

XYLELLA FASTIDIOSA: A EUROPEAN THREAT UNDER CLOSE SURVEILLANCE ON THE MEDISYS PLATFORM

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Xylella fastidiosa in Medisys

In cooperation with the European Commission's Joint Research Centre, that has developed the Medisys public health surveillance system, EFSA screens media and scientific literature daily and publishes newsletters monthly since 2017, highlighting worldwide emerging threats of interest to the European Union due to plant pests. Out of the 2,500 monitored pests on Medisys,

Xylella fastidiosa is the most cited species of both scientific and media sources. The top ten countries where the majority of *X. fastidiosa* media items originate are listed in Figure 1; Italy, where the first outbreak in the EU occurred, is placed first with more than 20,000 articles retrieved since 2017, followed by Spain (more than 4,000 articles) and Greece (660 articles).

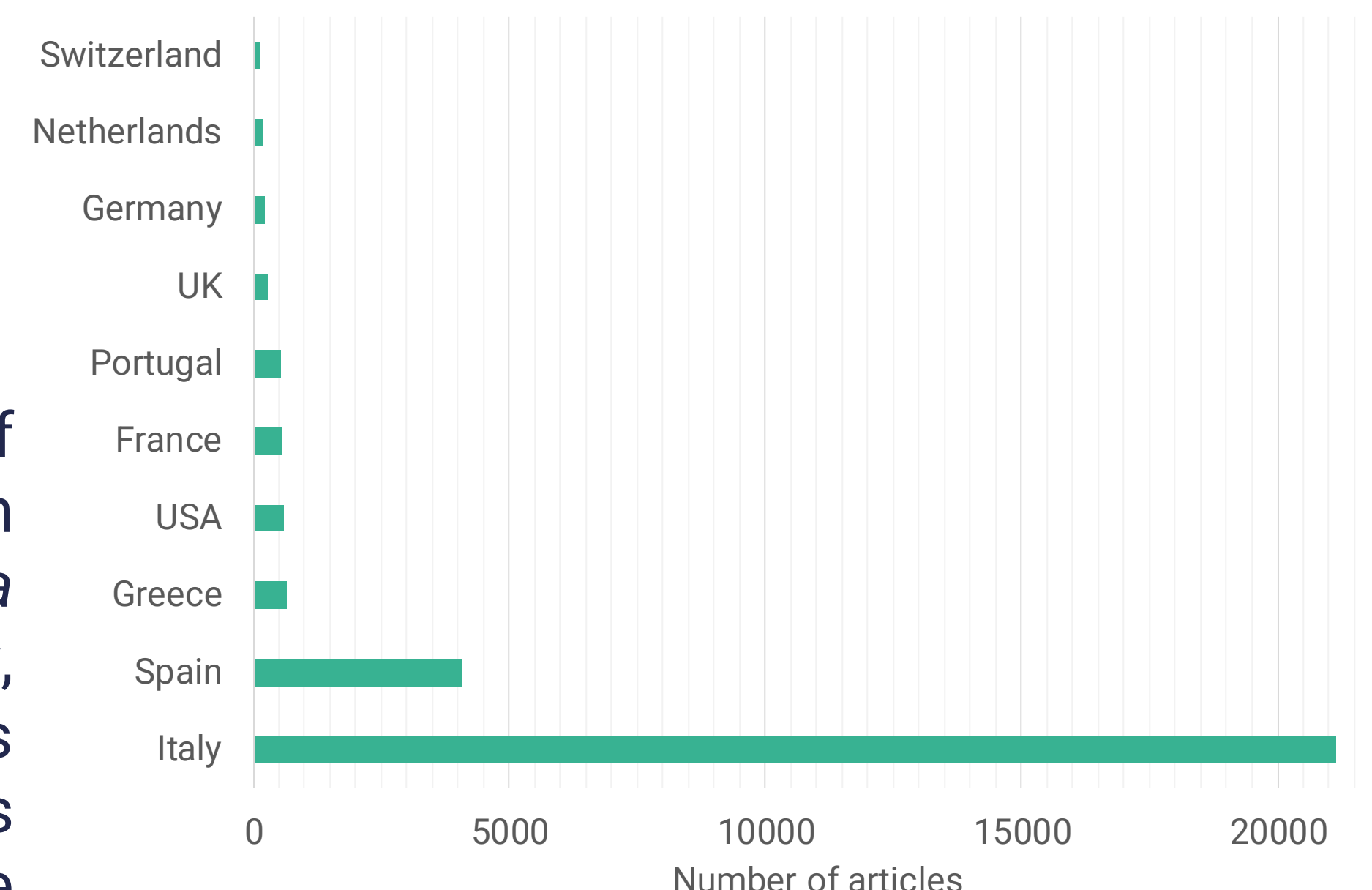


FIG 1- The top 10 countries where most media articles mentioning *Xylella fastidiosa* originate from between January 2017 to June 2023 (Medisys data).

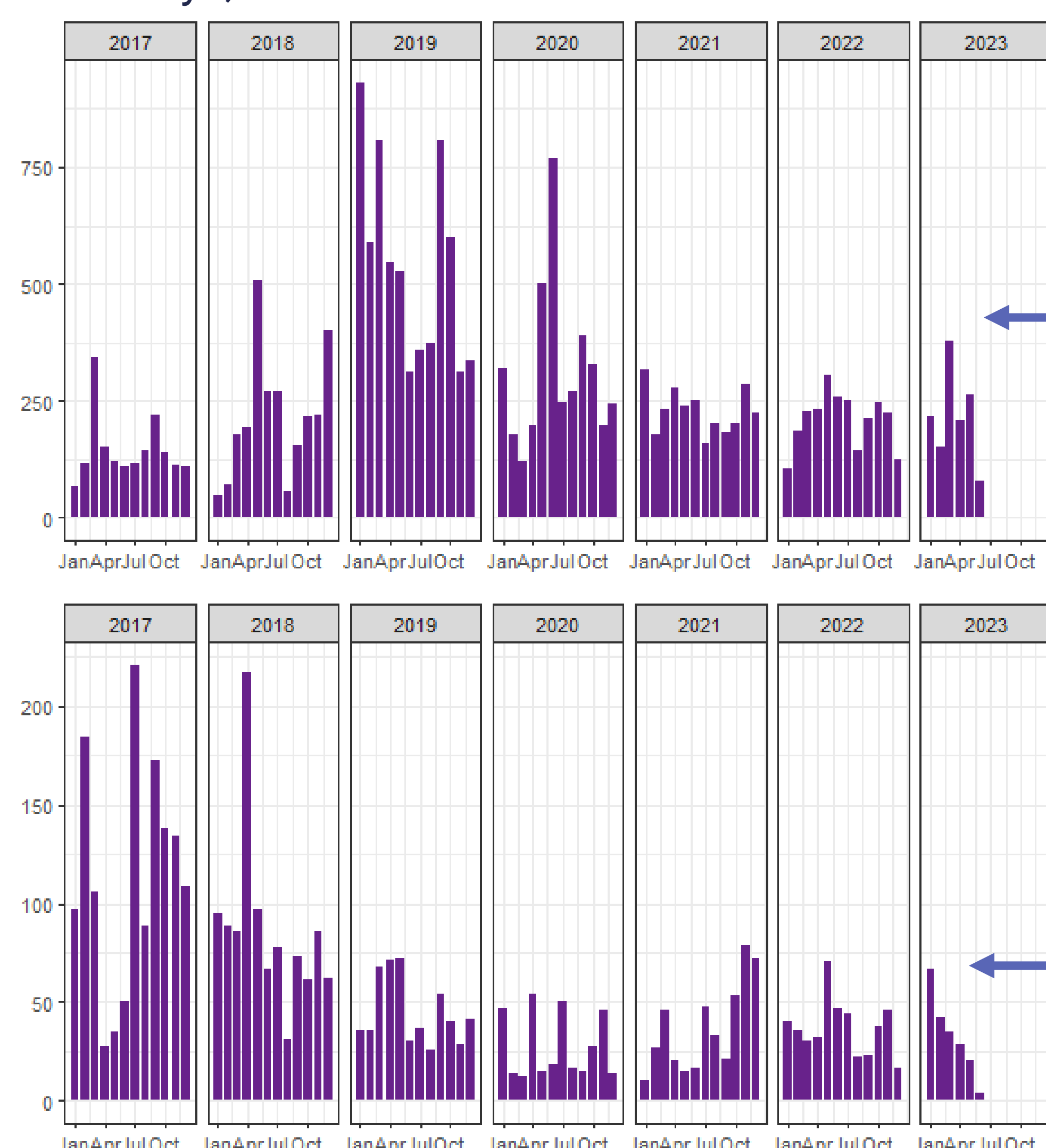


FIG 2- The number of media articles published in Italy (top) and Spain (bottom) about *Xylella fastidiosa* from January 2017 to June 2023 (Medisys data).

- **January to April 2019:** peaks in Italian media coverage as a result of a vigorous media response to demonstrations that demanded government assistance to deal with income losses brought on by *X. fastidiosa* and unfavorable climate-related events.
- **September 2019:** the EU Court of Justice ruled that Italy had not carried out its responsibility to implement measures.

- **February 2017:** official steps to contain the bacterium were implemented, such as roguing diseased plants and monitoring.
- **July to December 2017:** in Alicante (autonomous Region of Valencia), *X. fastidiosa* subsp. *multiplex* was discovered on *Prunus dulcis*.

- **May 2020:** an update to the *Xylella* host plants database was released by EFSA.
- **June 2020:** as a result of *Xylella*-related losses and the Covid-19 pandemic, small producers in Salento experienced financial difficulties and demonstrations took place in different Italian cities. EFSA published guidelines for carrying out surveys of *X. fastidiosa*.
- **April 2018:** *X. fastidiosa* subsp. *multiplex* was found in one olive plant in an open area in Madrid. In the same month, *X. fastidiosa* was discovered on *Polygala myrtifolia* in a nursery in Almeria.

Xylella fastidiosa in the EFSA Horizon Scanning Newsletters

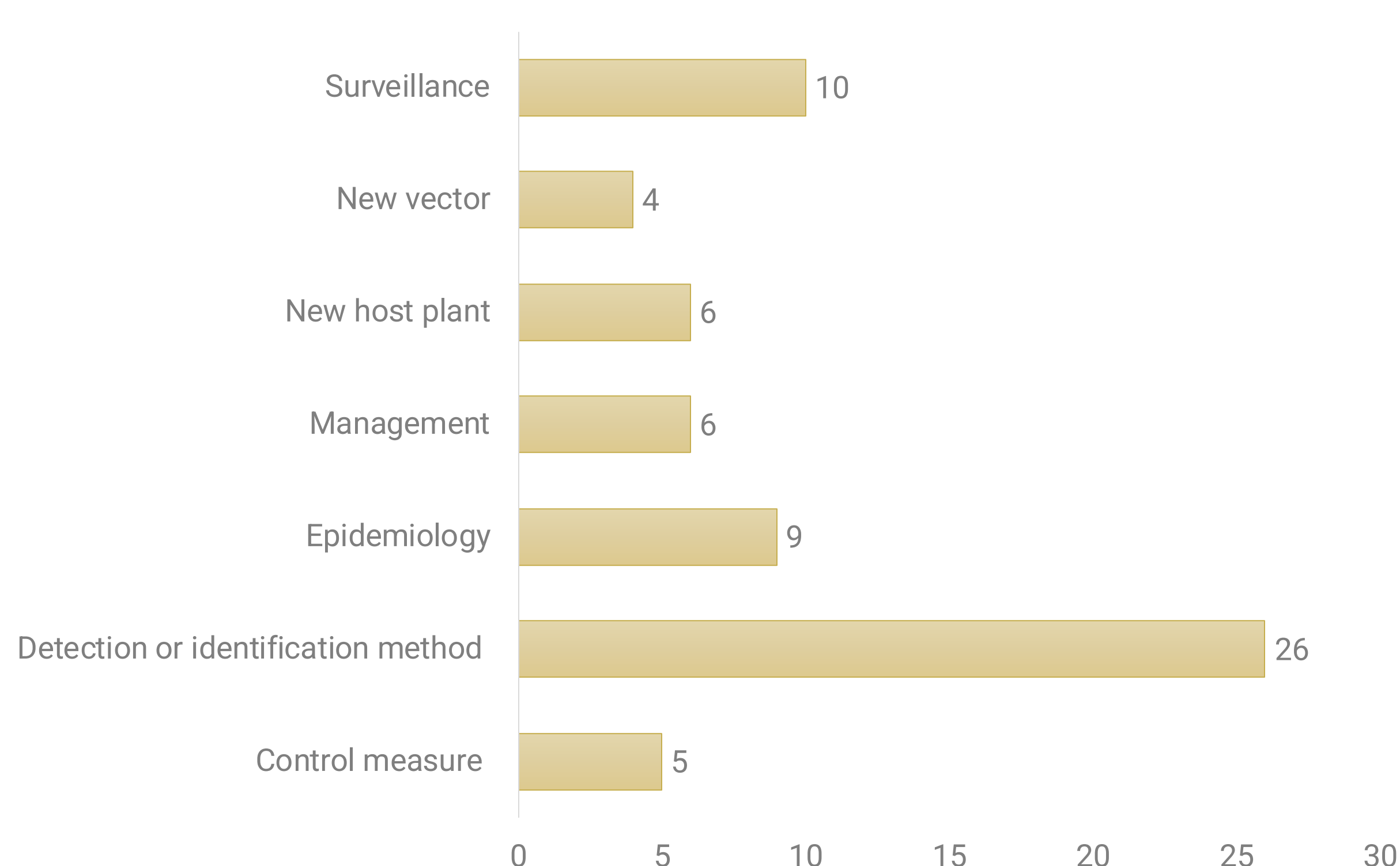


FIG 3- Main topics covered by scientific articles mentioning *Xylella fastidiosa* selected for the EFSA Horizon Scanning Newsletters from March 2017 to June 2023.

Xylella fastidiosa has been mentioned in 97 EFSA Plant Health Newsletters on Horizon Scanning. After further examination of the scientific publications, we notice that most selected articles report on a detection or identification method of the bacterium, followed by surveillance of the pest and epidemiology (Fig. 3).

Articles about the change in the distribution of pests and their vectors are of particular relevance for this exercise: many items included in the newsletters about *X. fastidiosa* cover this topic (see Fig. 4). Italy, Spain and France provided the majority of these items between 2017 and 2022, although in the last period (from January to June 2023) most articles originate from Portugal and Italy.



FIG 4- Findings or absences of *Xylella fastidiosa* in Europe reported in media and scientific articles, included in the EFSA Horizon Scanning Newsletters from March 2017 to June 2023.

CONCLUSIONS

With the horizon scanning activity conducted by EFSA on the Medisys tool, we are able to retrieve information from sources of 105 countries and in 46 different languages. *Xylella fastidiosa* with its long-term relevance on media and scientific publication, provides a good case study to assess the effectiveness of our activity. Since the beginning of this project, we had the opportunity to gather information about the bacterium around the world: e.g., new or first findings of the pathogen and its vectors, scientific research (new detection methods or prediction models) and implemented control measures.