

EPPO Tools to Support Surveillance

Event: IPPC Regional Workshop for
Eastern and Central Europe and Central Asia
Date: 2017-09-5/8
Martin Ward (Director General) - hq@eppo.int

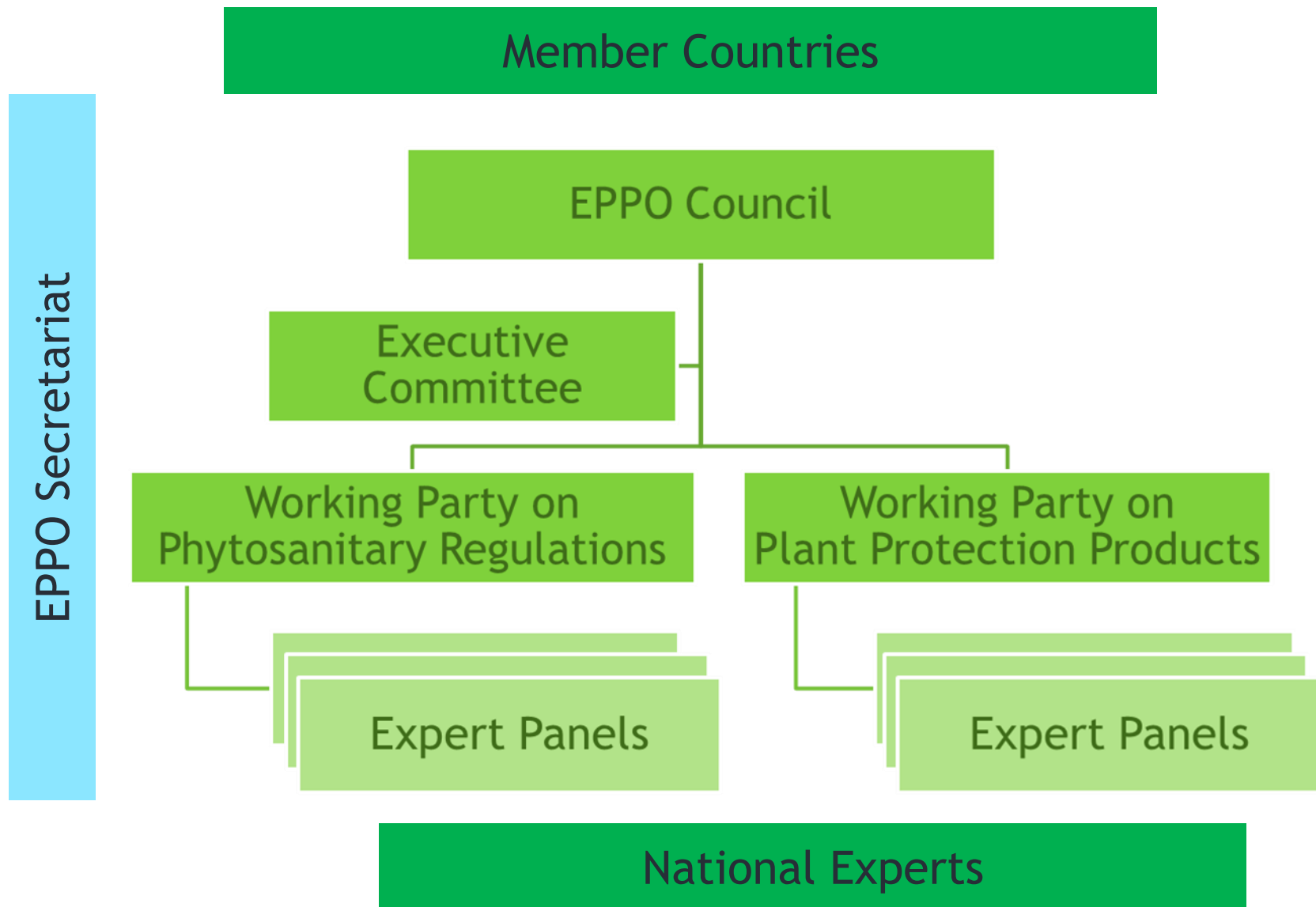


Raw materials for making tools

- EPPO main programme
 - Structure
 - Expert Networks
 - Funding
- EPPO hosted programmes
 - Euphresco



Structure (the tool factory!)



Expert Panels (toolmaking teams!)

Plant Protection Products

- General Standards
- Herbicides
- Insecticides and Fungicides
- Resistance
- Harmonisation of Data Requirements

Phytosanitary Regulations

- Global Affairs
- Risks and Measures
- Forestry
- Potatoes
- Inspection Procedures
- Information
- Diagnostics (General) +
 - Entomology
 - Nematodes
 - Bacteria
 - Fungi
 - Virology
- Invasive Alien Plants
- Biological Control Agents

The Toolbox

- EPPO main programme
 - Databases
 - Reporting service
 - Information kits
 - Standards
 - Networking events
- EPPO hosted activities
 - Tools for research co-ordination



EPPO Global Database



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Lycorma delicatula (LYCMDE)



Last modification: 2015-03-03

MENU

- Overview →
- Distribution
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Overview

Basic information

- EPPO code: LYCMDE
- Preferred name: *Lycorma delicatula*
- Authority: (White)



[more photos...](#)

Other scientific names

| Name | Authority |
|--------------------|-----------|
| Aphaena delicatula | White |

Common names

| Name | Language |
|--|--------------|
| <input type="text" value="Search..."/> | - select - |
| spot clothing wax cicada | English |
| Chinese blistering cicada | English (US) |
| spotted lanternfly | English (US) |
| fulgore tacheté | French |

Taxonomy

- Kingdom: Animalia (1ANIMK)
- Phylum: Arthropoda (1ARTHYP)
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- Order: Hemiptera (1HEMIO)
- Suborder: Auchenorrhyncha (1AUCHR)
- Family: Fulgoridae (1FULGF)
- Genus: *Lycorma* (1LYCMG)
- Species: *Lycorma delicatula* (LYCMDE)

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Distribution



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Save map as png

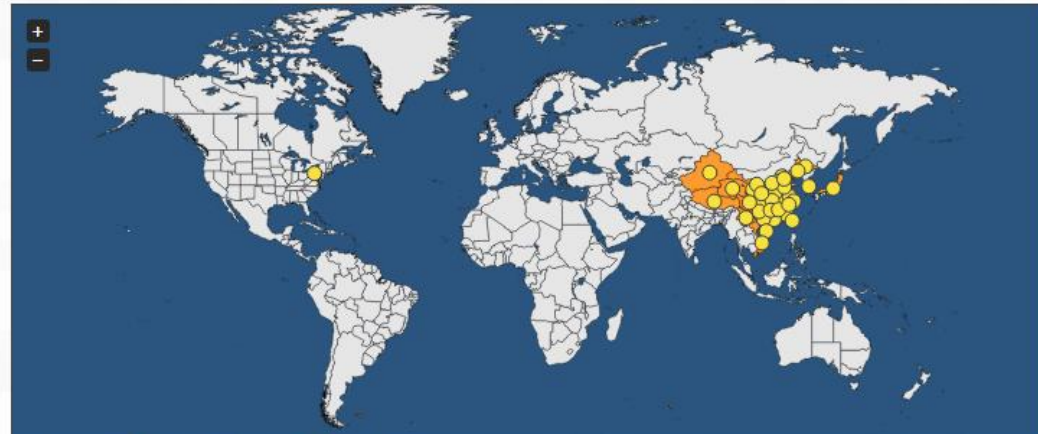
Save map as svg

Save list as excel file

Save list as csv file

Distribution

Last updated: 2016-10-27



Legend: ● Present ● Transient

| Continent | Country | State | Status | |
|------------|--------------------------|--------------|---------------------------|-------------------------|
| - select - | - select - | - select - | - select - | |
| America | United States of America | | Present, few occurrences | view... |
| America | United States of America | Pennsylvania | Present, few occurrences | view... |
| Asia | Cambodia | | Absent, unreliable record | view... |



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Host plants



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TOOLS

[Save list as excel file](#)

[Save list as csv file](#)

Hosts

| Organism | Type |
|--|--------------|
| <input type="text" value="Search..."/> | - select - |
| Acacia (1ACAG) | Unclassified |
| Acer buergerianum (ACRBU) | Unclassified |
| Acer mono (ACRMO) | Unclassified |
| Acer palmatum (ACRPA) | Unclassified |
| Acer platanoides (ACRPL) | Unclassified |
| Acer rubrum (ACRRB) | Unclassified |
| Acer saccharinum (ACRSA) | Unclassified |
| Actinidia chinensis (ATICH) | Unclassified |
| Ailanthus altissima (AILAL) | Major |
| Albizia julibrissin (ALBJU) | Unclassified |
| Alcea rosea (ALGRO) | Unclassified |
| Alnus (1ALUG) | Unclassified |



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Host commodities



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Host Commodities

| Type ^ | Host ^ |
|-----------------------|----------------------|
| - select - ▾ | 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) |



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Categorisation



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TOOLS

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Categorization

| Country/NPPO | List | Year addition | Year transfer | Year deletion |
|--------------|-----------------------|---------------|---------------|---------------|
| RPPO/EU | | | | |
| EPPO | Alert list (formerly) | 2015 | | 2016 |
| EPPO | A1 list | 2016 | | |

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Reporting



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Reporting Service articles

| Num. | Title | year-month |
|----------|---|------------|
| 2016/181 | New additions to the EPPO A1 and A2 Lists | 2016-10 |
| 2015/023 | First report of <i>Lycorma delicatula</i> in the USA: addition to the EPPO Alert List | 2015-02 |

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Photos



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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

Invaded area

Adult

Larva

Egg



Pinned specimen

Courtesy: Anne-Sophie Roy
(EPPO)



Pinned specimens

Courtesy: Anne-Sophie Roy
(EPPO)



Pinned specimens

Courtesy: Anne-Sophie Roy
(EPPO)



Adult

Courtesy: Pennsylvania
Department of Agriculture (US)



Adult

Courtesy: Pennsylvania
Department of Agriculture (US)



Adult

Courtesy: Pennsylvania
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Associated EPPO Standards

| Number | Title | Download |
|-------------|---|--------------------------|
| PM1/002(25) | EPPO A1 and A2 Lists of pests recommended for regulation as quarantine pests (2016) | Download |

Associated documents

EPPO PRAs

| Lang | Title | Comments | Download |
|------|---|----------|--------------------------|
| | Express PRA for <i>Lycorma delicatula</i> | | Download |



EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION
ORGANISATION EUROPEENNE ET MEDITERRANEENNE POUR LA PROTECTION DES
PLANTES

16-21777

Pest Risk Analysis for
Lycorma delicatula



Integrating database and datasheets

- PRAs available for recently listed pests
- For some pests which have been listed by EPPO for a long time there is only a datasheet
- Many EPPO datasheets are now 20 years old
- Potential project to integrate database (dynamic data on elements which change) with datasheets (static data on elements which do not change).
- Meanwhile do not assume that datasheets are current!



Data Sheets on Quarantine Pests

Aculops fuchsiae

IDENTITY

Name: *Aculops fuchsiae* Keifer

Taxonomic position: Arachnida: Acarina: Prostigmata: Eriophyidae

Common names: Fuchsia gall mite (English)

Bayer computer code: ACUPFU

EPPO A1 list: No. 185

EU Annex designation: II/A1

HOSTS

Fuchsia, including at least three species (*F. arborescens*, *F. magellanica*, *F. procumbens*) and over 30 cultivars. There is considerable variation in susceptibility and two species (*F. microphylla* subsp. *microphylla*, *F. thymifolia*) and seven cultivars have been noted as being highly resistant to *A. fuchsiae* (Koehler *et al.*, 1985).

GEOGRAPHICAL DISTRIBUTION

A. fuchsiae originates from South America, where it has been specifically recorded in southern Brazil but probably occurs more widely. It was discovered in the San Francisco area of California (USA) in 1981, and has since spread rapidly in southern California.

EPPO region: Absent.

North America: USA (California).

South America: Brazil (São Paulo), but probably occurs more widely.

EU: Absent.

BIOLOGY

Although the development of *A. fuchsiae* has not been described in detail, it can be safely assumed that two nymphal stages precede the adult. It is not known whether deuteroecy (the presence of two female forms in the life-cycle) occurs and only one type of female was described by Keifer (1972).

Type of information
which is stored and
updated in EPPO
Global Database

These sections could
be automatically
updated

It's not just pests in our databases ...

- Online database of diagnostic expertise since 2007
- Details from 75 laboratories
- Focus on expertise in diagnosis of regulated pests
- Information updated each year
- Member countries encouraged to provide new data
- EPPO has considered a database of "eradication expertise" but has not pursued this for the moment



EPPO Reporting Service

- Monthly report of pests on the move and other developments of interest to NPPOs
- E-mailed to over 3800 recipients, and on website
- Pest specific items linked from Global Database
- Please provide updates so these can be included!



ORGANISATION EUROPEENNE
ET MEDITERRANEENNE
POUR LA PROTECTION DES PLANTES

EUROPEAN AND
MEDITERRANEAN
PLANT PROTECTION
ORGANIZATION

EPPO Reporting Service

No. 2 PARIS, 2017-02

General

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New data on quarantine pests and pests of the EPPO Alert List
15th 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

Information toolkits

- New idea from the Panel on Plant Protection Information
- Images, text and ideas for member countries to use in awareness campaigns
- Need adapting nationally for language, style, audience
- Powerpoint format: familiar and easy to rearrange
- Under development for three example pests
- *Popillia japonica* is one example



Poster and Leaflet Kits

CAN YOU HELP US?

Popillia japonica

A threat to lawns, woods and crops



What is it?

Popillia japonica is a beetle (Coleoptera: Rutelidae) originating from Japan which has been inadvertently introduced into other parts of the world (e.g. Azores islands and USA). In summer 2014, it was found for the first time in continental Europe, near Milano in Italy. *Popillia japonica* attacks many plants (almost 300 species). Its larvae feed on plant roots and are particularly damaging in lawns and meadows. Adult beetles are voracious leaf feeders.

How to recognize it?



Adult beetles are about 10-12 mm long with iridescent copper-coloured elytra and metallic green thorax and head. They can be identified by the presence of 12 tufts of white hair on their body (5 along each side of the abdomen and 2 larger ones near the bottom end). Other life stages (eggs, larva, pupa) live in the soil and are difficult to see.

Contact us!

PLANT HEALTH DIRECTORATE
Plant Biotechnology Centre,
XXXXXXXXXXXXXXXX, YYYY
Tel: +333 333 3333

Freephone: 8000 33333
Email: plant.health@gov.xx



Learn more about *Popillia japonica*



How to recognize it?

Adult beetles are about 10-12 mm long with iridescent copper-coloured elytra and metallic green thorax and head. The presence of 12 tufts of white hair can be seen on their body (5 along each side of the abdomen and 2 larger ones near the bottom end). The presence of these white hair tufts is quite distinctive of *Popillia japonica*. Adults can be seen mainly during late spring and summer. Other stages of the insect (eggs, larvae and pupae) live in the soil and are therefore more difficult to see. In addition, their identification is more complex.



Please help us!

Because *Popillia japonica* can seriously damage many wild and cultivated plants, it is important to report any sightings to plant protection authorities. Early detection will allow a rapid implementation of appropriate measures against *Popillia japonica*.

If you see *Popillia japonica*:

- Check the presence of tufts of white hairs
 - on both sides of the abdomen
- Whenever possible, take a picture of the insect, record exact location and the name of the host plants on which it was observed
- Contact us (see below)

Contact details

CAN YOU HELP US?

Popillia japonica

An insect pest threatening our lawns,
wood and crops



Logo and name of authority



Prepared in collaboration
with EPPO – www.eppo.int

What is *Popillia japonica*?



Popillia japonica is a beetle originating from Japan which has been inadvertently introduced into other parts of the world such as the Azores islands and the USA. These introductions most probably resulted from human-mediated activities (e.g. agricultural trade, transports). In summer 2014, *Popillia japonica* was found for the first time in continental Europe. It was discovered in several localities near Milano in Italy. *Popillia japonica* is considered to be a serious threat to cultivated and wild plants.

At present, *Popillia japonica* has not been detected in XXX. However, in the event of its introduction in XXX, its presence should be reported immediately to us.



Damage

Larvae consume plant roots and are particularly damaging in lawns and meadows. Adult beetles are voracious feeders and can attack many different plant species (approximately 300 wild and cultivated plant species). Among the most vulnerable plants the following can be mentioned: apple, bramble, grasses, elm, grapevine, linden, maize, maple, rose, peach, soybean.

The adults skeletonize leaves by chewing out the tissue between the veins, thus leaving a vein skeleton. They can also feed on flowers and fruit. The adults are gregarious and many beetles group together on a single plant, so individual plants or trees may be completely defoliated.



Biology

Popillia japonica (Coleoptera: Rutelidae) usually produces one generation per year but under cold climates, the life cycle can be extended to two years. Adult beetles usually emerge from the soil in May/June and mate. Females lay eggs in the soil. After hatching, larvae (white grubs) develop in the soil where they feed on roots of grasses. The insect overwinter in a larval stage in the soil. In spring, larvae resume feeding and become pupae (metamorphosis). After emergence, adults start feeding on the aerial parts of the plants and a new cycle begins again.

Life cycle



EPPO Standards and Recommendations

- Developed by experts or secretariat
- Discussed in Expert Panels
- Subject to country consultation
- Considered by the Working Party
- Adopted by EPPO Council
- Under the EPPO Convention member countries "endeavour to implement the recommendations ..., including in particular the regional standards."
- Priorities for further development are approved through the annual Work Programme



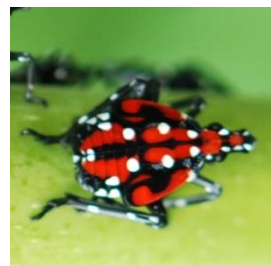
Pest Risk Analysis

- EPPO Standards on how to conduct Pest Risk Analysis
- 5 PRAs per year carried out by Expert Working Groups
- Recent work on analysing risks from pathways
 - Plants for planting
 - Tomato fruit
 - Wood chips and wood waste
- Recommendations to member countries on which plant pests to regulate - the EPPO PM1/2 Standard which includes the A1 and A2 lists

PM1/2 Standard: pests recommended for regulation

e.g. 2016 addition - *Lycorma delicatula*

- *Ailanthus altissima* is favoured host
- May also damage vines and other important crop plants
- Weeping wounds, leaving a trail of sap on the trunk
- Some mortality reported
- Nymphs and adults aggregate
- Eggs laid on wood, stone, vehicles etc.
- Many pathways, hard to control










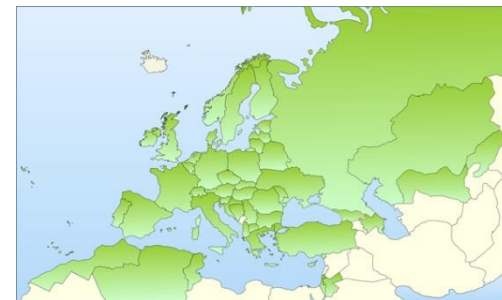
Other EPPO Standards

- PM3 Phytosanitary Procedures
- PM5 Pest Risk Analysis methodology
- PM6 Guidance on biological control agents
- PM7 Diagnostic protocols
- PM9 Standards on Official Control Systems
- PP1 Standards on efficacy of plant protection products



PM9 – National Regulatory Control Systems

- PM 9/1(5) *Bursaphelenchus xylophilus* and its vectors:
- PM 9/2(2) *Clavibacter michiganensis sepedonicus*
- PM 9/3(2) *Ralstonia solanacearum*
- PM 9/4(1) *Diabrotica virgifera*
- PM 9/5(1) *Synchytrium endobioticum* 
- PM 9/6(1) *Heterodera glycines*
- PM 9/7(1) *Ambrosia artemisiifolia* 
- PM 9/8(1) *Eichhornia crassipes*
- PM 9/9(1) *Heracleum mantegazzianum*, *sosnowskyi* and *H. persicum*
- PM 9/10 Generic Elements for Contringency Plans 
- PM 9/11(1) *Bactrocera zonata*
- PM 9/12(1) *Sicyos angulatus*
- PM 9/13(1) *Potato spindle tuber viroid* on potato
- PM 9/14(1) *Agrilus planipennis* 
- PM 9/15(1) *Anoplophora glabripennis* 
- PM 9/16(1) *Anoplophora chinensis* 
- PM 9/17(1) *Meloidogyne chitwoodi* and *M fallax*
- PM 9/19(1) Invasive alien aquatic plants
- PM 9/20(1) *Parthenium hysterophorus* 
- PM 9/21 (1) *Popillia japonica*
- PM 9 /22(1) *Epitrix* species damaging potato tubers
- PM 9 /23 (1) *Bachharis halimifolia*



**These are some Eppo tools supporting surveillance
- there are others, and other suppliers**

Feedback on usefulness welcome!

