The European and Mediterranean Plant Protection Organization

&

Xylella fastidiosa

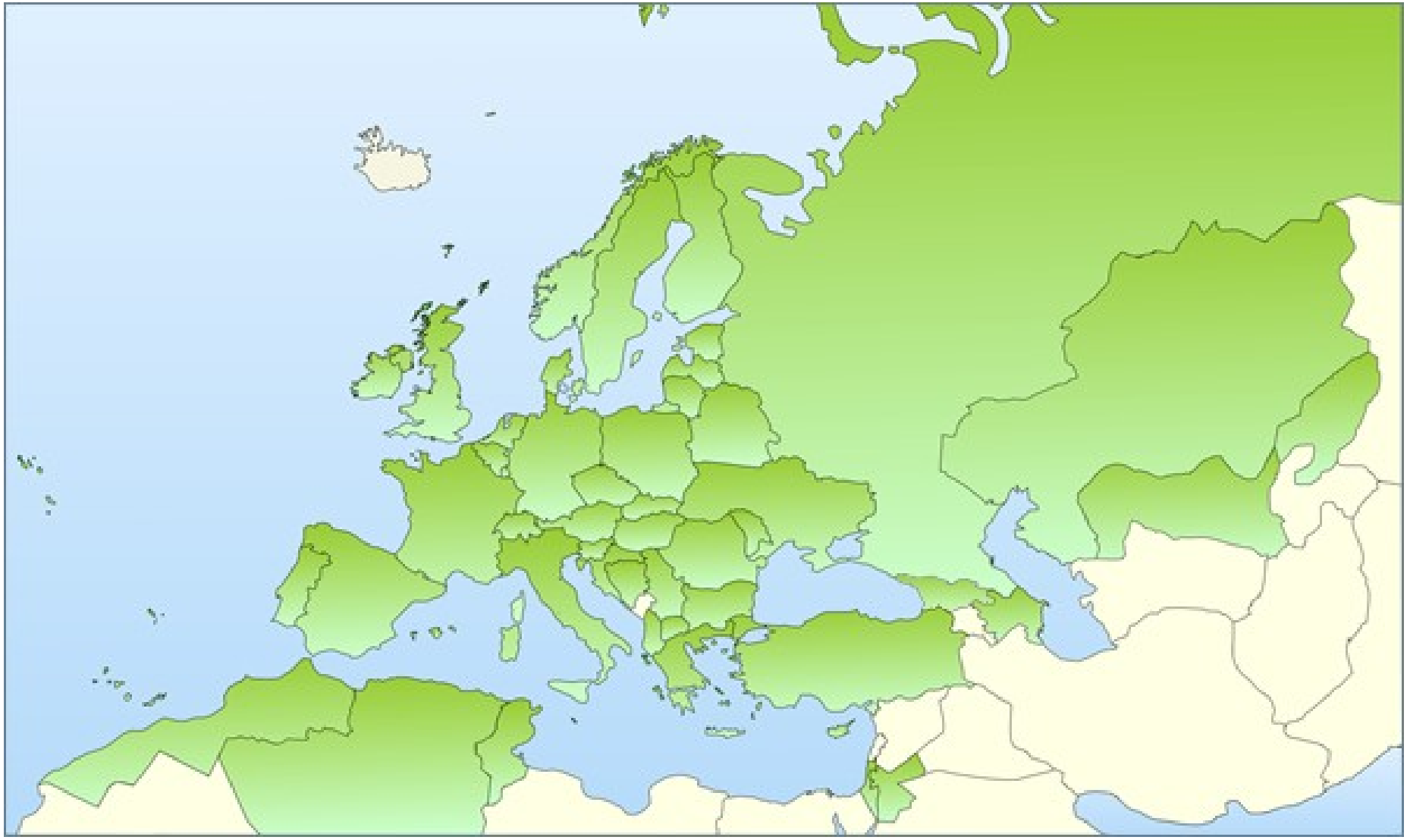
Event: High Level Meeting on *Xylella fastidiosa*

Date: 2017-12-01

Venue: Paris

Martin Ward (Director General) - hq@eppo.int

1951 Convention – 15 countries, now 51
1 of 10 Regional Plant Protection Organizations



Remit

- Quarantine Pests
- Regulated Non Quarantine Pests
- Efficacy of Plant Protection Products
- Invasive Alien Plants
- Biological Control Agents

by:

- Sharing information and expertise through networks
- Drafting and adopting regional technical standards
- Input to development of international standards

EPPO Work on Quarantine Pests

- Horizon scanning
- Sharing intelligence (monthly "reporting service")
- Public database of information on quarantine pests
  - distribution
  - host range
  - symptoms
  - assessments and reports
  - relevant standards
- Pest Risk Analysis and recommendations for regulation
- Diagnostic protocols
- Inspection standards
- Guidance on national control systems

EPPO and *Xylella fastidiosa*

- EPPO recommended *Xf* for regulation in 1981
- American vectors also recommended for regulation
- Basis was risks to vines and citrus
- Regular updates since through EPPO Reporting Service
- Wide host range but olive not at first foreseen as a potential major host

Since 2013 findings in Italy

- Rapid Pest Risk Analysis by EFSA (EPPO and EFSA co-ordinate on Pest Risk Analyses to avoid duplication)
- Revised EPPO Diagnostic Protocol
- New EPPO Inspection Standards

EPPO Diagnostic Protocol for *Xf - 1*

- EPPO Standard PM 7/24 first approved 2003
- Focus on citrus and vine
- Revision started December 2015
- EPPO Panel on Diagnostics in Bacteriology
- Expert Working Group
  - experts from AT, DE, FR, IT, NL, SI, ES
- Input from USA and Brazil experts
- Two Inspection Standards developed in parallel
  - inspection of consignments
  - inspection of places of production

EPPO Diagnostic Protocol for *Xf - 2*

- Revised EPPO Standard PM 7/24 (2) approved July 2016
- Revision included
  - new tests for infection in plant material and vectors
  - more descriptions and pictures of symptoms
  - more details of sampling and sample preparation
  - flow diagrams to take into account situations in different areas
- Two inspection Standards PM 3/81 and PM 3/82 approved September 2016
- Sampling approach in inspection standards aligned with requirements in diagnostic protocol

EPPO Diagnostic Protocol for *Xf - 3*

- Research continues
  - Two EU research projects - XF-actors, Ponte
  - Two Euphresco transnational research projects (23 and 10 partners respectively - Europe, N Africa, N America)
  - National research projects
- New information and experience on
  - determination of subspecies
- Research continuing on
  - asymptomatic material
  - vectors
  - culturing
  - new methods
- Third revision of PM 7/24 planned for early 2018; fourth revision to be initiated before summer 2018 when further information from projects is available

Xylella fastidiosa - not easy!

Sub-species

subsp. *fastidiosa*

subsp. *pauca*

subsp. *multiplex*

+ others

hard to culture

latent infection

vectors

More than 300 hosts

Olive

Vitis

Prunus

Polygala myrtifolia

Nerium oleander

Lavender

Coffee

Rosmarinus

… and ????

Validation of tests!

Symptoms, from EPPO Standards

Fig. 3 Leaf scorch symptoms on almond. Courtesy D. Boscia, CNR-Institute for Sustainable Plant Protection (IT).

Fig. 4 Scorch symptoms with distinct leaf burn surrounded by a dark line of demarcation between green and dead tissue. Courtesy P.M. Brennan University of Georgia (US).

Fig. 11 Symptoms of quick olive decline syndrome. Courtesy D. Boscia, CNR-Institute for Sustainable Plant Protection (IT).

Fig. 9 Leaf scorch symptoms on *Coffea* sp. Courtesy M. Bergsma-Vlami, NPPO (NL).

Fig. 19 Marginal leaf scorch symptoms caused by *Xylella fastidiosa* subsp. *pauca* on oleander. Courtesy D. Boscia, CNR-Institute for Sustainable Plant Protection (IT).

Fig. 20 Symptoms on *Polygala myrtifolia*. Courtesy B. Legendre, Anses, Plant Health Laboratory (FR).

Fig. 12 Symptoms of quick olive decline syndrome. Courtesy D. Boscia, CNR-Institute for Sustainable Plant Protection (IT).

Fig. 10 'Crespera' symptoms on *Coffea* sp. including curling of leaf margins, chlorosis and deformation (asymmetry). Courtesy M. Bergsma-Vlami, NPPO (NL).

EPPO Bacteriology Panel, Bari (IT), 2017-05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