
Animal and plant health Unit (ALPHA UNIT)

Animal and Plant Health Unit

Minutes of the 1st meeting of the Working Group on *Xylella fastidiosa* urgent request

Held on 15 April 2015, Parma (Italy)

(Agreed on 16 April 2015)

Participants

- **Working Group Members:**
 - Claude Bragard
 - Mike Jeger has participated via teleconference
- **Hearing Experts:**
 - Antonia Carlucci (for item a);
- **European Commission and/or Member States representatives:**
 - Not Applicable
- **EFSA:**
 - ALPHA Unit: Ciro Gardi and Giuseppe Stancanelli
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- **Others:**
 - Not Applicable

1. Welcome and apologies for absence

EFSA welcomed the participants.

Antonia Carlucci did not participate to agenda point 5.3.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest², EFSA screened the Annual Declaration of Interest and the Specific Declaration of Interest filled in by the working group members invited for the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

4. Hearing Expert (s)

Prof. ANTONIA CARLUCCI was invited to present her research studies and her views for item 5.2 of the present meeting.

5. Scientific topic(s) for discussion

5.1 Presentation of the Terms of reference

The request received from the European Commission was presented.

5.2 Hearing on fungal pathogens associated with olive decline in Apulia

The first author of the papers cited in the European Commission request, Prof. Antonia Carlucci of Università di Foggia, Dipartimento di Scienze Agrarie degli Alimenti e dell'Ambiente, was invited to present her research studies and her view on tracheomycotic fungal species associated with brown streaking of olive decline in Apulia. Her presentation is summarised in the text below.

The early researches of Prof. Carlucci from year 2000 to 2012, carried out on olives in the provinces of Lecce, Brindisi, Taranto, Foggia and Bari, have been published in proceedings of national scientific congresses and peer reviewed journals such as *Petria*. Works conducted since August 2013 regard sampling in Foggia and Bari provinces and have been published in international peer reviewed journals such as *Phytopatologia mediterranea* and the *European Journal of Plant Pathology*. Her researches aim to assess the fungal composition able to attack the xylem of olive trunk, branch and stems. For the period December 2012 until August of 2013 samples collected from Lecce province were analyzed in Laboratory of Foggia University for fungal isolation; some of these samples (collected at the end of August 2013) were also sent to the laboratory of University of Firenze, to ascertain the presence of *X. fastidiosa*. Several fungal species were isolated from olive samples from Lecce, Bari and Foggia. Most of them were tracheomycotic fungi, belonging to taxa also known as causal agents of trunk diseases of grapevines. Almost all samples from Lecce Province that were sent to University of Firenze were found infected by *X. fastidiosa* using PCR with specific primers, whereas olive samples from Bari and Foggia were never found to be infected by *X. fastidiosa*. Samples from all provinces showed similar decline symptoms however the spread and distribution of decline symptoms was observed higher in Lecce than in the other provinces. In the Salento area the symptoms of olive decline were observed also before 2000, however the frequency of dessication is now much higher and more diffuse on the plants. Prof. Carlucci noted however that during the last 10 years the care and management of olive trees has reduced drastically in Salento and that damage by other agents such as the leopard moth *Zeuzera pyrina* has also been very frequently observed in declining olives in Salento.

Prof. Carlucci also explained that, although systematic data collection has not been undertaken, differences in decline symptoms were observed among olive cultivars, with a

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencespolilucccy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>

variety such as Coratina not being affected, Leccino having an intermediate decline symptoms and Ogliarola salentina showing the most decline symptoms. According to Carlucci, the olive tree produces phenolic substances that can act as antimicrobials and the variety Coratina is well known for having a high polyphenolic content.

Regarding the fungal species associated with olive decline in Apulia, in 2012-2013 in the Foggia and Lecce areas, a new symptomatology was observed by Carlucci et al., consisting of a change in wood colour under the bark. *Pleurostomophora richardsiae* was isolated from these samples.

Prof. Carlucci also reported that old olive plants affected by olive decline, in olive groves found infected by *X. fastidiosa*, still have the capability to produce new shoots sprouting from the roots, so that pathogens associated with olive decline affect the terminal part of branches, and do not compromise entirely the plant. However, she also noted that to understand whether these new shoots are then affected by the decline, it would be necessary to check them for more years. Prof. Carlucci noted that in her view there are several agents associated with olive decline in Salento, such as tracheomicotic fungi, the leopard moth *Zeuzera pyrina* and *Xylella fastidiosa*, and that currently there is not sufficient scientific knowledge to identify which of these agents or which combinations of them are primarily responsible for the quick olive decline. Prof. Carlucci also informed the hearing that very recently the Università di Foggia together with the Istituto Agronomico Mediterraneo, CIHEAM, di Valenzano (Bari) have started an experiment where they artificially needle-inoculated 2 years old olive seedlings (cv. Ogliarola salentina) with different tracheomicotic fungal species, *X. fastidiosa* Apulian strain and combinations of them. More insight on the etiology of the quick olive decline in Salento area will be obtained from these studies, however time is needed to obtain the results. She also presented a plan for starting field trials for the control of olive decline in Lecce province in affected orchards: this experimentation will not be conducted with a statistically valid experimental plan but aims to test measures with low environmental impact in farms in areas with different olive decline, focusing on products that enhance natural plant resistance or which are applied in organic farming. The control of *X. fastidiosa* vectors is not included in these field demonstrations however the populations of spittlebugs will be monitored by the farmers on the base of high infestation observed. The Working Group asked whether the use of fungicides for the control of the fungal tracheomicotic agents is included in the plan of this study. Prof. Carlucci replied that they prefer to use products that promote a self-response from the plants: only a fungicide Phosetyl-Al is included in the demonstration because its mechanism involve stimulus of plant production of phytoalexins.

Prof. Carlucci was asked whether she is aware and agrees with Frisullo et al. 2014 that the current olive decline is different from the historical disease “brusca dell’olivo”. Prof. Carlucci agreed on this difference and also confirmed that there is no relationship, even in symptoms, between “brusca” and those resulting from tracheomicotic fungi infecting olive. On the conclusion by Frisullo et al. 2014 that *X. fastidiosa* introduction is a recent one and not an old introduction present since hundred of years, she said that in her view there are no scientific data available to conclude in one direction or the others.

The Working Group also asked Prof. Carlucci whether she thinks that *X. fastidiosa* is not the cause of the declining of olive trees in Southern Italy, but only an endogenous element present in olive trees, which is not active or aggressive unless a series of fungi, such as *Pleurostomophora richardsiae*, *Phaeoacremonium aleophilum* and *Neofusicoccum parvum*, infect the plants and create the right conditions for the development of *X. fastidiosa*. Prof. Carlucci replied that at the moment there is no scientific evidence supporting this hypothesis, possibly a first reply to this question may be given by the results of the ongoing experiments. Similarly when questioned on the claim that treatment possibilities do exist to cure the olive decline, she replied that there is not yet scientific evidence on this as studies and observations are ongoing.

The Working Group and EFSA thanked Prof. Carlucci for her clear presentation on the tracheomycotic fungi associated with olive decline.

5.3 Drafting of the statement

The Working Group reviewed and discussed the papers cited in the request and other literature and drafted the statement.

6. Any Other Business

Not Applicable

7. Next meeting(s)

No further meeting is planned.