SCIENTIFIC PANEL ON Plant Health

1st Working Group meeting on Quantitative risk assessment (QPRA) of *Xylella fastidiosa*



9 September 2024 14:00- 18:00 MINUTES –agreed on 9 September 2024

Location: Web-conference

Attendees:

o Working Group Members:

Blanca Landa (Chair)

Nik Cunniffe (vice-Chair)

Antonio Vicent Civera (Member)

Martina Cendoya (Member)

Hearing Experts¹:

Not Applicable

o European Commission and/or Member States representatives:

EC: Not Applicable

o EFSA:

PLANTS: Matteo Crotta, Ewelina Czwienczek, Giuseppe Stancanelli, Anastasia Terzidou

I. Welcome and apologies for absence

The Chair welcomed the participants. No apologies were received.

II. Adoption of agenda

The agenda was adopted without changes.

III. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management^{3,} EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

IV. Agreement of the previous WG minutes.

Not applicable.

As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: https://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf



V. Scientific topic(s) for discussion

a. Draft opinion on Quantitative risk assessment (Mandate Mandate_M-2024-00029)-Quantitative risk assessment (QPRA) of Xylella fastidiosa (EFSA-Q-2024-00322)

The experts reviewed the Terms of Reference (ToR) of the mandate. The modelling of spread for plant diseases was explained by Prof. Cunniffe with different examples of pathogens with/without involvement of vectors, and on different hosts. The latent period and incubation period concept was shown. The fate of individual 'host' was mentioned, such as organ, plant, field etc. The way in which compartmental models and/or transitions can be adapted to different epidemiological situations was shown. The mathematical expression of R0 was shown in respect to some control measures (eg. rouging). Some examples of modelling from citrus canker, sudden oak death and citrus greening were brought to the attention of the WG members. The challenges of modelling an emerging epidemic like *Xylella fastidiosa* were summarized.

Dr Cendoya described the spread model of *Xylella fastidiosa* developed for BeXyl EU project. This model regards spread of almond leaf scorch disease (ALSD) caused by subspecies *multiplex* in Alicante (Spain). Different epidemiological models were described: compartmental models vs. individual-based models. The spread model for ALSD is a spatially explicit individual-based model. Components of the model included: distribution of individual host plants, initial outbreak, and specific model parameters (including disease transmission rate, transmission rate reduction for infected asymptomatic, time for symptom expression, spatial range). Data from the official survey was used (since 2017) to obtain a reference value for the transmission rate parameter. The questions about future development/modification of the spread model were asked to accommodate also the long-distance aspect of the epidemiology of *Xylella*.

Data on vectors' abundance and its link to the outbreaks were discussed.

VI. Any Other Business

None.

VII. Next meeting

The next meeting will be held on the 26th and 27th of September in Parma.