

# MangueExpert

## Dépérissement des manguiers en Afrique de l'Ouest : organisation d'une mission d'expertise internationale dans les vergers au Burkina Faso.

### ABSTRACT

In Burkina Faso, a new disease has recently appeared in mango orchards. This disease, of unknown origin, results in a progressive and rapid drying of the branches and then of the entire tree, and a mango tree can die within a few weeks after the first symptoms appear.

The purpose of the agreement is to organise a mission of experts on site to verify the hypothesis of an introduction of the microbial parasite (vascular fungus *Ceratocystis fimbriata*) into Burkina or into a neighbouring country that is also affected, which could explain the sudden appearance of this disease in West Africa.

An expert mission was organised by IRD to Bobo Dioulasso, in the centre of the mango production region from 3 to 7 December 2018. In parallel, a training workshop on molecular diagnostic techniques was organised in January 2019 at LMI PathoBios in the framework of the ESpace project including researchers from INERA, IRD and CIRAD.

In 2019, a technical visit will be carried out in Brazil for three Burkinabe scientists by Brazilian specialists in mango diseases. A PhD student (Mr O. Dianda) is also undergoing training for 3 x 3 months at the University of Viçosa (UFV) in Brazil to learn how to specifically isolate the fungus *C. fimbriata*.

The visit to Bobo Dioulasso was divided into two parts:

1- A meeting at the LMI PathoBios at the INERA station in Farako-ba for discussions with Mr Leonard Ouedraogo's team on the conduct of mango production in the region, the incidence of the disease in the orchards, and analysis of the research and disease identification work conducted so far.

2- Field visits to mango production orchards to :

- Evaluate / compare the conduct of mango production in Burkina Faso versus Brazil
- Evaluate symptoms in situ: examination of symptomatic trees (external appearance, internal examination with bark excision, cutting of symptomatic or non-symptomatic branches, examination of roots when possible).
- Collect plant material with sampling appropriate for the detection of the fungus *C. fimbriata* from affected but also apparently healthy parts of the trees, and identify in situ according to the technique of Ferreira et al. (2015).
- Collecting insects and identifying the bark beetle on site.

In addition, a meeting with the Brazilian Embassy in Ouagadougou was organised to take stock of the France-Burkina-Brazil tripartite activities and to obtain news about support from the Brazilian cooperation agency (ABC).

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**Project leader** : Diana Fernandez  
**Project leader's institution** : IRD  
**Project leader's RU** : IPME-PHIM

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