Year of CfP: 2010

Project 1002-008

Project title: Organization of a joint French-Brazilian-African training course for the construction of a sentinel network for Greening disease outbreak detection in peri-Mediterranean countries.

Unit managing the project: UMR RPB Plant resistance to pests and diseases (CIRAD, IRD, UMII)

Project leaders: Gatineau Frédéric (gatineau.frederic(a)cirad.fr)

Countries involved in the project: Brazil, Morocco, Tunisia, Egypt, Turkey & Cameroun

Subthematic axes: IPB-2 (Integrative Plant Biology 2: *Plant pests and diseases, integrated crop protection, population ecology*)

Objectives:

The purpose of this project is to organize in Montpellier an international training course of three days dedicated to Huanglongbing of Citrus (HLB or Greening disease). It will deal with symptoms recognition, detection in plants and insect vectors, for the risk management of the potential arrival of HLB disease and its insect vectors in Southern Mediterranean and North-African countries in particular.

HLB is a phloem-restricted bacterial disease associated with three species of *Candidatus liberibacter* (the Asian, American and African forms) and is vectored by psyllids (*Trioza erytreae* and *Diaphorina citri*). This is the most devastating disease of citrus worldwide because of the lack of effective and sustainable management strategies. To date, the disease is present in China, the Indian subcontinent, Madagascar, Mauritius, Reunion, Southeast Asia, North and South America and the Saudi Arabian peninsula.

The risk management of the potential arrival of the disease and its psyllid vectors requires the ability to detect and to recognize both the bacteria and the psyllid vectors soon after their arrival in a citrus producing area.

Hence, the two main goals of the proposed training course are:

- To gather regional collaborators (plant pathologists, entomologists, engineers from agricultural institutes) from the South of Mediterranean basin (Morocco, Tunisia, Egypt, Turkey) and to train them 1) to HLB symptom recognition 2) to psyllid vectors identification 3) to lab testing (sampling methods, DNA extractions, detection by molecular tools) and 3) to permanent surveying of psyllids for early eradication,

- To organize international collaborations with and between invited institutions for the implementation of a sentinel epidemiological network for the disease outbreak detection and early eradication.

Total Agropolis Fondation funding: €18,980

Funding categorie(s): Support for the organisation of high-level scientific events (conferences, seminars, workshops, etc.)

Project duration: 15 January 2011 – 30 June 2011

Keywords: risk management, Huanglongbing of Citrus, psyllid vector, training course, bacteria, epidemiological network