Dr. Julian Smith*
- 12.00 a.m.      Diagnosing virus diseases – approaches suited to available technology-  
*Dr. Doug Maxwell & Dr. E.M. Ateka Jomo Kenyatta Universi*
- 1.00 p.m.      Lunch
- 2.00 p.m.      Nematode diagnostics – *Dr. J.W. Kimenju (UON)/ Prof. Stanley Waudo*  
*(Kenyatta University)*
- 3.00 p.m.      Fungal disease diagnostics – *Prof. George Siboe University of Nairobi*  
*(UON)*
- 4.00 p.m.      Oomycete diagnostics – *Prof. George Siboe (UON)*
- 5.00 p.m.      End**

### DAY 4-5      Thursday, 8 March

<b>8:30 a.m. – noon</b>	<b>Sessions 1, 2, 3, 4 run simultaneously</b>
<b>Noon -2:00 p.m.</b>	<b>Lunch</b>
<b>2:00 p.m. – 5:30 p.m.</b>	<b>Sessions 1, 2, 3, 4 run simultaneously</b>

### Friday 9 March

<b>8:30 a.m. – 11:30 a.m.</b>	<b>Sessions 1, 2, 3, 4 run simultaneously</b>
<b>11:30 a.m. – 1:00 p.m.</b>	<b>Lunch</b>
<b>1:00 p.m. – 4:00 p.m.</b>	<b>Sessions 1, 2, 3, 4 run simultaneously</b>

**4:00 p.m. - Wrap-up and discussions of way forward**  
**5:00 p.m. – Presentation of certificates**  
**5:30 p.m. End**

Small group sessions addressing the following topics will be repeated throughout these two days of the workshop to allow maximum hands-on participation. Coffee breaks and lunch will be included.

### **SESSION 1. VIRUS DISEASE DIAGNOSIS AND VIRUS DETECTION**

**Geminivirus diagnostics:** Presenters: Dr. Douglas Maxwell, University of Wisconsin-Madison, others

*Subjects will include symptoms, PCR, serology, etc.*

Aphid-transmitted virus diagnostics: **Dr. James Legg, IITA & Dr. E.M. Ateka, JKUAT**

*Subjects will include symptoms, PCR, serology, etc.*

### **SESSION 2. BACTERIAL DISEASE DIAGNOSIS AND DETECTION OF BACTERIAL PATHOGENS**

Banana xanthomonas wilt: **Maina Mwangi, IITA; Geoffrey Tuisime, Makerere Univ.**

*Subjects will include symptoms, isolation/culturing (semi-selective medium) and PCR.*

*Ralstonia solanacearum;* **Dr. Sally Miller, Dr. Z.M. Kinyua, & Dr. Julian Smith**

*Subjects will include symptoms, isolation/culturing (semi-selective medium), biovar determination, PCR, serology (multiwell and lateral flow assays available).*

*Napiergrass phytoplasma:* **Dr. Julian Smith**

*Subjects will include symptoms, DNA extraction and detection by PCR*

### **SESSION 3. MAKING USE OF DIGITAL INFORMATION SYSTEMS**

Searching the Internet for help in diagnosing diseases - **Dr. Fen Beed**

### **SESSION 4: SEED AND POST-FIELD PATHOLOGY**

Seed pathology - **Moi University Representative**

Post- field Pathology - **Prof. Mukunya University of Nairobi**