

EFSA webinar: Activities on Horizon scanning for plant health

Webinar | 9 June 2020, from 13.30 to 14.30 (CEST)

Abbreviations

ALPHA	Animal and Plant Health Unit
ANSES	Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail (French Agency for Food, Environmental and Occupational Health & Safety)
CABI	Centre for Agriculture and Bioscience International
Category	Set of positive and negative (exclusion) keywords used in MEDISYS to search for articles and news about a given plant pest or disease. In some cases, it covers more than one plant pest.
EC	European Commission
EPPO	European and Mediterranean Plant Protection Organization
EU	European Union
JRC	Directorate General Joint Research of the European Commission
MEDISYS	Medical Information System
PAFF	Plants, Animals, Food and Feed Committee of the European Commission

Useful links/addresses

EFSA e-mail :

alpha@efsa.europa.eu

EFSA Horizon scanning virtual issue:

[https://efsa.onlinelibrary.wiley.com/doi/toc/10.2903/\(ISSN\)1831-4732.Horizon-scanning-for-plant-health](https://efsa.onlinelibrary.wiley.com/doi/toc/10.2903/(ISSN)1831-4732.Horizon-scanning-for-plant-health).

EFSA Plant health official twitter account:

@plants_EFSA

MEDISYS Home page (current website):

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

MEDISYS EFSA Plant Health (current website)

<https://medisys.newsbrief.eu/medisys/groupedition/en/PlantHealthAll.html>

MEDISYS Home page (test version of the new website):

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

MEDISYS EFSA Plant Health (test version)

<https://t1.emm4u.eu/medisys/jsp/group/?gid=PlantHealthAll>

Figures from monitoring activities

Newsletters produced so far: 39 media (all published on Wiley), 18 scientific (soon available on Wiley)

Sources: 12391 (442 scientific sources)

Countries of sources: 196

Languages: 72

Pests monitored: 1148 (551 are not listed pests in the EU or by EPPO)

Not regulated pests in the European Union included in the newsletters: 49 (19 of which listed by EPPO) in the media newsletters (February 2017 – March 2020), 277 (52 of which listed by EPPO) in the scientific newsletters (October 2018-March 2020).

Number of articles selected by the platform in the period February 2017- March 2020: around 85000 items.

Regulatory framework

Main text defining the new plant health regime (consolidated text of 14 December 2019): [Regulation \(EU\) 2016/2031](#)

Regulation (EU) 2016/2031 of the European Parliament and the Council, of 26 October 2016 on protective measures against pests of plants.

For the list of quarantine pests: [Regulation \(EU\) 2019/2072](#)

Commission implementing Regulation (EU) 2019/2072 of 28 November 2019 establishing uniform conditions for the implementation of Regulation (EU) 2016/2031 of the European Parliament and the Council, as regards protective measures against pests of plants.

Questions and answers

1. Can I access MEDISYS? Does it require registration?

MEDISYS is a fully automatic public health surveillance system, publicly available at this link: <https://medisys.newsbrief.eu/medisys/homeedition/en/home.html>. It is currently under revision, the test version of the future website is provisionally available at this link: <https://t1.emm4u.eu/medisys/jsp/stories/>

The NewsDesk, the IT tool used in this project, is a web-based application that requires a subscription.

2. When will the new version of MEDISYS be available?

For more information about the availability of the new version of MEDISYS please contact directly the JRC: jrc-emm-info@ec.europa.eu

3. It is an awful amount of information to handle, is it possible to set up an alarm or something like that, so that people working in Food Quality Assurance can react rapidly enough if a harmful and unknown food pathogen arises? How do you suggest us to use this tool, in the context of industry GMP - Risk Management programmes?

In this project, EFSA only deals with plant health issues. The MEDISYS platform was built and is developed and maintained by the Directorate General of the Joint Research Centre of the European Commission. The tool can certainly be used in other areas, as other users have already done. Alerts can be set up on specific topics monitored by MEDISYS through its website. You can contact the JRC for more details: jrc-emm-info@ec.europa.eu

4. The potential of the tool is impressive. Why do you monitor only plant pests? Can I use your new tool? Can other sectors from food safety organisations see the potential of this tool and adapt it to their tools? Could you share the sources of your information?

Concerning Horizon scanning for Plant Health, EFSA is working to answer a specific request of the European Commission. The monitoring of new or emerging plant pests aims at enhancing the protection of the EU territory by supporting the decisions of risk managers (e.g. listing of new quarantine pests, strengthening EU border and territory surveillance). The MEDISYS platform was built and is developed and maintained by the Directorate General Joint Research Centre of the European Commission. EFSA started working with the JRC in 2014, to adapt the platform to Plant Health, after a study carried out to explore the possibilities of using this really powerful platform in the different areas of EFSA's activities. By exploring MEDISYS, publicly available, it is possible to find a wide range of topics, some covering EFSA's areas of activity, others outside EFSA's fields of work, developed by other users. JRC is the owner of the platform. To carry out the ongoing work, EFSA uses the NewsDesk tool, subscription-based web application provided by the JRC. The tool makes possible to add keywords and display articles selected by

MEDISYS using the defined keywords. The “active” sources of information (providing news and articles) can be found on this page of MEDISYS: <https://medisys.newsbrief.eu/medisys/sourceslist/en/list.html> EFSA monitors over 12,000 sources, of which approximately 450 are scientific sources relevant to plant health. EFSA wishes to enrich the pool of scientific sources as well as the pool of local (national or regional) generic or specialized websites in areas related to agricultural and environmental issues.

5. Nice newsletter’s structure until now, why only for pests? it will be a helpful tool also for food fraud and emerging risks.

EFSA monitors known plant’s pests and new plant health risks using pest’s names and *ad hoc* generic keywords. The scope of this activity covers new or emerging plant health risks for the European Union. Other EFSA teams are working on emerging risks in other areas of EFSA's competence and other MEDISYS users are working in areas outside EFSA's remit.

6. Are there other tools able to perform the same tasks?

PestLens is a phytosanitary early-warning system from the Animal and Plant Health Inspection Service of USDA (US). While in the MEDISYS platform the information is publicly available, in PestLens subscription is required. In addition, in MEDISYS news are automatically screened by the system.

7. What is the difference with ProMed? What is the relation with EPPO Reporting Service and ProMed?

As presented in the webinar, EFSA's Horizon scanning activities are carried out through the JRC’s really powerful platform (MEDISYS) and its web application (NewsDesk) that allow to screen media and scientific literature in almost real time. More than 12000 sources in 72 languages from 196 countries are regularly checked. This means that the system in use automatically finds and selects news and information published online according to the keywords set up. ProMed is one of the sources surveyed by the platform every hour (frequency may vary depending on the source). As explained on the ProMed website, it works thank to staff, moderators, and team located across 32 countries. They search, review and display information related to health issues in different sectors, including plants. Like ProMed, the EPPO Reporting Service and the EPPO website are among the monitored sources in this project. As EFSA does, EPPO looks for information on plant pests. As far as I know, this research work is done manually by EPPO staff. The EPPO Reporting Service mainly focuses on information from scientific sources and benefits from direct information from EPPO members, which is not always accessible on websites. These different tools are complementary.

8. What is the ontology?

Ontology mainly consists of sources monitored and keywords used to capture news and articles about monitored pests.

9. Can keywords be added?

Keywords can be added in the ontology by the users but only through the NewsDesk, subscription-based web application provided by the JRC.

10. How frequently do you update the list of pests you are monitoring?

The list of pests is updated as soon as the list of regulated pests in the European Union or the EPPO lists are modified. Moreover, when a new pest is identified on media or scientific articles through *ad hoc* keywords, it is added to the list of monitored pests. EFSA is currently monitoring 1148 plant's pests in total.

11. Where can I find the list of pests monitored?

The list of monitored pests will be included in the Horizon scanning report that will be soon published on Wiley. You can also display the list of pests in the EFSA Plant Health web page of MEDISYS.

12. Is your database accessible? Is it possible to know the keywords you are using?

The database consists in the list of monitored pests (1148 so far) and the associated keywords (scientific and common names in different languages). The list of monitored pests will be included in the Horizon scanning report that will be soon published on Wiley. The keywords corresponding to each monitored pest are accessible through the EFSA Plant Health web page of MEDISYS. They can be displayed on the specific page dedicated to the latest news about the pest.

13. What is the source of information behind MEDISYS? Only scientific literature? Is it taking in account articles in different languages?

The platform monitors more than 12000 sources (media and scientific sources). They come from 196 countries and are in 72 languages.

14. Are you monitoring any scientific sources in the Russian language?

Several sources and keywords are in Russian. The implementation of new scientific sources in this language is one of the developments we are working on in collaboration with the JRC.

15. Are you monitoring information in Russian and Arabic?

We monitor scientific sources and media in 72 different languages, including Russian and Arabic.

16. How were sources selected? What are the indicators used to assess the reliability of the sources used? Are the journals about public health behind MEDISYS credible sources?

Sources were found, assessed and implemented during the previous project (2014-2016). Sources already considered by MEDISYS platform for the monitoring of public health (general media, official sources of countries) have been considered as well as additional sources well known among the plant health community (EFSA, EPPO, CABI, partners of the project, sources from the PestLens project). Sources have been assessed regarding their quality based on an Information Quality management (IQm) framework (the process is detailed in the report of the previous project: Alomar et al, 2016, doi:10.2903/sp.efsa.2016.EN-1118). Scientific sources relevant for plant health were provided by EFSA and its partners in the project, in particular by ANSES (Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail - French Agency for Food, Environmental and Occupational Health & Safety). This addition of new scientific sources is still ongoing.

17. Are you monitoring the EPPO Reporting service?

The EPPO Reporting service is among the relevant sources monitored in the frame of this project.

18. Are you using EPPO codes for taxonomy?

EPPO codes are not linked to the taxonomy but they provide an international system of identification codes for plant pests.

19. Are you screening articles on *Halyomorpha halys*?

This pest is outside the scope of this project, designed at the request of the European Commission to alert regarding new plant health threats for the European Union territory. Although this insect is very harmful to the agricultural sector, it is nevertheless widespread throughout the Union. It is not a quarantine pest and has also been removed from the EPPO lists.

20. What about *Candidatus* species pathogens?

We are monitoring several *Candidatus* pathogens: 13 species of *Candidatus* Phytoplasma, *Candidatus* Liberibacter solanacearum, and the three *Candidatus* Liberibacter species causal agents of the Citrus Huanglongbing disease. Also *Diaphorina citri* and *Trioza erytreae* vectors of this disease are monitored.

21. Which is the most dangerous pest you identified through the monitoring?

To quantify the risk posed by a pest is necessary to carry out a complete quantitative risk assessment. EFSA does not carry out it at this stage but is available to do so at the request of risk managers. In the ongoing exercise, EFSA highlights pests or diseases whose distribution is changing. Among them, *Spodoptera frugiperda*, *Agrilus planipennis*, *Xylella fastidiosa*, *Fusarium oxysporum* f. sp. *cubense* tropical

race 4 and citrus huanglongbing disease generate concern in different parts of the world and are the subject of numerous press and scientific articles.

22. How do you know that *Cotesia icipe*, mentioned in slide 14, is an efficient parasitoid of *Spodoptera frugiperda*?

In the plant health newsletters EFSA only reports information from media and scientific literature on events or results. The inclusion of articles doesn't represent the EFSA opinion on what is reported. Concerning *Cotesia icipe*, the information comes from a media article reporting a study of the International Centre of Insect Physiology and Ecology (ICIPE) in Kenya, which is a reliable and trustable source.

23. Do you also collect info on control measures (demarcation areas, etc.) in order to assist the European Commission with the drafting of possible new regulations or decisions?

Although beyond the scope of the European Commission's mandate, EFSA also collects information from the media and scientific literature on management measures concerning pests of interest to the EU. They are included in the newsletters provided to the European Commission and the Member States.

24. Concerning *X. fastidiosa*, how does EFSA support the EU to control it?

EFSA has supported the EC through numerous reports and scientific opinions on *X. fastidiosa* since the beginning of the outbreak in southern Italy in 2013. You can find a full list of those documents in the EFSA dedicated web page: <https://www.efsa.europa.eu/en/topics/topic/xylella-fastidiosa>.

25. Did you find that the risk of introduction and spread of new pests is increasing?

EFSA cannot assess this risk through this project. It is possible to observe that during this period, the system has gained strength in terms of ontology enrichment, which resulted in an increase in the volume of information processed.

26. Do you trust media news?

The objective of the media newsletter is to inform the reader on what has being raised by media on plant health issues during the month. In the media newsletters EFSA only reports information on events related to identified plant pests. It is verified as much as possible on official pages available online and on specific tools and reports available to EFSA (e.g. Europhyt) when concerning the European Union territory. The inclusion of articles does not represent the EFSA opinion on what is reported or on the conclusions drawn by the authors of the article.

27. Why are you producing two newsletters instead of one?

EFSA wants to avoid mixing information from different sources in publications. The media informs about recent events. The scientific literature highlights the results of studies on events that may have occurred years ago.

28. Are links to ID Datasheets included for the pests, for example including pictures?

So far, the EFSA Plant health Newsletters do not include images, but only icons and brief descriptions of pest characteristics. In fact, the main content of the newsletters consists of the links to the articles found by the MEDISYS platform. They are not structured like a datasheet presenting a given pest. In some cases, however, links to existing datasheets or to additional articles available online are added providing useful information to the reader.

29. Which are the criteria used in the selection of articles for the newsletters?

In this project, EFSA's priority is to find information on the changes in all regions of the world in the distribution (findings, outbreaks, spread) of pests that are not yet listed as quarantine pests for the European Union. In addition, articles on quarantine pests already regulated in the European Union are selected. For the latter, newsletters also cover topics such as control methods, surveillance, detection and identification methods, and the impact of mandatory measures, giving priority for these topics to novelty.

30. Are the articles selected freely accessible?

Yes, they are. Only publicly available sources with free access are automatically screened and the corresponding links provided in the MEDISYS website or in the newsletters. Concerning the scientific articles, only sources providing at least abstracts of the articles are monitored.

31. Are the newsletters adopted/approved/validated by EFSA experts?

The members of the EFSA working group on Horizon scanning review and validate the draft newsletters (articles selected and comments to them) during monthly meetings. The newsletters are then approved by the Head of the EFSA Animal and Plant Health (ALPHA) Unit before the transmission to the European Commission and Wiley for publication.

32. Who are the members of the Working Group that work on the newsletter? Are they from the EFSA Plant Health Panel?

The working group on Horizon scanning who work and validate the monthly newsletters is composed by EFSA staff, some Plant Health Panel members and other plant health experts. The minutes of the monthly meetings as well as those of other plant health working group's meetings are published at this link: <http://www.efsa.europa.eu/it/plant-health/working-groups>

33. Can I subscribe to the newsletters?

You do not need to subscribe. The EFSA plant health newsletter is monthly published on Wiley. The links to all the newsletters are available on the Horizon scanning virtual issue (only media newsletters so far, but soon scientific newsletters as well):

[https://efsa.onlinelibrary.wiley.com/doi/toc/10.2903/\(ISSN\)1831-4732.Horizon-scanning-for-plant-health](https://efsa.onlinelibrary.wiley.com/doi/toc/10.2903/(ISSN)1831-4732.Horizon-scanning-for-plant-health). The newsletter's publication is also notified through the EFSA plant health official twitter account: @plants_EFSA

34. Where can I find news on pests of a specific crop or plant?

The plant health page of MEDISYS provides news by pest. The articles of the media newsletter are grouped according to the pest's listing or not in the European Union legislation or in the EPPO lists. However, the scientific newsletter provides the selected articles grouped according to crops or host plants of the pests mentioned.

35. Do you think this protocol could be applied to invasive species in general?

Yes, it could be. Specific keywords should be put in place to select articles related to invasive species.

36. Do you have any example where the media monitoring was applied by EFSA, EU Member States, European Commission and worked?

The spread of *Spodoptera frugiperda* in Africa has been a highly discussed topic in the media and reported in newsletters since the beginning of the EFSA's Horizon scanning activity in early 2017. Following the presentation of the newsletter at the meeting of the Plants, Animals, Food and Feed Committee (Plant Health section) held in May 2017, the European Commission requested EFSA to urgently carry out a categorisation of the pest, initially planned for 2020. A full risk assessment was then carried out by EFSA and the European Union took emergency measures against the pest.

37. What is the scoring methodology mentioned in slide 4?

At the request of the European Commission and in collaboration with ANSES (Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail - French Agency for Food, Environmental and Occupational Health & Safety), EFSA set up a methodology in order to raise the attention of risk managers to not yet regulated pests that deserve a further assessment for possible regulation in the European Union. A report will be available on Wiley by the end of 2020.

38. What Commission is doing with your results?

The main objective of the project is to alert risk managers about plant health risks threatening the European Union territory. To raise their attention to this point, the newsletters are presented and discussed each month at the meeting of the Plant Health Section of the European Commission's Plants, Animals, Food and Feed Committee. To provide additional information to risk managers, EFSA periodically screens the not yet regulated pests in order to highlight those deserving a further assessment for possible regulation in the European Union. The actionable pests are selected after screening based on criteria of risk (entry, establishment, spread and impact) and proposed after. They are presented to the risk managers (European Commission and Members States representative at the Plants, Animals, Food and Feed Committee on Plant Health) for any action they may wish to take (e.g. EFSA pest categorisation, enhanced border surveillance).

39. What is a tasking grant mentioned in slide 4?

EFSA may award grants and entrust tasks to the listed competent organisations available on the EFSA website. These organisations operate in the fields of the EFSA missions. The tasks are performed by the partners under the responsibility of EFSA. In this framework, ANSES (Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail - French Agency for Food, Environmental and Occupational Health & Safety) collaborates with EFSA on Horizon scanning.

40. Are you working to build a common platform for plant health? How EFSA manages data?

In this project, EFSA accesses known databases (e.g. from CABI and EPPO) to find pest distributions, pest taxonomy and host plants. EFSA is currently working on improving the storing and management of data collected or produced under different EFSA projects (e.g. Horizon scanning, high risk plants, pest categorisations, pest risk assessments, pest survey cards).

41. What developments of the project do you foresee in the future?

The scientific literature will be enhanced with the additions of other scientific sources to the platform to the 442 currently monitored. EFSA is finalizing the methodology allowing the identification of actionable pests (not yet regulated pests of interest for the European Union territory) to be submitted to risk managers as a support in their decisions. EFSA will soon publish all the scientific newsletters on Wiley as already monthly done for the media one. The report of three years of work on Horizon scanning will be soon published on Wiley.

42. Do you envisage that the new horizon research programme on invasive pests will take into consideration EFSA newsletter?

EFSA's current activities on Horizon scanning for plant health are carried out in response to a specific mandate from the European Commission received by EFSA at the end of 2016. The request included the monitoring of media and scientific sources for information on new or emerging pests that might be of

concern to the EU territory. In order to support risk managers in their decisions, the European Commission has also requested to gather relevant information in monthly newsletters and to develop a methodology to highlight, among the new or emerging pests identified, those that deserve further study with a view to possible regulation or enhanced surveillance activities. The evaluation of the results achieved during the four years of EFSA's work will be assessed by the European Commission and the Member States by the end of 2020.

43. Can I be informed of the progress of your work in the future?

The report of three years of work on Horizon scanning will be soon published on Wiley. In each newsletter you can find the e-mail address to contact EFSA (ALPHA Unit) for any questions. Comments and contributions will be welcome (alpha@efsa.europa.eu). Nevertheless, following the EFSA plant health twitter account (@plants_efsas) is a quick alternative to always be updated with EFSA's activity in this field.