



IPDN-West Africa Stakeholder Meeting & Training Workshop

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- Presentation of INERA
- Diagnostic Laboratories
 - Activities
 - Personnel
 - Equipment

Presentation of INERA

- In Burkina Faso, the National Center of Scientific and Technological Research (CNRST) is the main body in charge of public research.
- INERA (Institute of Environmental and Agricultural Research) created in 1978 is one of the four Institutes of CNRST.

Presentation of INERA

- INERA is organized into four Scientific Departments:
 - Department of Crop Productions (DPV),
 - Department of Forestry Productions (DPF),
 - Department of Animal Productions (DPA),
 - Department of Natural Resources Management / Farming Systems (GRN/SP).

Diagnostic Laboratories

The Department of Crop Productions has 6 main diagnostic laboratories in 2 locations:

. Kamboinsé Station (Ouagadougou)

- Virology
- Phytopathology (Mycology & WS)
- Entomology

. Farako-ba Station (Bobo-Dioulasso)

- Phytopathology (Mycology)
- Entomology
- Nematology & Bacteriology



Main problems tackled

Virology	Pathology	Entomology & Nematology	Weed Science
<p>Survey & Epidemiology of crop viruses:</p> <p>≈30 viruses & virus strains diagnosed</p>	<ul style="list-style-type: none"> -Downy mildew -Anthracnose -Smut -Ergot -Grain mold -Bacterial wilt 	<ul style="list-style-type: none"> -Midge -Stem borers -Head bugs -Cicadella <p>Nematology</p> <ul style="list-style-type: none"> -Hirschmaniella 	<p>Weeds in:</p> <ul style="list-style-type: none"> -Cereals -Cotton -Vegetable crops -Legumes -Parasites/Striga -Water jacinth

Staff members involved in plant diagnosis

	PhD.	MSc/DEA	Technicians
Virology	3	2	4
Mycology	4	4	5
Entomology	7	2	10
Weed Science	3	0	3
Nematology	1	2	2
Bacteriology	1	0	2
Total	19	10	26

Needs in human resources

With regard to problems facing the country in plant protection and the weakness of human resources in virology, bacteriology and nematology, there is a need at two levels:

- Recruitment of new staff
- Training of existing staff

Equipment

Workspace (lab benches, storage, etc.) & standard equipment available in all labs: bench top centrifuge, laminar flow hood, hot plate, vortex, autoclave, incubator, shaker, refrigerator, freezer, microscope, pH meter, weighing balance, UV-visible spectrometer.

Other equipment in virology

- ELISA reader,
- Vacuum pump,
- PCR thermal cycler,
- A few serological diagnostic kits,
- Ultra-low freezer (-80 °C)
- Freeze dryer
- CO₂ incubator,
- Equipment for western blot, northern blot & southern blot,
- Ultra-centrifuge,
- Greenhouse,
- Growth chamber

Needs in lab equipment & supplies

- Glassware and disposable laboratory supplies
- Supplies (agar, media components, slides, cover slips, etc.)
- Computer(s) and Internet Access
- Camera(s)
- Serological kits for bacteria & some viruses
- Molecular biology reagents
- Access to scientific literature & scientific information

Conclusion

- ✓ Some capacities are available in Burkina Faso for plant diagnosis in terms of laboratories & human resources.
- ✓ However, we think that there is a need for training, networking, scientific exchanges at regional & international levels.