Network on Risk Assessment in Plant Health
Minutes of the 12th meeting

Held on 6-7 December 2017, EFSA, Parma, Italy

(Agreed on 24 January 2018)

Meeting Participants	
Network Representatives of EU Member States and Norway	
Country	**Name**
Austria	Sylvia BLUEMEL
Belgium	Kristien BRAEKEN
Bulgaria	Irena BOGOEVA
Croatia	Dario IVIC
Denmark	Anne Christine HELMS
Estonia	Birger ILAU
Finland	Salla HANNUNEN
France	Nathalie VIGUERIE
Germany	Gritta SCHRADER
Greece	Athanasios LANGKOURANIS
Hungary	Gabor HOLLO
Ireland	Oliver MCEVOY
Luxembourg	Monique FABER-DECKER
Malta	Marthese LICARI
Netherlands	Dirk-Jan VAN DER GAAG
Norway	Micael WENDELL
Poland	Tomasz KALUSKI
Slovakia	Katarína BEŇOVSKÁ
Slovenia	Anita BENKO BELOGLAVEC
Spain	Gerardo SÁNCHEZ PEÑA
Sweden	Kristof CAPIEAU
United Kingdom	Richard MCINTOSH
Observers	
Switzerland	Peter KUPFERSCHMIED
European and Mediterranean Plant Protection Organization (EPPO)	Francoise PETTER
European Commission (DG SANTE)	Maria MIRAZCHIYSK Panagiota MYLONA
Hearing expert	
Salford University (UK)	Stephen PARNELL

EFSA STAFF	
AnimaL and Plant HeAlth Unit (ALPHA)	Ciro GARDI, Franco FERILLI, Giuseppe STANCANELLI, Maria Rosaria MANNINO, Marco PAUTASSO, Nikolaus KRIZ, Ramona Mihaela CIUBOTARU, Sybren VOS (Chair)
Assessment and Methodological support Unit (AMU)	Olaf MOSBACH-SCHULZ

1. Welcome and apologies for absence

The Chair welcomed the participants.

Apologies were received from Anthemis MELIFRONIDOU (Cyprus), Vaclav STEJSKAL (Czech Republic), Jón GUÐMUNDSSON (Iceland), Bruno FARAGLIA (Italy), Liga GRISANE (Latvia), Silvija PUPELIENE (Lithuania) and Paulina GABOR (Romania).

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations on Interest

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes and the Decision of the Executive Director on Declarations of Interest, EFSA screened the Annual Declaration of Interest filled in by the Network 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. Agreement of the minutes of the previous meeting

The minutes of the 11th meeting of the Network were adopted on the 07th of December 2017.

Topics for discussion

5. Items suggested by the Member States

5.1 Pest control in organic farming in Bulgaria (Irena Bogoeva, Ministry of Agriculture, Food and Forestry, Bulgaria)

The Bulgaria representative provided an overview of the pest control in organic farming in Bulgaria explaining the main features and benefits of the farming system and emphasizing its importance for the development of agriculture in Bulgaria.

The efforts made by the Ministry of Agriculture, Food and Forestry to promote organic farming were presented, as well as the increase of the organic production in the recent years. The main crops cultivated in Bulgaria and the pest control in the organic farming sector were described.

5.2. A real risk assessment method used for targeting surveys in Finland (Salla Hannunen, EVIRA)

The Finish representative of the Network presented a risk assessment method used for targeted surveys. The method aims at identifying locations where the general likelihood of a pest invasion is high and is based on factors that may have a co-directional effect on all pests.

The approach uses the grid cells to simulate the invasion of the pest taking into consideration the location of production sites, the spread behavior and the ability of the pests to survive without host plants. These parameters are further used to index the relative likelihood of pest invasion for each grid and will help to determine the rank of the locations according to the probability distributions of risk indices.

5.3. The Dutch surveillance system (Dirk Jan van Gaag, NVWA the Netherlands)

The Dutch representative presented how the plant pest surveillance is organized in Netherlands. The main objectives of the system are to determine the pest status, to confirm the eradication of a quarantine pest and to detect an outbreak at an early stage.

The program focuses on the surveillance of imported commodities. In particular, harmful organisms, risk locations and commodities are targeted for the survey. The Dutch surveillance program enabled the detection of several outbreaks and infestations and some examples of findings were shown.

6. Surveillance

6.1 Surveillance planning: an example from citrus orchards (Stephen Parnell, Salford University (UK))

The surveillance system for the early detection of Huanglongbing disease (Citrus Greening) within the citrus orchards in USA was presented.

The main features of the quarantine surveillance program were presented stressing the objectives: prevalence estimation (in Florida) and detection (in California and Texas).

A statistical and epidemiological basis to surveillance was described for the eradication program of citrus canker. The eradication strategy of the pest should be designed considering the spread rate of the infections within a citrus orchard. The speaker highlighted the importance of the early detection for achieving a successful eradication.

The need to detect new and emerging risks as well as the early detection of known threats imposes a risk-based sampling and targeting at highest risk areas/sites. USA surveillance program in citrus orchards recommended the use of stochastic optimization /machine learning to find the best set of locations to sample for early detection.

6.2. Work plan of EFSA PLH mandate on surveillance

Discussion on pilot projects for developing survey guidelines

The European Commission requested EFSA pursuant to Article 31 of Regulation 178/2002/EC to provide scientific and technical advice to the EU Member States (MS) on survey guidelines with extra focus on prevention and risk targeting.

In this context EFSA will provide fit for purpose practical tools including:

- About 50 pest survey sheets that provide the data and information required to perform the survey design; (first half to be delivered in 2018 and the second d half in 2019)
- survey design and guidelines for three pilot cases to be developed in collaboration with the MSs and delivered by end 2019; the need for extending the work to the other organisms will be assessed with the requestor of the mandate at the end of this period.

Additionally, EFSA will test and tailor to Plant Health the sampling tools available and currently used routinely in other field (e.g. Animal Health) and support the MSs on their use for the annual national surveillance activities:

- SAMPELATOR for sample size estimation for measuring the pest prevalence
- RIBESS+ for sample size estimation for demonstrating pest freedom

Currently a technical report is under preparation describing a detailed work plan for addressing the different tasks of the mandate and the methodological approaches for developing the sampling strategies. The report will be circulated to the European Commission and the Network Members for their comments in the near future.

The basic concepts considered for the survey design are the target population, the epidemiological units, the detection and diagnostic methods, the design prevalence regarding the acceptability of the risk and the confidence levels.

During the discussions the Network members highlighted the importance of having practical tools and targeted support for the surveillance activity. Also some participants mentioned that in their views the sample sizes calculated based on statistically sound approaches could result in survey designs not achievable considering the current available resources. In this sense EFSA highlighted the importance of optimizing the sampling based on the risk based and relative risk approaches. For optimizing the survey plan, it was mentioned that the time needed to perform inspections should be taken into account, e.g. it is better that an inspector spends more time at one location (observing more plants per site) than to visit several productions sites during the same time (but observing less plants per site).
EFSA indicated the importance of involving the MSs in the development of the surveillance project for achieving realistic and fit for purpose outputs.

6.3. Break out session on pilot organisms

The objective of this session was to involve the network members and assist EFSA in the choice of the pilot organisms for developing the survey guidelines.

The list of plant pests provided by the European Commission in the request to EFSA was distributed to the network members for discussing the possible choices of the three pilot organisms. The meeting participants were organised in four groups corresponding to four different geographic areas: Northern Europe, Central Europe, Eastern Europe and Mediterranean Europe. Each group discussed the criteria for choosing the pilot organisms including:

- the aims of the surveillance (early detection/pest freedom and pest prevalence)
- pest characteristics (hosts, mono/polyphagous, vector role)
- knowledge (risk assessment, detection methods, diagnostic tests)
- generalizability and reproducibility of the procedure for other pests

6.4. Reporting from breakout session & discussion

Network members requested some clarifications on their involvement in the surveillance project and EFSA indicated the need to involve MSs expertise in the development of the pilot survey guidelines for having a statistically sound approach using MSs experience and knowledge in surveillance and for trying to harmonise the activity allowing to compare results across EU. In this context the MSs involvement in the EFSA working groups developing the guidelines for the pilot organisms was discussed.
The list of pests annexed to the Mandate (EFSA-M-2017-000137) was commented and several participants suggested to amend it based on the real needs of the MSs at least for the second batch of pest survey sheets to be developed in 2019.

As a result of the brainstorming exercise in the breakout sessions, it was suggested to also consider the following criteria when choosing a pilot organism for developing surveillance guidelines:

- Importance of the pest: Pest pressure (trade), main crops (production)
- Difficulties for the assessment: Uncertainties, complex, diverse, no existing guidance
- Potential plant health crisis: Unexpected, fast, many hosts, big impact
- Diversity of the organisms: Pests, hosts

For each geographical region, three organisms were suggested by each group for complying to the set of selection criteria under scrutiny:

Northern Europe

- *Synchytrium endobioticum*
- *Bursaphelenchus xylophilus*
- *Candidatus liberibacter solanacearum*

Central Europe:

- *Agrilus planipennis*
- *Geosmithia morbida* and its vector *Pityophthorus juglandis*
- *Anoplophora glabripennis*

Mediterranean Europe

- *Toxoptera citridus*
- *Phyllosticta citricarpa*
- *Agrilus planipennis*

Eastern Europe: the group discussion focused more on the selection criteria of a pilot organism then on the suggestion of pilot organisms.

EFSA indicated that this list of organisms will be considered in terms of available information, expertise and overlap with other EFSA PLH activities (Pest categorisation, Pest prioritisation) for choosing the pilot pests for developing the surveillance guidelines.

7. EFSA Plant health activities 2017-2020: overview and introduction to Poster session

During a poster session, EFSA provided an update on the EFSA Plant Health activities and ongoing mandates since the last Network meeting in November 2016.
15 posters presented the EFSA recent and/or ongoing activities on

- the pest categorisations with several examples of organisms,
- activities on *Xylella fastidiosa* including the host plant database and the 2017 *Xylella conference* in Palma de Mallorca*,*
- the evaluation of a recent paper on *Phyllosticta citricarpa*
- the EFSA –EC Joint Research Center collaboration on the methodology for developing a EU list of priority pests,
- the new quantitative methodology for pest risk assessment and the importance of the PLH Network contribution in the public consultation process scheduled by end of January 2018, and
- the media monitoring for plant health threats and the possibility for the public to create a daily subscription to the email alert system

During the discussions many participants highlighted that the poster session was very much appreciated making the discussions more interactive. It was suggested for the next meeting to introduce a poster session with a short oral presentation (1 minute) for each poster.

8. Horizon scanning

8.1 Media and scientific literature monitoring for Plant Health

Following a request from the European Commission, in January 2017 EFSA started a project on Horizon Scanning in Plant Health. The aim of this project is to improve the EU crisis preparedness in addressing plant health threats, identifying the relevant information on pests that might be of concern for the EU territory.

The activities, carried out in collaboration with the EC Directorate General Joint Research Centre (JRC), focus on the screening of media, and scientific literature using the IT platform of MediSys. MediSys stands for media monitoring system providing event based surveillance to rapidly identify potential public health threats using information from media reports. Currently, around 350 pests listed in the EU plant health legislation and emergency measures and listed by EPPO (A1/A2/Alert Lists) are being monitored. Specific categories have been defined to also allow the selection of articles on new pests that could present a risk for the EU territory.

The main output of the project is the monthly newsletter that consists of the collection of news and articles from the media. This monthly newsletter is shared with the European Commission and Member States representatives for discussion at the monthly meetings of the PAFF committee.

In the IT platform of MediSys, a section dedicated to Plant Health has been created where it is possible to consult the articles automatically retrieved, to subscribe and to customise an e-mail alert for receiving with a defined frequency the links to the articles retained by the system. Moreover, specific webpages have been designed to display in real time on a world map the articles selected by the tool related to pests of concern for the EU.

The main issues reported in the latest editions of the newsletter (7th and 8th editions) were presented. They mainly covered press articles about *Spodoptera frugiperda*, *Agrilus planipennis*, *Xylella fastidiosa*, Huanglongbing disease. Also pests that could be regarded as emerging threats, not listed in the EU legislation and in the EPPO lists, were discussed and included in the newsletters.

EFSA mentioned a possible involvement of the plant health Network in the Horizon Scanning newsletter, indicating that this activity still needs to be further defined.

8.2 Tools under development:

EFSA explained how articles are automatically selected from media using the predefined categories and specific keywords for inclusion (e.g. scientific and common names of the pests) and for exclusion. The criteria for screening the selected articles and the interface allowing the addition of links into the newsletter were also presented. The main advantages and difficulties in the use of the platform were discussed. In this context, EFSA acknowledged the contribution of the MSs in providing the common names of the harmful organisms in their national languages.

In the course of 2018, some new features will be added to the monthly newsletter:

- the scope of the newsletter (currently covering only the media) will be extended to the automatic scientific literature monitoring;
- the ranking of new pests identified through the media and scientific literature monitoring, for which a specific method will be developed in cooperation with ANSES (FR);
- the newsletter format will be improved, applying a visual Icon system for the main pest issues identified. The icons will be tested already in the December 2017 pilot newsletter.

8.3 Discussions

The Network members discussed the Horizon Scanning project.
The speaker addressed questions on the methodological approach used for the Media Monitoring, in particular regarding the information screening and extraction processes and the sources of information included in the MEDISYS platform. The advantages of the automated monitoring systems for media and literature search were discussed, also explaining that similar concepts (e.g. ontologies developed for 350 pests) could be applied.
EFSA clarified that the media monitoring conducted by EFSA does not have any overlap with the EPPO Reporting Series, as EPPO is not reporting in its Series any media news. The methodological approach used in the EFSA Horizon Scanning project is also substantially different from that adopted by EPPO for the edition of the EPPO Reporting Service as it based on the automated scanning of sources for the last more recent period. EFSA has presented these activities to EPPO and proposed to EPPO to start collaboration. With regard to literature automated monitoring this activity is not yet started but it will be done on the same JRC platform. On this regard, EFSA and EPPO agreed to review further the issue after the literature automated monitoring by EFSA has been piloted. This prevents or limits the risks of overlap of EFSA and EPPO activities, issue raised during the discussion.
The European Commission representative indicated that in the request to EFSA the aim is to complement and improve the existing tools and systems and to tailor them to the EU and MSs risk manager's needs.
Following the presentation of EFSA's monthly newsletter on horizon scanning, it was suggested, that from the risk management perspective, the inclusion of a section providing an interpretation of the main information, indicating the possible implications to the EU territory, could really be an added value. Regarding the accessibility of the newsletter, it was mentioned that the publication of an executive summary on EFSA website for the general public and a more detailed report and analysis for presentation at the PAFF Committee meetings could be considered in the communication strategy.
Collaborations with international organisations, national authorities and academic plant health institutions are currently being sought for this project.

9. Any other business

9.1 Proposed topics and structure for next meetings

The network members suggested to adopt a similar structure in the next annual meeting focussing the meeting on selected topics of major interest for the MSs and providing a more detailed update on progress in a poster session for example. The participants appreciated the active involvement in the discussions and proposed EFSA to share more information earlier in time to better prepare for the meeting.

9.2 Next meetings: dates and venues

EFSA suggested scheduling the 13th PLH Network meeting in Parma in October 2018. The exact dates will be communicated later.

10. Meeting closure

The Chair closed the meeting.