EFSA ALPHA Unit Plant Health activities 2017-2020

64th Advisory Forum Meeting, EFSA, 8-9 June 2017

Giuseppe Stancanelli
EFSA – Animal and Plant Health (ALPHA) Unit

efsa
European Food Safety Authority

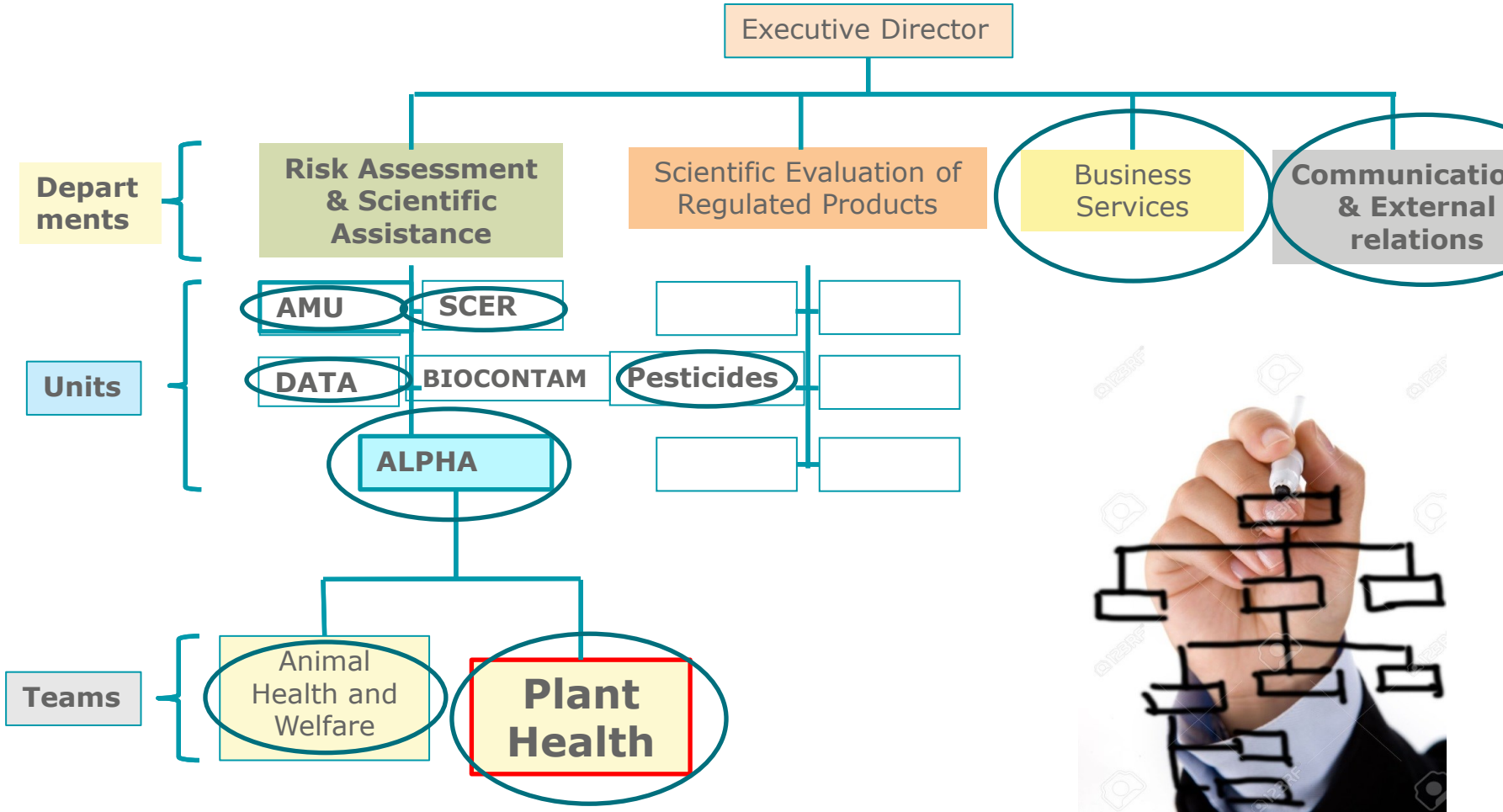
OUTLINE

1. Plant Health at EFSA
2. Main ALPHA plant health activities

- Support to outbreaks /global threats
- Horizon scanning for plant pests
- Plant health pesticides derogation
- Other and future tasks

PLANT HEALTH AT EFSA: PLH TEAM & CO.

Deals with organisms posing a risk to plant health threatening **crop production** and **biodiversity** in the EU



SUPPORT TO PLH PANEL IS CORE ACTIVITY

Objectives

- Provision of high-quality, independent and transparent **scientific advice to EU risk managers**
- Contribution to development of **science-based approach for phytosanitay pest risk assessment**

PLH Panel (4th term 2015-2018)

21 members of 10 different nationalities from academia, research and national authorities

(experts on plant pathology. bacteriology, virology, entomology, acaralogy, nematology, ecology, invasive plants, IPM, modelling, epidemiology, surveillance …)

COOPERATION WITH MS : PLH NETWORK

- 28 EU MS, Norway and Iceland,
- Switzerland, candidate countries, EPPO

- Objectives:
  coordinating activities
  exchanging information
  developing and implementing joint projects, and
  exchanging expertise and best practices

- Major issues on the agenda:
  - **Data collection and sharing**
  - **Harmonisation of methodologies**

https://www.efsa.europa.eu/en/plant-health/networks

EFSA COOPERATION WITH EPPO (EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANISATION)

Joint EFSA-EPPO Workshop on 'Data collection and information sharing in plant health', April 2014

Joint EFSA-EPPO Workshop on 'Modelling in Pest Risk Assessment', 12-14 December 2016

- Exchange of annual work programme
- Participation to meetings as observers

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EFSA OUTPUTS ON *XYLELLA* FROM 2013

1.EFSA, 2013. Statement of EFSA on host plants, entry and spread pathways and risk reduction options for *Xylella fastidiosa* Wells et al. EFSA Journal 2013;11(11):3468 [50 pp.]

2.EFSA, 2015a. Categorisation of plants for planting, excluding seeds, according to the risk of introduction of *Xylella fastidiosa*. EFSA Journal 2015;13(3):4061 [31 pp.]

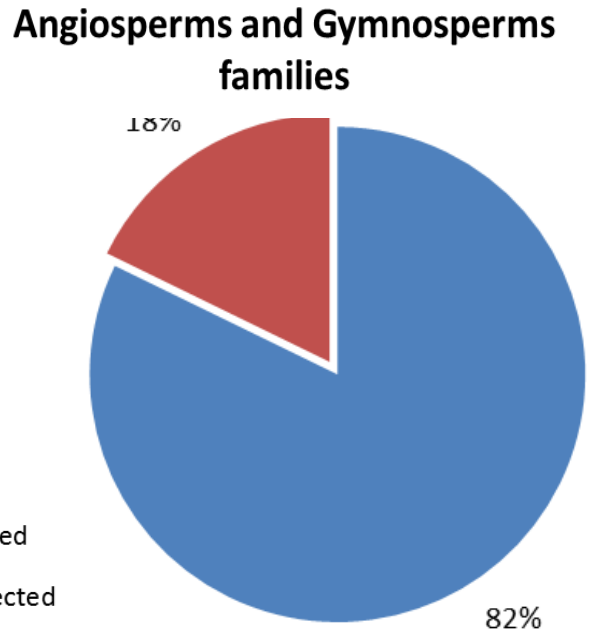
3.EFSA, 2015b. Response to scientific and technical information provided by an NGO on *Xylella fastidiosa*. EFSA Journal 2015;13(4):4082 [13 pp.]

4.EFSA, 2016. Scientific report on the update of a database of host plants of *Xylella fastidiosa*: 20 November 2015. EFSA Journal 2016;14(2):4378 [40 pp.] Excel Database

5.Saponari et al., 2016. Pilot project on *Xylella fastidiosa* to reduce risk assessment uncertainties. EFSA supporting publication 2016:EN-1013 [60 pp]

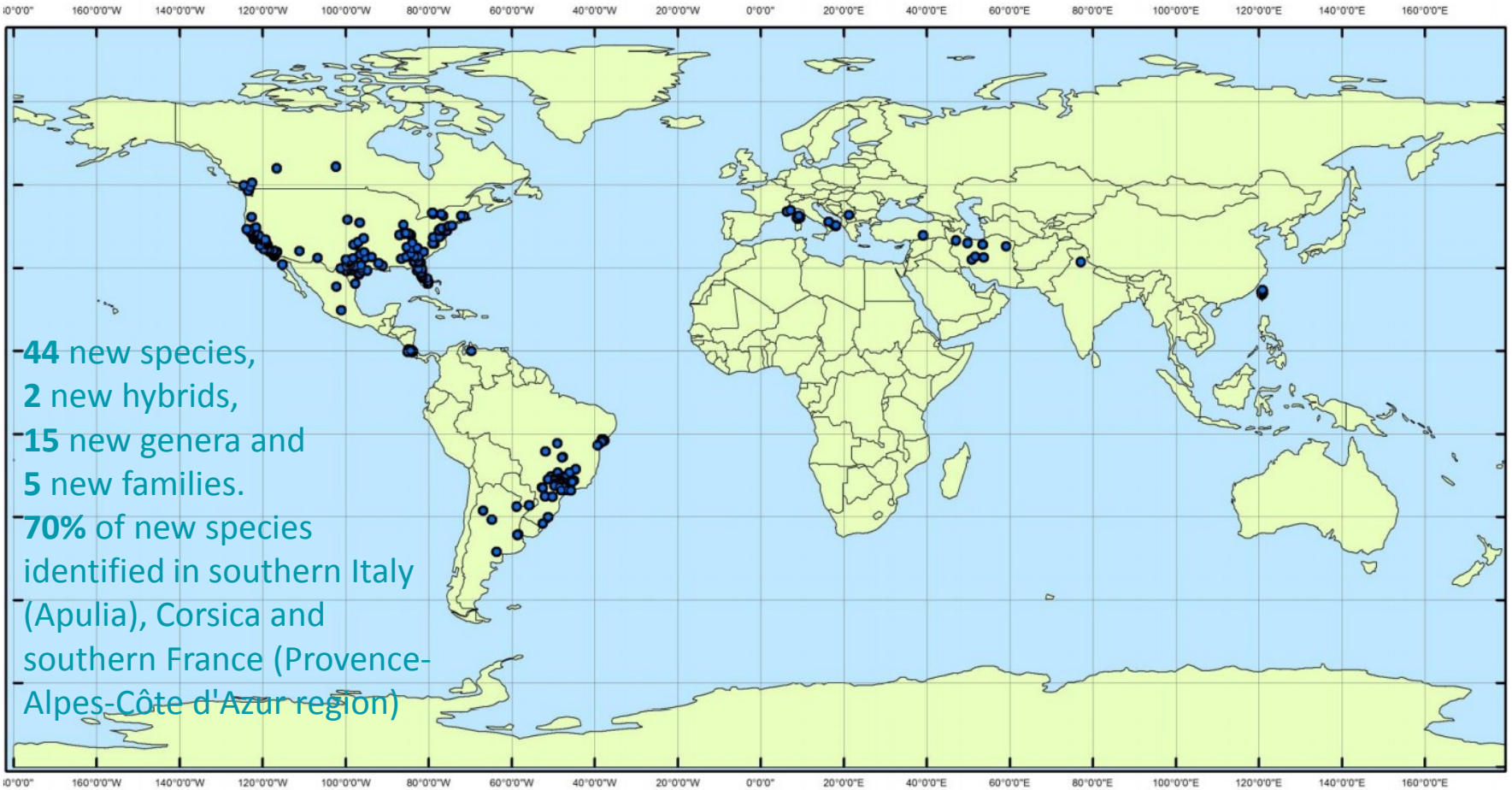
6.EFSA (European Food Safety Authority), 2016. Workshop on Xylella fastidiosa: knowledge gaps and research priorities for the EU. EFSA Supporting Publication 2016; 13(6):EN-1039. 74 pp. doi:10.2903/sp.efsa.2016.EN-1039

7.EFSA (European Food Safety Authority), Baù A, Delbianco A, Stancanelli G and Tramontini S, 2017. Statement on susceptibility of Olea europaea L. varieties to Xylella fastidiosa subsp. pauca ST53: systematic literature search up to 24 March 2017. EFSA Journal 2017;15(4):4772, 18 pp. doi:10.2903/j.efsa.2017.4772



XYLELLA FASTIDIOSA GLOBAL HOST PLANTS DATABASE

359 plant species (naturally and experimentally infected hosts) from **204** genera and **75** botanical families.



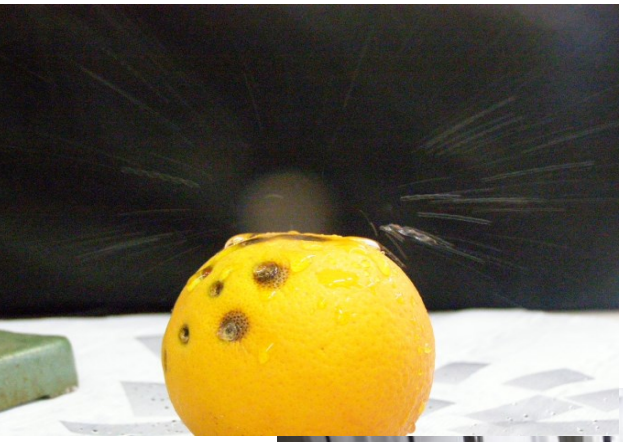
X. fastidiosa new host species distribution (EFSA, 2016)

NEW UPDATEs SEPTEMBER 2017-2020

OLIVE VARIETIES SUSCEPTIBILITY TO *X. FASTIDIOSA* ST53 (EFSA MARCH 2017)

- limited information on tolerance/resistance of olive varieties
- **converging evidence on cv. Leccino tolerance to the Apulian strain infections**
- **Preliminary** (1 single orchard) **interesting results** on **rootstock FS17**
- Additional sources of resistance to become available in the coming years from EUH2020 research efforts (more than 300 varieties screened)

EFSA OUTSOURCING TO REDUCE KNOWLEDGE GAPS



Perryman and West, 2014. Splash dispersal of ***Phyllosticta citricarpa*** (the Citrus black spot fungus) conidia from infected citrus fruit. Nature – Scientific Reports4 : 6568 | DOI: 10.1038/srep06568

Saponari et al., 2016. Pilot project to investigate host range of the Apulian strain of ***X.fastidiosa***

Biology and control of ***X. fastidiosa*** **vectors** and potential vectors. CNR (IT), 2016-2018

NEW PLANT HEALTH EFSA THEMATIC GRANT

EFSA Thematic grant call for proposals in the area of airborne plant pathogens.

Smart monitoring of airborne plant pathogens: advances in aerobiology, and molecular diagnostics and remote sensing to support risk-based plant health surveillance in the EU

Eligible applicants from list of competent MS Organisations

Deadline for proposals: **25 October 2017**

http://www.efsa.europa.eu/en/art36grants/article36/170502-0

NOVEMBER 2015: EFSA WORKSHOP ON XYLELLLA

Xylella fastidiosa: knowledge gaps and research priorities for the EU

12-13 November 2015, Brussels

https://www.efsa.europa.eu/it/events/event/151112a

Plenary sessions (web-streamed)

4 break-out sessions :

I. Surveillance and detection.
II. The vectors: identity, biology, epidemiology and control.
III. The plants: host range, breeding, resistance and certification.
IV. The pathogen: biology, genetics, control.

European Commission DG RTD mandate

NEXT EVENT ON XYLELLA

European conference on *Xylella fastidiosa*: finding answers to a global problem

Palma de Mallorca, 13-15 November 2017

organised jointly by:

- **EFSA**
- **University of the Balearic Islands**
- **Euphresco** network for phytosanitary research coordination and funding
- EU Horizon 2020 projects **POnTE and XF-ACTORS**

Call for abstracts till **31 May 2017**

https://www.efsa.europa.eu/en/events/event/171113

early-career researchers **opportunities**

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HORIZON SCANNING FOR PLANT PESTS: THE PROJECT

Aim of the project

Improve EU preparedness in addressing Plant Health threats

Mandate received on 19th December 2016

« Request to provide a scientific and technical assistance on a horizon scanning exercise in view to crisis preparedness on plant health for the EU territory »

Content

Identify relevant information on pests that might be of concern to the EU territory

Screening of

- *Media*
- *Scientific literature*
- ***JRC collaboration , Medysis Tool***

Previous EFSA-funded project (2014-2016): development and testing of the media monitoring tool MedISys for the monitoring and reporting of plant health threats (JRC, IRTA, Universitat de Lleida)

HORIZON SCANNING FOR PLANT PESTS: STEP APPROACH

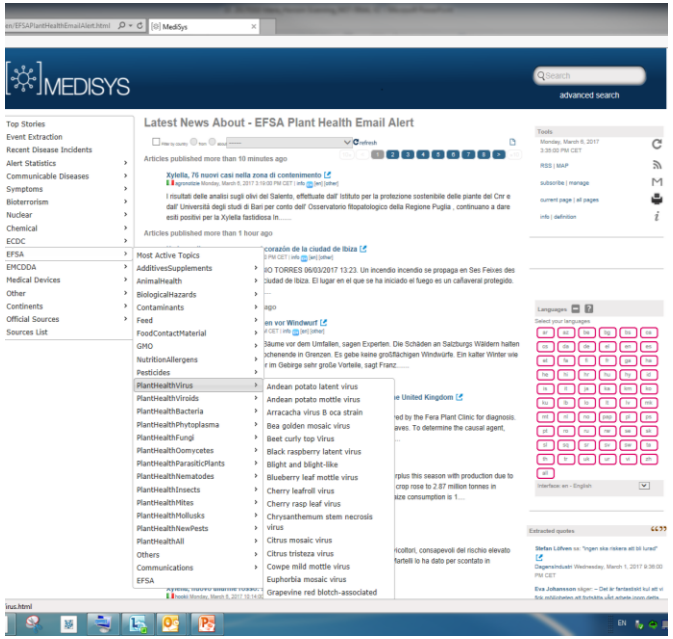
Planned work - Three steps

Media monitoring	Development phase: February - May 2017	**First test newsletter on March 2017 (listed pests*)**
Literature monitoring	Development phase: March – December 2017	**First test newsletter on July 2017 (listed pests*)**
Risk-based pest ranking	Methodology developed in parallel	**First proposal for ranking by May 2017**

*Listed in annexes IAI, IAII, IIAI of Council Directive 2000/29/EC, EU emergency measures and EPPO Alert List

HORIZON SCANNING FOR PLANT PESTS: THREE OUTPUTS

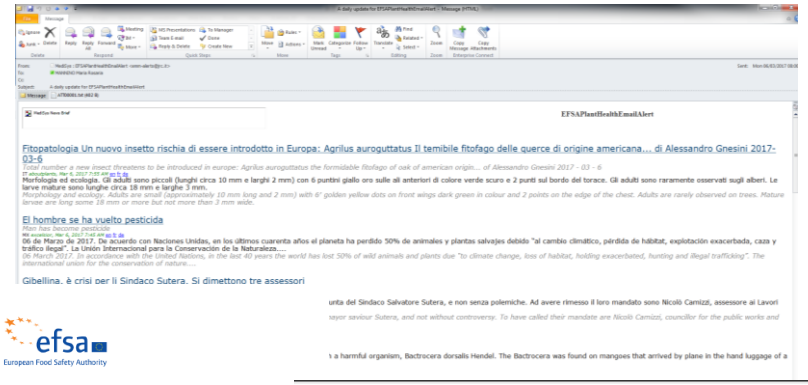
EFSA Plant Health webpage on Medysis



EFSA Plant Health Monthly Newsletters

(media and scientific literature)

Daily E-mail automatic alert



EFSA Newsletter on Plant Health
Second pilot Edition – May 2017

Friday, 12 May 2017

Following a request from the European Commission[1], EFSA provides here the second pilot edition of a monthly newsletter summarising its media monitoring activity in plant health. The aim is to identify relevant information on plant pests that might be of concern to the EU territory and therefore may require consideration by risk assessors and risk managers.

Media are screened using the MediSys (Medical Information System) IT platformThe topics covered include the media articles published on the plant pests listed in Annexes IAI, IAII, IIAI of the Council Directive 2000/29/EC[2], in EU emergency measures and in the EPPO Alert List,but there is also a new section on pests not listed.

This second pilot edition of the newsletter covers the period from 27 March to 8 May 2017. During this period, from the screening of ca. 2,000 selected media 1,020 articles were found, out of which 126 relevant article links have been included in this newsletter. The selection of the relevant articles links has been made on the basis of the two following criteria:

- When duplicates (same article reported by different media) or different articles relating to the same event without additional information have been found, only the first publication was taken into account;
- Articles not referring to a plant health event, but selected by the tool because of the presence of a key word in the text, were excluded as non relevant.

This newsletter is composed by two main parts: 1) discussion of main issues reported in the media 2) links to the selected media articles on plant pests grouped by legislation and taxonomy.

Main issues in the second edition:

- ***Xylella fastidiosa* Wells, Raju, Hung, Weisburg, Parl & Beemer**
  (Gammaproteobacteria, Xanthomonadales, Xanthomonadaceae)

X. fastidiosa is still a highly discussed topic in Europe. The articles found cover the possibility of detection using remote sensing techniques, prevention and control of the pest and its vectors and status of outbreaks. Some articles refer to the findings and eradication in the buffer zone in Apulia (IT) and to the yet unconfirmed finding in the Czech Republic. Other media highlighted the concern from plant nursery industry in Apulia (IT) and in the Netherlands on the consequences caused by *Xylella* and the emergency measures, particularly about the closure of some *Vitis* nurseries in Lecce province. Many articles refer to on-going studies on resistance and tolerance of olive

[1] European Commission – Directorate General for Health and Food Safety, Request to provide a scientific and technical assistance on a horizon scanning exercise in view to crisis preparedness on plant health for the EU territory (M-2017-0012, EFSA-Q-2017-00037).
[2] Council Directive 2000/29/EC of 8 May 2000 on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community. Official Journal of the European Communities L 169, consolidated version of 01.01.2017, p. 1–176.

Annex I A I of the Council Directive 2000/29/EC
Insects, mites and nematodes

Spodoptera frugiperda

War on armyworms as ministry declares 'agric state of emergency' [fr] [de] **08.05.2017**
Parliament has been asked to declare an 'agricultural state of emergency' as an armyworm invasion puts a GHC560m agricultural project at 'serious' risk. Describing the invasion as requiring urgent response, the Agriculture Minister Dr Owusu Afriyie Akoto wants to rope in parliament to wage a war.... [more]

Plan d'action R&D contre le ravageur du maïs
Science and Development Network - Afrique Sub-Saharienne
[en] [de] **08.05.2017**
Researchers call for a strategy against armyworm
Un groupe de scientifiques estiment qu'une recherche sur l'interaction entre les modèles de vie des larves de la chenille légionnaire d'automne et le calendrier de pulvérisation d'insecticide est urgemment nécessaire pour lutter contre ce ravageur qui fait des dégâts dans les champs de maïs en Afrique. [more]

A group of scientists believe that research on the interaction between the life patterns of Fall Armyworm larvae and the insecticide spray schedule is urgently needed to control this damaging pest in maize fields in Africa.

Scientists stress interventions to contain Africa's armyworm invasion
Xinhuanet (English) [fr] [de] **05.05.2017**
Robust partnerships coupled with adoption of novel technologies and innovations alongside intensive public awareness campaigns are key to containing fall armyworms currently ravaging staple crops in several African countries, scientists have said. [more]

Minister urges graduates on armyworm research
The Observer - Uganda [fr] [de] **05.05.2017**
Christopher Kibanzanga, the state minister for agriculture, has implored institutions of higher learning, especially those focusing on agriculture, to tweak their syllabuses to allow students carry out more research on issues that affect farmers. [more]

Armyworm eats away Shs 300bn in maize exports
The Observer - Uganda [fr] [de] **05.05.2017**
Uganda will lose at least $70 million, about Shs 257.6 billion, in annual maize export earnings if the caterpillars eating away the crop are not tamed fast. Fall

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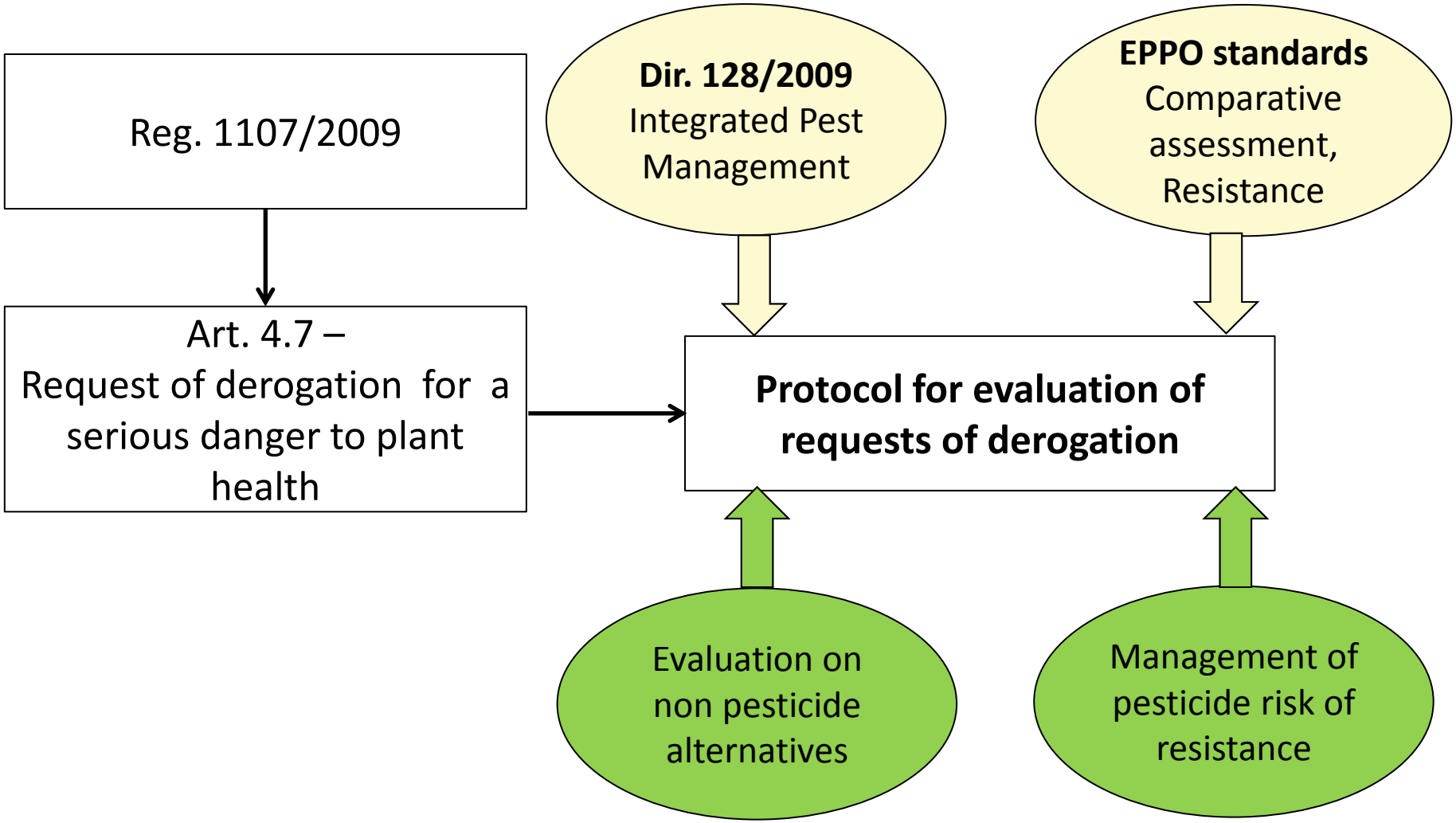
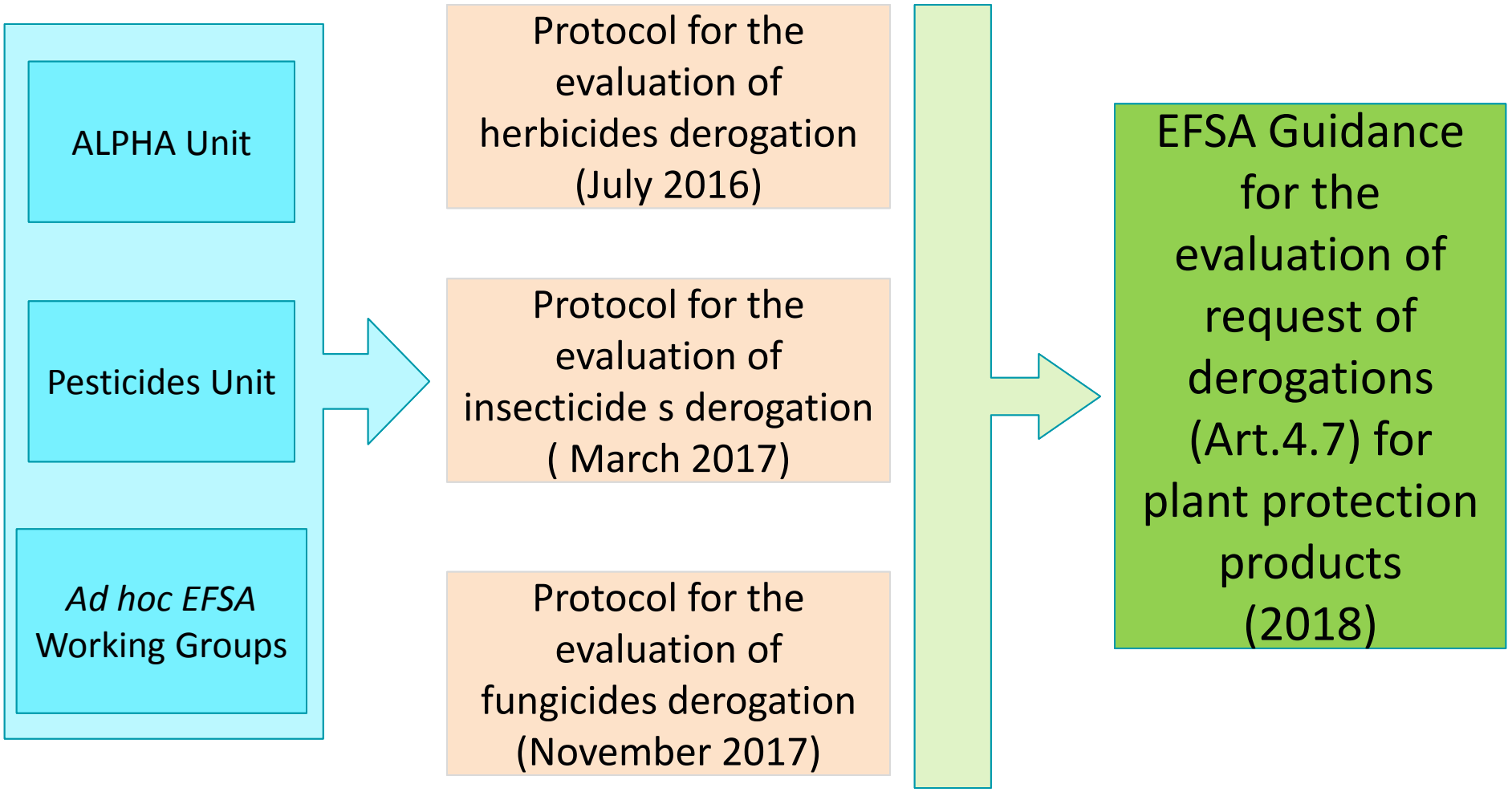
PROTOCOL FOR THE EVALUATION OF ART. 4.7 PLANT HEALTH DEROGATION REQUESTS



PROTOCOL FOR THE EVALUATION OF ART. 4.7 PLANT HEALTH DEROGATION REQUESTS



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EU APPLE PESTS DATABASE

Based on EC SANTE request to collect data and information on the pests of apple fruit present in the EU, EFSA:

1. Established data model(s) for the data collection
2. Outsourced
   - I. extensive literature search, of both scientific and technical/grey literature, for EU-28, completed for 12 pests
   - II. extraction of data and information relevant to PRA process
   - III. data submission to EFSA's Data Warehouse (EFSA DB)
3. Review and simplification of data model(s)

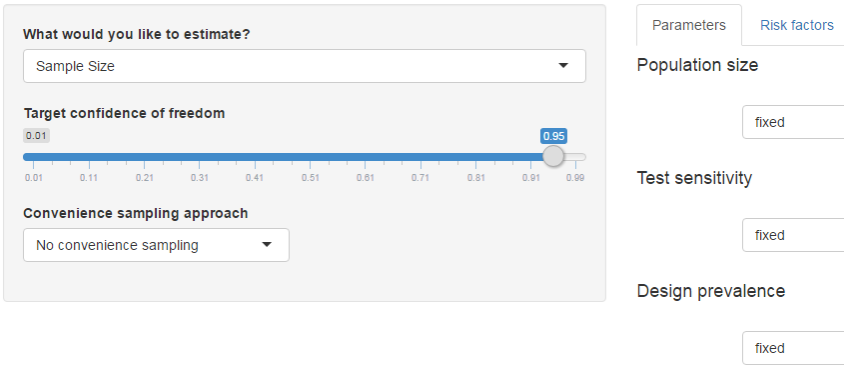
Next steps (mandate expected)

- Review of outcome and fitness for purpose
- Data collection for remaining pests

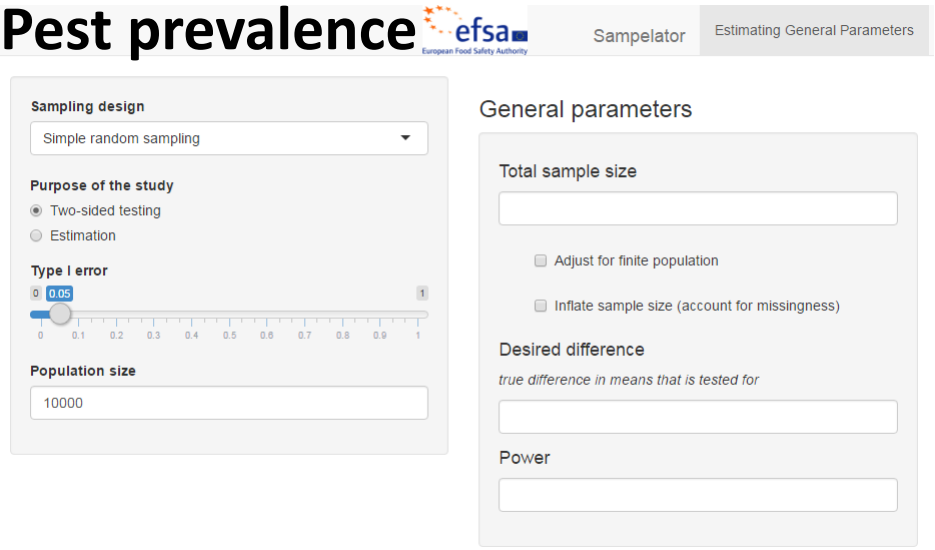
NEW EXPECTED TASKS ON SURVEY AND PRIORITY PESTS

- Pilot PLH use of EFSA online tools (already applied AHAW and BIOHAZ) with MS
- Develop plant pests survey guidelines

RiBESS+ **Pest Freedom**

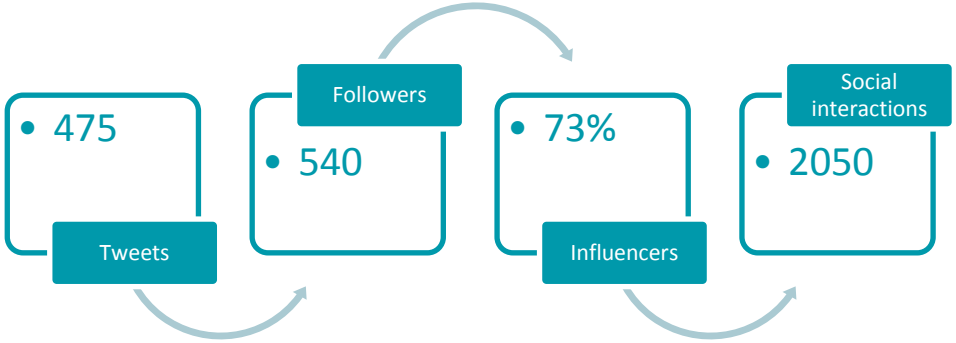


Pest prevalence



Technical support for ranking of candidate EU priority pests

SOCIAL MEDIA | COMMUNICATION



Xylella web space (under construction)

- *Xylella* host plant database
- story-maps:*Xylella, v*ectors, hosts and outbreaks
- Automatic feeds from media and literature monitoring
- dedicated events space
- EFSA publications on *Xylella*
- links to external research projects, websites, events

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