



**AVRDC** West Africa

The World Vegetable Center

**PLANT DISEASE DIAGNOSTIC  
ACTIVITIES AT AVRDC-MALI  
PROBLEMS AND PERSPECTIVES**

**International Plant diagnostic Meeting  
*IITA-BENIN 5-9 SEPT 2006***

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# INTRODUCTION

## CORRECT IDENTIFICATION OF DISEASE

➤ IMPORTANT FOR DISEASE CONTROL

BREEDING FOR DISEASE RESISTANCE

IPM TECHNIQUES

QUARANTINE

➤ MAY HAVE CONSEQUENCES IN INTERNATIONAL  
TRADE

➤ ASSURE THAT RESSOURCES (TIME AND MONEY) ARE  
NOT BE WASTED

# PRESENTATION OF AVRDC-WEST AFRICA

➤ **AVRDC IS LOCATED AT ICRISAT- Mali**

**MANDATE CROPS ARE VEGETABLE CROPS**

**UNTIL LAST YEAR THERE WAS ONLY ONE SCIENTIST**

➤ **NEEDS TO IDENTIFY DISEASES**

➤ **ICRISAT HAS A PLANT PATHOLOGY LABORATORY  
AND A GREENHOUSE BUT NO PLANT PATHOLOGIST**

**THE LABORATORY**

**WELL EQUIPPED**

**CHEMICAL SUPPLIES**

## AVRDC CONT'ED

- AVRDC HAS A PLANT PATHOLOGIST BUT NO PLANT PATHOLOGY LAB
- NEGOTIATE TO USE THE ICRISAT LAB FACILITIES
- ADDITIONAL EQUIPMENT FROM THE HEADQUARTERS IN TAIWAN

# CURRENT DIAGNOSIS ACTIVITIES

## ➤ ROUTINE IDENTIFICATION OF PLANT PATHOGENIC

Fungi

Bacteria

Nematodes (to the Genus level)

Virus cases:

    Rely on advanced Labs

        -AVRDC Headquarters

        -Dr. Gilbertson Lab at UC-Davis

## ➤ SAMPLES ARE COLLECTED FROM

FARMERS FIELDS

RESEARCH PLOTS

## ➤ SOMETIMES WE HAVE TO GO THROUGH KOCH POSTULATE

Work is facilitated by access  
To AVRDC Library  
Online Journals

# CONSTRAINTS

- LACK OF LONG TERM STORAGE FACILITIES
- LACK MODERN MOLECULAR BIOLOGICAL TOOLS  
This can be solved through collaboration with the University of Mali which has a good molecular biology Lab
- POOR LINKS WITH FARMERS AND EXTENSION  
PROBLEMS ARE NOT REPORTED ON TIME TO SCIENTISTS WHO CAN MAKE THE DIAGNOSIS

# Perspectives

- The plant pathology laboratory at Samanko can still accommodate new equipment (Molecular biology)
- Near future to get biotech equipment
- AVRDC ICRISAT and ICRAF are collaborating to run the Lab

SHARING EQUIPMENT

USING EACH OTHER EXPERTISE

- Collaboration with IER and University of Mali

**MALI HAS THE CAPACITY TO  
CARRY OUT A LOT OF PLANT  
DIAGNOSIS**

**THANK YOU !**