

## **Report on the combined meeting of MC and WG 1, 2 and 4 of COST Action FA1103**

Place: Ege University, Faculty of Agriculture, Department of Plant Protection, 35100 Bornova- IZMIR / TURKEY

Date: 03 – 07 November 2014

Local Organizers: Hatice ÖZAKTAN, Lalehan YOLAGELDİ

### **General information on the meeting**

The meeting was organised by the Faculty of Agriculture, University of Ege in Izmir, TURKEY. The meeting was a joint meeting of Working Group 1, 2, 4 and Management Committee and brought together over 39 scientists from 13 different countries including Algeria, Austria, Czech Republic, Denmark, Estonia, Finland, Germany, Italy, Spain, Sweden, Tunisia, Turkey and United Kingdom. Their scientific experiences covered a broad spectrum of activities.

The meeting was opened by the Local Organizer of the meeting of COST Action FA1103, Professor Hatice OZAKTAN. At the beginning of the meeting, the vice Dean of Agriculture Faculty of Ege University, Professor Hülya İLBİ gave a short presentation about the University of Ege and Faculty of Agriculture in Izmir. The chair of the action Dr. Caroline SCHNEIDER also gave a talk to introduce the status and progress of the COST action FA1103.

Most of the participants presented their experience and results from their working groups in 30 minutes presentations including discussion (altogether 22 scientific reports). Three keynote speakers presented a brief talk at the meeting to introduce their specific research aims and their commonly used techniques.

### **Main objectives of the meeting**

- 1.- To provide the opportunity to getting acquainted and exchanging knowledge with other researchers working on risk assessment of endophytes.
- 2.- Scientific updating of the participants on the state of the art.

Endophytic microorganisms may function as plant growth and defense promoters by synthesising phytohormones, producing biosurfactants, enzymes or precursors for secondary

plant metabolites, fixing atmospheric nitrogen and CO<sub>2</sub> or control plant diseases as well as providing a source for new bioactive natural products with utility in pharmaceutical, agrochemical and other LifeScience applications. Furthermore, endophytes are likely to be adapted to the presence and metabolism of complex organic molecules and therefore show useful biodegradation activities. However, as with every innovative technology, a responsible approach should take risk assessment into account. F.e. one of the central questions in endophyte research is to understand the differences between beneficial and harmful plant-endophyte interactions. Another major concern are human pathogens colonizing the interior spaces of plants. Furthermore the characterisation of secondary metabolites produced by candidate strains for development of biocontrol agents and biofertilizers is of utmost importance, since the occurrence of toxins must be excluded as prerequisite for their registration.

This workshop focused on various aspects regarding risk analysis and risk evaluation and brought together scientists and representatives from companies and authorities.

The various topics covered by the presentations (see below) give the current status of knowledge to necessary to implement those action or demonstrated how fare these action are already implemented by single partners.

### **Scientific output:**

#### **WG1: Human pathogens in plants**

Human pathogens colonizing the interior spaces of plants is of major concern. There were given excellent talks on belonging to the genera of e.g. *Propionibacterium*, *Salmonella*, *Mycobacterium*, *Staphylococcus*, *Pantoea ananatis*, *Serratia* and *Burkholderia* have been found frequently as human pathogens, plant colonizing species and endophytes.

#### **WG2 - Mutualistic and pathogenic plant-endophyte interactions: what makes the difference?**

One of the central questions in endophyte research is to understand the differences between beneficial and harmful plant-endophyte interactions. The factors driving the nature of plant-endophyte interactions might be manifold. It was given six talks on this issue.

## **WG4 - Production of mycotoxins, phytotoxins and other undesired secondary metabolites by biocontrol agents:**

The characterisation of secondary metabolites produced by candidate strains for development of biocontrol agents and biofertilizers is of utmost importance, since the occurrence of toxins must be excluded as prerequisite for their registration. During the session of WG4 were given some important talks on this phenomena.

All presentations were supported by abstracts and discussed by the participants. Full presentations will be available through the web site of the cost action FA1103 ([www.endophytes.eu](http://www.endophytes.eu)).

### **Field trip to organic farmhouse**

A visit to an organic farm situated in Davutlar, Kuşadası was organized on Thursday, 6 November. After visiting the farm and olive oil museum, all participants visited Ephesus Ancient City in Kuşadası.

Some minutes from the meeting could be seen on the photos as follow:



Figure 1. Some pictures from the meeting hall during the opening remarks of Izmir meeting



Figure 2. Some of the meeting participants



Figure 3. Some pictures from the field trip to visit organic farmhouse

Bornova – Izmir / TURKEY 13 November 2014 Hatice OZAKTAN