
COST Action CA16107
EuroXanth: integrating science on *Xanthomonadaceae*
for integrated plant disease management in Europe

Minutes of the WG4 Meeting

Viterbo, Italy, 8 July 2019

Minutes of the WG4 Meeting written by E. Stefani, and reviewed by all participants

Attending: Emilio STEFANI (IT, WG4 Leader), Vittoria CATARA (IT, EuroXanth Vice-Chair), Tamás KOVÁCS (HU, WG4 Co-Leader), Irem ALTIN (IT), Miroslav BARANEK (CZ), Claude BRAGARD (BE), Gabriella CIRVILLERI (IT), Katarina GASIĆ (RS), Aleksa OBRADOVIĆ (RS), Hatice ÖZAKTAN (TR), Pasquale SALDARELLI (IT), Maria SAPONARI (IT), Mariya STOYANOVA (BG), Sai Shivakrishnaprasad VURUKONDA (IT).

On July 8th, 2019, from 14:00 to 18:00 a meeting of scientists involved in WG4 was organized at the Department DAFNE, University of Tuscia, Viterbo, Italy. The meeting was organized by Emilio Stefani (IT), WG4 Leader and was chaired by Vittoria Catara (IT), EuroXanth Vice-Chair. Fourteen people attended: 50% female and 43% ITC members.

This meeting was organized back to back with the 4th **International Symposium on Bacterial Plant Diseases** (www.biocontrol2019.com), which took place from 9 to 12 July. Therefore, attendees were able to participate in the symposium as well and they contributed with five oral presentations and several posters, thus promoting research activities done in the framework of WG4 in EuroXanth.

The specific goal of the WG4 meeting was to check the progress made in the working group towards deliverables, considering that the meeting was held in the second quartile of the third year (month 29). In particular, Deliverable 12 "*Recommendation of disease control measures based on a better understanding of the microbe-eukaryote interaction and the effects of bio-control approaches on pathogen populations (WG4 / Month 42)*" was considered.

Vittoria Catara welcomed the participants to the meeting, giving useful administrative indications and suggestions. Then, Emilio Stefani opened the meeting with a short introduction of the WG4. Highlights were on two particular Objectives envisaged in WG4. They were:

- a) To evaluate and establish disease control measures by coordinating research on the impact of biological products/microorganisms to control xanthomonads and *Xylella fastidiosa* and to prevent the spread of infections.
- b) To evaluate and compare approaches to eliminate or reduce vector populations by coordinating research on adapted agronomic practices, effects of volatile compounds, and trapping systems.

Although several scientists are actively working on disease management and vector control, Emilio Stefani highlighted a weak point that should be implemented. The title of the COST action is: Integrating Science on *Xanthomonadaceae* for Integrated Plant Disease Management in Europe. So far, Emilio Stefani is the opinion that “integration” should be more efficiently pursued in order to propose practical solutions to manage xanthomonads.

A remarkable point is that, among 32 STSM approved, only five of them were related to WG4.

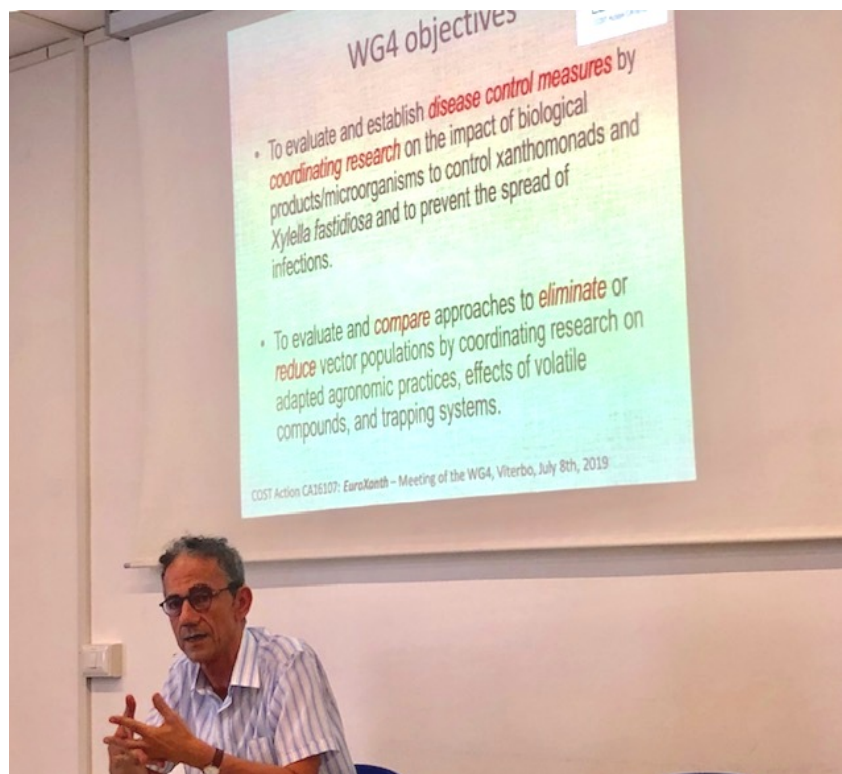
Seven oral contributions were presented and discussed. They were:

1. Tamás Kovács (HU):
Development and use of bacteriophages as biocontrol agents
2. Miroslav Baranek (CZ):
Use of nanoparticles to control xanthomonads
3. Hatice Özaktan (TR):
Evaluation of biological control of bacterial spot disease (*Xanthomonas euvesicatoria*) in tomato plants stimulated by rhizobacteria
4. Claude Bragard (BE):
Bioactive metabolites from *Bacillus* and chances to develop innovative products to control *Xanthomonadaceae*
5. Irem Altin (IT):
Integrating copper and microbial consortia for an effective control of the bacterial blight of walnut.
6. Maria Saponari (IT):
Control of *Xylella fastidiosa* vectors
7. Pasquale Saldarelli (IT):
New insights on *Xylella fastidiosa* resistance in olive

Bacteriophages, introduced by Tamás Kovács, were discussed, as they appear very prospective biocontrol agents and some products are readily available on the market or may be available in short time. Also, Irem Altin introduced an innovative strategy that has been applied in commercial walnut groves, which is to integrate the use of commercial microbial consortia with copper compounds, thus significantly reducing copper inputs into the agro-environment. According to the participants, other proposed results still require additional efforts to be implemented into approved procedures to control xanthomonads and/or into commercial products available on the market. Finally, Maria Saponari suggested an effective management of *Xylella* vectors and Pasquale Saldarelli provided an update on the molecular mechanisms of the olive cv. Leccino resistance to *Xylella fastidiosa*.

The WG4 meeting lasted half a day only, and was very lively in terms of discussion. Most of the participants agreed that a more intense collaboration is needed, also to reach one of the EuroXanth deliverable: *Trained next-generation investigators who are well connected in a stimulating trans-national career network* (month 48).

Emilio Stefani



WG4 Leader, Emilio Stefani, introducing WG4 Objectives to the participants