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EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION

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EPPO Reporting Service

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2023/153 EPPO is recruiting a Scientific Officer

EPPO is recruiting a full time Scientific Officer to work in the plant protection products area (60%) and the phytosanitary area (40%). The appointment will be for a fixed term of three years with the possibility of extension, and prospects of a permanent post after five years of satisfactory service. The post will be based in Paris. The starting salary will be based on the UNESCO P2 salary scale. Applications should be sent to the EPPO Secretariat before the 8th of September 2023.

For more information and to submit your application: https://jobs.eppo.int/p2ppp

Source: EPPO Secretariat (2023-07).

2023/154 New data on quarantine pests and pests of the EPPO Alert List

By searching through the literature, the EPPO Secretariat has extracted the following new data concerning quarantine pests and pests included (or formerly included) on the EPPO Alert List, and indicated in bold the situation of the pest concerned using the terms of ISPM 8.

New records

Acidovorax citrulli (EPPO A1 List) is first reported from Mexico. Fruits and plants with typical symptoms of this disease have been observed in 2017 and 2018 in watermelon (Citrullus lanatus) production fields of small growers and commercial nurseries in the municipality of Hopelchén, Campeche. In December 2018, symptomatic seedlings were tested by PCR and the identity of the pathogen was confirmed by sequencing (Hernández-Anguiano et al., 2023)

Scirtothrips dorsalis (Thysanoptera: Thripidae - EPPO A2 List) is first reported from Northern and Southern Peru. Adult thrips were collected from blueberry plants (*Vaccinium* sp.) in the departments of Piura and Ica and identified based on morphology and molecular tests (Volosky & Cepeda, 2023).

Detailed records

In Rhode Island (US), beech leaf disease caused by *Litylenchus crenatae mccannii* (EPPO Alert List) was first detected in 2020. The disease then spread rapidly throughout the state and is now confirmed in all five counties of Rhode Island. Members of the public are no longer invited to send reports to the Department of Environmental Management (State of Rhode Island, 2023).

In Florida (US), the giant African land snail (*Lissachatina fulica*) was found in June 2023 in the Miramar area of Broward county. This is not the first time that this invasive species is detected in Florida, it had been found at least in 1969 and 2011, but subsequently eradicated. Increased surveys are being carried out and treatments will be applied (metaldehyde-based molluscicide bait) to eradicate *L. fulica* (Florida Department of Agriculture and Consumer Services, 2023).

In Switzerland, *Ceratocystis platani* (EPPO A2 List) was first observed in the 1980s in Ticino canton. Outbreaks were then detected in Geneva and Vaud cantons but were eradicated and the disease remained confined to restricted areas in Ticino canton. In March 2023, the fungus was detected again in Geneva canton in a single *Platanus acerifolia* tree. This infected tree

was destroyed, and two other plane trees in the immediate vicinity were sampled but gave negative results. Plane trees (35) in the surroundings will be subject to intensive visual monitoring. In May 2023, *C. platani* was found in Ticino canton in a single *P. acerifolia* tree in a forest. This tree will be destroyed next winter (during dormancy to avoid any further spread) and plane trees in the surrounding area will be intensively surveyed (NPPO of Switzerland, 2023).

The pest status of *Ceratocystis platani* in Switzerland is officially declared as: **Present**, under eradication, only in some parts of the Member State concerned.

Tomato mottle mosaic virus (*Tobamovirus*, ToMMV - EPPO Alert List) has been found in Anhui province, China. In May 2021, ToMMV was detected in seedlings of *Trichosanthes kirilowii* (Cucurbitaceae). This plant is a perennial climbing herb whose fruit, seed, peel and roots are used in traditional Chinese medicine. According to the authors this is the first time that a natural infection of ToMMV is detected in *T. kirilowii* (Jin *et al.*, 2023).

Host plants

Tobacco ringspot virus (*Nepovirus*, TRSV - EPPO A2 List) has been detected in *Asimina triloba* (Annonaceae, pawpaw). In 2012, virus symptoms were observed in a pawpaw orchard in Michigan, USA. Affected trees showed foliar mosaic, vein yellowing, and necrosis, and symptoms were first mistaken for nutrient (magnesium/zinc) deficiency. Molecular (HTS, sequencing) and inoculation studies confirmed the presence of TRSW in symptomatic samples of *A. triloba*. In 2022, the virus was detected again in the same pawpaw orchard (Maclot *et al.*, 2023).

Tomato spotted wilt virus (Tospovirus, TSWV - EPPO A2 List) has been detected in Agapanthus praecox (Amaryllidaceae). In May 2021 and July 2022, symptomatic leaf samples were collected from agapanthus plants showing chlorotic mottling and yellow lesions in Mbombela (Mpumalanga) and public gardens in Stellenbosch, South Africa. Molecular tests confirmed the presence of TSWV. In some of the samples, other viruses (agapanthus tungro virus, and agapanthus velarivirus) were also present (Bester et al., 2023).

Sources:

- Bester R, Demas SU, Maree HJ (2023) First report of tomato spotted wilt orthotospovirus infecting agapanthus (*Agapanthus praecox*) in South Africa. *Plant Disease* **107**(early view). https://doi.org/10.1094/PDIS-12-22-2765-PDN
- Hernández-Anguiano AM, Rosas-Medina V, Nava-Díaz C, Torres-Martínez JG (2023)

 Detection of *Acidovorax citrulli* in watermelon seedlings in Hopelchén, Campeche, Mexico. *Agrociencia* **57**(2) (early view)

 https://doi.org/10.47163/agrociencia.v57i2.2838
- Florida Department of Agriculture and Consumer Services Press Release (2023-06-20) Giant African land snail quarantine established in Broward County. https://www.fdacs.gov/News-Events/Press-Releases/2023-Press-Releases/Giant-African-Land-Snail-Quarantine-Established-in-Broward-County
- Government of Rhode Island. RI.gov. Press Release (2023-06-22) Beech leaf disease is widespread in Rhode Island: DEM no longer requests reports. https://dem.ri.gov/press-releases/beech-leaf-disease-widespread-rhode-island-dem-no-longer-requests-reports
- Jin D, Ren C, Guo Y, He K Piao J, Ji Y, Li S (2023) First report of tomato mottle mosaic virus infecting Chinese snake gourd (*Trichosanthes kirilowii*) in China. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-01-23-0161-PDN
- Maclot F, Mandujano M, Nakasato K, Byrne J, Paudel S, Guyer D, Malmstrom CM (2023) First report of tobacco ringspot virus infecting pawpaw orchard (*Asimina triloba*) in North America. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-11-22-2639-PDN

NPPO of Switzerland (2023-04, 2023-07).

Volosky C, Cepeda D (2023) Primer registro de *Scirtothrips dorsalis* Hood, 1919 (Thysanoptera: Thripidae) en Perú, y su potencial riesgo fitosanitario para la agricultura chilena. *Revista Chilena de Entomología* **49**(2), 413-419. https://www.biotaxa.org/rce/article/view/82407

Additional key words: detailed records, host plant, new records

Computer codes: ACHAFU, CERAFP, LITYMC, PSDMAC, SCITDO, TOMMVO, TRSV00, TSWV00, CH, CN, MX, PE, US, ZA

2023/155 New and revised dynamic EPPO datasheets are available in the EPPO Global Database

The EPPO Secretariat is in the process of revising the EPPO datasheets on pests recommended for regulation and creating new datasheets. This project is also supported by an EU grant agreement. This revision provides the opportunity to create dynamic datasheets in the EPPO Global Database in which the sections on pest identity, host range and geographical distribution are automatically generated by the database. It is planned that these dynamic datasheets will progressively replace the PDF documents that are currently stored in the database. Since the previous report (EPPO RS 2023/131), the following new and revised EPPO datasheets have been published in the EPPO Global Database:

- 'Candidatus Phytoplasma fraxini'. https://gd.eppo.int/taxon/PHYPFR/datasheet
- Lymantria mathura. https://gd.eppo.int/taxon/LYMAMA/datasheet
- Xanthomonas arboricola pv. pruni. https://gd.eppo.int/taxon/XANTPR/datasheet

Source: EPPO Secretariat (2023-07).

Additional key words: publication Computer codes: LYMAMA, PHYPFR, XANTPR

2023/156 New IPPC Guide to regulation of wood packaging material

The IPPC Secretariat has recently published a new 'Guide to regulation of wood packaging material - Understanding the phytosanitary requirements for the movement of wood packaging material in international trade'. This document provides practical guidance to the NPPOs on how to apply the phytosanitary measures currently approved in ISPM 15 (Regulation of wood packaging material in international trade), and it describes the procedures required to produce compliant wood packaging material. Concrete examples and illustrations are also included.

This new guide can be downloaded from the IPPC website: https://www.fao.org/3/cc5059en/cc5059en.pdf

Source: EPPO Secretariat (2023-07).

Additional key words: publication, IPPC

2023/157 The Green ERA-Hub is launching a call for early career researchers

The Green ERA-Hub is a network of organizations involved in the coordination of research in the agrifood and biotech sectors, and Euphresco, as a partner, is representing the plant health community in this network. The Green ERA-Hub (GEH) is launching a call for applications specifically designed for Early Career Researchers (ECRs). The objective is to provide young researchers with opportunities to expand their experience and professional network through internships and short-term visits. The call is open to professionals working in the plant health field, and internships/visits are possible in organizations involved in research, research funding or policy-making. Successful applicants will receive financial support covering travel expenses, accommodation, and living allowances during the internship or visit.

Benefits of the Program:

- Gain practical experience at renowned research institutes or public organizations.
- Enhance skills and competences.
- Broaden professional network for future collaborations.
- Strengthen readiness for transnational and multidisciplinary projects.

Application deadline: 3rd October 2023 15:00 (CEST)

More information is available from the Green ERA-Hub webpage: https://www.greenerahub.eu/ECR_call

Source: Euphresco (2023-07).

Additional key words: research

2023/158 Leptinotarsa decemlineata found in the United Kingdom

In July 2023, the NPPO of the United Kingdom informed the EPPO Secretariat of the detection of the Colorado beetle, *Leptinotarsa decemlineata* (Coleoptera: Chrysomelidae - EPPO A2 List) on its territory. Larvae have been found in a single potato (*Solanum tuberosum*) field in Kent (South-East England). Containment and eradication measures are being applied, including the removal and destruction of infested plants and the application of an insecticide spraying programme. A survey is being carried out within a radius of 1 km around the finding site. It can be recalled that in the past 70 years, two outbreaks of *L. decemlineata* have been reported in the United Kingdom (1976 - 1977 in Kent), but both have been promptly eradicated. Adult beetles have occasionally been intercepted in trade, mainly as hitchhikers on leafy vegetables, fresh herbs, and grain.

The pest status of *Leptinotarsa decemlineata* in the United Kingdom is officially declared as: Present, not widely distributed and under official control. Single localised outbreak.

Note: a few days after the outbreak of *L. decemlineata* was confirmed in Kent, a single adult beetle was found by a member of the public in Hampshire (South England). This single specimen was quickly removed and surveys will be carried out in gardens, potato crops and land around the finding site to ensure that no other Colorado beetles are present.

Source: NPPO of the United Kingdom (2023-07).

Gov.UK. News story (2023-07-11) Colorado potato beetle larvae confirmed in Kent. https://www.gov.uk/government/news/colorado-potato-beetle-larvae-confirmed-in-kent

Gov.UK. Press release (2023-07-14) Colorado potato beetle confirmed in Hampshire. https://www.gov.uk/government/news/colorado-potato-beetle-confirmed-in-

<u>hampshire</u>

Pictures: Leptinotarsa decemlineata. https://gd.eppo.int/taxon/LPTNDE/photos

Additional key words: detailed record Computer codes: LPTNDE, GB

2023/159 First report of Platynota stultana in France

Platynota stultana (Lepidoptera: Tortricidae - omnivorous leafroller- EPPO A2 List) is reported for the first time from France. Two male adults were caught in a light trap by an entomologist in Mondonville (Haute-Garonne, Occitanie region), one on the 28th and one on the 30th of October 2022, in a residential area with nearby meadows and a forest (mainly oaks). Another male was trapped in Elne (Pyrénées-Orientales, Occitanie region) on the 18th of October 2022. It is not known whether the species is established in these areas.

The situation of *Platynota stultana* in France can be described as follows: **Transient**.

Source: Grange JC, Labonne G, Nel J, Taurand L, Varenne T (2023) Quelques espèces

nouvelles, introduites ou confirmées, pour la faune de France. Revue de l'Association

Roussillonnaise d'Entomologie 32(3), 183-191.

Pictures: Platynota stultana. https://gd.eppo.int/taxon/PLAAST/photos

Additional key words: new record Computer codes: PLAAST, FR

2023/160 First report of Aleurocanthus spiniferus in France

The NPPO of France recently informed the EPPO Secretariat of the first record of Aleurocanthus spiniferus (Hemiptera: Aleyrodidae - EPPO A2 List) on its territory. Following an initial report from a member of the public via a citizen science app, the presence of the pest was officially confirmed in the department of Gard in June 2023. Further surveys were conducted, and the insect was detected in 4 municipalities (Aubord, Bernis, Uchaud, Vestric-et-Candiac) in Gard department and 1 municipality (Lunel) in Hérault department, including a nursery, public sites and private gardens. A. spiniferus has been recorded on various plant species, such as: Citrus deliciosa, C. limon, Citrus sp., Eriobotrya japonica, Hedera sp., Malus sp., Rosa sp., Punica granatum, Pyracantha sp., Pyrus calleryana, Vitis vinifera. In all cases, only a few leaves were infested.

Phytosanitary measures are being implemented, including delimiting surveys (within a radius of 10 km around each detection site) and trace-back investigations. In the nursery, all infested plants will be destroyed, insecticide treatments will be applied, and restrictions on the movements of plants will be implemented. In private gardens and public sites, the infested parts of the plants will be destroyed.

The pest status of A. spiniferus in France is under determination.

Source: NPPO of France (2023-07).

Pictures: Aleurocanthus spiniferus. https://gd.eppo.int/taxon/ALECSN/photos

Additional key words: new record Computer codes: ALECSN, FR

2023/161 First report of Diaphorina citri and Trioza erytreae in Ghana

In Ghana, surveys were carried out from April to November 2022 to determine whether the vectors of huanglongbing ('Candidatus Liberibacter spp.' - EPPO A1 List) were present. These surveys were conducted in residential areas and citrus orchards in the Volta region. Citrus and Murraya species were visually inspected for the presence of Diaphorina citri (Hemiptera: Psyllidae - EPPO A1 List) and Trioza erytreae (Hemiptera: Triozidae - EPPO A2 List). Eggs, nymphs, and adults of insects suspected to be D. citri and T. erytreae were observed. Using morphological and molecular methods, the presence of both D. citri and T. erytreae was confirmed in Ghana. D. citri was found at several locations, at elevations of less than 200 m a.s.l., on Murraya paniculata plants grown for ornamental purposes. T. erytreae was found in 1 location on a non-rutaceous plant, Triclisia subcordata (Menispermaceae) in a garden. Several specimens of D. citri and T. erytreae were tested (qPCR) for the presence of 'Ca. L. asiaticus', 'Ca. L. africanus', and 'Ca. L. americanus', but none gave positive results. This is the first time that the vectors of huanglongbing are reported from Ghana.

The situation of *Diaphorina citri* in Ghana can be described as follows: **Present**, **not widely distributed**.

The situation of *Trioza erythreae* in Ghana can be described as follows: **Present**, **not widely distributed**.

Source: Aidoo OF, Ablormeti FK, Ninsin KD, Antwi-Agyakwa AK, Osei-Owusu J, Heve WK,

Dofuor AK, Soto YL, Edusei G, Osabutey AF, Sossah FL, Aryee CO, Alabi OJ, Sétamou M (2023) First report on the presence of huanglongbing vectors (*Diaphorina citri* and

Trioza erytreae) in Ghana. Scientific Reports 13, 11366.

https://doi.org/10.1038/s41598-023-37625-9

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Pictures: Diaphorina citri. https://gd.eppo.int/taxon/DIAACI/photos

Trioza erytreae. https://gd.eppo.int/taxon/TRIZER/photos

Additional key words: new record Computer codes: DIAACI, TRIZER, GH

2023/162 Update on the situation of Garella musculana in Italy

A recent study has been conducted in Italy to assess the current distribution of Garella musculana (Lepidoptera: Nolidae - EPPO A2 List) following its first detection in 2021 in Veneto region (EPPO RS 2022/034). In 2022, walnut (Juglans spp.) trees growing in orchards, hedgerows, or private gardens were surveyed. Plants were visually inspected for signs of presence of G. musculana in 151 sites, most of them located in Veneto region (120), but also in Lombardia (9), Friuli-Venezia Giulia (2) and Emilia Romagna (20). Insect identity was determined morphologically, and for larvae the identification was confirmed by molecular tests. In addition to field surveys, data mining studies were conducted using available sources (e.g. literature, databases, web fora). G. musculana was found (or signs of presence observed) in 79 sites (out of the 151 surveyed), mainly in Veneto region (pest found in 70 sites), with some records in Emilia Romagna (9 - only based on signs of presence). G. musculana was not recorded in Lombardia or Friuli-Venezia Giulia regions. Data mining identified a single record (posted on a web forum) of an adult specimen collected in a private garden in Padova province (Veneto region). During these studies, the insect was mainly collected from Juglans regia and to a lesser extent from J. nigra. It was not recorded on nearby poplar or almond trees. G. musculana was mainly found in walnut orchards (87.3%), and to a lesser extent in hedgerows (10.2%) and private gardens (2.5%). The authors concluded that G. musculana should be considered as established in North-Eastern Italy, and that further studies are needed to better understand its biology and impact on cultivated walnut trees in Italy.

Source: Zanolli P, Scaccini D, Pozzebon A (2023) New insights into the distribution and

spreading of the Asian walnut moth, Garella musculana (Erschov, 1874)

(Lepidoptera, Nolidae) in Europe with a focus on the Italian range. Biodiversity Data

Journal 11, e107609. https://doi.org/10.3897/BDJ.11.e107609

Pictures: Garella musculana. https://gd.eppo.int/taxon/ERSHMU/photos

Additional key words: detailed record Computer codes: ERSHMU, IT

2023/163 First record of Xylophilus ampelinus in Ukraine

A survey was carried out in grapevine (*Vitis vinifera*) plots in the region of Odessa. Symptomatic plants were sampled and tested for the presence of *Xylophilus ampelinus* (EPPO A2 List) by ELISA and *Eutypa lata* by PCR. Both pathogens were identified, with the fungus *E. lata* being more widespread than the bacterium *X. ampelinus*. The EPPO Secretariat had previously no record on the presence of *Xylophilus ampelinus* in Ukraine.

Source: Kovaleva I, Konup L, Nikolaeva N, Konup A, Chistyakova V (2022) Eutiposis and

bacterial necrosis of the vine on the vineyards of the Odessa region. *Quarantine and plant protection* **13**(2), 21-25. https://doi.org/10.36495/2312-0614.2022.2.21-25

Pictures: Xylophilus ampelinus. https://gd.eppo.int/taxon/XANTAM/photos

Additional key words: new record Computer codes: EUTYLA, XANTAM, UA

2023/164 Xanthomonas translucens pv. translucens found in British Columbia, Canada

In 2021, symptoms of bacterial leaf streak were observed on barley (*Hordeum vulgare*) in several experimental plots ('barley stripe rust nursery') in Vancouver, British Columbia, Canada. Symptomatic leaf samples were tested in the laboratory (PCR, sequencing, DNA-DNA hybridization, phylogenomic analysis), and results showed the presence of *Xanthomonas translucens* pv. *translucens* (EPPO A2 List). Koch's postulates were verified by greenhouse inoculation experiments followed by re-isolation of the bacterium. According to the authors, this is the first time that *Xanthomonas translucens* pv. *translucens* is reported on barley in British Columbia.

Source: Beutler J, Li T, Roman-Reyna V, Fleitas MC, Bamrah R, Jacobs JM, Kutcher HR,

Tambong JT, Brar GS (2023) First report of bacterial leaf streak of barley (*Hordeum vulgare*) caused by *Xanthomonas translucens* pv. *translucens* in British Columbia, Canada. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-09-22-2112-PDN

Pictures: Xanthomonas translucens pv. translucens. https://gd.eppo.int/taxon/XANTTR/photos

Additional key words: detailed record Computer codes: XANTTR, CA

2023/165 Update on the situation of *Ralstonia pseudosolanacearum* in surface water in the Netherlands

In the Netherlands, *Ralstonia pseudosolanacearum* (EPPO A2 List) was first found in surface water in 2020 in the province of Utrecht, and in the province of Overijssel (EPPO RS 2021/179). In order to prevent any further spread of the bacteria with water, it is prohibited to use surface water to irrigate seed potatoes across the whole country. In areas where EU regulated *Ralstonia* species have been found in surface water, it is prohibited to use surface water to irrigate all types of potato crops. The NPPO of the Netherlands recently provided an update of the situation.

In September 2021 water samples were taken in the province of Overijssel and 8 samples tested positive for *R. pseudosolanacearum*. In November 2021 four plants of *Solanum dulcamara*, growing at the waterside in this area were sampled and all tested positive for *R*.

pseudosolanacearum. In October 2021 water samples were taken in the province of Utrecht and 10 samples tested positive. In December 2021 seven plants of S. dulcamara were sampled and five tested positive. In both areas R. pseudosolanacearum survived during the winter period.

In 2022, water sampling started in June. In the province of Overijssel, samples tested positive in June, but in Utrecht the samples tested positive for the first time in July. In 2022, the survey for *R. pseudosolanacearum* was extended to other waterways in the Netherlands. In total 1305 water samples were collected at two times of the year. Twenty tested positive, including 5 samples from the existing irrigation prohibition area, and 15 samples from outside this area. These 15 samples were found upstream in the same waterway in Overijssel which already tested positive in 2020 and 2021. The irrigation prohibition area has been adjusted accordingly. The source of the infection is unclear.

The pest status of *Ralstonia pseudosolanacearum* in the Netherlands is officially declared as: **Present: not widely distributed and under official control.**

Source: NPPO of the Netherlands (2023-07).

Vogelaar M, van de Bilt J, Blom N, Pel C, van Doorn B, Landman M, Gorkink P, Raaymakers T, Vreeburg RA, Bergsma-Vlami M (2023) Presence of *Ralstonia*

pseudosolanacearum (phylotype I) in aquatic environments in the Netherlands. Plant

Disease (early view). https://doi.org/10.1094/PDIS-11-22-2628-SC

Pictures: Ralstonia pseudosolanacearum. https://gd.eppo.int/taxon/RALSPS/photos

Additional key words: detailed record Computer codes: RALSPS, NL

2023/166 First report of Ceratocystis ficicola in Italy

Ceratocystis ficicola (EPPO Alert List) is reported from the first time in Italy. Up to now, in the EPPO region, it was only known from Greece (EPPO RS 2022/039). In September 2021, symptoms of a vascular wilt disease and, in severe cases, tree mortality of fig trees (Ficus carica) were observed near Salento (Puglia). Symptomatic plants showed leaf chlorosis, followed by wilting, extensive defoliation, and twig dieback. The main branches and the lower part of the trunk presented bark cracks and cankers. At cross sections extended wood discoloration was detected. Samples were taken in two orchards located in the municipalities of Salice Salentino and Squinzano where disease incidence exceeded 80%. Molecular tests (sequence analyses of rDNA internal transcribed spacer region (ITS)) confirmed the presence of Ceratocystis ficicola.

The situation of *Ceratocystis ficicola* in Italy can be described as: **Present, not widely distributed.**

Source: Habib W, Carlucci M, Manco L, Altamura G, Delle Donne AG, Nigro F (2023) First

report of *Ceratocystis ficicola* causing wilt disease on common fig (*Ficus carica*) in Italy. *Plant Disease* (early view) https://doi.org/10.1094/PDIS-03-23-0464-PDN.

Additional key words: new record Computer codes: CERAFC, IT

2023/167 First report of tomato brown rugose fruit virus in Argentina

In Argentina, tomato (Solanum lycopersicum) plants showing symptoms resembling those of tomato brown rugose fruit virus (Tobamovirus, ToBRFV - EPPO A2 List) were observed in December 2022, in greenhouses belonging to three different growers in Santa Lucía and Lavalle (Corrientes). Affected plants showed mosaic and leaf mottling, narrowing (needle-like leaves), and chlorosis in young leaves. Fruits exhibited necrotic lesions and blotchy ripening. In the affected greenhouses, more than 50% of the plants showed symptoms. Leaf samples were collected from the three affected premises and laboratory tests (serological, molecular, and pathogenicity tests) confirmed the presence of ToBRFV. Phytosanitary measures were taken in the infected glasshouses, including tool disinfection, roguing of symptomatic plants and delimitation of quarantine areas. It is noted that as Santa Lucía and Lavalle are the most important areas of tomato production in Corrientes, surveys for ToBRFV will be conducted in these areas during the next growing season.

The situation of tomato brown rugose fruit virus in Argentina can be described as: **Present**, **not widely distributed**.

Source: Obregón VG, Ibañez JM, Lattar TE, Juszczak S, Groth-Helms D (2023) First report of

Tomato brown rugose fruit virus in tomato in Argentina. New Disease Reports 48,

e12203. https://doi.org/10.1002/ndr2.12203

Pictures: Tomato brown rugose fruit virus. https://gd.eppo.int/taxon/TOBRFV/photos

Additional key words: new record Computer codes: TOBRFV, AR

2023/168 New biological control agents added to PM 6/3(5) in 2023

In 2023, the following species was added to the EPPO Standard PM 6/3(5) Biological control agents safely used in the EPPO region, Appendix 1-commercially or officially used biological control agents.

Phasmarhabditis californica (Rhabditida: Rhabditidae)

P. californica is a biological control agent for species of slugs (e.g. Arion distinctus, A. hortensis, A. lusitanicus, A. rufus, A. vulgaris, Deroceras laeve, D. invadens, D. reticulatum, Lehmannia valentiana and Milax gagates). It can be used in any crops and plants attacked by slugs. The species is indigenous and widespread in the EPPO region and there are no previous reports of adverse effects.

Source: EPPO PM 6/3(5) 2023 version. Biological control agents safely used in the EPPO region.

Available at: https://gd.eppo.int/standards/PM6/

Additional key words: biological control Computer codes: PHSMCA, ARIODI, ARIOHO, ARIOLU, ARIORU, ARIOVU, DEROIN, DEROLA, DERORE, LEHMVA, MILXGA

2023/169 Host range of Trissolcus japonicus

Halyomorpha halys (Hemiptera: Pentatomidae - formerly EPPO Alert List) originates from Asia and emerged as an invasive pest in North America and Europe in the 1990s and 2000s, respectively. Trissolcus japonicus (Hymenoptera: Scelionidae - an egg parasitoid) is a biological control agent of H. halys which has been unintentionally introduced into the EPPO region with adventive populations occurring in some countries (e.g. Germany, Italy and Switzerland). Host specificity testing has shown that the physiological host range (the range of species on which T. japonicus can survive, reproduce and complete its lifecycle under optimum conditions) is reasonably broad. To assess if the predicted physiological host range was similar to the realized host range (the range of species on which a BCA is able to survive, reproduce and complete its life cycle under natural conditions in the field) sentinel egg masses of *H. halys* along with 18 native non-target species (Pentatomidae and Scutelleridae) were exposed to T. japonicus in Italy and Switzerland. Additionally, naturally occurring egg masses were also assessed. Over the three-year study, 15 of the 18 non-target species were recorded to be parasitized by T. japonicus though in most case the parasitism was less on non-targets compared to H. halys. Pentatoma rufipes was the non-target species most parasitized by T. japonicus and reasons for this include sharing the same ecological niche as H. halys and that P. rufipes lays eggs in the late summer when parasitism by T. japonicus is at its highest.

Source: Haye T, Moraglio ST, Tortorici F, Marazzi C, Gariepy TD, Tavella L (2023) Does the

fundamental host range of *Trissolcus japonicus* match its realised host range in

Europe? Journal of Pest Science. https://doi.org/10.1007/s10340-023-01638-0

Pictures: Trissolcus japonicus. https://gd.eppo.int/taxon/TRSSJP

Additional key words: biological control Computer codes: HALYHA, TRSSJP, CH, IT

2023/170 Host specificity testing of Hydrellia lagarosiphon for the biological control of Lagarosiphon major

Lagarosiphon major (Hydrocharitaceae) is on the EPPO List Invasive Alien Plants and an invasive alien species of (EU) Union concern. L. major is an aquatic plant originating from Southern Africa. It can colonize freshwater lakes, waterbodies, slow-moving streams, deep reservoirs, and dams where it forms dense monospecific populations which often colonise the entire water body, restrict water movement, cut off light, produce anoxic conditions and trap sediments. In Ireland, the estimated damage caused by aquatic invasive plants will rise to 3.8 billion EUR annually by 2030 if there is no successful management. Research into the classical biological control of L. major has identified a promising leaf-miner Hydrellia lagarosiphon (Diptera: Ephydridae). Host specificity testing was conducted against a predetermined list of plant species including four introduced and two native species in the family Hydrocharitaceae, plus 40 other species in seven families of Alismatales, all native to Ireland. No-choice and choice tests were conducted using neonate larvae and the results showed some non-target feeding damage on native *Potamogeton* species. Plant species which showed susceptibility in the tests were further tested in multigenerational population persistence tests where 1st instar larvae were reared through generations on these plant species. Three non-target plant species sustained development (though significantly reduced compared to the target plant) of H. lagarosiphon to adult though the population did not survive beyond the third generation for any of the non-target species.

Source:

Mangan R, Baars J (2023) Risk assessment of the host range of *Hydrellia lagarosiphon* for the biological control of *Lagarosiphon major* in Ireland. *Biocontrol Science and Technology*. https://doi.org/10.1080/09583157.2023.2215993

Computer codes: HYDRLA, LGAMA, IE

Additional key words: biological control

2023/171 Leucopis hennigrata as a biological control agent against Dreyfusia nordmannianae

Dreyfusia nordmannianae (Hemiptera: Adelgidae) is a pest in the European production of Christmas trees. It was introduced into Europe in the mid-1800s and is a pest of Abies alba and A. nordmanniana (Pinaceae). Leucopis hennigrata (Diptera: Chamaemyiidae) is a native predator in the EPPO region though it is absent from Northern Europe where the main production of Christmas trees occurs. Host range testing (no-choice tests) indicates that L. hennigrata will have a low risk to non-target species. Supporting field surveys in Switzerland and Georgia (where L. hennigrata is present) did not find L. hennigrata on any sampled non-target species. The results indicate that L. hennigrata is a suitable classical biological control agent against A. nordmannianae in Northern Europe.

Source:

Justesen MJ, Seehausen ML, Havill NP, Kenis M, Gaimari SD, Matchutadze I, Zembrzuski D, Ravn HP (2023) Evaluation of *Leucopis hennigrata* (Diptera: Chamaemyiidae) as a classical biological control agent of *Adelges nordmannianae* (Hemiptera: Adelgidae) in northern Europe. *Biological Control* https://doi.org/10.1016/j.biocontrol.2023.105264

Additional key words: biological control Computer codes: ABINO, ABIAL, DREYNU, LEUSHE

2023/172 Reassessment using the Prioritization process for invasive alien plants of 11 alien plants on the EPPO Observation List

In 2022/23, the EPPO Panel on Invasive Alien Plants re-assessed 11 species from the EPPO Observation List using the EPPO Standard PM 5/6 EPPO Prioritization process for invasive alien plants. The Observation List contains plant species (absent or present in the EPPO region) which present a medium risk to the EPPO region. A species is included in this list if the species has: 1) a medium or high rate of spread coupled with a medium impact; or 2) a low or medium rate of spread coupled with a high impact. The species were re-assessed following a literature search on newly published information since the date of the original listing. Each species was then assessed with the prioritization process. Of the 11 species, only one species warranted being moved from the Observation List to another list. For Lupinus polyphyllus, the outcome of the prioritization process was that the species has a high rate of spread coupled with a high impact, the species colonises habitats that have a value for nature conservation. L. polyphyllus has therefore been transferred to the EPPO List of Invasive Alien Plants. All of the new prioritization reports for the species listed in Table 1 are stored in the EPPO Global Database. Additional species from the Observation List will be re-prioritized in 2023/24.

Table 1. Species re-prioritized from the EPPO Observation List

Species	Family	Native range	Originally listed in
Asparagus asparagoides	Asparagaceae	South Africa	2013
Azolla filiculoides	Salviniaceae	Americas	2012
Bidens frondosa	Asteraceae	North America	2012
Hygrophila polysperma	Acanthaceae	Asia	2017
Limnophila sessiliflora	Plantaginaceae	Asia	2013
Lupinus polyphyllus	Fabaceae	North America	2012
Nassella neesiana	Poaceae	South America	2012
Nassella tenuissima	Poaceae	North America	2012
Nassella trichotoma	Poaceae	South America	2012
Rhododendron ponticum	Ericaceae	Europe and Asia	2012
Solidago nemoralis	Asteraceae	North America	2012

Source: EPPO Global Database: https://gd.eppo.int/

EPPO (2012) PM 5/6 EPPO prioritization process for invasive alien plants, *EPPO Bulletin* 43, 463-474.

Additional key words: invasive alien plants

Computer codes: ASPAS, AZOFI, BIDFR, HYGPO, LIOSE, LUPPO, RHOPO, SOONE, STDTR, STDTR, STDTN

2023/173 Prioritization of plant species from the EPPO Alert List

In May 2023, the EPPO Panel on Invasive Alien Plants assessed three species from the EPPO Alert List using the EPPO Standard PM 5/6 EPPO Prioritization process for invasive alien plants. A summary for each species is detailed below.

Lycium ferocissimum (Solanaceae)

Lycium ferocissimum is native to South Africa and is established in the EPPO region in Cyprus, France, Morrocco, and Spain. In the EPPO region, the species has a high spread potential as birds can spread seeds over long distances when feeding on the fruits. The potential impact of L. ferocissimum is high as it can form dense stands which outcompete native species. Impacts have also been recorded as high in agricultural areas in Australia where control is both difficult and costly. L. ferocissimum has been transferred from the Alert List to the EPPO List of Invasive Alien Plants. The species is a priority for a Pest Risk Analysis as a number of entry pathways have been identified including plants for planting (horticulture) and as a contaminant of used machinery and equipment.

Solanum sisymbriifolium (Solanaceae)

Solanum sisymbriifolium is native to South America (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay and Peru). In the EPPO region, the species has a high spread potential as mammals can spread seeds and seeds may also be spread as a contaminant of used machinery and equipment. The potential impact of *S. sisymbriifolium* is moderate, the species may have negative impacts on native plant species and there may be the potential for impacts on irrigated crops in the Mediterranean region. The EPPO Panel on Invasive Alien Plants notes that *S. sisymbriifolium* is used as a beneficial plant in agriculture as it is used as a trap crop for *Globodera rostochiensis* (potato cyst nematode). In countries where the species shows signs of invasiveness, it should be monitored and managed where needed. *S. sisymbriifolium* has been transferred from the Alert List to the EPPO Observation List.

Trianthema portulacastrum (Aizoaceae)

Trianthema portulacastrum has a wide native range including the Americas, Asia and Africa. In the EPPO region it is established in Israel and Jordan where it occurs in ruderal habitats, roadsides, lakes, riverbanks, creeks, coastal areas and agricultural habitats. It has a high spread potential: seed is dispersed by water and agricultural practices. The potential impact of *T. portulacastrum* is high, yield losses have been reported in maize, soybean, peanut and mung bean. Pathways for entry include plants for planting (horticulture) and potentially as a seed contaminant of seeds for planting and grain. Further analysis is required on the potential for further spread in a significant area of the EPPO region. *T. portulacastrum* has been transferred from the Alert List to the EPPO List of Invasive Alien Plants.

Source: EPPO Global Database: https://gd.eppo.int/

Pictures: Solanum sisymbriifolium. https://gd.eppo.int/taxon/SOLSI/photos

Trianthema portulacastrum. https://gd.eppo.int/taxon/TRTPO/photos

Additional key words: invasive alien plants Computer codes: LYUFE, SOLSI, TRTPO

2023/174 Pest risk analysis planned for Zizania latifolia

In 2022, Zizania latifolia (Poaceae) was assessed using the EPPO Standard PM 5/6 EPPO Prioritization process for invasive alien plants. The result of the prioritization was that the species should be added to the EPPO List of Invasive Alien Plants and that the species is a priority for Pest Risk Analysis (PRA). The EPPO Working Party on Phytosanitary Regulations approved the priority and in 2024, an Expert Working Group will take place to conduct a PRA for this species. Z. latifolia is a perennial rhizomatous species found in damp habitats. In the EPPO region, it shows invasive behaviour in Lithuania, Russia, and Ukraine. It has the potential to invade and degrade riparian habitats and damp pastureland.

Source: EPPO Global Database https://gd.eppo.int/

EPPO (2012) PM 5/6 EPPO prioritization process for invasive alien plants, EPPO

Bulletin 43, 463-474.

Additional key words: invasive alien plants Computer codes: ZIZLA