Webinar guide for attendees

- This webinar is being recorded!
- The webinar is in English and questions should be submitted in English through the platform (see hereunder).
- You are automatically connected to the audio broadcast. One-way audio (<u>listen</u> <u>only</u> mode).



Trusted science for safe food



Presentation

Q&A box: For any questions related to the topic







Activities on Horizon scanning for plant health

Plant Health Webinar 9 June 2020



Trusted science for safe food

EFSA Animal and Plant Health Unit





Horizon Scanning Project Framework



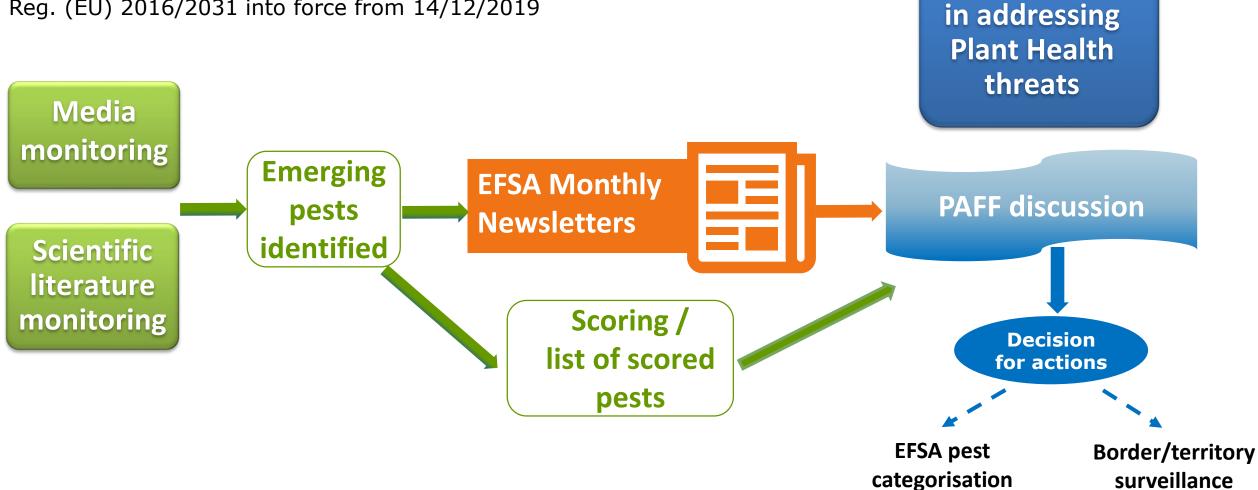
Improve EU

preparedness

DG SANTE Mandate (Dec. 2016)

In the context of the new EU regulatory framework for Plant Health

Reg. (EU) 2016/2031 into force from 14/12/2019



Collaborations



JRC

Text and Data mining
Unit I.3

Directorate General Joint Research of the EC



- MEDISYS platform development
- Source implementation

EFSA Working group

- Newsletter review
- Monitoring methodology
- Pest scoring methodology

ANSES tasking grant

French Agency for Food, Environmental and Occupational Health & Safety

- Scientific literature monitoring
- Pest scoring methodology



Ongoing collaboration with the Assessment and Methodological Support Unit (AMU). Collaboration with Scientific Committee and Emerging Risks (SCER) Unit during the pilot phase of the Scientific Newsletter.

Tools and outputs - JRC collaboration





IT tool News Desk



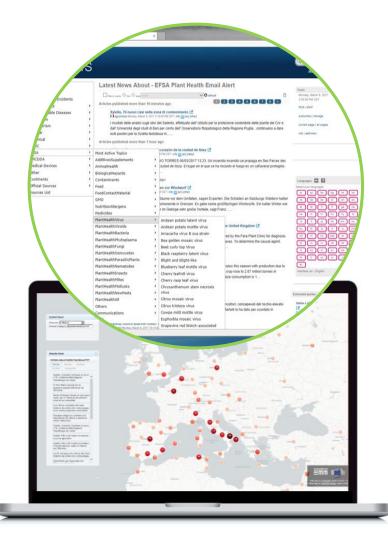


The Tool

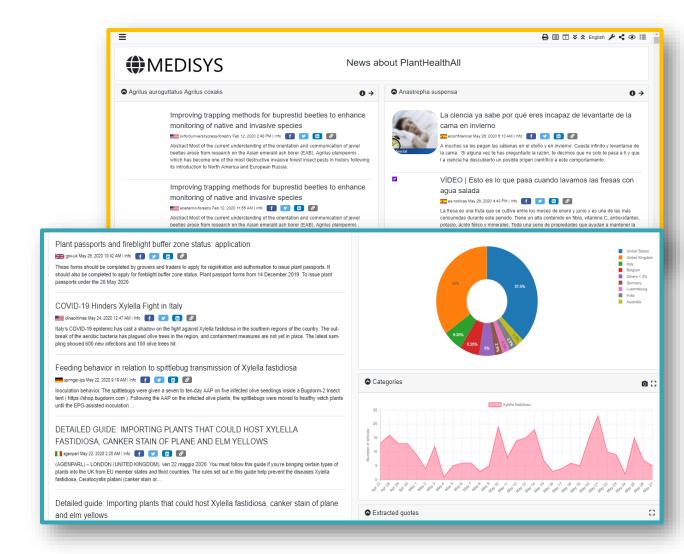


MEDISYS

<u>http://medisys.newsbrief.eu/medisys/homeedition/en/home.html</u>

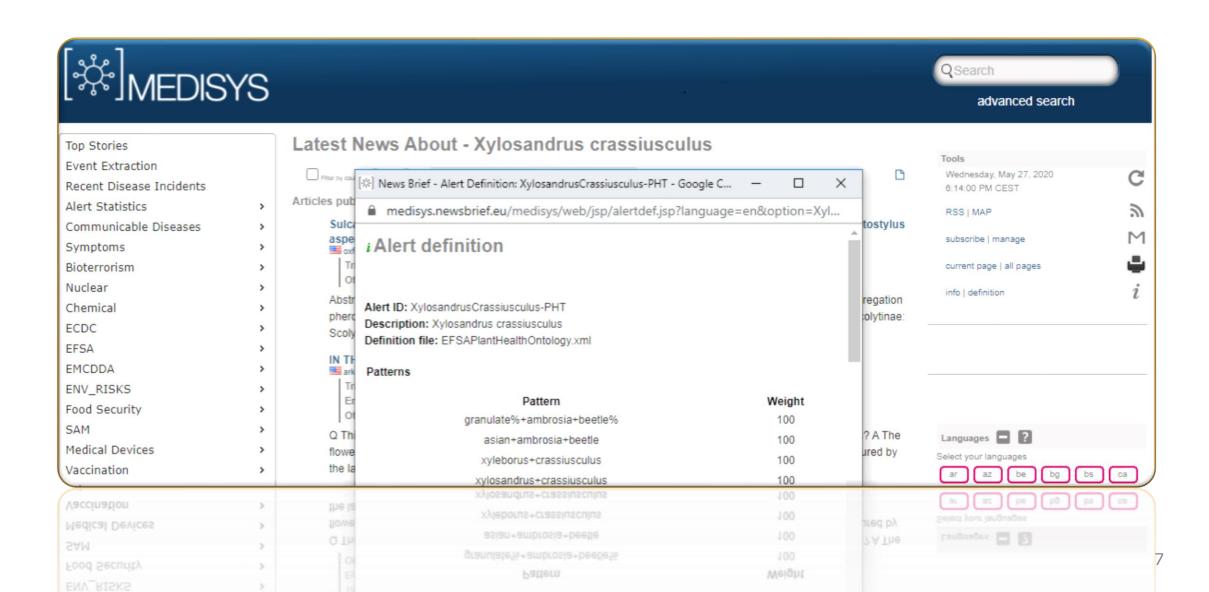


https://t1.emm4u.eu/medisys/jsp/stories/



The Tool

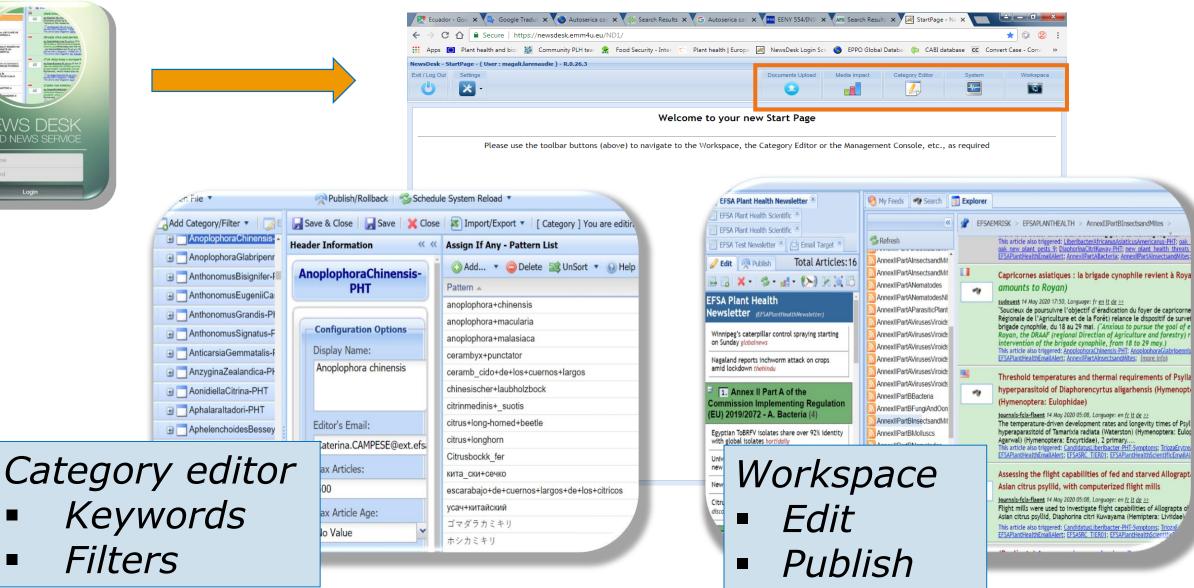




MEDISYS NewsDesk

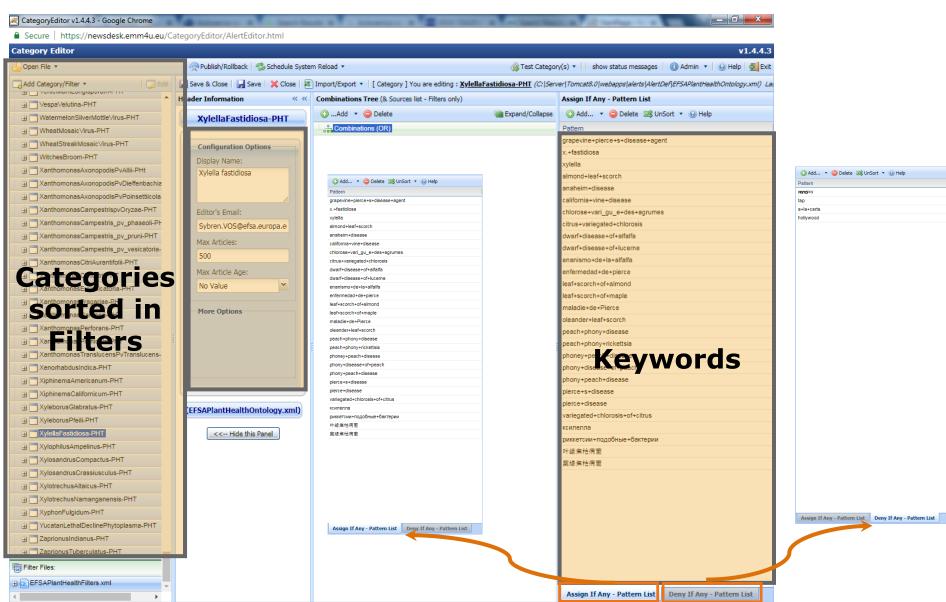






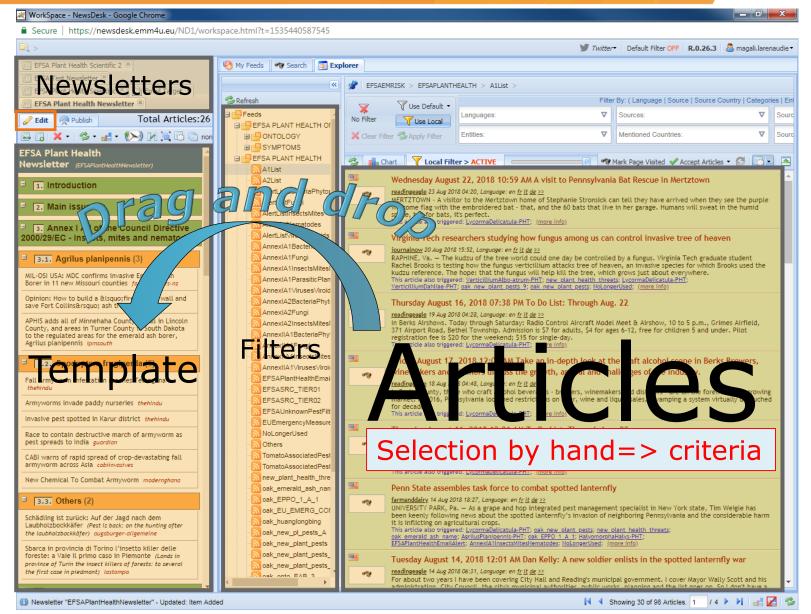
Category editor





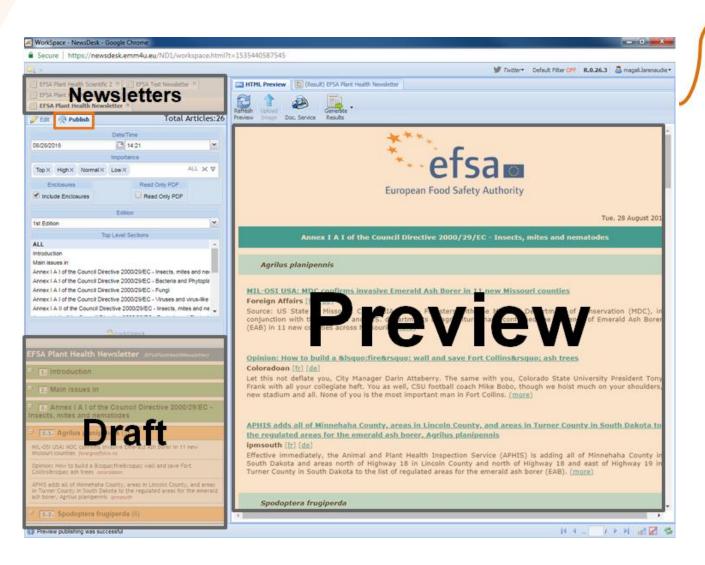
Workspace: articles selection





Workspace: newsletters publication





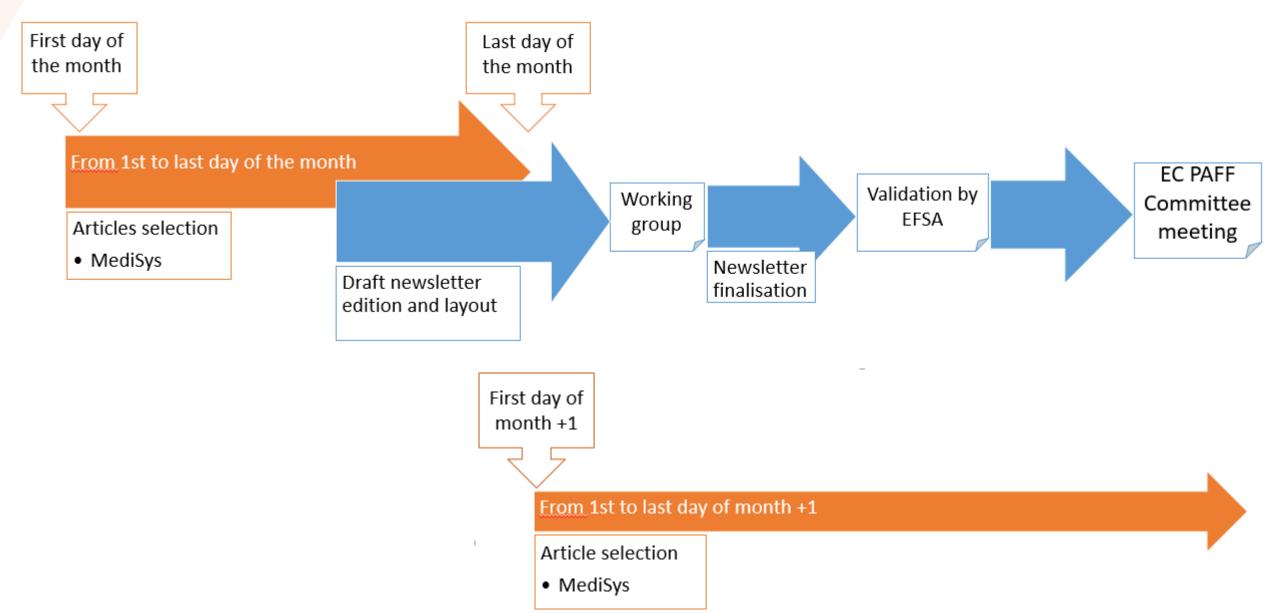






Newsletters production process





Article selection



Criteria for article selection



New findings, new hosts New pests



For pests of high EU interest → New control and surveillance strategies



For pests under mandatory
EU measures → Also pest
and control measures'
impacts

 Xylella fastidiosa Wells, Raju, Hung, Weisburg, Parl & Beemer (Gammaproteobacteria, Xanthomonadales, Xanthomonadaceae)

Xylella fastidiosa is listed in Annex II part B of the Commission Implementing Regulation (EU) 2019/2072 and it is the subject of EU emergency measures (Commission Implementing Decision 2015/789/EU).

This newsletter includes two articles from Greek media, updating the outbreak situation in Portugal. While these articles emphasize *Xylella's* absence from the Greek territory, they also list ten plant species found positive to *Xylella* for the first time in the demarcated area in North Portugal. *Metrosideros excelsea, Asparagus acutifolius, Olea europea, Lavandula stoechas, Nerium oleander, Frangula alnus, Pterospartum tridentatum, Calluna vulgaris, Cistus salvifolius and <i>Plantago lanceolata* are the species mentioned. Among these species, *Frangula alnus, Pterospartum tridentatum* and *Calluna vulgaris* are not listed as specified plants in the Commission Implementing Decision 2015/789/EU.



Under official control



Extremely polyphagous



Many fruit plants (vineyards, almonds, olives, etc...)



Dieback / reduced growth / asymptomatic in some species or cvs

All the articles on Xylella fastidiosa are available on the webpage of MediSys EFSA Plant Health.

 Fusarium oxysporum f. sp. cubense Tropical Race 4 (E.F.Smith) Snyder & Hansen (Sordariomycetes, Hypocreales, Nectriaceae)

Tropical Race 4 (TR4) is a soil-dwelling strain of the fungus *Fusarium oxysporum* f. sp. *cubense* that causes Fusarium wilt (Panama disease) in cavendish bananas. It originated in Asia, where it is spread all over the continent, affecting the most important banana-producing countries. It is also present in South America, Africa (Mozambique) and Australia. TR4 cannot be controlled by fungicides or eradicated from the soil with the use of fumigants, therefore it could survive for decades in the infested fields.

This newsletter includes one article about the pest first finding in Mayotte (France, overseas territory), in one plot of banana (*Musa* sp.), varieties Baraboufaka and Kissoukari. The notification was reported by the France NPPO.



Absent in EU



Oligophagous



Mainly Musa



Leaves yellowing, vascular discoloration and plant dieback

All the articles on *Fusarium oxysporum* f. sp. *cubense* are available on the webpage of <u>MEDISYS EFSA</u> Plant Health.

Article selection



Criteria for article selection



New findings, new hosts



For pests of high EU interest → New control and surveillance strategies



For pests under mandatory
EU measures → Also pest
and control measures'
impacts

• Xylella fastidiosa Wells, Raju, Hung, Weisburg, Parl & Beemer and its vectors

Gammaproteobacteria, Xanthomonadales, Xanthomonadaceae Implementing Regulation (EU) 2019/2072 – Annex IIB New host plant

<u>First Report of Bacterial Leaf Scorch Caused by Xylella fastidiosa on Gleditsia triacanthos var. inermis in Pennsylvania</u>

Plant Disease [fr] [de] 10.Feb.2020 - Vol. 104, No. 4, April 2020

In the summer of 2019, three thornless honeylocust trees (*Gleditsia triacanthos* var. inermis) in Gettysburg, PA, were observed in a general state of decline. The trees were 50 to 64 cm in diameter at breast height. Symptoms of the decline included branch dieback, stunted growth, and swollen woody tissues where leaf petioles attached on the branch. Symptoms were randomly distributed in the canopy and progressed from the outer portions of the canopy inward. Based on communication with local arborists who

have observed these symptoms on other honeylocusts; symptoms, mature, established honeylocust trees di Bacterial leaf scorch disease, which is caused by th widespread in Gettysburg, PA, on *Quercus palustris*;

New host plant (for Xylella fastidiosa subsp.

Natural Infection of Southern Highbush Blueberry (1 subsp. fastidiosa

Plant Disease [fr] [de] 17.April.2020

Xylella fastidiosa (Xf) is an emerging insect-vector economically important fruit and tree crops including blueberry, Xf causes bacterial leaf scorch (BLS), who reported to be caused by Xf subsp. multiplex (Xfm), (SHB) blueberry cultivars. In 2017, a survey of presence of Xf-infected plants in eight of nine sites (more)



Many fruit plants (vineyards, almonds, olives, etc...)



Extremely polyphagous



Dieback /reduced growth/ asymptomatic in some species or cvs

the day official accuracy

Spodoptera frugiperda (Smith)

(Insecta, Lepidoptera, Noctuidae)

Spodoptera frugiperda is listed in Annex II A of the Commission Implementing Regulation (EU) 2019/2072 and it is the subject of EU emergency measures to prevent its introduction into the EU (Commission Implementing Decision 2018/638/EU).

The current newsletter reports seven articles describing its spread in Australia. According to the previous newsletters, the pest was first detected in Australia on Torres Strait islands. It reached the mainland at Bamaga (northern tip of Queensland) this February. After a few weeks it was detected in the Gulf Country, in South Johnstone, Tolga and Lakeland localities of Queensland. Recently, the fall armyworm has been confirmed in Western Australia. Therefore, it seems



Absent in EU

Among cereals and staple crops



Maize, sugarcane, millet, rice



Yield losses

progressing towards Perth on the western coast, while it has already reached Brisbane in Queensland on the Eastern Coast. Pheromone traps have been distributed in many regions, as part of surveillance to help determine its spread. However, only few months after its first detection in the country, the pest is already present in three states (Queensland, Northern Territory, Western Australia).

One more article concerning a new biological control against *S.frugiperda* is reported by this newsletter. *Cotesia icipe* (Hymenoptera: Braconidae) is a parasitoid of the pest, discovered by the International Centre of Insect Physiology and Ecology in Kenya. It appears to be an effective natural enemy of the fall armyworm in Kenya, another country strongly threatened by the fall armyworm.

All the articles on S. frugiperda are available on the webpage of MEDISYS EFSA Plant Health.

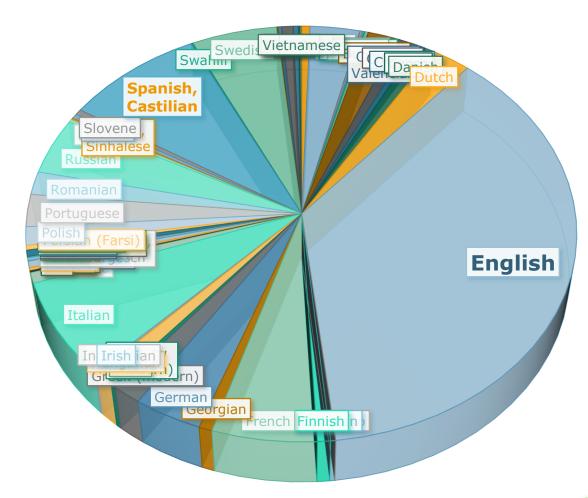
EFSA Plant Health Monitoring



12,391 sources

From 196 countries and 72 *languages*

1,148 pests and searches for emerging ones





EFSA Plant Health Media Newsletter Structure



 Table of content with crossreferences

- Introduction
- Icons
- Main issues
- Selected articles:
 - ✓ Links to articles, with translations
 - ✓ Source and date of publication





EFSA Plant Health Media Newsletter



1. Main issues in the No. 36

1.1. Pests listed in EU legislation

Spodoptera frugiperda (Smith)

(Insecta, Lepidoptera, Noctuidae)

Spodoptera frugiperda is listed in Annex II A of the Commission Implementing Regulation (EU) 2019/2072 and it is the subject of EU emergency measures to prevent its introduction into the EU (Commission Implementing Decision 2018/638/EU).

The current newsletter reports seven articles on this pest, six of them concerning its first detection and further spread in Australia. At first, the Queensland Department of Agriculture and Fisheries reported the finding of few individuals in the Torres Strait, caught in traps located on the islands of Saibabi and Erub. Few weeks later, S. frugiperda was also detected on the Australian mainland. Pest identifications have been officially confirmed initially at Bamaga on Cape York, in far north Oueensla-

damage has F together w develop a

One mon



Xylosandrus compactus (Eichhoff)

(Insecta, Coleoptera, Scolytidae)

Xylosandrus compactus is included in the EPPO Alert list since 2017.

This pest, probably originating from Asia, is highly polyphagous and voracious. In the last few years it has been reported from Italy and France, damaging Mediterranean woody plants.

The current newsletter reports two articles about the first detection in Mallorca, Spain. Several specimens of this species were collected from a private garden on Ceratonia siliqua (carob tree) in November 2019. In December the University of the Balearic Islands (UIB) confirmed the species determination. The UIB and the Department of Agriculture, Fisheries and Food and the Environment and Territory have started to work together on control measures.



Absent in EU

staple crops

millet, rice

Yield losses

Among cereals and

Maize, sugarcane,

Plant Health !

cocoa trees



Necrosis of the leaves, twig and branch die-back, bored holes in branches

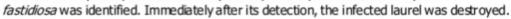
All the articles on Xylosandrus compactus are available on the webpage of MediSys EFSA Plant Health.

Xylella fastidiosa (Wells, Raju, Hung, Weisburg, Parl & Beemer)

(Gammaproteobacteria, Xanthomonadales, Xanthomonadaceae)

Xylella fastidiosa is listed in Annex II part B of the Commission Implementing Regulation (EU) 2019/2072 and it is the subject of EU emergency measures (Commission implementing Decision 2015/789/EU).

The articles in this newsletter describe the further spread of the bacterium in Apulia region, Italy, northwards. Indeed, more than a hundred new infected olive trees have been reported by Coldiretti Puglia in the provinces of Taranto and Brindisi. The finding of an infected rosemary plant in the city of Ostuni, Apulia, has also been notified. Another article reports the first detection, in Corsica (FR), of an infected pink laurel (Nerium oleander). The plant was detected in Propriano, the same locality where, in 2015, the first case of Xviella



Additionally, this newsletter includes one article about the results of the grafting experiment obtained using Leccino and Favolosa varieties, According to Coldiretti Puglia, the CNR (National Research Council of Italy) might soon he able to demonstrate how grafting will represent a solution to the Vulalla problem

Similarly, one According to t disease, were and wine.

One more arti the private re on the ground

All the articles

Litylenchus crenatae (Kanzaki, Ichihara, Aikawa, Ekino & Masuya) (Rhabditida, Anguinidae, Litylenchus)

Litylenchus crenatae is included in the EPPO Alert list. This nematode was recently isolated and described in Japan. The article selected for this newsletter reports its plausible association with the beech leaf disease. The newsletter No. 18 of September 2018 reported about the presence of the disease in Ohio, New York, Pennsylvania and Ontario on American beech (Fagus grandifolia) as well as on non-native beech trees. Whether this nematode is the real cause of the beech leaf disease is still under discussion. Plant pathologists and biologists from the Ohio University and the Ohio Holden Arboretum, together with the U.S. Department of Agriculture are dealing with the case.

All the articles on Litylenchus crenatae are available on the webpage of MEDISYS EFSA Plant Health.



Under official control

Extremely polyphagous



fru it plants (vineyards, a Imonds. olives, etc...)



Die back reduced growth / a symptomatic in some species or cvs



Absent in EU



Inside the genus Fagus





Aborted buds, leaf drops. Can lead to tree m ortality

EFSA Plant Health Scientific Newsletter Structure



- Articles referring to the same pests monitored on media
- Table of content
 - ✓ List of pests per production sector
- Selected articles
 - ✓ Pest name, taxonomy, listing
 - √ Icons reorganised
 - Main crops affected
 - Feeding habits
 - Type of impact
 - Presence in the EU
 - ✓ Links and first lines of the abstract



EFSA Plant Health Scientific Newsletter

 Citrus Huanglongbing disease Jaqoueix, Bové & Garnier and its vectors Diaphorina citri Kuwayama and Trioza erytreae (Del Guercio)

Bacteria, Alphaproteobacteria | Insecta, Hemiptera, Liviidae and Insecta, Hemiptera, Triozidae Implementing Regulation (EU) 2019/2072 - Annex IIA (Candidatus Liberibacter asiaticus and Diaphorina citri) and Implementing Regulation (EU) 2019/2072 - Annex IIB (Trioza erytreae) Potential Distribution

A perspective of citrus Huanglongbing in the context of the Mediterranean Basin

Journal of Plant Pathology [fr] [de] 23.Apr.2020

Huanglongbing (HLB) is one of the most catastrophic citrus diseases. HLB pathogens Candidatus Liberibacter asiaticus (Las), Ca. L. africanus (Laf), and Ca. L. americanus (Lam) and their insect vectors Asian citrus psyllids (ACP, Diaphorina citri) and African citrus psyllids (AfCP, Trioza erytreae) are invading citrus producing regions where HLB was absent previously, including the Mediterranean basin. Importantly, the Mediterranean region is one of the two major citrus producing areas without HLB. Here, I provide a short perspective regarding a) information related to the distribution of the HLB pathogens and psyllid vectors in this region and neighboring countries, b) predicted distribution of the HLB for this



Citrus species



Oligophagous



Reduced size and areened of the fruits, premature drop and dieback and dwarfing of the plant



Absent from Europe

region, c) the possible evolution of Liberibacters and how they could have established their relationship with different hosts, and d) approaches to fend off HLB. (more)

Anoplophora glabripennis Motschulsky

Insecta, Coleoptera, Cerambycidae Implementing Regulation (EU) 2019/2072 - Annex IIA Identification method

Identification of Anoplophora glabripennis (Moschulsky) by its emitted specific volatile organic compounds

Plant Disease [fr.] [de] 29.Jan.2020 - Vol. 104, No. 4, April 2020

Explorative experiments were done to figure out differences in the emission of volatile organic compounds (VOCs) of not infested trees and trees infested by Anoplophora glabripennis (Asian longhorn beetle, ALB), a quarantine pest. Therefore, VOCs from some native insect species, Anoplophora glabripennis infested Acer, stressed Acer, healthy Acer, Populus and Salix were obtained by



Especially Acer and Salix



Polyphagous



Yield losses



Present in EU

enrichment on adsorbents. Qualitative analysis was done by thermal desorption gas chromatography coupled with a mass selective detector (TD-GC/MS), (more)



EFSA Plant Health Scientific Newsletter



Plum viroid I

Viroids, Pospiviroidae, Apscaviroid Not listed New pest

A plum marbling conundrum: Identification of a new viroid associated with marbling and corky flesh in Japanese plums

Phytopathology [fr.] [de] 07.April.2020

Over the past two decades fruit symptoms resembling a marbling pattern on the fruit skin or corking of the fruit flesh was observed on Japanese plums in South Africa resulting in unmarketable fruit. The ability of high-throughput sequencing (HTS) to detect known and unknown pathogens was exploited, by assaying affected and unaffected fruit tree accessions to identify the potential aetiological agent of marbling and/or corky flesh disease. In this study it is shown that the disease is associated with a previously undescribed small RNA with typical viroid structural features. (more)

Tomato brown rugose fruit virus

Viruses, Virgaviridae, Tobamovirus EU Emergency measures First finding

First report of Tomato brown rugose fruit virus infecting sweet pepper in Italy

New Disease Reports [fr] [de] 01.Apr.2020

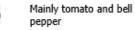
In January 2020, about 85% of a red sweet pepper (Capsicum annuum) crop in a greenhouse located in Ragusa province (Sicily, Italy) showed virus-like symptoms. Symptoms consisted of a slight mosaic and discoloration of young leaves, vein clearing on young leaves, browning of the stem with strong necrosis located in the intersection of the secondary branches, partial necrosis of the vegetative apex and marbling, mosaic and distortion of the fruits (Fig. 1). (more)

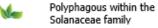


First report of Tomato brown rugose fruit virus on tomato in Egypt

New Disease Reports [fr] [de] 30.Apr.2020

In June 2019, leaf samples from hybrid tomato (Solanum lycopersicum cv. Elquds E448) were collected from four regions in Fayoum and Ismailia Governorates, Egypt. Twenty samples were collected from plants with viral symptoms and nine from asymptomatic plants. The diseased samples had mosaics, deformation and necrosis on the leaves (Fig. 1), and discoloration and deformations on fruits (Fig. 2). Samples were tested by DAS-ELISA (LOEWE®, Germany) for the presence of viruses that induce similar symptoms on tomato plants. (more)





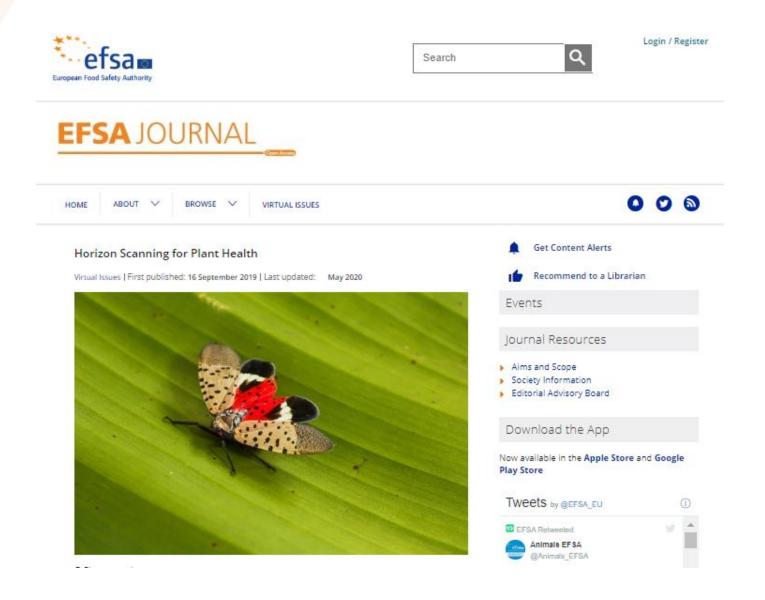
Foliar chlorosis, mosaic and mottling. Necrotic spots on peduncles, calyces and petioles. Yellow or brown spots on

Few occurrences in IT (Sicily), in GR (Creete) and FR (Brittany)



EFSA Plant Health Newsletters: Virtual Issues







_ P	lant Health Newsletter: Media Monitoring No. 37
Е	uropean Food Safety Authority (EFSA)
Е	FSA Supporting Publications First Published: 13 May 2020
F	irst Page PDF
Ĝ	Ò Open Access
_ P	lant Health Newsletter: Media Monitoring No. 36
E	uropean Food Safety Authority (EFSA)
E	FSA Supporting Publications First Published: 13 March 2020
F	irst Page PDF
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□ P	lant Health Newsletter: Media Monitoring No. 35
Е	uropean Food Safety Authority (EFSA)
Е	FSA Supporting Publications First Published: 14 February 2020
F	irst Page PDF
ć	Ò Open Access
_ P	lant Health Newsletter: Media Monitoring No. 34
Е	uropean Food Safety Authority (EFSA)
E	FSA Supporting Publications First Published: 29 January 2020

Future Perspectives



Monitoring

- ✓ In collaboration with the JRC, adaptation of the platform to the monitoring of scientific literature
- ✓ Addition of new scientific sources
- ✓ Improve the ontology for unknown pests
- Enrich ontology by adding common names in different languages

Publication

- ✓ Scientific newsletter publication on Wiley
- ✓ Report of monitoring activities from 2017 to March 2020
- Review of the ranking systems and methodologies
- Report on Pests' scoring methodology

Last Tip: following the twitter account @plants_efsa, a tweet will always notify you when a new publication is available on Wiley!







Trusted science for safe food



Acknowledgements



EFSA wishes to thank for the contribution provided to the project:

Jens Linge (JRC),

Emmanuel Gachet (ANSES),

Maria Rosaria Mannino, Giuseppe Stancanelli (EFSA, Animal and Plant Health Unit),
Irene Muñoz Guajardo (EFSA, Assessment Methodology Unit),
Thierry Candresse, Josep Anton Jaques Miret and Michael Jeger (EFSA working
group on Horizon Scanning).

We sincerely thank the colleagues of the ALPHA Unit for the support provided to this webinar:

Alice Delbianco, Andrea Maiorano, Maria Rosaria Mannino, Giulia Mattion, Alzbeta Mikulova, Maria Chiara Rosace, Oresteia Sfyra, Sara Tramontini.

Finally, we would like to thank all the colleagues behind the doors for the technical support.

EFSA for the IYPH2020







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#IYPH2020
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Thank you for attending our webinar!

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Please take 5 more minutes to <u>fill out</u> the evaluation form that you will receive shortly in your inbox. Your feedback will help us improve our service!



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2020



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