



# Role of EPPPO in supporting inspection activities

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EPPO Secretariat



**Workshop for inspectors on tools available for inspection,  
York (GB), 2017-12-13/15**

# EPPO in a few words

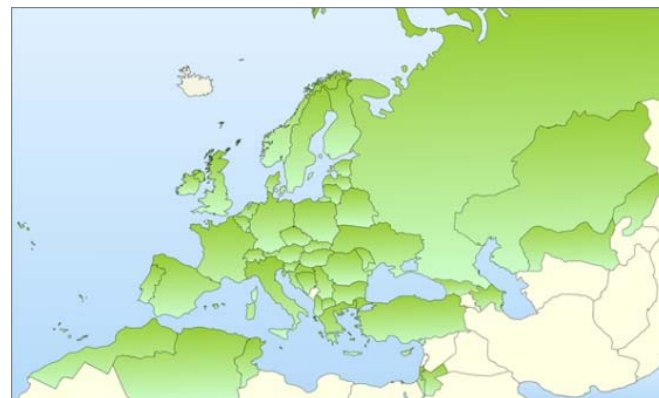
ONE OF 9 REGIONAL PLANT PROTECTION ORGANIZATIONS RECOGNISED  
UNDER THE INTERNATIONAL PLANT PROTECTION CONVENTION  
CREATED IN 1951  
NOW 51 MEMBER COUNTRIES

Remit set out in the EPPO Convention – in practice supporting member countries in particular in the areas of:

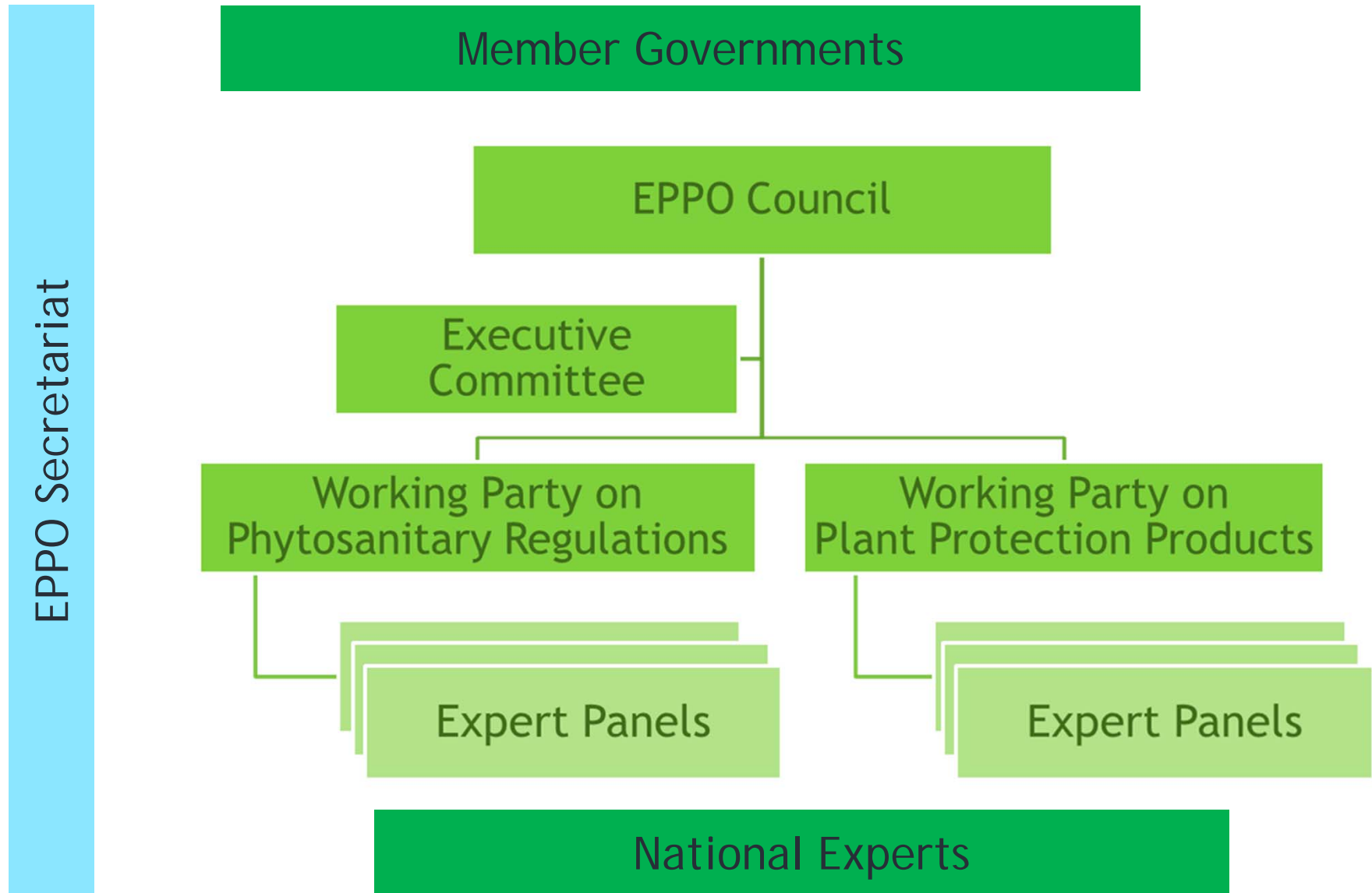
- Plant quarantine
- Efficacy of plant protection products
- Invasive alien plants
- Biological control agents

by:

- Developing and adopting **regional technical Standards**
- Disseminating information (**information services**)
- Input to development of international standards
- Facilitating networking in the region through Panel meetings, conferences, workshops.



# Organisation



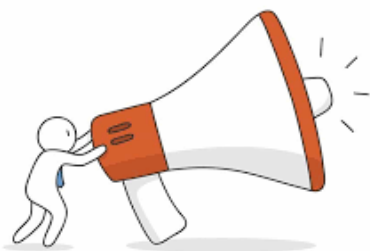
# EPPO activities in plant quarantine

- **Identification of potential risks: Early warning systems to identify emerging risks**
- **Evaluation of potential risks: Pest Risk Analysis**
- **Recommendations on pests which should be regulated as quarantine pests (EPPO A1 and A2 Lists)**
- **Preparation of Standards (e.g. official control standards, diagnostic protocols, inspection procedures....)**

**Provide information to EPPO members**



# Early warning/horizon scanning: the EPPO Alert List



**Provides early warning**

**Suggests possible candidates for Pest Risk Analysis but also alerts to target inspections**

## EPPO Alert List

(last updated in 2017-11)

The main purpose of the Alert List is to draw the attention of EPPO member countries to certain pests possibly presenting a risk to them and achieve early warning. Pests are marked with an asterisk\* in the table below when a Pest Risk Analysis (PRA) is planned or under development within EPPO. The entry date corresponds to the date when the pest was added to the Alert List.

[Read a short introduction to the EPPO Alert List.](#)

[View information on previously listed pests:](#) in order to keep the Alert List reasonably short, pests are included on the Alert List on a temporary basis. Pests may be submitted to a Pest Risk Analysis (PRA), and depending on the results of this PRA they may be transferred to the [EPPO A1/A2 Lists of pests recommended for regulation as quarantine pests](#). For the other pests, after a certain period (usually 3 years), if the relevant Panels consider that sufficient alert has been given to the NPPOs, pests are removed from the Alert List.

**WHAT'S NEW**

- *Meloidogyne graminicola*
- *Meloidogyne ethiopica* and *M. luci*

Pest Names	Main host plants or habitats	PRA	Entry date
<b>Insects and mites</b>			
<a href="#"><i>Aleurothrixus trachoides</i></a> (Hemiptera: Aleyrodidae)	Polyphagous	*	2015-11
<a href="#"><i>Contarinia pseudotsugae</i></a> (Diptera: Cecidomyiidae)	<i>Pseudotsuga menziesii</i>		2016-01
<a href="#"><i>Gymnandrosoma aurantianum</i></a> (Lepidoptera: Tortricidae)	Citrus and other fruit crops		2017-03
<a href="#"><i>Massicus raddei</i></a> (Coleoptera: Cerambycidae)	<i>Quercus</i> spp., <i>Castanea</i> spp.		2015-03



# EPPO Reporting Service

- Monthly information report on events of phytosanitary concern.
- Focus: new geographical records, new host plants, new pests (including invasive alien plants), pests to be added to the EPPO Alert List, etc.
- Published in English and French.
- E-mailed to over 3800 recipients, and on website



ORGANISATION EUROPEENNE  
ET MEDITERRANEENNE  
POUR LA PROTECTION DES PLANTES

EUROPEAN AND  
MEDITERRANEAN  
PLANT PROTECTION  
ORGANIZATION

## EPPO Reporting Service

No. 2 PARIS, 2017-02

### General

[2017/028](#)  
[2017/029](#)

New data on quarantine pests and pests of the EPPO Alert List  
15<sup>th</sup> Congress of the Mediterranean Phytopathological Union: 'Plant Health sustaining Mediterranean Ecosystems' (Cordoba, ES, 2017-06-20/23)

### Pests

[2017/030](#)  
[2017/031](#)  
[2017/032](#)  
[2017/033](#)

First report of *Xylosandrus compactus* in France  
*Xylosandrus compactus* occurs in Lazio, Liguria, Sicilia and Toscana (IT)  
Addition of *Xylosandrus compactus* and of its associated fungi to the EPPO Alert List  
First report of *Paysandisia archon* in Germany

Receive the EPPO Reporting Service by e-mail

If you wish to receive the EPPO Reporting Service every month by e-mail:  
register with the [EPPO Electronic Documentation Service](#)  
(free automatic e-mail service)

# EPPO Global Database

Detailed information for more than **1600 pest species** of regulatory interest  
All functionalities of [PQR \(EPPO database on quarantine pests\)](#) have been transferred to EPPO Global Database.

## Pest-specific documents

- Data sheets
- Pictures
- Reporting Service
- Pest Risk Analysis

## Pest-specific Standards

- Diagnostic protocols
- National Regulatory control systems
- Phytosanitary treatments

## Diagnostic expertise

- Laboratories & Experts

## EPPO coding system

- Plant & pest names
- Elements of taxonomy
- EPPO codes

## PQR data

- Host plants
- Distribution lists & maps
- Categorization





## *Xylella fastidiosa* (XYLEFA)



Last modification: 2002-11-10

### MENU

- Overview →
- Distribution
- Host plants
- Host commodities
- Categorization
- Reporting
- Photos
- Documents

### Overview

#### Basic information

- EPPO code: XYLEFA
- Preferred name: *Xylella fastidiosa*
- Authority: Wells, Raju, Hung, Weisburg, Parl & Beemer



more photos...

#### Notes

Sequenced.

One of the "top ten" bacteria in molecular plant pathology

#### Taxonomy

- Kingdom Bacteria (1BACTK)
- Phylum Proteobacteria (1PROBP)
- Class Gammaproteobacteria (1GAMBC)
- Order Xanthomonadales (1XANTO)
- Family Xanthomonadaceae (1XANTF)
- Genus *Xylella* (1XYLEG)
- Species *Xylella fastidiosa* (XYLEFA)

#### Other scientific names

Name	Authority
Grapevine Pierce's disease agent	
<i>Xylella fastidiosa</i> subsp. <i>fastidiosa</i>	
<i>Xylella fastidiosa</i> subsp. <i>piercei</i>	

#### Common names

Pest specific information  
is stored in  
EPPO Global Database  
(<https://gd.eppo.int>)



# Information on pest distribution

Geographical distributions  
with sources

*Spodoptera frugiperda* (LAPHFR)

Last updated: 2017-12-06

## MENU

- Overview
- Distribution →
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## TOOLS

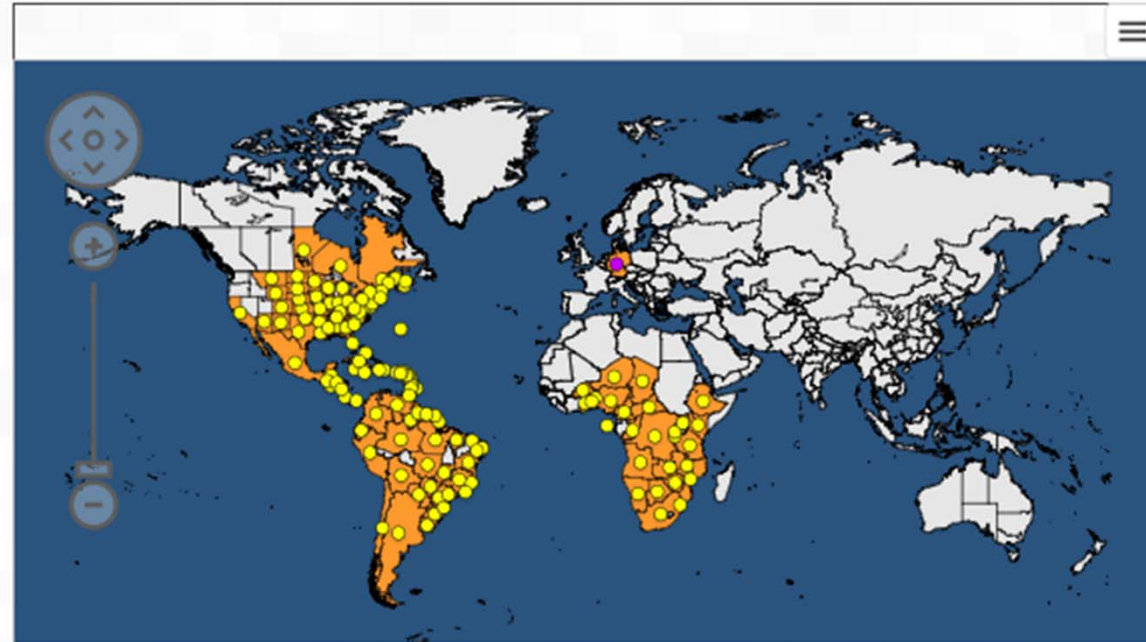
Save map as png

Save map as svg

Save list as excel file

Save list as csv file

## Distribution



Legend: ● Present ● Transient

Continent ^	Country	State	Status	
- select v	- select v	- select v	- select v	
Africa	Angola		Present, no details	<a href="#">view...</a>
Africa	Benin		Present, no details	<a href="#">view...</a>
Africa	Botswana		Present, no details	<a href="#">view...</a>
Africa	Burkina Faso		Present, no details	<a href="#">view...</a>
Africa	Burundi		Present, no details	<a href="#">view...</a>

# Information on host plants


Unlike geographical distribution not possible to include sources

The screenshot shows the EPPO Global Database interface. At the top, there is a search bar with the text "Search by name or EPPO code..." and a "Go!" button. Below the search bar is a navigation menu with items: Home, Standards, Photos, Reporting Service, and Explore by. The main content area displays the species name *Spodoptera frugiperda* (LAPHFR) and a list of host plants. On the left side, there is a "MENU" section with links to Overview, Distribution, Host plants, Host commodities, Categorization, Reporting, Photos, and Documents. Below the menu is a "TOOLS" section with buttons for "Save list as excel file" and "Save list as csv file".

Organism	Type
<input type="text" value="Search..."/>	- select -
Allium cepa (ALLCE)	Minor
Arachis hypogaea (ARHHY)	Minor
Brassicaceae (1CRUF)	Minor
Capsicum annuum (CPSAN)	Minor
Cucurbitaceae (1CUCF)	Minor
Dendranthema x grandiflorum (CHYHO)	Minor
Dianthus caryophyllus (DINCA)	Minor
Gossypium hirsutum (GOSHI)	Minor
Ipomoea batatas (IPOBA)	Minor
Medicago sativa (MEDSA)	Minor
Nicotiana tabacum (NIOTA)	Minor
Oryza sativa (ORYSA)	Major
Pelargonium (1PELG)	Minor
Phaseolus vulgaris (PHSVX)	Minor
Poaceae (1GRAF)	Minor

# Information on host commodities








## EPPO Global Database

[advanced search...](#)

[Login](#) [Register](#)

[Home](#) [Standards](#) [Photos](#) [Reporting Service](#) [Explore by](#)

### *Lycorma delicatula* (LYCMDE)

**MENU**

- Overview
- Distribution
- Host plants
- [Host commodities →](#)
- Categorization
- Reporting
- Photos
- Documents

#### Host Commodities

Type	Host
- select -	<input type="text" value="Search..."/>
manufactured articles	woody plants (2WOOP)
non-squared wood	woody plants (2WOOP)
packaging material	woody plants (2WOOP)
plants for planting	woody plants (2WOOP)
squared wood	woody plants (2WOOP)

[Contact EPPO](#) [EPPO Website](#) [EPPO Data Services](#) [Sitemap](#)



# Information on categorisation

*Spodoptera frugiperda* (LAPHFR) 🖨️ f 🐦

MENU

- Overview
- Distribution
- Host plants
- Host commodities
- Categorization →
- Reporting
- Photos
- Documents

TOOLS

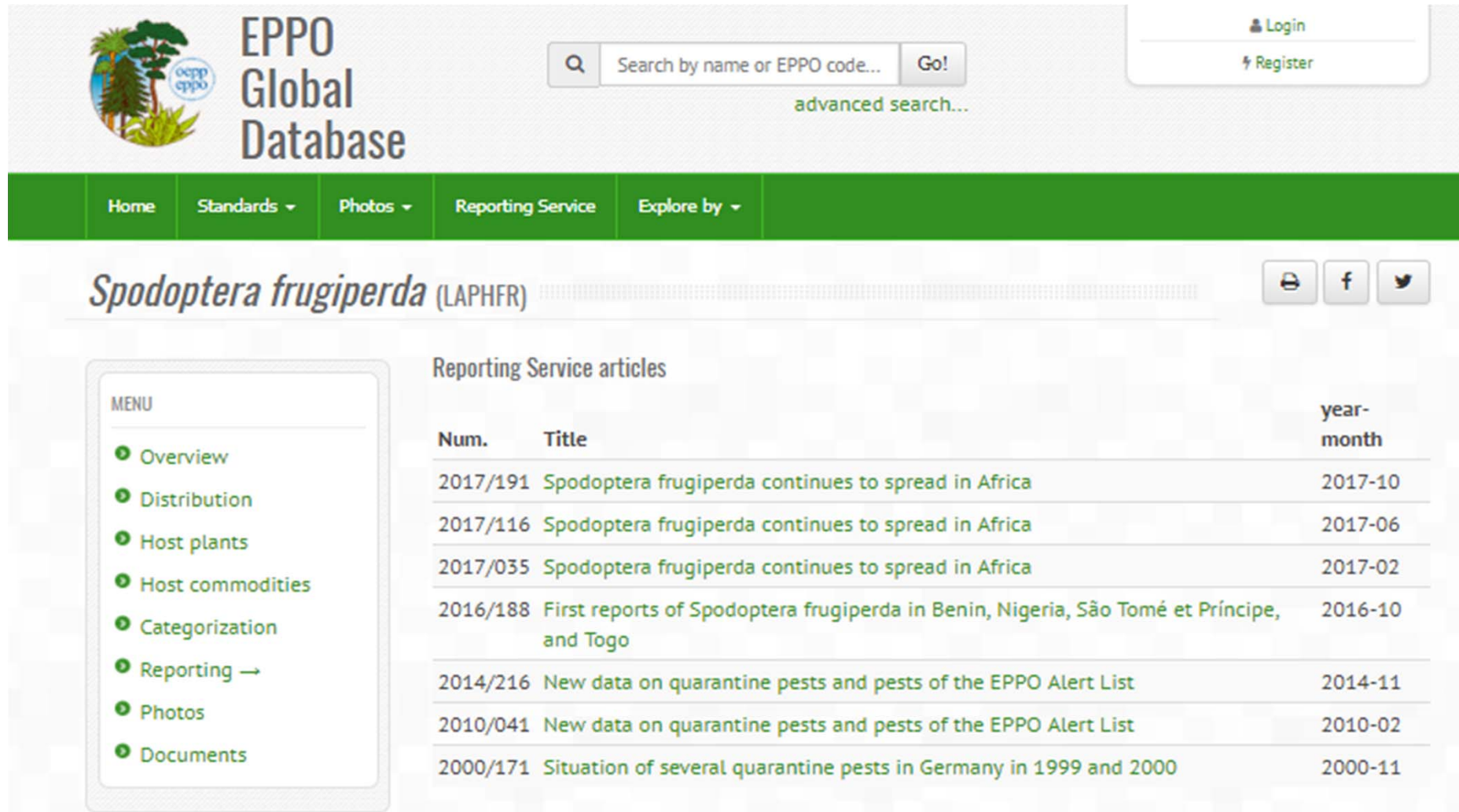
- Save list as excel file
- Save list as csv file

Categorization

Country/NPPO	List	Year addition	Year transfer	Year deletion
Africa				
East Africa	A1 list	2001		
Southern Africa	A1 list	2001		
Asia				
Bahrain	A1 list	2003		
Israel	Quarantine pest	2009		
Jordan	Quarantine pest	2007		
Uzbekistan	A1 list	2008		
Europe				
Russia	A1 list	2014		
Turkey	A1 list	2007		
Ukraine	A1 list	2010		
RPPO/EU				
EAEU	A1 list	2016		
EPPO	A1 list	1994		
EU	Annex I/A1	1992		

Based on information  
made available to the  
EPPO Secretariat


# Articles from the EPP0 Reporting also in GD!



The screenshot shows the EPPO Global Database interface. At the top left is the EPPO logo and the text "EPPO Global Database". To the right is a search bar with the text "Search by name or EPPO code..." and a "Go!" button. Below the search bar is a link to "advanced search...". On the far right, there are "Login" and "Register" buttons. A green navigation bar contains links for "Home", "Standards", "Photos", "Reporting Service", and "Explore by". Below this, the main heading is "*Spodoptera frugiperda* (LAPHFR)" with social media icons for email, Facebook, and Twitter. On the left, a "MENU" box lists: Overview, Distribution, Host plants, Host commodities, Categorization, Reporting (with a right arrow), Photos, and Documents. The main content area is titled "Reporting Service articles" and contains a table with the following data:

Num.	Title	year-month
2017/191	<a href="#">Spodoptera frugiperda continues to spread in Africa</a>	2017-10
2017/116	<a href="#">Spodoptera frugiperda continues to spread in Africa</a>	2017-06
2017/035	<a href="#">Spodoptera frugiperda continues to spread in Africa</a>	2017-02
2016/188	<a href="#">First reports of Spodoptera frugiperda in Benin, Nigeria, São Tomé et Príncipe, and Togo</a>	2016-10
2014/216	<a href="#">New data on quarantine pests and pests of the EPPO Alert List</a>	2014-11
2010/041	<a href="#">New data on quarantine pests and pests of the EPPO Alert List</a>	2010-02
2000/171	<a href="#">Situation of several quarantine pests in Germany in 1999 and 2000</a>	2000-11

# Issues of the EPPO Reporting in GD from 1974!



## EPPO Global Database

Search by name or EPPO code...  [advanced search...](#)

[Login](#)  
[Register](#)

- Home
- Standards ▾
- Photos ▾
- Reporting Service
- Explore by ▾

### EPPO Reporting Service

The EPPO Reporting Service is a monthly information report on events of phytosanitary concern. It focuses on new geographical records, new host plants, new pests (including invasive alien plants), pests to be added to the EPPO Alert List, detection and identification methods etc. [Click here to obtain the EPPO Reporting Service by email.](#)

2017	no. 01 January	no. 02 February	no. 03 March	no. 04 April
	no. 05 May	no. 06 June	no. 07 July	no. 08 August
	no. 09 September	no. 10 October		
2016	no. 01 January	no. 02 February	no. 03 March	no. 04 April
	no. 05 May	no. 06 June	no. 07 July	no. 08 August
	no. 09 September	no. 10 October	no. 11 November	no. 12 December
2015	no. 01 January	no. 02 February	no. 03 March	no. 04 April
	no. 05 May	no. 06 June	no. 07 July	no. 08 August
	no. 09 September	no. 10 October	no. 11 November	no. 12 December
2014	no. 01 January	no. 02 February	no. 03 March	no. 04 April
	no. 05 May	no. 06 June	no. 07 July	no. 08 August
	no. 09 September	no. 10 October	no. 11 November	no. 12 December
2013	no. 01 January	no. 02 February	no. 03 March	no. 04 April
	no. 05 May	no. 06 June	no. 07 July	no. 08 August



# Photos


## *Spodoptera frugiperda* (LAPHFR)



### MENU

- Overview
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- Host commodities
- Categorization
- Reporting
- Photos →
- Documents

### TOOLS

 Propose photos

### Photos

All photos included on this page can only be used for educational purposes.

For publication in journals, books or magazines, permission should be obtained from the original photographers with a copy to EPPO.

Filter photos by tag:

- [All](#) [Damage](#) [Adult](#) [Larva](#)



Lateral view of head and thorax of fullgrown larva of *Spodoptera frugiperda*.

Courtesy: Marja van der Straten, National Plant Protection Organisation, the Netherlands



Maize ear damaged by larvae.

Courtesy: B.R. Wiseman - USDA/ARS, Tifton (US).



Maize ear damaged by larvae.

Courtesy: B.R. Wiseman - USDA/ARS, Tifton (US).



Sclerotized platelets dorsally in between



Fullgrown larva of *Spodoptera frugiperda* on



Normal larva (bottom) and larva of the same age (top)

# Documents



## EPPO Global Database

[advanced search...](#)

[Home](#) [Standards ▾](#) [Photos ▾](#) [Reporting Service](#) [Explore by ▾](#)

### *Spodoptera frugiperda* (LAPHFR)

MENU

- Overview
- Distribution
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- Documents →

#### Associated EPPO Standards

Number	Title	Download
PM1/002(26)	EPPO A1 and A2 Lists of pests recommended for regulation as quarantine pests (2017)	<input type="button" value="Download ▾"/>
PM7/124(1)	<i>Spodoptera littoralis</i> , <i>Spodoptera litura</i> , <i>Spodoptera frugiperda</i> , <i>Spodoptera eridania</i>	<input type="button" value="Download ▾"/>

#### Associated documents

##### EPPO Datasheets

Lang	Title	Download
	Data sheet on <i>Spodoptera frugiperda</i>	<input type="button" value="Download"/>
	Fiche informative <i>Spodoptera frugiperda</i>	<input type="button" value="Download"/>



# Register on GD!

**Register on EPPO Global Database**

★ Required

About you

Full name  ★

Institute

Account

Email  ★

Password  ★

Confirm the password  ★

Security code

Je ne suis pas un robot

**Why register?**

In order to identify users and contributors to the EPPO Global Database, the EPPO Secretariat asks you to register.

Registration is FREE OF CHARGE and very QUICK

- To propose photos
- To be notified when major changes are made
- To save your settings (e.g. language preferences)
- To save your search history

**Help us to collect photos**

To propose new photos on pests, diseases and invasive alien plants, you can use our simple and quick photo uploading tool.

[View my submitted photos](#)

[Read the practical guide \(PDF\)](#)

**Request new EPPO codes**

The creation of new EPPO codes for plants, pests and pathogens that are currently missing in the database is subject to fees (50 euros per code). You can buy here credits for the creation of one or more codes (i.e. batches of 1 – 5 – 10 – 20 etc.) and then use an online form to send your request for new codes to the EPPO Secretariat. Once your codes have been created, you will be automatically informed by email.

[Buy credits / view invoices](#) [Request new codes](#) [View my requests](#)

**Online tools**

[Excel...](#) [Quick search...](#)

Online tools

With a list of pests in Excel file you can:

File: All species Qbank.xlsx

Select the worksheet

BioloMICSSummaryToXLS (7) (891 rows)

Select the input column

Species name

Select the output column

\*\*New column\*\*

Select the function to apply on column

- Input (EPPOCode) => Output (Preferred Name)
- Input (Preferred name) => Output (EPPOCode)
- Input (Preferred name or synonym) => Output (EPPOCode)
- Input (EPPOCode) => Output (Synonyms/common names)
- Input (EPPOCode) => Output (Taxonomy)
- Input (EPPOCode) => Output (Hosts)
- Input (EPPOCode) => Output (Main category)
- Input (EPPOCode) => Output (Categorization)

[Cancel](#) [Apply function](#)

Data Services

# Workshops for inspectors

## In particular dissemination of research projects

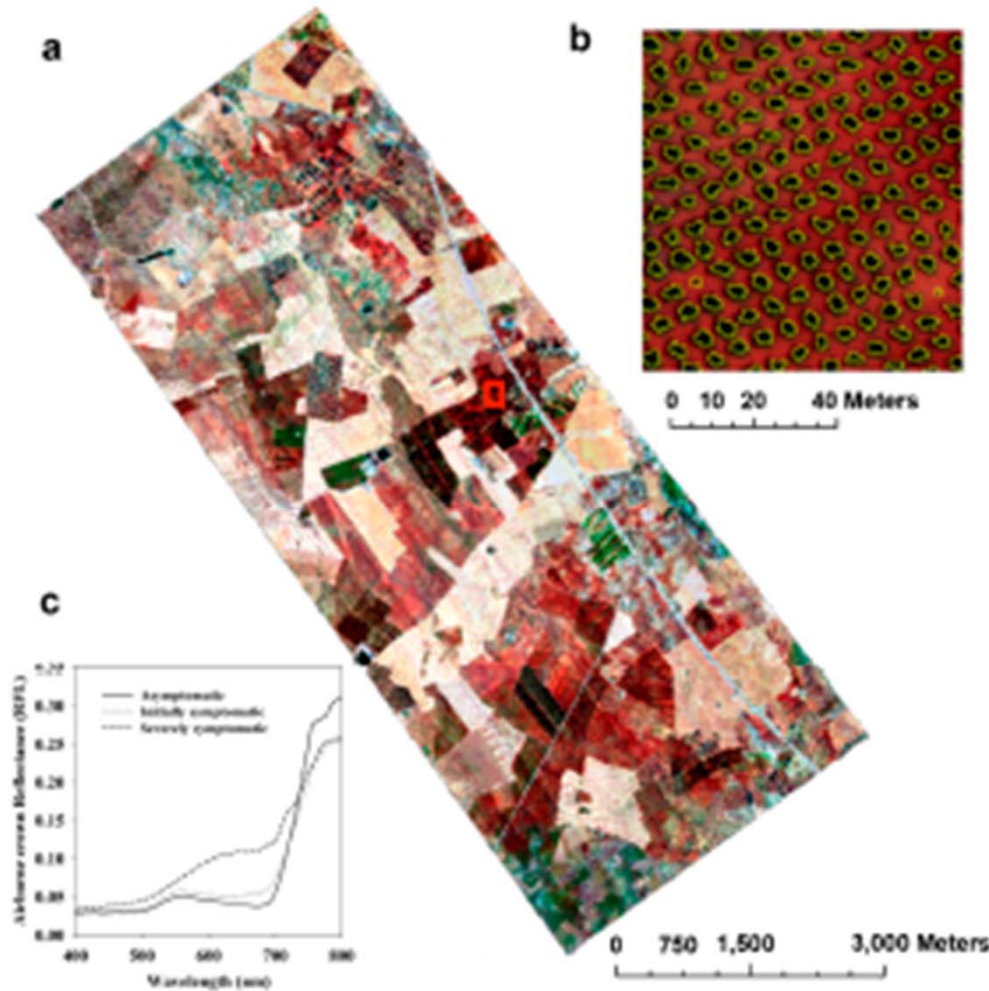
**Q-DETECT: Developing quarantine pest detection methods for use by National Plant Protection Organizations (NPPO) and Inspection Services**  
EU FP7 funded project GA245047

**Outcomes presented at two EPPO Workshops for i**  
**Padova (Italy) 2011**  
**Ljubljana (Slovenia) 2013**



Project  
specifically  
dedicated to  
inspection  
tools

Early detection of *Xylella fastidiosa* symptoms from the leaf to the landscape scale through the automated analysis of high-resolution thermal and hyperspectral remote sensing data



Robot for surveillance in olive groves as well



Work building upon

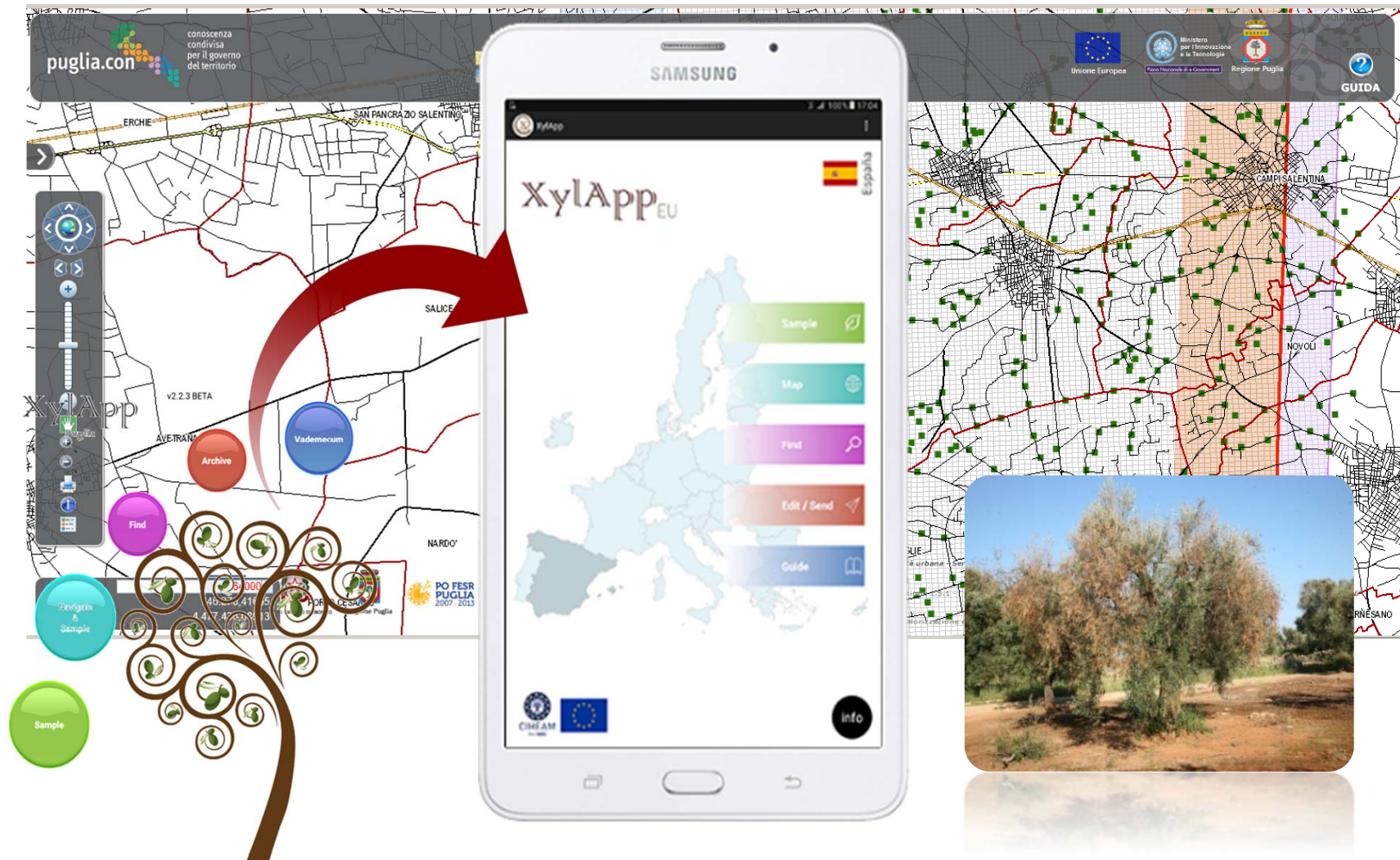
Early Detection and Quantification of Verticillium Wilt in Olive Using Hyperspectral and Thermal Imagery over Large Areas Rocío Calderón, Juan A. Navas-Cortés and Pablo J. Zarco-Tejada \*



# XylApp a mobile phone application for *Xylella fastidiosa* surveillance



www.iamb.it



Special acknowledgements to  
**Anne Sophie Roy** for the EPPO Global  
Database, the Reporting Service and the  
Alert List.

**Damien Griessinger** for the IT support and  
tools developed

***EPPO's achievements is only possible thanks to the  
collaboration of experts from our region but also  
from other parts of the world***

***Thanks to all!***

