



# The role of EPPPO in supporting risk-based sampling and inspection

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[www.eppo.int](http://www.eppo.int)



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- EPPO PM 3 Standards
- Horizon scanning and early warning
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# The European and Mediterranean Plant Protection Organization

- Regional Plant Protection Organization
- Created in 1951, now 52 member countries
- Two permanent observers:  
European Commission  
European Economic Commission



# The European and Mediterranean Plant Protection Organization



- Intergovernmental organization
- Supports National Plant Protection Organizations (NPPOs) of member countries
- Cooperation and harmonization
- Regional standards on Phytosanitary Regulation and Plant Protection Products
- Technical meetings of experts
- International conferences
- Sharing information and expertise through networks
- Dissemination of information on plant health



# **PM 3 Phytosanitary Procedures standards**



# EPPO PM 3 Standards

- EPPO Panel on Phytosanitary Inspections
- Standards for: inspection of consignments, inspection of places of production and area-wide surveillance.
- Standards describe methods for performing inspections of commodities moving in trade, or surveys for quarantine pests.
- Provide guidance on risk-based inspection and sampling for the detection of pests of concern for the EPPO region.
- Target audience: National Plant Protection Organizations (NPPOs)



# Examples of PM 3 Standards

## Generic standards

- PM 3/72 (2): Elements common to inspection of places of production, area-wide surveillance, inspection of consignments and lot identification

## Specific standards

- PM 3/76 (2) Trees of *Malus*, *Pyrus*, *Cydonia* and *Prunus* spp. - inspection of places of production
- PM 3/77 (1) Vegetable plants for planting under protected conditions - inspection of places of production
- PM 3/78 (2) Consignment inspection of seed and grain of cereals
- PM 3/79 (1) Consignment inspection for *Anoplophora chinensis* and *Anoplophora glabripennis*
- PM 3/80 (2) Consignment inspection of seed of *Solanum lycopersicum*
- PM 3/81 (3) Inspection of consignments for *Xylella fastidiosa*
- PM 3/82 (3) Inspection of places of production for *Xylella fastidiosa*
- PM 3/90 (1) Inspection of citrus fruit consignments
- PM 3/92 (1) Consignment inspection of fresh fruit and vegetables for fruit flies

# Specific Risk-based information

- All EPPPO inspection standards provide information on defining a lot (a number of units of a single commodity, identifiable by its homogeneity of composition, origin etc., forming part of a consignment (FAO, 2019).
- ISPM 23 *Guidelines for inspection* and ISPM 31 *Methodologies for sampling of consignments* should be followed.
- EPPPO inspection standards highlight specific factors to consider when targeting inspections (e.g., most susceptible cultivars, origin, producers).
- Higher sample size for plants for planting compared to fruit, vegetables or cut flowers



## ***PM 3/81 Inspection of Consignments for Xylella fastidiosa***

- EPPO standards provide **examples** of how many units to sample within a lot, based on ISPM 31 (it is up to the NPPO to set the sample size).
- 448 plants from a lot of 10,000 plants would be sampled to provide 99% confidence of detecting evident symptoms in 1 % of plants (ISPM 31).
- The confidence level should increase for consignments arriving from countries where the pest is known to occur (the objective would be to detect an infection level of 0.1 % or more with a confidence level of at least 99%).



# PM 3 Standards under development

- Inspection Standard on soil attached to plants
- Inspection of place of production - Citrus plants for planting
- Inspection for invasive alien plants at borders
- Inspection of passenger luggage at points of entry





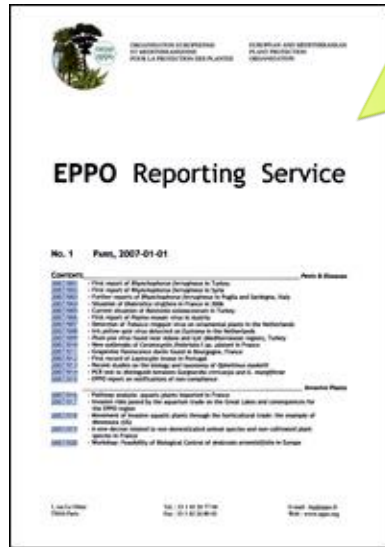
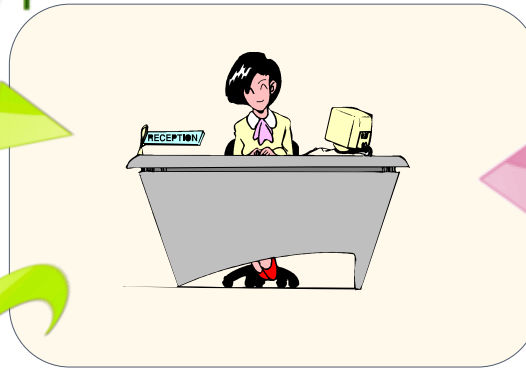
# **Horizon scanning and early warning**

# EPPO collects and shares information

Official pest reports from  
National Plant Protection  
Organizations



Literature,  
Internet surveys



Data stored in a database



# EPPO Alert List



- Initiated in 1999
- Provides **early warning**
- Suggests possible candidates for Pest Risk Analysis

The screenshot shows the EPPO website interface. At the top, there is a navigation menu with links for HOME, ABOUT EPPO, MEETINGS, ACTIVITIES (highlighted in green), RESOURCES, and MEMBERS ONLY. Below the menu is a header image of green leaves. On the right side of the header, there are social media icons for Twitter, Facebook, and YouTube. The main content area features the title "EPPO Alert List – *Elasmopalpus lignosellus* (Lepidoptera: Pyralidae) Lesser cornstalk borer". Below the title, there is a section titled "Why" which explains that the pest is native to the Americas and has been intercepted by Ireland and the United Kingdom. Three images are displayed: an adult female moth, a larva inside a maize stalk, and damage to a plant. Each image has a caption and a credit line. At the bottom, there is a "Where" section which states that the pest occurs only in the Americas and is absent in the EPPO region. A list of countries in North America, Central America, and South America is provided.

HOME ABOUT EPPO MEETINGS **ACTIVITIES** RESOURCES MEMBERS ONLY

EPPO Alert List – *Elasmopalpus lignosellus* (Lepidoptera: Pyralidae)  
Lesser cornstalk borer

Why  
*Elasmopalpus lignosellus* (Lepidoptera: Pyralidae - lesser cornstalk borer) is a polyphagous pest, native from the Americas, which has been recently intercepted by Ireland and the United Kingdom on imports of asparagus from Peru (EPPO RS 2019/225). Considering that a pathway of entry into the EPPO region exists and that *E. lignosellus* is a pest of several crops of economic importance, the NPPO of the United Kingdom suggested that *E. lignosellus* should be added to the EPPO Alert List.

Adult female  
Mark Dreiling, [Bugwood.org](http://Bugwood.org)

Larva inside a maize stalk  
David Riley, University of Georgia, [Bugwood.org](http://Bugwood.org)

Damage – John C. French Sr., Retired, Universities: Auburn, GA, Clemson and U of MD, [Bugwood.org](http://Bugwood.org)

Where  
*E. lignosellus* occurs in the Americas only. In the literature, there is a single record in Asia (Vietnam), but as this old record has not been confirmed by any other sources, it has been considered doubtful and not included in the list below.  
EPPO region: Absent.  
**North America:** Mexico, USA (Alabama, Arizona, Arkansas, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Illinois, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Mississippi, Missouri, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Virginia).  
**Central America and the Caribbean:** Barbados, Bermuda, Costa Rica, Cuba, El Salvador, Guatemala, Jamaica, Nicaragua, Panama, Trinidad and Tobago, Puerto Rico.  
**South America:** Argentina, Bolivia, Brazil (Bahia, Golas, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Parana, Pernambuco, Rio Grande do Sul, Sao Paulo), Chile, Colombia, French Guiana, Paraguay, Peru, Uruguay, Venezuela.

[https://www.eppo.int/ACTIVITIES/plant\\_quarantine/alert\\_list](https://www.eppo.int/ACTIVITIES/plant_quarantine/alert_list)






# **Pest risk analysis and EPPPO A1 and A2 Lists**


# Pest risk analysis

EPPO conducts PRAs and pathway analyses and develops pest lists to inform member countries.

Activities assist NPPOs in the region to determine where to deploy plant health resources

 EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION  
ORGANISATION EUROPEENNE ET MEDITERRANEEENNE POUR LA  
PROTECTION DES PLANTES 20- 26052

Pest Risk Analysis for  
*Tomato brown rugose fruit virus (Tobamovirus)*



A. Dombrovsky – EPPO Global Database (EPPO Code: TOBRFV) – Fruit symptoms, Mexico (2019)

September 2020

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The risk assessment follows EPPO standard PM 5/5(1) *Decision-Support Scheme for an Express Pest Risk Analysis* (available at <http://archives.eppo.int/EPPOstandards/prs.htm>), as recommended by the Panel on Phytosanitary Measures. Pest risk management (detailed in ANNEX 1 and ANNEX 2) was conducted according to the EPPO Decision-support scheme for quarantine pests PM 5/3(5). The risk assessment uses the terminology defined in ISPM 5 *Glossary of Phytosanitary Terms* (available at <https://www.ispc.int/index.php>).

Cite this document as:  
EPPO (2020) Pest risk analysis for tomato brown rugose fruit virus. EPPO, Paris. Available at <https://gd.eppo.int/taxon/TOBRFV/documents>

# EPPO A1 and A2 Lists

- EPPO recommends its member countries to regulate pests listed as EPPO A1 (pests are absent from the EPPO region) and EPPO A2 (pests locally present in the EPPO region)
- EPPO PM 3 Standards include a detailed appendix highlighting A1 and A2 pests relevant to the crop.
- This appendix details information on symptoms, identification and sampling.



# **EPPO Global database and information services**

# EPPO Global database

**EPPO Global Database**

Search by name or EPPO code... Go! advanced search...

Login Register

Home Standards Photos Reporting Service Explore by

## *Liberibacter asiaticus* (LIBEAS)

Last modification: 2002-11-09

**MENU**

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

**Overview**

**Basic information**

- EPPO code: LIBEAS
- Preferred name: *Liberibacter asiaticus*
- Authority: Jagoueix, Bové & Garnier

**Other scientific names**

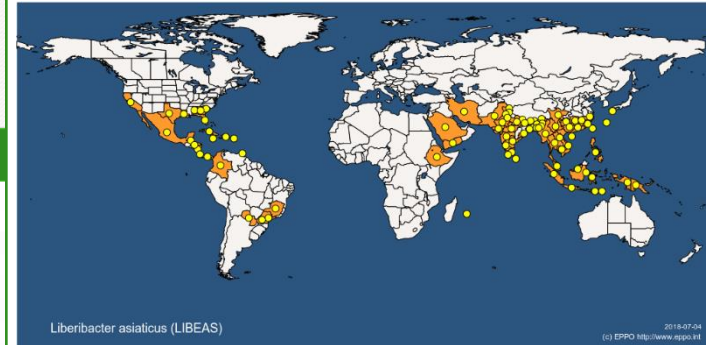
Name	Authority
'Candidatus <i>Liberibacter asiaticus</i> '	Jagoueix, Bové & Garnier
Citrus greening bacterium (heat-tolerant strain)	
<i>Liberibacter asiaticum</i>	Jagoueix, Bové & Garnier

**Taxonomy**

- Kingdom: Bacteria (1BACTK)
- Phylum: Proteobacteria (1PROBP)
- Class: Alphaproteobacteria (1ALPBC)
- Genus: *Liberibacter* (1LIBEG)
- Species: *Liberibacter asiaticus* (LIBEAS)

**Common names**

Name	Language
Search...	- select
黃龍病	Chinese
blotchy mottle disease of citrus	English
decline of citrus	English
huanglongbing	English



<https://gd.eppo.int>



# EPPO Global database

- Provides pest-specific information produced or collected by EPPO.
- Detailed information is available on 1 800 pest species.
- Includes geographic distribution useful in targeting inspection on high-risk origins, host plants, host commodities or in targeting inspection of relevant commodities.
- Summary notifications of non-compliance are available as pest detections from EPPO member countries are published in the EPPO Reporting Service. This helps inspectors to target import inspections.





# EPPO succeeds only through collaboration between experts in the region and beyond ...







**Thank you !**