

15 - 16 May 2024

09:00-18:00 / 09:00-18:00

Minutes agreed on 4 June 2024

Location: EFSA, Parma // Meeting Room 00/M07; 00/M8; 00/M14**Attendees:**

o Network Participants:

Country	Organisation
Austria	Amtlicher Pflanzenschutzdienst Vorarlberg, (Regional Plant Protection Office Vorarlberg)
Belgium	Federal Agency for the Safety of the Food Chain
Bulgaria	Bulgarian Food Safety Agency
Croatia	Croatian Agency for Agriculture and Food
Czech Republic	Central Institute for Supervising and Testing in Agriculture
Denmark	Ministry of Food, Agriculture and Fisheries – The Danish Agricultural Agency Department for Plants & Biosecurity
Estonia	Agriculture and Food Board
Finland	Finnish Food Authority
France	Ministère de l'Agriculture et de la Souveraineté Alimentaire (MASA)
Greece	Benaki Phytopathological Institute – Designated National Reference Laboratory on Plant Health
Germany	Julius Kühn-Institut (JKI)
Italy	CREA Council for Agricultural Research and Economics, Plant Protection and Certification Center
Italy	ERSA Friuli-Venezia Giulia
Latvia	State Plant Protection Service of Latvia, Plant Quarantine Department
Lithuania	The State Plant Service under the Ministry of Agriculture of the Republic of Lithuania (SPSMoA)
Netherlands	The Netherlands Food and Consumer Product Safety Authority (NVWA)
Poland	State Plant Health and Seed Inspection Service (SPHSIS)
Portugal	General Directorate for Food and Veterinary
Slovak Republic	Central Control and Testing Institute in Agriculture in Bratislava
Slovenia	Administration of Republic of Slovenia for food safety, veterinary sector and plant protection
Spain	Sub-directorate General of Plant and Forestry Health and Hygiene (SGSHVF, Subdirección General de Sanidad e Higiene Vegetal y Forestal)
Sweden	Swedish Board of Agriculture



- Observers:
Dmitrii Musolin (EPPO).
- Hearing Experts:
 - Consorzio Fitosanitario Provinciale di Parma (for items 1 and 6): Stefania Biondi; Ruggero Colla; Chiara Delvago; Federica Migliorini; Silvia Panisi
 - Tutors (WG Pest Survey Methods, for the other items): Elena Lázaro; Juan Navas-Cortes; Stephen Parnell; Martijn Schenk; Uroš Žibrat.
- European Commission/Other EU Agencies representatives:
Maria Mirazchiyska (EC – DG SANTE).
- EFSA: Federica Baldassarre, Melanie Camilleri, Chiara Civitelli, Alicia Culot, Cristiana do Vale Correia, Alex Gobbi, Dejana Golic, Tomasz Kaluski, Alexandre Nougadère, María Ribaya Muñoz, Daria Rzepecka, Emanuela Tacci, Anastasia Terzidou, Sara Tramontini, Sybren Vos.

1. Technical Visit : Outbreak of *Ralstonia pseudosolanacearum*

The Network conducted a technical visit to observe the impact of *Ralstonia pseudosolanacearum* outbreak in Parma province on various stakeholders in the local tomato production chain, and to understand their management strategies. The visit began with a tour of the Rodolfi Mansueto S.p.A. factory to gain insight from the perspective of processors. This was followed by a visit to the Araldi Pietro e Luigi farm at Vicofertile to observe the direct impact on tomato growers.

Subsequently, Ruggero Colla gave a presentation on the demarcated areas (DAs) and affected fields, providing an overview of inspection, sampling, and eradication procedures. Participants had the opportunity to ask questions and to inspect the tomato fields of the infected area.

2. Welcome and adoption of agenda

The Chair welcomed the participants, and a tour de table was conducted during which they introduced themselves. The agenda was adopted with changes: several activities were relocated, and a presentation on the PlantHealth4Life Campaign was added at the end of the second day.

3. Delimiting survey's introduction

Stephen Parnell introduced the concept and aim of a delimiting survey to the participants. Additionally, the speaker introduced the pest and the scenario selected for the case study that will be addressed during this meeting.

4. Delimiting survey approaches: methodological basis and Regulation's delimiting requirements



Martijn Schenk summarised the delimiting survey methodology, which establishes the potential infested area. Emphasis was placed on the pest's spread capacity, distinguishing between natural and human-assisted spread. Furthermore, the delimiting inward procedure implemented in RiPEST was explained in detail.

5. *Ralstonia pseudosolanacearum*

Martijn Schenk introduced *R. pseudosolanacearum*, the pest selected for the practical exercise on delimiting surveys. An overview of the pest was given, including its revised taxonomy within *R. solanacearum* species complex, its global distribution, life cycle, host range, climate suitability, availability of cultivated hosts, spread capacity, risk factors and the recommended procedure for its detection and identification.

6. Phytosanitary status of *R. pseudosolanacearum* in Emilia Romagna in Italy

Stefania Biondi, Ruggero Colla, Chiara Delvago, and Silvia Panisi (Consorzio Fitosanitario Provinciale di Parma) gave a presentation on the outbreaks of *R. solanacearum* species complex in the province of Parma. The pest has been detected in Vicofertile and Noceto on tomato plants since 2017, prompting the creation of an action plan for delimiting survey procedures. The survey is conducted annually in all tomato fields within the delimited area. It includes visual examination of symptoms, sampling of weed hosts, watercourses near infested production sites, as well as solid and liquid waste. Trace-back activities for contaminated plants are also carried out to aid in eradication efforts.

Moreover, detailed phytosanitary measures to eradicate the pest and prevent further outbreaks were explained. Furthermore, the speakers explained how they coordinate the implementation of the procedures between all stakeholders and their communication campaign.

Lastly, the results of their research project were presented. The main conclusion drawn from this project is the possibility of harvesting and processing tomatoes from delimited areas if washing protocols are applied.

7. Practical exercise 1: defining a survey strategy

Juan Navas-Cortes presented three case studies for practical exercises, all located in Emilia Romagna region of Italy and concerning *R. pseudosolanacearum*. The aim of the practical exercises is to prepare and design a delimiting survey for this pest. Detailed characteristics of the findings were provided for each case study.

The participants were divided into six groups, with two groups assigned to each case study. Their first assignment was to draft a survey plan for each finding by delimiting the potential infested zone.

8. Horizon Scanning

María Ribaya Muñoz and Sara Tramontini gave an overview of the Horizon Scanning project developed by the Plant Health Monitoring Team of EFSA in collaboration with JRC. It involves the preparation of a monthly newsletter by monitoring the media and



literature for plant pests and ranking them based on their threat to EU plant health. The Horizon Scanning project is adopting a new platform (EIOS) in collaboration with other institutions and broadening its engagement by hosting workshops and webinars. The first workshop dedicated to risk assessors has already been held. As the next workshop would be dedicated to risk managers, the speaker emphasized that suggestions are welcomed.

9. Demo for delimiting surveys

Juan-Navas Cortes conducted a demonstration of the use of RiPEST's delimiting survey module using *Thaumatotibia leucotreta* as an example.

10. Data sources for assessing the target population size

Uroš Žibrat gave a presentation on available data sources to use for assessing the target population size. He mentioned several sources including Corine land cover, Land parcel identification system, GeoSpatial aid application, SEN4CAP, EO-Learn, and the detection of individual plants via LiDAR and point clouds. Additionally, alternative data sources were discussed, such as other national or institutional databases (e.g., forest species), Global biodiversity Information Facility, Database of Global Data Sources for Biodiversity Conservation Monitoring and Citizen science.

11. Practical exercise 2: design a delimiting survey I: survey parameters quantification

During the second assignment, the groups first had to decide on the inspection units, which could be plants, hectares, or fields. Next, they had to use RIBESS+ to calculate the number of plants within the predetermined area where visual inspection and sampling would be carried out. This task required two steps: (i) determining the method sensitivity of 1 hectare based on the number of plants decided to be inspected in each hectare, and (ii) calculating the number of hectares needed to be visited to achieve 95% confidence in detecting a prevalence of 1%.

12. Practical exercise 3: run RiPEST

During the third assignment, the groups had to use RiPEST to design a delimiting survey. Several parameters were provided, including the localisation of the source of infection, the time since the last detection survey, the maximum annual short-spread rate, the areas of the two outer bands, the plant density, the inspection unit, the method of detection and identification in the field along with the sampling effectiveness and diagnostic sensitivity, the design prevalence and the confidence level. Additionally, Excel files containing the coordinates of inspection units with the test results (positive or negative) were given.

13. Presentation by groups – discussion

The groups presented their results, and the tutors provided feedback. Overall, the participants met the expected outcomes with similar results.



Additionally, an open discussion was launched about potential ways to improve the delimiting survey module of RiPEST and address difficulties encountered:

Suggestions for improving RiPEST:

- Suggestion to show the surface area of the outer band to be surveyed.
- Design phase and allocation of samples: the term "Sample selection" is unclear. The Chair emphasized that the sample size in RiPEST refers to the number of inspection units to visit and sample, not the number of samples to take to the lab. Discussion and suggestions were requested for better wording to describe the sample size in RiPEST.
- Suggestion to allow downloading the surface area of the survey and the fields within this band, including GPS coordinates, preferably as a shapefile.
- Suggestion to improve the visualization of the delimiting process by highlighting the difference between the potential infected zone, the outer bands, and the actual infested zone after the survey, and to differentiate between inward and outward processes using colours.
- During the exercise, one coordinate was outside of the surveyed band (the positive one): suggestion that the system should understand and address this.
- Suggestion on how to allocate samples, with the possibility to aggregate samples according to risk.
- Suggestion to include error messages to help users understand and fix issues.

14. Expert Knowledge Elicitation on survey parameters

Daria Rzepecka presented a project launched by EFSA, aimed at quantifying the design prevalence, relative risk, and method sensitivity for all 20 priority pests through Expert Knowledge Elicitation (EKE). The first step of the process is to collect data to enable the elicitation of parameters, which is being carried out by Thessaly University (grant GP/EFSA/PLANTS/2022/09 – Lot 2). This step has been partially completed. The second step is to estimate a median value of the survey parameters for a defined scenario, which expresses experts' uncertainties. This estimation guides the surveyor in setting the parameters for their specific situation. Moreover, the expert selection process as well as the questions they must answer during the EKE were explained.

The call "Statistical and experimental protocols for estimating pest survey parameters" ([EUBA-EFSA-PLANTS-2024-01](#)) was mentioned and proposed to the Network members for potential collaboration, along with the possibility of involving experts from their organisations. The purpose of this call is to provide validated protocols to support the MSs in the estimation of the survey parameters required for designing robust pest surveys that are statistically sound and risk based. The deadline for application is the 4th of July 2024.

15. Plant Health Campaign

Daria Rzepecka presented the second PlantHealth4Life Campaign. As plant pests and diseases can affect food availability and lead to economic, social, and environmental losses, this campaign, led by EFSA, the EC, and 22 European countries, aims to raise awareness of the links between plant health and our everyday lives, as well as to



stimulate citizen action to protect plant health. The key messages are: travel responsibly (don't bring plants home), shop responsibly and talk about plant health with your children.

16. Any Other Business

The Chair introduced the topic of the next Network meeting, scheduled for 23-24 October 2024. The 4th Network meeting will focus on the new EFSA statistical tool, OptiPest. This tool aims to design a survey for multiple pests simultaneously in one specific crop to minimize the number of samples and lab effort. It does this by selecting the optimal month for sampling and considering monthly capacity constraints.

Moreover, as several topics concerning survey methodology were the subject of numerous questions from Network members, the Chair decided to create sub-groups to discuss these topics before the next Network meeting. The following topics were suggested by the Network members:

- 1) Forum on statistics related to the design phase
- 2) Ecoclimatic regions
- 3) Compulsory statistically-based surveys (e.g., *Anoplophora chinensis*, *Popillia japonica*, etc.): to see examples from other MSs, how to report to EC, sharing assumptions, and open-up discussion

These sub-groups will present the results of their discussions at the next Network meeting.

In addition, the Chair mentioned that the Plant Health Monitoring Team is recruiting two new Seconded National Experts, and one of the positions is available immediately.

17. Conclusions

The Chair concluded the meeting, thanked the participants and asked for suggestions on topics for the next meeting.