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Update of the *Xylella* spp. host plant database – systematic literature search up to 31 December 2020

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Abstract

Following a request from the European Commission, EFSA was asked to create and regularly update a database of host plant species of *Xylella* spp. Complying with an extension of the previous mandate, which now covers the period 2021–2026, the current version of *Xylella* spp. host plant database updates the previous release dated April 2020. Informative data have been extracted from 86 recent publications retrieved through an extensive literature search. This report is related to the fourth version of the database published in Zenodo in the EFSA Knowledge Junction community, covering articles selected from: a systematic literature review conducted up to 31 December 2020, Europhyt outbreak notifications up to 18 March 2021 and communications from research groups and national authorities. Forty-three new host plant species of *X. fastidiosa*, identified through the data extracted from the selected publications, have been added to the database. Those plant species were reported as naturally or artificially infected by subsp. *fastidiosa*, *multiplex*, *pauca* or unknown (i.e. not reported in the publication) subspecies of *X. fastidiosa*. New information on the tolerant/resistant response of plant species or varieties to *X. fastidiosa* infection is also reported. No additional data were retrieved for *X. taiwanensis*. This new version of the database includes no update on the number of Sequence Types (STs) identified so far, which remains unchanged. The overall number of *Xylella* spp. host plants determined with at least two different detection methods or positive with one method (between: sequencing, pure culture isolation) reaches now 385 plant species, 179 genera and 67 families. Such numbers rise to 638 plant species, 289 genera and 87 families if considered regardless of the detection method applied. The database will be issued twice per year, with the aim to provide information and scientific support to risk assessors, risk managers and researchers dealing with *Xylella* spp.

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1. Introduction

1.1. Background and Terms of Reference as provided by the requestor

In the context of Article 31 of Regulation (EC) No 178/2002, EFSA was asked by the European Commission DG SANTE to provide technical assistance in the field of plant health as regards the regulated harmful organism *Xylella fastidiosa*, as per letter to EFSA's Director dated 30 June 2016 (Reference ARES(2016)3126989).

EFSA was requested to further specify and update the host plants database of *X. fastidiosa* available in 2016 (EFSA, 2016, 2018) taking into account the different *X. fastidiosa* subspecies and strains (with particular reference to the European isolates), with the inclusion of information on non-susceptible plants and varieties and negative results of diagnostic tests when available. EFSA was requested to maintain and update this database periodically and to make new releases available on the EFSA website, together with a Scientific Report. The database should focus on plants confirmed to be infected by at least two detection methods in field conditions or via vector transmission under experimental conditions. Such request was for the period 2016–2020.

This mandate was extended by the European Commission DG SANTE for the period 2021–2026, with the aim to continue the update of that database. EFSA is requested to deliver two updates per year of the database.

1.2. Interpretation of the Terms of Reference

EFSA delivered in September 2018 a renovated database of host plants of *Xylella* spp., taking into account both species of the genus *Xylella* (*X. fastidiosa* and *X. taiwanensis*) (EFSA, 2018), which was further updated in April 2020 (EFSA, 2020). Raw data and interactive reports were published in Zenodo¹ in the EFSA Knowledge Junction community and in Microstrategy² platform, together with a Scientific Report.

As per Terms of Reference (ToR), EFSA was requested to maintain and update the *Xylella* spp. host plant database for the period 2021–2026, and to publish new releases online together with a report twice per year. This Scientific Report provides a new update on the database of host plants of *Xylella* spp. published in 2020 (EFSA, 2020). An extensive literature search was conducted to retrieve recent publications on the topic and new informative data on host plant species of *Xylella* spp. were collected. Such report provides information on the literature review and a detailed view on the currently known host plants of *Xylella* spp.

2. Data and methodologies

The methodologies developed for the *Xylella* spp. host plant database published in 2018 (EFSA, 2018) were applied in this report.

The process was divided in the following steps:

- Extensive literature search to identify relevant references.
- Selection of studies based on title, abstract and full text.
- Data extraction of relevant information.
- Data analysis and reporting.

2.1. Extensive literature search

The review question 'Which plant species can host *Xylella/Xylella* associated disease?' was broken down into key stages using the P/O conceptual model described in the EFSA systematic review guidance (EFSA, 2010):

- Population of interest (P)

The population of interest is that of plant species, worldwide.

- Outcome (condition of interest) (O)

The outcome (condition of interest) is that of *Xylella* spp. infection.

¹ <https://doi.org/10.5281/zenodo.1339343>

² <https://www.efsa.europa.eu/en/microstrategy/xylella>

Two main elements were considered for the extensive literature search: the sources of information (Table 1) to be consulted and the search strategy (Table 2).

2.1.1. Information sources

The search strategy was run in all databases listed in Table 1 via the Web of Science (Clarivate Analytics) and Scopus platforms with no language or document type restriction.

Table 1: Sources of information

Database	Platform
Scopus	Scopus
BIOSIS Citation Index	Web of Science
CABI: CAB Abstracts [®]	
Chinese Science Citation DatabaseSM	
Current Contents Connect	
Data Citation Index	
FSTA [®] - the food science resource	
KCI-Korean Journal Database	
MEDLINE [®]	
Russian Science Citation Index	
SciELO Citation Index	
Web of Science Core Collection	
<ul style="list-style-type: none"> • Science Citation Index Expanded • Social Sciences Citation Index • Arts & Humanities Citation Index • Conference Proceedings Citation Index- Science • Conference Proceedings Citation Index- Social Science & Humanities • Book Citation Index – Science • Book Citation Index – Social Sciences & Humanities • Emerging Sources Citation Index • Current Chemical Reactions • Index Chemicus 	
Zoological Record	

2.1.2. Search terms

The syntax of the search string, developed for the *Xylella* spp. host plants database published in 2018 (EFSA, 2018), was adapted and run into each platform databases listed in Table 1 on 20 January 2021. As the scope of the search was to retrieve references published after June 2019, the selected time span was from 1 July 2019 up to 31 December 2020. The search strings and the number of retrieved references are shown in Table 2.

Table 2: Search strings and results

Platform	Query	Results
Scopus	(TITLE-ABS-KEY (xylella OR xylela OR xylela OR (pierce* W/2 disease) OR (((plum OR plums) AND "leaf scald*")) OR ((phony W/2 (peach* OR disease*))) OR ((citrus AND variegat* AND chlorosis)) OR crespere OR "almond leaf scorch*" OR "bacterial leaf scorch*" OR "coffee leaf scorch*" OR "mulberry leaf scorch*" OR "oleander leaf scorch*" OR "sycamore leaf scorch*" OR "Periwinkle wilt" OR "Ragweed stunt" OR ((olive W/50 "quick decline syndrome")) OR "Xylem inhabiting bacteri*" OR "Xylem limited bacteri*" OR fxib OR fxjb OR "rickettsialike bacteri*" OR "ricketsia like bacteri*")) AND (ORIG-LOAD-DATE > 20190701 AND ORIG-LOAD-DATE < 20201231))	174

Platform	Query	Results
Web of Science	TS=(xylella OR xyllela OR xylela OR (pierce* NEAR/2 disease) OR (((Plum OR plums) AND "leaf scald*")) OR ((Phony NEAR/2 (peach* OR disease*))) OR ((citrus AND variegat* AND chlorosis)) OR crespersa OR "almond leaf scorch*" OR "bacterial leaf scorch*" OR "coffee leaf scorch*" OR "mulberry leaf scorch*" OR "oleander leaf scorch*" OR "sycamore leaf scorch*" OR "Periwinkle wilt" OR "Ragweed stunt" OR ((Olive NEAR "quick decline syndrome")) OR "Xylem inhabiting bacteri*" OR "Xylem limited bacteri*" OR FXIB OR FXJB OR "rickettsialike bacteri*" OR "rickettsia like bacteri*")	699

The collected records were downloaded and imported into an EndNote X9 library (Clarivate Analytics). Duplicates, references already included in the update published in 2020 (EFSA, 2020) and data set links were removed using EndNote X9 and the remaining references were uploaded on DistillerSR online³ together with the full texts in portable document format (pdf).

Thirteen additional documents containing relevant information were obtained from research groups, communications of national authorities and Europhyt outbreak notifications⁴ (accessed on 18 March 2021).

2.2. Study selection

The collected references were screened for relevance in two steps:

- 1) Title and abstract screening.
- 2) Full-text screening of the references that passed the first step.

Inclusion/exclusion criteria were applied in each step and two reviewers worked in parallel screening the references.

The first step required the reviewers to answer two questions, listed in Table 3, considering only title and abstract of the references. The aim of this step was to select only references presenting original research data on *Xylella* or *Xylella*-associated disease.

Table 3: Inclusion/exclusion criteria for title and abstract screening

Question text	Type of answer	Answer text	Exclusion criteria
Is <i>Xylella</i> /a <i>Xylella</i> associated disease/a <i>Xylella</i> synonym the topic of the study?	Only one of the possible alternative answers can be selected	Yes	Included
		No	Excluded
Is it a primary research study?	Only one of the possible alternative answers can be selected	Yes	Included
		No	Excluded

The references that passed the first step were submitted to the full-text screening. This second step required the reviewers to answer four questions (Table 4): three of them are descriptive (neutral) whereas the fourth has an inclusion/exclusion role.

³ <https://www.evidencepartners.com/>

⁴ https://ec.europa.eu/food/plant/plant_health_biosecurity/harmful_organism_outbreaks_en

Table 4: Inclusion/exclusion criteria at full-text screening

Question text	Type of answer	Answer text	Exclusion criteria
Is an English abstract present?	Only one of the possible alternative answers can be selected	Yes	Neutral
		No	Neutral
Which is the type of the publication?	Only one of the possible alternative answers can be selected	Peer-reviewed article	Neutral
		Article	Neutral
		Book	Neutral
		Conference proceedings	Neutral
		Abstract	Neutral
		Technical publication/Report	Neutral
		Other	Neutral
Is the <i>Xylella</i> host plant the main scope of the study?	Only one of the possible alternative answers can be selected	Yes	Neutral
		No	Neutral
Is <i>Xylella</i> /a <i>Xylella</i> -associated disease/a <i>Xylella</i> synonym studied in association to a host plant?	Only one of the possible alternative answers can be selected	Yes	Included
		No	Excluded

2.3. Data extraction

Informative data listed in Table 5 were extracted from the selected references. For each reference, the first reviewer performed the data extraction whereas the second reviewer conducted the quality check of the extracted data.

Table 5: Data extraction structure

Extracted data	Description
General information	<i>In this section the general information about the study is reported</i>
RecordID	Unique number allocated to each row
RefID	Unique number allocated to each reference within the DistillerSR software
Reference	Full reference
Publication year	Year of the publication
Starting year	Starting year of the study, as reported in the publication
Ending year	Ending year of the study, as reported in the publication
Botanical identification	<i>The botanical identification of the plant, both as reported in the publication and according to the updated taxonomy of the EPPO Global Database⁵, is reported in this section</i>
Plant EPPO code	EPPO code of the plant species, from the EPPO global database ⁵ . For plant species not present in the EPPO global database, a new code was created in the EFSA catalogue.
Plant family	Plant family, from the EPPO global database ⁵
Plant genus	Plant genus, from the EPPO global database ⁵
Plant species	Plant species, from the EPPO global database ⁵
Reported plant species	Name of the plant species as reported in the publication
Common name	Common name of the plant species, as reported in the publication
Cultivar	Cultivar or plant variety, as reported in the publication
Infection information	<i>Detailed information about the infection and location of the plant is reported in this section</i>
Infection method (Level 1)	The infection of the plant can be natural, artificial or not specified

⁵ <https://gd.eppo.int/>

Extracted data	Description
Infection method (Level 2)	Subcategories of natural infection: during survey activity, during research activity. 'Research activity' is used when plants are planted under natural inoculum pressure and infection development was monitored without interfering. Subcategories of artificial infection: mechanical inoculation (detailed at level 3a), vector transmission (detailed at level 3b)
Mechanical inoculation (Level 3a)	Subcategories of mechanical inoculation: budding, grafting, needle, root uptake, stem absorption, syringe
Infection vector species (Level 3b)	Insect species used in the artificial vector transmission
Location type	The place where the plant was placed: natural habitat, greenhouse, screenhouse, interception, not specified
Geographic information	<i>In this section the geographical location of the plant is reported, as detailed as possible. In case of intercepted plant, the reported location is the geographical origin of the plant and not the country and location where it was intercepted</i>
Country code	From the EFSA catalogue, based on NUTS (Eurostat) and GAUL (FAO) territorial unit nomenclature
Country	From the EFSA catalogue, based on NUTS (Eurostat) and GAUL (FAO) territorial unit nomenclature
Location	Location description (state/region/province/municipality) from the EFSA catalogue, based on NUTS (Eurostat) and GAUL (FAO) territorial unit nomenclature
Additional Location	Additional information on the location, as reported in the publication
Coordinates precision	Coordinates as reported in the publication
Latitude	Latitude, as reported in the publication
Longitude	Longitude, as reported in the publication
Pest description	<i>Information about the pest is reported in this section, together with genetic data</i>
Pest EPPO code	EPPO code of the pest, from the EPPO global database ⁵
Pest species	Name of <i>Xylella</i> spp., from the EPPO global database ⁵
Pest subspecies	<i>Xylella fastidiosa</i> subspecies, from the EPPO global database ⁵ . If the subspecies is inferred from another publication, a note is added to the genotyping comment
Reported pest	Name of <i>Xylella</i> spp. as reported in the publication. Names used before the genus <i>Xylella</i> was established (up to 1987): Alfalfa dwarf virus, Morus suffodiens virus, Phony peach bacterium, Pierce's disease bacterium, Pierce's disease virus, <i>Rickettsia</i> -like bacteria, Rod-shaped bacteria, Xylem-inhabiting bacteria. Names used from 1987 (when the genus <i>Xylella</i> was established): <i>Xylella fastidiosa</i> , <i>Xylella taiwanensis</i>
Disease	Name of the disease caused by <i>Xylella</i> spp., as reported in the publication: Alfalfa dwarf, Almond leaf scorch, Bacterial leaf scorch, Blueberry bacterial leaf scorch, Citrus variegated chlorosis, Coffee leaf scorch, Coffee stem atrophy, Crespera, Elm leaf scorch, Leaf scorch disease, Mulberry leaf scorch, Oleander leaf scorch, Olive quick decline syndrome, Pear leaf scorch, Pecan bacterial leaf scorch, Periwinkle wilt, Phony peach disease, Pierce disease, Plum leaf scald, Potato purple top disease, Ragweed stunt, Sweetgum dieback, Sycamore leaf scorch
Strain	Name of the strain of <i>Xylella</i> spp., as reported in the publication
MLST (Multilocus Sequence Type)	Sequence Type (ST) of <i>Xylella fastidiosa</i> , as reported in the publication. If the ST is inferred from another publication, a note is added in the genotyping comment
Genotyping comment	Comment or additional information regarding the pest
Methods of identification	<i>In this section the identification methods applied to detect Xylella spp. infection are listed. Eight detection methods were considered and for each of them the outcome of the analysis (positive or negative), together with the number of infected plants and the total number of analysed plants, were reported. Moreover, additional information could be added in the comment column beside each detection method</i>
Symptoms	Observation of symptoms in the plant, as reported in the publication
Symptoms expression in test plants	Observation of symptom development in test plants after an attempt to transmit the pathogen through vectors

Extracted data	Description
Culture	Pure culture isolation (i.e. isolation of cultivable bacteria from tissue samples on solid culture media)
Microscopy	Observation of <i>Xylella</i> spp. bacteria through microscopic analysis techniques
ELISA	Enzyme-linked immunosorbent assay
Other immunological techniques	Immunological techniques other than ELISA
PCR-based methods	Polymerase chain reaction-based methods (PCR, nested PCR, qPCR, etc.)
Sequencing	Sequence analysis
Host status	<i>Information about the tolerance and resistance response of the plant</i>
Tolerance/Resistance reported	Tolerant/resistant status of the plant, as reported in the publication
Tolerance/Resistance category	Categories describing the response of the tolerant/resistant plant: lack of infection or negative reading, lack of systemic movement, lack or reduction of symptoms, lack or reduction of symptoms – lower bacterial population, lack or reduction of symptoms – lower bacterial population – lower disease incidence, lack or reduction of symptoms – lower disease incidence, lower bacterial population, lower bacterial population – lower disease incidence, lower disease incidence, infection not persistent, reported as tolerant/resistant (no details)
Tolerance/Resistance comment	Comment on the tolerant/resistant response of the plant, as reported in the publication
Additional information	
Comment	Additional relevant information or comment on the study
Confirmed record	'Yes' for confirmed records, 'No' for unconfirmed/dubious records. Unconfirmed records were included in the data extraction but excluded from the data analysis

2.4. Data warehouse

A harmonised data model has been established to collect data on *Xylella* spp. host plants. The aim was to establish a harmonised data flow for the collection and the collation of an extensive literature review generated data in the plant health domain. Data are stored in EFSA Scientific Data Warehouse (S-DWH), after that an ETL (Extract, Transform, Load) procedure is applied in order to harmonise and calculated the statistics.

2.4.1. Data management

The collected data have been submitted to the EFSA Data Collection Framework (DCF). DCF is the upfront system in the EFSA pipeline of data collection tools and allows a first step of harmonisation against the EFSA controlled reference terminology (aka EFSA catalogues). Data have been then included in the S-DWH by means of a standardised Extract Transform Load (ETL) procedure and they have been further analysed and managed to generate needed statistics.

Data are available as interactive reports on the Microstrategy platform at the following link: <https://www.efsa.europa.eu/en/microstrategy/xylella>

Raw data and related metadata are published in Zenodo in the EFSA Knowledge Junction community, this report refers to **Version 4** (<https://doi.org/10.5281/zenodo.1339343>).

2.4.2. Data reporting

Data reporting was designed to distinguish the *Xylella* spp. host plant species, based on the number and type of detection methods applied for each finding. Different combinations of detection methods were considered:

- A) Plant species positive with at least two detection methods (among: symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation) or positive with one method (between: sequencing, pure culture isolation).
- B) The same as point A, but also including microscopy: plant species positive with at least two detection methods (among: microscopy, symptoms observation on the test plant in

- experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation) or positive with one method (between: sequencing, pure culture isolation).
- C) Plant species positive with at least one detection method (among: symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation).
 - D) Plant species positive with at least one detection method including microscopy (microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation).
 - E) All positives plant species reported, regardless of the detection methods (positive records but without the detection method specified, symptom observations, microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing, pure culture isolation).

3. Results

3.1. Results of the literature review

The extensive literature search was conducted on 20 January 2021 on Web of Science and Scopus platforms and 873 references were collected. Duplicates were removed and 281 references were uploaded in DistillerSR and screened for relevance. Results of the screening process are shown in Figure 1.

In the first step, i.e. title and abstract screening, 162 references were excluded either because they do not focus on *Xylella* or *Xylella* associated diseases and/or they are not primary research studies. The selected 119 references were subjected to the second step of the screening process, i.e. the full text screening. Seventy-three references, in which *Xylella* spp. is studied in association to a host plant (i.e. *in vivo*), were selected. Data extraction of two selected references was postponed to the next update of the database foreseen in November 2021. Thirteen additional references retrieved from research groups, communications of national authorities and Europhyt outbreak notifications⁴ and containing informative data were included in the data extraction. Totally, 86 references (listed in Appendix E) were included in this fourth update of the database and from which informative data listed in Table 5 were extracted.

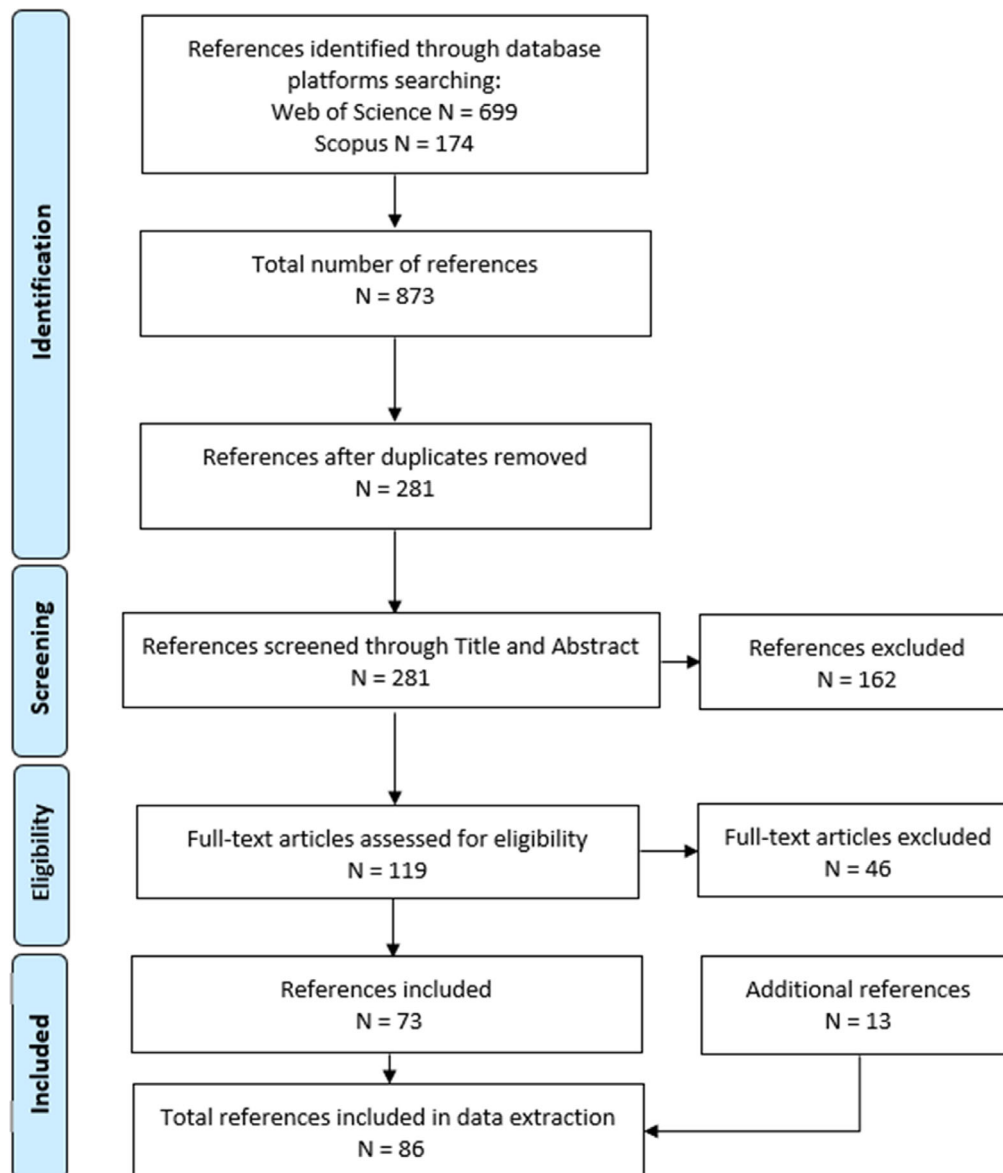


Figure 1: Flow diagram of the screening process

3.2. Update of records already included in the database

Two records already included in the previous versions of the database have been updated following expert personal communication to EFSA. The sample of *Rosa* sp. (RecordID 8094) reported in the reference RefID3207 was finally identified as *Rosa × floribunda* and the results of the analysis were unconfirmed/dubious. Unconfirmed records are included in the data extraction but excluded from the data analysis. In the same reference, the sample identified as *Cistus* sp. (RecordID8020) was further identified as *Cistus monspeliensis*. Both records were updated accordingly, and an explanatory comment was added to the database.

3.3. Host plant species of *Xylella* spp.

The updated numbers of host plant species, genera and families (according to the different categories reported in Section 2.4.2) are reported in Figure 2 and Table 6. The number of plant species raised to 385 (179 genera and 67 families) according to category A (i.e. plant species positive with at least two detection methods (among: symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation) or positive with one method (between: sequencing, pure culture isolation)) to 638

plant species (289 genera and 87 families) of category E (i.e. all positives plant species reported, regardless of the detection methods).

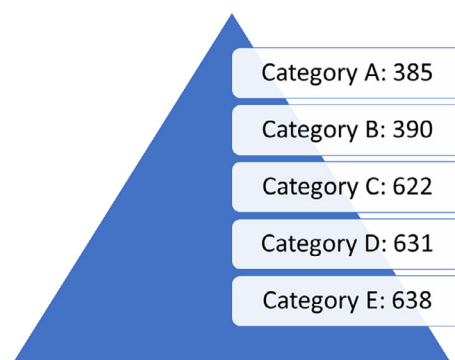


Figure 2: Number of host plant species according to the different categories (as described in Section 2.4.2). Plant species in category A are included in category B; plant species in category B are included in category C; plant species in category C are included in category D; plant species in category D are included in category E

Table 6: Number of host plant species, genera and families of *Xylella* spp. according to categories A, B, C, D, E (based on the detection methods applied – see Section 2.4.2)

	A	B	C	D	E
Number of host plant species	385	390	622	631	638
Number of host plant genera	179	180	288	288	289
Number of host plant families	67	67	87	87	87

Compared to the previous version of the database published in 2020 (EFSA, 2020), 43 plant species (14 genera and 2 families) were identified as new hosts of *X. fastidiosa*. Those plant species, genera and families were not previously reported in the database. Details of those new hosts of *X. fastidiosa* are highlighted in Table 7.

Thirty-nine new host plant species were naturally infected and identified both in the EU (France, Italy, Portugal, Spain) and outside the EU (Costa Rica and United States). Only four new host plants were identified through artificial infections. The *X. fastidiosa* subspecies *multiplex* was identified in 24 new host plant species naturally infected in the EU. Six new host plants were infected by *X. fastidiosa* subsp. *fastidiosa*: three in artificial infections and three naturally infected (in Costa Rica, Spain and the United States). The *X. fastidiosa* subsp. *pauca* was identified in two new host plant species (one natural infected in Spain and one artificially infected), while in 12 new host plants, the *X. fastidiosa* subspecies was not reported (i.e. unknown).

Apart from one new host genus naturally infected in Costa Rica, and one artificially infected, the remaining 12 new host genera were all identified as naturally infected in the EU (France, Portugal and Spain). The two new host families were reported in Portugal.

Table 7: New host plants of *X. fastidiosa*. For each host plant, the infection method (natural or artificial), the country (only for natural infections), the *X. fastidiosa* subspecies (*fastidiosa*, *pauca*, *multiplex* or unknown (i.e. not reported in the publication)) and the category (A or C – see Section 2.4.2) are reported. New plant species, new genera and new families are highlighted in bold

Plant family	Plant genus	Plant species	Infection method	<i>X. fastidiosa</i> subspecies	Country	Category
Fabaceae	Acacia	<i>Acacia melanoxylon</i>	Natural	<i>multiplex</i>	Portugal	A
Fabaceae	Adenocarpus	<i>Adenocarpus lainzii</i>	Natural	<i>multiplex</i>	Portugal	A
Asteraceae	Artemisia	<i>Artemisia absinthium</i>	Natural	<i>multiplex</i>	France	A
Woodsiaceae	Athyrium	<i>Athyrium filix-femina</i>	Natural	<i>multiplex</i>	Portugal	A
Myrtaceae	Callistemon	<i>Callistemon citrinus</i>	Natural	<i>multiplex</i>	France	A
Ericaceae	Calluna	<i>Calluna vulgaris</i>	Natural	<i>multiplex</i>	Portugal	A
Juglandaceae	Carya	<i>Carya aquatica</i>	Natural	unknown	United States	A
Juglandaceae	Carya	<i>Carya cathayensis</i>	Natural	unknown	United States	A
Juglandaceae	Carya	<i>Carya cordiformis</i>	Natural	unknown	United States	A
Juglandaceae	Carya	<i>Carya floridana</i>	Natural	unknown	United States	A
Juglandaceae	Carya	<i>Carya glabra</i>	Natural	unknown	United States	A
Juglandaceae	Carya	<i>Carya laciniosa</i>	Natural	unknown	United States	A
Juglandaceae	Carya	<i>Carya pallida</i>	Natural	unknown	United States	A
Juglandaceae	Carya	<i>Carya palmeri</i>	Natural	unknown	United States	A
Juglandaceae	Carya	<i>Carya tomentosa</i>	Natural	unknown	United States	A
Cistaceae	Cistus	<i>Cistus inflatus</i>	Natural	<i>multiplex</i>	Portugal	A
Ranunculaceae	Clematis	<i>Clematis cirrhosa</i>	Natural	<i>multiplex</i>	Spain	A
Fabaceae	Coronilla	<i>Coronilla sp.</i>	Natural	<i>multiplex</i>	France	A
Boraginaceae	Echium	<i>Echium plantagineum</i>	Natural	<i>multiplex</i>	Portugal	A
Rhamnaceae	Frangula	<i>Frangula alnus</i>	Natural	<i>multiplex</i>	Portugal	A
Fabaceae	Pterospartum	<i>Genista tridentata</i>	Natural	<i>multiplex</i>	Portugal	A
Fabaceae	Gleditsia	<i>Gleditsia triacanthos var. inermis</i>	Natural	unknown	United States	A
Malvaceae	Hibiscus	<i>Hibiscus syriacus</i>	Natural	<i>multiplex</i>	Portugal	A
Malvaceae	Lavatera	<i>Lavatera cretica</i>	Natural	<i>multiplex</i>	Portugal	A
Caprifoliaceae	Lonicera	<i>Lonicera implexa</i>	Natural	<i>multiplex</i>	Italy	A
Lamiaceae	Perovskia	<i>Perovskia abrotanoides</i>	Natural	<i>multiplex</i>	France	A

Plant family	Plant genus	Plant species	Infection method	<i>X. fastidiosa</i> subspecies	Country	Category
Oleaceae	Phillyrea	<i>Phillyrea angustifolia</i>	Natural	<i>multiplex</i>	Spain	A
Myrtaceae	Psidium	<i>Psidium sp.</i>	Natural	<i>fastidiosa</i>	Costa Rica	A
Dennstaedtiaceae	Pteridium	<i>Pteridium aquilinum</i>	Natural	<i>multiplex</i>	Portugal	A
Rhamnaceae	Rhamnus	<i>Rhamnus sp.</i>	Natural	<i>multiplex</i>	France	A
Lamiaceae	Rosmarinus	<i>Rosmarinus sp.</i>	Natural	<i>multiplex</i>	France	A
Rutaceae	Ruta	<i>Ruta chalepensis</i>	Natural	<i>fastidiosa</i>	Spain	A
Lamiaceae	Salvia	<i>Salvia officinalis</i>	Natural	<i>multiplex</i>	Portugal	A
Lamiaceae	Salvia	<i>Salvia officinalis</i>	Natural	unknown	Spain	A
Adoxaceae	Sambucus	<i>Sambucus nigra</i>	Natural	<i>multiplex</i>	Portugal	A
Asteraceae	Santolina	<i>Santolina magonica</i>	Natural	<i>multiplex</i>	Spain	A
Fabaceae	Ulex	<i>Ulex parviflorus</i>	Natural	<i>pauca</i>	Spain	A
Fabaceae	Ulex	<i>Ulex sp.</i>	Natural	<i>multiplex</i>	Portugal	A
Vitaceae	Vitis	<i>Vitis hybrids</i>	Natural	<i>fastidiosa</i>	United States	A
Vitaceae	Vitis	<i>Vitis riparia</i>	Natural	unknown	United States	A
Plant family	Plant genus	Plant species	Infection method	<i>X. fastidiosa</i> subspecies	Country	Category
Lamiaceae	Ocimum	<i>Ocimum basilicum</i>	Artificial	<i>pauca</i>	–	A
Vitaceae	Vitis	<i>Vitis</i> × <i>doaniana</i>	Artificial	<i>fastidiosa</i>	–	C
Vitaceae	Vitis	<i>Vitis treleasei</i>	Artificial	<i>fastidiosa</i>	–	C
Vitaceae	Vitis	<i>Vitis vinifera</i> hybrid	Artificial	<i>fastidiosa</i>	–	C

The overall number of host plant species infected naturally, artificially and in unspecified conditions by the different *X. fastidiosa* subspecies and according to the different categories are reported in Tables 8, 9 and 10. The plant species behind the numbers shown in those tables are listed in Appendices A, B and C. In those appendices, the full lists of plant species infected by the different *X. fastidiosa* subspecies naturally, artificially and in not specified conditions according to the five categories are shown.

The highest number of plant species naturally infected is recorded for *X. fastidiosa* subsp. *multiplex* (179 according to category A, up to 185 for category E), followed by subsp. *pauca* and subsp. *fastidiosa*. Eighty-nine plant species were artificially infected with *X. fastidiosa* subsp. unknown (i.e. not reported) according to category A, raising to 216 for category E. *Xylella fastidiosa* subsp. *fastidiosa* was able to infect 39 plant species (category A, and 73 for category E) in experimental conditions.

No new host plants were reported for the pathogen species *Xylella taiwanensis* that so far was recorded only in *Pyrus pyrifolia* plants.

Table 8: Number of host plant species, naturally infected, susceptible to the different *X. fastidiosa* subspecies according to categories A, B, C, D, E (as described in Section 2.4.2)

Category	<i>fastidiosa</i>	<i>fastidiosa_sandyi</i>	<i>morus</i>	<i>multiplex</i>	<i>pauca</i>	<i>sandyi</i>	<i>tashke</i>	unknown
A	49	2	4	179	52	7	1	161
B	49	2	4	179	52	7	1	166
C	52	2	4	185	55	8	1	363
D	52	2	4	185	55	8	1	369
E	52	2	4	185	55	8	1	380

Table 9: Number of host plant species, artificially infected, susceptible to the different *X. fastidiosa* subspecies according to categories A, B, C, D, E (as described in Section 2.4.2)

Category	<i>fastidiosa</i>	<i>morus</i>	<i>multiplex</i>	<i>pauca</i>	<i>sandyi</i>	<i>tashke</i>	unknown
A	39	2	19	19	5	0	89
B	40	2	19	20	5	0	94
C	72	2	22	26	6	1	202
D	72	2	22	26	6	1	208
E	73	2	23	26	6	1	216

Table 10: Number of host plant species, infected in unspecified conditions, susceptible to the different *X. fastidiosa* subspecies according to categories A, B, C, D, E (as described in Section 2.4.2)

Category	<i>fastidiosa</i>	<i>multiplex</i>	<i>pauca</i>	<i>sandyi</i>	unknown
A	7	13	8	1	16
B	7	13	8	1	18
C	7	16	8	2	27
D	7	16	8	2	29
E	7	16	8	2	31

3.4. *X. fastidiosa* Sequence Types and host plants association

The full list of plant species infected by the different *X. fastidiosa* Sequence Types (ST) in natural, artificial and not specified conditions is reported in Appendix D. For each plant species, the number of records reporting infection by that specific ST is counted. For natural infection, it is also reported the country where the plant species have been identified, whereas for artificial and not specified infection only, the total number of records is present in the Appendix.

Totally, 1,711 records reporting information on 231 plant species infected by 87 different STs have been reported in the database. Most of the records (1,273) refer to natural infections that were reported in North, Central and South America (United States of America, Mexico, Honduras, Costa Rica, Ecuador, Brazil and Argentina), Europe (Portugal, Spain, France and Italy). The highest number of records for artificial infections belong to STs of subsp. *pauca* (186 records), whereas ST1 (subsp. *fastidiosa*) still remains the most studied ST, now with 154 records.

Compared to the previous version of the database (EFSA, 2020), no new STs have been identified worldwide. ST87 belonging to subsp. *multiplex* and identified in 2018 in Tuscany (Italy) hence remains the last sequence type identified so far, although the number of species (26) and records (54) where this ST is reported has risen considerably since the last update.

3.5. Tolerant and resistant response of plant species

Information on tolerant and resistant response of plant species to *X. fastidiosa* infection have also been reported in the database. The list of plant genera and species for which tolerant and resistant response have been identified is reported in Table 11. Hundred and thirty-five additional records have been inserted in the database compared to the previous version (EFSA, 2020), most of them belonging to the genus *Vitis*. Information on tolerant/resistant status have been reported on 70 plant species

with a total number of 622 records, but the most studied genera are *Vitis*, *Citrus* and *Prunus* (342, 175 and 54 records, respectively), reflecting the important economic value of these crop plant species. Research on tolerance and resistance is also gaining increasing interest with reference to the *Olea* genus (23 records), due to several recent studies carried out in the Apulian outbreak on olive cultivar responses to *X. fastidiosa* strain De Donno infection.

Table 11: Number of records reporting tolerant/resistant response for plant genus and species

Plant genus and species	Number of records
Arabidopsis	4
<i>Arabidopsis thaliana</i>	4
Citrus	175
<i>Citrus celebica</i>	1
<i>Citrus clementina</i>	4
<i>Citrus jambhiri</i>	2
<i>Citrus junos</i>	1
<i>Citrus latifolia</i>	1
<i>Citrus limettioides</i>	1
<i>Citrus limon</i>	14
<i>Citrus medica</i>	1
<i>Citrus natsudaoidai</i>	1
<i>Citrus paradisi</i>	5
<i>Citrus reticulata</i>	9
<i>Citrus reticulata</i> × <i>C. sinensis</i> × <i>C. paradisi</i>	1
<i>Citrus sinensis</i>	8
<i>Citrus</i> sp.	70
<i>Citrus tangerina</i>	32
<i>Citrus</i> × <i>nobilis</i>	11
<i>Citrus</i> × <i>tangelo</i>	13
Coffea	5
<i>Coffea arabica</i>	4
<i>Coffea</i> sp.	1
Fortunella	1
<i>Fortunella margarita</i>	1
Medicago	2
<i>Medicago sativa</i>	2
Olea	23
<i>Olea europaea</i>	23
Platanus	2
<i>Platanus</i> sp.	2
Poncirus	3
<i>Poncirus trifoliata</i>	3
Prunus	54
<i>Prunus angustifolia</i>	1
<i>Prunus armeniaca</i>	3
<i>Prunus avium</i>	5
<i>Prunus cerasus</i>	2
<i>Prunus domestica</i>	3
<i>Prunus dulcis</i>	8
<i>Prunus persica</i>	7
<i>Prunus salicina</i>	10
<i>Prunus</i> sp.	13
<i>Prunus</i> × <i>amygdalo-persica</i>	2

Plant genus and species	Number of records
Quercus	2
<i>Quercus ilex</i>	2
Vaccinium	9
<i>Vaccinium corymbosum</i>	5
<i>Vaccinium</i> sp.	4
Vitis	342
<i>Vitis aestivalis</i>	4
<i>Vitis arizonica</i>	88
<i>Vitis arizonica</i> hybrid	6
<i>Vitis arizonica</i> × <i>V. rupestris</i>	6
<i>Vitis arizonica</i> × <i>V. vinifera</i>	1
<i>Vitis arizonica/candicans</i>	3
<i>Vitis arizonica/candicans</i> × <i>V. rupestris</i>	2
<i>Vitis arizonica/girdiana</i>	1
<i>Vitis berlandieri</i> × <i>riparia</i> hybrids	6
<i>Vitis berlandieri</i> × <i>V. rupestris</i>	4
<i>Vitis candicans</i>	9
<i>Vitis champinii</i> × (<i>V. solonis</i> × <i>V. othello</i>)	1
<i>Vitis cinerea</i>	7
<i>Vitis cinerea</i> × <i>V. berlandieri</i>	2
<i>Vitis girdiana</i>	9
<i>Vitis monticola</i>	1
<i>Vitis munsoniana</i>	3
<i>Vitis popenoei</i>	1
<i>Vitis rotundifolia</i>	58
<i>Vitis rotundifolia</i> × <i>V. rupestris</i>	1
<i>Vitis simpsonii</i>	1
<i>Vitis</i> sp.	76
<i>Vitis tiliaefolia</i>	1
<i>Vitis treleasei</i>	6
<i>Vitis vinifera</i>	25
<i>Vitis vinifera</i> hybrid	3
<i>Vitis aestivalis</i> var. <i>smalliana</i>	4
<i>Vitis aestivalis</i> var. <i>smalliana</i> × <i>V. simpsonii</i>	4
<i>Vitis aestivalis</i> var. <i>smalliana</i> × <i>V. vinifera</i>	1
<i>Vitis nesbittiana</i>	2
<i>Vitis rufotomentosa</i>	1
<i>Vitis shuttleworthii</i>	5
TOTAL	622

To the aim of this study, different tolerant/resistant response to *X. fastidiosa* infection has been grouped into 11 categories, as reported in Table 12. Those categories include the plant response/s for which the authors of the publication considered that plant as tolerant/resistant to *X. fastidiosa* infection. One hundred and nineteen publications, reported in 622 records, for the most part (367) due to artificial infections, return information on tolerance and resistance outcome to *X. fastidiosa* infection. In 42 publications, the authors consider the plant tolerant or resistant, but without adding further details, whereas in 22 publications (and 163 records in artificial infection), the plant is designated tolerant or resistant based on a lower bacterial population it harbours. With more than 70 records, the lack of infection and lack or reduction of symptoms are the two most reported tolerant/resistant outcomes in natural infection.

Table 12: Number of records and publications for tolerance/resistance category

Tolerance/resistance category	Number of records			
	Natural infection	Artificial infection	Infection not specified	Number of publications
Lack of infection or negative reading	78	42		14
Lack of systemic movement		50		7
Lack or reduction of symptoms	76	74		11
Lack or reduction of symptoms – Lower bacterial population	8	17		12
Lack or reduction of symptoms – Lower bacterial population – Lower disease incidence	2			2
Lack or reduction of symptoms – Lower disease incidence	2			1
Lower bacterial population	7	163		22
Lower bacterial population – Lower disease incidence	2			2
Lower disease incidence	5			3
Not persistent infection	3	5		3
Reported as tolerant/resistant_no details	23	16	49	42
TOTAL	206	367	49	119

4. Conclusions

Following a request from the European Commission, EFSA was asked to create, maintain and regularly update a database of host plant species of *Xylella* spp. This Scientific Report summarises the most interesting information reported in the new version of the database (**Version 4**).

An extensive literature search was performed including all scientific papers published up to 31 December 2020, as well as additional documents obtained from research groups, communications of national authorities and Europhyt outbreak notifications (last accessed on 18 March 2020).

By these searches, 86 publications were selected and informative data were extracted.

Forty-three new host plant species, 14 new genera and 2 new families were identified as new hosts of *X. fastidiosa*. Those plant species, genera and families were not previously present in the database. Thirty-nine of those new host plant species were naturally infected and identified both in the EU (France, Italy, Portugal, Spain) and outside the EU (Costa Rica and the United States). *X. fastidiosa* subspecies infecting the new host plants were *fastidiosa*, *multiplex*, *pauca* or not identified (unknown/not reported in the study). Compared to the previous version of the database (EFSA, 2020), no new STs have been identified worldwide and no new data were retrieved for *X. taiwanensis* that up to now has been reported only in *Pyrus pyrifolia* plants.

The overall number of *Xylella* spp. host plants reaches now 385 plant species, 179 genera and 67 families for category A (i.e. plant species positive with at least two detection methods (among: symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation) or positive with one method (between: sequencing, pure culture isolation), till 638 plant species, 289 genera and 87 families for category E (i.e. all positives plant species reported, regardless of the detection methods).

Information on tolerant/resistant status were reported for 70 plant species in 119 publications, with a total number of 622 records. The economically important *Vitis*, *Citrus* and *Prunus* genera are still the most studied and reported plant taxa.

From 2021 onwards, the EFSA database on *Xylella* spp. host plants will be updated twice per year with the aim to provide useful information and scientific support to risk assessors, risk managers and researchers dealing with *Xylella* spp.

Data are available as interactive reports on the Microstrategy platform at the following link: <https://www.efsa.europa.eu/en/microstrategy/xylella>

Raw data and related metadata are published in Zenodo in the EFSA Knowledge Junction community, this report refers to **Version 4** (<https://doi.org/10.5281/zenodo.1339343>).

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Abbreviations

DCF	Data Collection Framework
EFSA PLH Panel	EFSA Panel on Plant Health
ELISA	enzyme-linked immunosorbent assay
EPPO	European and Mediterranean Plant Protection Organization
ETL	Extract Transform Load
PCR	polymerase chain reaction
S-DWH	EFSA Scientific Data Warehouse
ST	sequence type

Appendix A – Host plant species naturally infected

List of host plant species, naturally infected, of *X. fastidiosa* subsp. unknown (i.e. not reported in the publication), subsp. *fastidiosa*, subsp. *fastidiosa/sandyi*, subsp. *morus*, subsp. *multiplex*, subsp. *pauca*, subsp. *sandyi*, subsp. *tashke* and *X. taiwanensis* according to categories A, B, C, D, E (as reported in Section 2.4.2):

- A) Plant species positive with at least two detection methods (among: symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation) or positive with one method (between: sequencing, pure culture isolation).
- B) The same as point A, but also including microscopy: plant species positive with at least two detection methods (among: microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation) or positive with one method (between: sequencing, pure culture isolation).
- C) Plant species positive with at least one detection method (among: symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation).
- D) Plant species positive with at least one detection method including microscopy (microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation).
- E) All positives plant species reported, regardless of the detection methods (positive records but without the detection method specified, symptom observations, microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing, pure culture isolation).

N	Plant species	Pest	Category
1	<i>Acacia saligna</i>	<i>Xf</i> subsp.unknown	A
2	<i>Acer rubrum</i>	<i>Xf</i> subsp.unknown	A
3	<i>Albizia julibrissin</i>	<i>Xf</i> subsp.unknown	A
4	<i>Amaranthus retroflexus</i>	<i>Xf</i> subsp.unknown	A
5	<i>Ambrosia psilostachya</i>	<i>Xf</i> subsp.unknown	A
6	<i>Ambrosia trifida</i>	<i>Xf</i> subsp.unknown	A
7	<i>Ampelopsis arborea</i>	<i>Xf</i> subsp.unknown	A
8	<i>Ampelopsis brevipedunculata</i>	<i>Xf</i> subsp.unknown	A
9	<i>Ampelopsis brevipedunculata</i> var. <i>hancei</i>	<i>Xf</i> subsp.unknown	A
10	<i>Asparagus acutifolius</i>	<i>Xf</i> subsp.unknown	A
11	<i>Baccharis halimifolia</i>	<i>Xf</i> subsp.unknown	A
12	<i>Baccharis</i> sp.	<i>Xf</i> subsp.unknown	A
13	<i>Brassica</i> sp.	<i>Xf</i> subsp.unknown	A
14	<i>Callicarpa americana</i>	<i>Xf</i> subsp.unknown	A
15	<i>Carya aquatica</i>	<i>Xf</i> subsp.unknown	A
16	<i>Carya cathayensis</i>	<i>Xf</i> subsp.unknown	A
17	<i>Carya cordiformis</i>	<i>Xf</i> subsp.unknown	A
18	<i>Carya floridana</i>	<i>Xf</i> subsp.unknown	A
19	<i>Carya glabra</i>	<i>Xf</i> subsp.unknown	A
20	<i>Carya illinoensis</i>	<i>Xf</i> subsp.unknown	A
21	<i>Carya laciniosa</i>	<i>Xf</i> subsp.unknown	A
22	<i>Carya pallida</i>	<i>Xf</i> subsp.unknown	A
23	<i>Carya palmeri</i>	<i>Xf</i> subsp.unknown	A
24	<i>Carya tomentosa</i>	<i>Xf</i> subsp.unknown	A
25	<i>Catharanthus roseus</i>	<i>Xf</i> subsp.unknown	A
26	<i>Cercis occidentalis</i>	<i>Xf</i> subsp.unknown	A
27	<i>Chamaecrista fasciculata</i>	<i>Xf</i> subsp.unknown	A

N	Plant species	Pest	Category
28	<i>Chionanthus retusus</i>	<i>Xf</i> subsp.unknown	A
29	<i>Chitalpa tashkentensis</i>	<i>Xf</i> subsp.unknown	A
30	<i>Cistus albidus</i>	<i>Xf</i> subsp.unknown	A
31	<i>Cistus creticus</i>	<i>Xf</i> subsp.unknown	A
32	<i>Citrus aurantium</i>	<i>Xf</i> subsp.unknown	A
33	<i>Citrus celebica</i>	<i>Xf</i> subsp.unknown	A
34	<i>Citrus jambhiri</i>	<i>Xf</i> subsp.unknown	A
35	<i>Citrus limon</i>	<i>Xf</i> subsp.unknown	A
36	<i>Citrus medica</i>	<i>Xf</i> subsp.unknown	A
37	<i>Citrus natsudaidai</i>	<i>Xf</i> subsp.unknown	A
38	<i>Citrus paradisi</i>	<i>Xf</i> subsp.unknown	A
39	<i>Citrus reticulata</i>	<i>Xf</i> subsp.unknown	A
40	<i>Citrus sinensis</i>	<i>Xf</i> subsp.unknown	A
41	<i>Citrus</i> sp.	<i>Xf</i> subsp.unknown	A
42	<i>Citrus tangerina</i>	<i>Xf</i> subsp.unknown	A
43	<i>Citrus</i> × <i>nobilis</i>	<i>Xf</i> subsp.unknown	A
44	<i>Citrus</i> × <i>tangelo</i>	<i>Xf</i> subsp.unknown	A
45	<i>Coelorachis cylindrica</i>	<i>Xf</i> subsp.unknown	A
46	<i>Coffea arabica</i>	<i>Xf</i> subsp.unknown	A
47	<i>Coffea</i> sp.	<i>Xf</i> subsp.unknown	A
48	<i>Conium maculatum</i>	<i>Xf</i> subsp.unknown	A
49	<i>Digitaria</i> sp.	<i>Xf</i> subsp.unknown	A
50	<i>Diospyros kaki</i>	<i>Xf</i> subsp.unknown	A
51	<i>Diplocyclos palmatus</i>	<i>Xf</i> subsp.unknown	A
52	<i>Dodonaea viscosa</i>	<i>Xf</i> subsp.unknown	A
53	<i>Euphorbia terracina</i>	<i>Xf</i> subsp.unknown	A
54	<i>Fagus crenata</i>	<i>Xf</i> subsp.unknown	A
55	<i>Fatsia japonica</i>	<i>Xf</i> subsp.unknown	A
56	<i>Ficus carica</i>	<i>Xf</i> subsp.unknown	A
57	<i>Fraxinus pennsylvanica</i>	<i>Xf</i> subsp.unknown	A
58	<i>Genista</i> × <i>spachiana</i>	<i>Xf</i> subsp.unknown	A
59	<i>Ginkgo biloba</i>	<i>Xf</i> subsp.unknown	A
60	<i>Gleditsia triacanthos</i> var. <i>inermis</i>	<i>Xf</i> subsp.unknown	A
61	<i>Grevillea juniperina</i>	<i>Xf</i> subsp.unknown	A
62	<i>Helianthus annuus</i>	<i>Xf</i> subsp.unknown	A
63	<i>Hemerocallis</i> sp.	<i>Xf</i> subsp.unknown	A
64	<i>Hibiscus schizopetalus</i>	<i>Xf</i> subsp.unknown	A
65	<i>Humulus scandens</i>	<i>Xf</i> subsp.unknown	A
66	<i>Ilex vomitoria</i>	<i>Xf</i> subsp.unknown	A
67	<i>Iva annua</i>	<i>Xf</i> subsp.unknown	A
68	<i>Jacaranda mimosifolia</i>	<i>Xf</i> subsp.unknown	A
69	<i>Juglans</i> sp.	<i>Xf</i> subsp.unknown	A
70	<i>Juniperus ashei</i>	<i>Xf</i> subsp.unknown	A
71	<i>Lagerstroemia indica</i>	<i>Xf</i> subsp.unknown	A
72	<i>Lagerstroemia</i> sp.	<i>Xf</i> subsp.unknown	A
73	<i>Laurus nobilis</i>	<i>Xf</i> subsp.unknown	A
74	<i>Lavandula angustifolia</i>	<i>Xf</i> subsp.unknown	A
75	<i>Lavandula dentata</i>	<i>Xf</i> subsp.unknown	A
76	<i>Ligustrum lucidum</i>	<i>Xf</i> subsp.unknown	A
77	<i>Liquidambar styraciflua</i>	<i>Xf</i> subsp.unknown	A

N	Plant species	Pest	Category
78	<i>Lonicera japonica</i>	<i>Xf</i> subsp.unknown	A
79	<i>Lupinus aridorum</i>	<i>Xf</i> subsp.unknown	A
80	<i>Lupinus villosus</i>	<i>Xf</i> subsp.unknown	A
81	<i>Magnolia grandiflora</i>	<i>Xf</i> subsp.unknown	A
82	<i>Mallotus paniculatus</i>	<i>Xf</i> subsp.unknown	A
83	<i>Medicago sativa</i>	<i>Xf</i> subsp.unknown	A
84	<i>Mimosa</i> sp.	<i>Xf</i> subsp.unknown	A
85	<i>Modiola caroliniana</i>	<i>Xf</i> subsp.unknown	A
86	<i>Morus alba</i>	<i>Xf</i> subsp.unknown	A
87	<i>Morus rubra</i>	<i>Xf</i> subsp.unknown	A
88	<i>Morus</i> sp.	<i>Xf</i> subsp.unknown	A
89	<i>Myoporum insulare</i>	<i>Xf</i> subsp.unknown	A
90	<i>Myrtus communis</i>	<i>Xf</i> subsp.unknown	A
91	<i>Nandina domestica</i>	<i>Xf</i> subsp.unknown	A
92	<i>Neptunia lutea</i>	<i>Xf</i> subsp.unknown	A
93	<i>Nerium oleander</i>	<i>Xf</i> subsp.unknown	A
94	<i>Olea europaea</i>	<i>Xf</i> subsp.unknown	A
95	<i>Olea</i> sp.	<i>Xf</i> subsp.unknown	A
96	<i>Parthenocissus quinquefolia</i>	<i>Xf</i> subsp.unknown	A
97	<i>Paspalum dilatatum</i>	<i>Xf</i> subsp.unknown	A
98	Periwinkle (common name)	<i>Xf</i> subsp.unknown	A
99	<i>Persea americana</i>	<i>Xf</i> subsp.unknown	A
100	<i>Phagnalon saxatile</i>	<i>Xf</i> subsp.unknown	A
101	<i>Phoenix reclinata</i>	<i>Xf</i> subsp.unknown	A
102	<i>Phoenix roebelenii</i>	<i>Xf</i> subsp.unknown	A
103	<i>Pinus taeda</i>	<i>Xf</i> subsp.unknown	A
104	<i>Platanus occidentalis</i>	<i>Xf</i> subsp.unknown	A
105	<i>Platanus</i> sp.	<i>Xf</i> subsp.unknown	A
106	<i>Polygala myrtifolia</i>	<i>Xf</i> subsp.unknown	A
107	<i>Prunus avium</i>	<i>Xf</i> subsp.unknown	A
108	<i>Prunus cerasifera</i>	<i>Xf</i> subsp.unknown	A
109	<i>Prunus cerasifera</i> × <i>P. munsoniana</i>	<i>Xf</i> subsp.unknown	A
110	<i>Prunus dulcis</i>	<i>Xf</i> subsp.unknown	A
111	<i>Prunus persica</i>	<i>Xf</i> subsp.unknown	A
112	<i>Prunus salicina</i>	<i>Xf</i> subsp.unknown	A
113	<i>Prunus</i> sp.	<i>Xf</i> subsp.unknown	A
114	<i>Pyrus pyrifolia</i>	<i>Xf</i> subsp.unknown	A
115	<i>Pyrus</i> sp.	<i>Xf</i> subsp.unknown	A
116	<i>Quercus coccinea</i>	<i>Xf</i> subsp.unknown	A
117	<i>Quercus falcata</i>	<i>Xf</i> subsp.unknown	A
118	<i>Quercus laevis</i>	<i>Xf</i> subsp.unknown	A
119	<i>Quercus laurifolia</i>	<i>Xf</i> subsp.unknown	A
120	<i>Quercus nigra</i>	<i>Xf</i> subsp.unknown	A
121	<i>Quercus palustris</i>	<i>Xf</i> subsp.unknown	A
122	<i>Quercus rubra</i>	<i>Xf</i> subsp.unknown	A
123	<i>Quercus</i> sp.	<i>Xf</i> subsp.unknown	A
124	<i>Quercus velutina</i>	<i>Xf</i> subsp.unknown	A
125	<i>Quercus virginiana</i>	<i>Xf</i> subsp.unknown	A
126	<i>Ratibida columnifera</i>	<i>Xf</i> subsp.unknown	A
127	<i>Rhamnus alaternus</i>	<i>Xf</i> subsp.unknown	A

N	Plant species	Pest	Category
128	<i>Rhus</i> sp.	<i>Xf</i> subsp.unknown	A
129	<i>Rubus hedycarpus</i> subsp. <i>procerus</i>	<i>Xf</i> subsp.unknown	A
130	<i>Rubus</i> sp.	<i>Xf</i> subsp.unknown	A
131	<i>Salvia officinalis</i>	<i>Xf</i> subsp.unknown	A
132	<i>Salvia rosmarinus</i>	<i>Xf</i> subsp.unknown	A
133	<i>Sambucus canadensis</i>	<i>Xf</i> subsp.unknown	A
134	<i>Sassafras albidum</i>	<i>Xf</i> subsp.unknown	A
135	<i>Sassafras</i> sp.	<i>Xf</i> subsp.unknown	A
136	<i>Setaria magna</i>	<i>Xf</i> subsp.unknown	A
137	<i>Solidago fistulosa</i>	<i>Xf</i> subsp.unknown	A
138	<i>Spartium junceum</i>	<i>Xf</i> subsp.unknown	A
139	<i>Stewartia pseudocamellia</i>	<i>Xf</i> subsp.unknown	A
140	<i>Symphotrichum divaricatum</i>	<i>Xf</i> subsp.unknown	A
141	<i>Trifolium repens</i>	<i>Xf</i> subsp.unknown	A
142	<i>Ulmus americana</i>	<i>Xf</i> subsp.unknown	A
143	<i>Ulmus glabra</i>	<i>Xf</i> subsp.unknown	A
144	<i>Ulmus pumila</i>	<i>Xf</i> subsp.unknown	A
145	<i>Ulmus</i> sp.	<i>Xf</i> subsp.unknown	A
146	<i>Vaccinium ashei</i>	<i>Xf</i> subsp.unknown	A
147	<i>Vaccinium corymbosum</i>	<i>Xf</i> subsp.unknown	A
148	<i>Vaccinium</i> sp.	<i>Xf</i> subsp.unknown	A
149	<i>Vaccinium virgatum</i>	<i>Xf</i> subsp.unknown	A
150	<i>Vinca major</i>	<i>Xf</i> subsp.unknown	A
151	<i>Vinca minor</i>	<i>Xf</i> subsp.unknown	A
152	<i>Vitis californica</i>	<i>Xf</i> subsp.unknown	A
153	<i>Vitis candicans</i>	<i>Xf</i> subsp.unknown	A
154	<i>Vitis labrusca</i>	<i>Xf</i> subsp.unknown	A
155	<i>Vitis labrusca</i> × <i>V. vinifera</i>	<i>Xf</i> subsp.unknown	A
156	<i>Vitis munsoniana</i>	<i>Xf</i> subsp.unknown	A
157	<i>Vitis muscadina</i>	<i>Xf</i> subsp.unknown	A
158	<i>Vitis riparia</i>	<i>Xf</i> subsp.unknown	A
159	<i>Vitis rotundifolia</i>	<i>Xf</i> subsp.unknown	A
160	<i>Vitis</i> sp.	<i>Xf</i> subsp.unknown	A
161	<i>Vitis vinifera</i>	<i>Xf</i> subsp.unknown	A
162	<i>Acer saccharum</i>	<i>Xf</i> subsp.unknown	B
163	<i>Cyperus eragrostis</i>	<i>Xf</i> subsp.unknown	B
164	<i>Hevea brasiliensis</i>	<i>Xf</i> subsp.unknown	B
165	<i>Prunus domestica</i>	<i>Xf</i> subsp.unknown	B
166	<i>Sorghum halepense</i>	<i>Xf</i> subsp.unknown	B
167	<i>Acacia longifolia</i>	<i>Xf</i> subsp.unknown	C
168	<i>Acer macrophyllum</i>	<i>Xf</i> subsp.unknown	C
169	<i>Acer negundo</i>	<i>Xf</i> subsp.unknown	C
170	<i>Acer platanoides</i>	<i>Xf</i> subsp.unknown	C
171	<i>Acer</i> sp.	<i>Xf</i> subsp.unknown	C
172	<i>Aesculus</i> × <i>hybrida</i>	<i>Xf</i> subsp.unknown	C
173	<i>Agathis australis</i>	<i>Xf</i> subsp.unknown	C
174	<i>Agrostis gigantea</i>	<i>Xf</i> subsp.unknown	C
175	<i>Alectryon excelsus</i>	<i>Xf</i> subsp.unknown	C
176	<i>Alternanthera ficoidea</i>	<i>Xf</i> subsp.unknown	C
177	<i>Amaranthus</i> sp.	<i>Xf</i> subsp.unknown	C

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178	<i>Anisantha diandra</i>	<i>Xf</i> subsp.unknown	C
179	<i>Anisantha rigida</i>	<i>Xf</i> subsp.unknown	C
180	<i>Arctostaphylos</i> sp.	<i>Xf</i> subsp.unknown	C
181	<i>Artemisia douglasiana</i>	<i>Xf</i> subsp.unknown	C
182	<i>Atriplex</i> sp.	<i>Xf</i> subsp.unknown	C
183	<i>Avena fatua</i>	<i>Xf</i> subsp.unknown	C
184	<i>Axonopus compressus</i>	<i>Xf</i> subsp.unknown	C
185	<i>Baccharis pilularis</i>	<i>Xf</i> subsp.unknown	C
186	<i>Bidens pilosa</i>	<i>Xf</i> subsp.unknown	C
187	<i>Boerhavia diffusa</i>	<i>Xf</i> subsp.unknown	C
188	<i>Borreria latifolia</i>	<i>Xf</i> subsp.unknown	C
189	<i>Brachiaria decumbens</i>	<i>Xf</i> subsp.unknown	C
190	<i>Brachiaria plantaginea</i>	<i>Xf</i> subsp.unknown	C
191	<i>Brachyglottis</i> sp.	<i>Xf</i> subsp.unknown	C
192	<i>Bromus</i> sp.	<i>Xf</i> subsp.unknown	C
193	<i>Broussonetia papyrifera</i>	<i>Xf</i> subsp.unknown	C
194	<i>Calicotome</i> sp.	<i>Xf</i> subsp.unknown	C
195	<i>Calicotome spinosa</i>	<i>Xf</i> subsp.unknown	C
196	<i>Calyptocarpus biaristatus</i>	<i>Xf</i> subsp.unknown	C
197	<i>Campsis radicans</i>	<i>Xf</i> subsp.unknown	C
198	<i>Capsella bursa-pastoris</i>	<i>Xf</i> subsp.unknown	C
199	<i>Carex</i> sp.	<i>Xf</i> subsp.unknown	C
200	<i>Celastrus orbiculatus</i>	<i>Xf</i> subsp.unknown	C
201	<i>Cenchrus echinatus</i>	<i>Xf</i> subsp.unknown	C
202	<i>Chenopodium murale</i>	<i>Xf</i> subsp.unknown	C
203	<i>Chloris halophila</i>	<i>Xf</i> subsp.unknown	C
204	<i>Cistus monspeliensis</i>	<i>Xf</i> subsp.unknown	C
205	<i>Coffea arabica</i> × <i>C. canephora</i>	<i>Xf</i> subsp.unknown	C
206	<i>Coffea arabica</i> × <i>C. eugenioides</i>	<i>Xf</i> subsp.unknown	C
207	<i>Coffea arabica</i> × <i>C. liberica</i> var. <i>dewevrei</i>	<i>Xf</i> subsp.unknown	C
208	<i>Coffea arabica</i> × <i>C. racemosa</i>	<i>Xf</i> subsp.unknown	C
209	<i>Coffea canephora</i>	<i>Xf</i> subsp.unknown	C
210	<i>Coffea racemosa</i>	<i>Xf</i> subsp.unknown	C
211	<i>Coffea eugenioides</i>	<i>Xf</i> subsp.unknown	C
212	<i>Coffea kapakata</i>	<i>Xf</i> subsp.unknown	C
213	<i>Coffea liberica</i> var. <i>dewevrei</i>	<i>Xf</i> subsp.unknown	C
214	<i>Coffea stenophylla</i>	<i>Xf</i> subsp.unknown	C
215	<i>Commelina benghalensis</i>	<i>Xf</i> subsp.unknown	C
216	<i>Commelina erecta</i>	<i>Xf</i> subsp.unknown	C
217	<i>Convolvulus arvensis</i>	<i>Xf</i> subsp.unknown	C
218	<i>Coprosma repens</i>	<i>Xf</i> subsp.unknown	C
219	<i>Coprosma robusta</i>	<i>Xf</i> subsp.unknown	C
220	<i>Cordyline australis</i>	<i>Xf</i> subsp.unknown	C
221	<i>Cordyline</i> sp.	<i>Xf</i> subsp.unknown	C
222	<i>Cornus florida</i>	<i>Xf</i> subsp.unknown	C
223	<i>Corokia cotoneaster</i>	<i>Xf</i> subsp.unknown	C
224	<i>Corokia macrocarpa</i>	<i>Xf</i> subsp.unknown	C
225	<i>Corokia</i> sp.	<i>Xf</i> subsp.unknown	C
226	<i>Corynocarpus laevigatus</i>	<i>Xf</i> subsp.unknown	C

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227	<i>Croton setigerus</i>	Xf subsp.unknown	C
228	<i>Cynodon dactylon</i>	Xf subsp.unknown	C
229	<i>Cyperus</i> sp.	Xf subsp.unknown	C
230	<i>Cytisus scoparius</i>	Xf subsp.unknown	C
231	<i>Datura wrightii</i>	Xf subsp.unknown	C
232	<i>Digitaria horizontalis</i>	Xf subsp.unknown	C
233	<i>Digitaria insularis</i>	Xf subsp.unknown	C
234	<i>Digitaria sanguinalis</i>	Xf subsp.unknown	C
235	<i>Duranta erecta</i>	Xf subsp.unknown	C
236	<i>Dysphania ambrosioides</i>	Xf subsp.unknown	C
237	<i>Echinochloa crus-galli</i>	Xf subsp.unknown	C
238	<i>Eleusine indica</i>	Xf subsp.unknown	C
239	<i>Erigeron canadensis</i>	Xf subsp.unknown	C
240	<i>Eriochloa contracta</i>	Xf subsp.unknown	C
241	<i>Eriogonum</i> sp.	Xf subsp.unknown	C
242	<i>Erodium botrys</i>	Xf subsp.unknown	C
243	<i>Erodium moschatum</i>	Xf subsp.unknown	C
244	<i>Erodium</i> sp.	Xf subsp.unknown	C
245	<i>Escallonia bifida</i>	Xf subsp.unknown	C
246	<i>Eucalyptus</i> sp.	Xf subsp.unknown	C
247	<i>Euphorbia hirta</i>	Xf subsp.unknown	C
248	<i>Facelis retusa</i>	Xf subsp.unknown	C
249	<i>Fragaria vesca</i> subsp. <i>californica</i>	Xf subsp.unknown	C
250	<i>Fraxinus angustifolia</i>	Xf subsp.unknown	C
251	<i>Fraxinus dipetala</i>	Xf subsp.unknown	C
252	<i>Fuchsia magellanica</i>	Xf subsp.unknown	C
253	<i>Genista lucida</i>	Xf subsp.unknown	C
254	<i>Geranium dissectum</i>	Xf subsp.unknown	C
255	<i>Haloragis erecta</i>	Xf subsp.unknown	C
256	<i>Hebe</i> sp.	Xf subsp.unknown	C
257	<i>Hedera helix</i>	Xf subsp.unknown	C
258	<i>Heliotropium fruticosum</i>	Xf subsp.unknown	C
259	<i>Heliotropium indicum</i>	Xf subsp.unknown	C
260	<i>Heterotheca grandiflora</i>	Xf subsp.unknown	C
261	<i>Hordeum murinum</i>	Xf subsp.unknown	C
262	<i>Hydrangea paniculata</i>	Xf subsp.unknown	C
263	<i>Hypochaeris brasiliensis</i>	Xf subsp.unknown	C
264	<i>Ipomoea fistulosa</i>	Xf subsp.unknown	C
265	<i>Juglans regia</i>	Xf subsp.unknown	C
266	<i>Lactuca serriola</i>	Xf subsp.unknown	C
267	<i>Leonurus sibiricus</i>	Xf subsp.unknown	C
268	<i>Lepidium auriculatum</i>	Xf subsp.unknown	C
269	<i>Lepidium didymum</i>	Xf subsp.unknown	C
270	<i>Ligustrum sinense</i>	Xf subsp.unknown	C
271	<i>Ligustrum virginicum</i>	Xf subsp.unknown	C
272	<i>Liriodendron tulipifera</i>	Xf subsp.unknown	C
273	<i>Lolium multiflorum</i>	Xf subsp.unknown	C
274	<i>Lolium perenne</i>	Xf subsp.unknown	C
275	<i>Ludwigia grandiflora</i>	Xf subsp.unknown	C
276	<i>Malva parviflora</i>	Xf subsp.unknown	C

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277	<i>Marrubium vulgare</i>	Xf subsp.unknown	C
278	<i>Medicago polymorpha</i>	Xf subsp.unknown	C
279	<i>Melicope ternata</i>	Xf subsp.unknown	C
280	<i>Melicytus ramiflorus</i>	Xf subsp.unknown	C
281	<i>Melilotus</i> sp.	Xf subsp.unknown	C
282	<i>Melissa officinalis</i>	Xf subsp.unknown	C
283	<i>Merremia macrocalyx</i>	Xf subsp.unknown	C
284	<i>Meryta sinclairii</i>	Xf subsp.unknown	C
285	<i>Metrosideros excelsa</i>	Xf subsp.unknown	C
286	<i>Metrosideros</i> sp.	Xf subsp.unknown	C
287	<i>Metrosideros kermadecensis</i>	Xf subsp.unknown	C
288	<i>Montiastrum lineare</i>	Xf subsp.unknown	C
289	<i>Myoporum laetum</i>	Xf subsp.unknown	C
290	<i>Olea europaea</i> subsp. <i>sylvestris</i>	Xf subsp.unknown	C
291	<i>Origanum majorana</i>	Xf subsp.unknown	C
292	<i>Panicum acuminatum</i>	Xf subsp.unknown	C
293	<i>Parthenocissus tricuspidata</i>	Xf subsp.unknown	C
294	<i>Paspalum urvillei</i>	Xf subsp.unknown	C
295	<i>Paspalum regnellii</i>	Xf subsp.unknown	C
296	<i>Passiflora foetida</i>	Xf subsp.unknown	C
297	<i>Pennisetum clandestinum</i>	Xf subsp.unknown	C
298	<i>Persicaria lapathifolia</i>	Xf subsp.unknown	C
299	<i>Persicaria maculosa</i>	Xf subsp.unknown	C
300	<i>Phalaris angusta</i>	Xf subsp.unknown	C
301	<i>Phoenix</i> sp.	Xf subsp.unknown	C
302	<i>Phormium colensoi</i>	Xf subsp.unknown	C
303	<i>Phormium tenax</i>	Xf subsp.unknown	C
304	<i>Pittosporum crassifolium</i>	Xf subsp.unknown	C
305	<i>Pittosporum eugenioides</i>	Xf subsp.unknown	C
306	<i>Pittosporum tenuifolium</i>	Xf subsp.unknown	C
307	<i>Pittosporum umbellatum</i>	Xf subsp.unknown	C
308	<i>Plantago lanceolata</i>	Xf subsp.unknown	C
309	<i>Pluchea odorata</i>	Xf subsp.unknown	C
310	<i>Poa annua</i>	Xf subsp.unknown	C
311	<i>Polygonum arenastrum</i>	Xf subsp.unknown	C
312	<i>Portulaca oleracea</i>	Xf subsp.unknown	C
313	<i>Prunus angustifolia</i>	Xf subsp.unknown	C
314	<i>Prunus laurocerasus</i>	Xf subsp.unknown	C
315	<i>Prunus serotina</i>	Xf subsp.unknown	C
316	<i>Prunus serrulata</i>	Xf subsp.unknown	C
317	<i>Prunus simonii</i> × <i>P. salicina</i> × <i>P. cerasifera</i> × <i>P. munsoniana</i>	Xf subsp.unknown	C
318	<i>Quercus agrifolia</i>	Xf subsp.unknown	C
319	<i>Quercus alba</i>	Xf subsp.unknown	C
320	<i>Quercus ilex</i>	Xf subsp.unknown	C
321	<i>Quercus imbricaria</i>	Xf subsp.unknown	C
322	<i>Quercus incana</i>	Xf subsp.unknown	C
323	<i>Quercus macrocarpa</i>	Xf subsp.unknown	C
324	<i>Quercus phellos</i>	Xf subsp.unknown	C
325	<i>Ranunculus repens</i>	Xf subsp.unknown	C

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326	<i>Rhus diversiloba</i>	Xf subsp.unknown	C
327	<i>Richardia</i> sp.	Xf subsp.unknown	C
328	<i>Rosa californica</i>	Xf subsp.unknown	C
329	<i>Rubus ursinus</i>	Xf subsp.unknown	C
330	<i>Rubus vitifolius</i>	Xf subsp.unknown	C
331	<i>Rumex crispus</i>	Xf subsp.unknown	C
332	<i>Salix</i> sp.	Xf subsp.unknown	C
333	<i>Salsola kali</i> subsp. <i>tragus</i>	Xf subsp.unknown	C
334	<i>Sambucus cerulea</i>	Xf subsp.unknown	C
335	<i>Senecio grisebachii</i>	Xf subsp.unknown	C
336	<i>Senecio vulgaris</i>	Xf subsp.unknown	C
337	<i>Senna secundiflora</i>	Xf subsp.unknown	C
338	<i>Sida rhombifolia</i>	Xf subsp.unknown	C
339	<i>Silybum marianum</i>	Xf subsp.unknown	C
340	<i>Sisymbrium irio</i>	Xf subsp.unknown	C
341	<i>Solanum americanum</i>	Xf subsp.unknown	C
342	<i>Sonchus oleraceus</i>	Xf subsp.unknown	C
343	<i>Sonchus</i> sp.	Xf subsp.unknown	C
344	<i>Sophora secundiflora</i>	Xf subsp.unknown	C
345	<i>Stachys arvensis</i>	Xf subsp.unknown	C
346	<i>Stellaria media</i>	Xf subsp.unknown	C
347	<i>Syzygium paniculatum</i>	Xf subsp.unknown	C
348	<i>Talinum paniculatum</i>	Xf subsp.unknown	C
349	<i>Taraxacum officinale</i>	Xf subsp.unknown	C
350	<i>Trifolium incarnatum</i>	Xf subsp.unknown	C
351	<i>Urtica dioica</i> subsp. <i>gracilis</i>	Xf subsp.unknown	C
352	<i>Urtica urens</i>	Xf subsp.unknown	C
353	<i>Vaccinium elliotii</i>	Xf subsp.unknown	C
354	<i>Verbena litoralis</i>	Xf subsp.unknown	C
355	<i>Vernonia</i> sp.	Xf subsp.unknown	C
356	<i>Veronica persica</i>	Xf subsp.unknown	C
357	<i>Veronica</i> sp.	Xf subsp.unknown	C
358	<i>Vicia ludoviciana</i>	Xf subsp.unknown	C
359	<i>Vitex lucens</i>	Xf subsp.unknown	C
360	<i>Vitis arizonica</i>	Xf subsp.unknown	C
361	<i>Vitis girdiana</i>	Xf subsp.unknown	C
362	<i>Wisteria frutescens</i>	Xf subsp.unknown	C
363	<i>Xanthium spinosum</i>	Xf subsp.unknown	C
364	<i>Citrus</i> × <i>limonia</i>	Xf subsp.unknown	D
365	<i>Coffea liberica</i>	Xf subsp.unknown	D
366	<i>Prunus americana</i>	Xf subsp.unknown	D
367	<i>Prunus munsoniana</i>	Xf subsp.unknown	D
368	<i>Prunus simonii</i>	Xf subsp.unknown	D
369	<i>Solidago canadensis</i>	Xf subsp.unknown	D
370	<i>Prunus armeniaca</i>	Xf subsp.unknown	E
371	<i>Prunus hortulana</i>	Xf subsp.unknown	E
372	<i>Prunus mexicana</i>	Xf subsp.unknown	E
373	<i>Ulmus</i> × <i>hollandica</i>	Xf subsp.unknown	E
374	<i>Vitis aestivalis</i>	Xf subsp.unknown	E
375	<i>Vitis bourquiniana</i>	Xf subsp.unknown	E

N	Plant species	Pest	Category
376	<i>Vitis cinerea</i>	<i>Xf</i> subsp.unknown	E
377	<i>Vitis simpsonii</i>	<i>Xf</i> subsp.unknown	E
378	<i>Vitis</i> × <i>champinii</i>	<i>Xf</i> subsp.unknown	E
379	<i>Vitis rufotomentosa</i>	<i>Xf</i> subsp.unknown	E
380	<i>Vitis shuttleworthii</i>	<i>Xf</i> subsp.unknown	E
N	Plant species	Pest	Category
1	<i>Acer</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
2	<i>Ambrosia artemisiifolia</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
3	<i>Calicotome spinosa</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
4	<i>Cercis occidentalis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
5	<i>Cistus monspeliensis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
6	<i>Citrus sinensis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
7	<i>Coffea arabica</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
8	<i>Coffea canephora</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
9	<i>Coffea</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
10	<i>Erysimum</i> hybrids	<i>Xf</i> subsp. <i>fastidiosa</i>	A
11	<i>Genista lucida</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
12	<i>Juglans regia</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
13	<i>Lupinus aridorum</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
14	<i>Magnolia grandiflora</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
15	<i>Medicago sativa</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
16	<i>Metrosideros</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
17	<i>Morus</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
18	<i>Nerium oleander</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
19	<i>Pluchea odorata</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
20	<i>Polygala myrtifolia</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
21	<i>Prunus avium</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
22	<i>Prunus dulcis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
23	<i>Prunus persica</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
24	<i>Prunus</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
25	<i>Psidium</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
26	<i>Rhamnus alaternus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
27	<i>Rubus rigidus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
28	<i>Rubus ursinus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
29	<i>Ruta chalepensis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
30	<i>Salvia rosmarinus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
31	<i>Sambucus canadensis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
32	<i>Sambucus</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
33	<i>Spartium junceum</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
34	<i>Streptocarpus</i> hybrids	<i>Xf</i> subsp. <i>fastidiosa</i>	A
35	<i>Teucrium capitatum</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
36	<i>Ulmus americana</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
37	<i>Vaccinium corymbosum</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
38	<i>Vinca major</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
39	<i>Vinca</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
40	<i>Vitis aestivalis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
41	<i>Vitis aestivalis</i> hybrid	<i>Xf</i> subsp. <i>fastidiosa</i>	A
42	<i>Vitis californica</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
43	<i>Vitis candicans</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
44	<i>Vitis cinerea</i> var. <i>helleri</i> × <i>V. vulpina</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A

N	Plant species	Pest	Category
45	<i>Vitis girdiana</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
46	<i>Vitis</i> hybrids	<i>Xf</i> subsp. <i>fastidiosa</i>	A
47	<i>Vitis rotundifolia</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
48	<i>Vitis</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
49	<i>Vitis vinifera</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
50	<i>Broussonetia papyrifera</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
51	<i>Quercus</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	C
52	<i>Ulmus</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	C
N	Plant species	Pest	Category
1	<i>Acacia dealbata</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
2	<i>Acacia longifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
3	<i>Acacia melanoxylon</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
4	<i>Acacia saligna</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
5	<i>Acacia</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
6	<i>Acer griseum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
7	<i>Acer pseudoplatanus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
8	<i>Acer rubrum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
9	<i>Adenocarpus lainzii</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
10	<i>Alnus rhombifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
11	<i>Ambrosia psilostachya</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
12	<i>Ambrosia</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
13	<i>Ambrosia trifida</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
14	<i>Ambrosia trifida</i> var. <i>texana</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
15	<i>Ampelopsis cordata</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
16	<i>Anthyllis hermanniae</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
17	<i>Artemisia absinthium</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
18	<i>Artemisia arborescens</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
19	<i>Artemisia</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
20	<i>Asparagus acutifolius</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
21	<i>Athyrium filix-femina</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
22	<i>Baccharis halimifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
23	<i>Calicotome spinosa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
24	<i>Calicotome villosa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
25	<i>Callistemon citrinus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
26	<i>Calluna vulgaris</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
27	<i>Carya illinoensis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
28	<i>Carya</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
29	<i>Celtis occidentalis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
30	<i>Cercis canadensis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
31	<i>Cercis occidentalis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
32	<i>Cercis siliquastrum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
33	<i>Chionanthus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
34	<i>Cistus albidus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
35	<i>Cistus creticus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
36	<i>Cistus inflatus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
37	<i>Cistus monspeliensis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
38	<i>Cistus salvifolius</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
39	<i>Cistus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
40	<i>Clematis cirrhosa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
41	<i>Convolvulus cneorum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A

N	Plant species	Pest	Category
42	<i>Coprosma repens</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
43	<i>Coronilla</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
44	<i>Coronilla valentina</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
45	<i>Coronilla valentina</i> subsp. <i>glauca</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
46	<i>Cytisus scoparius</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
47	<i>Cytisus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
48	<i>Cytisus spinosa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
49	<i>Cytisus villosus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
50	<i>Dodonaea viscosa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
51	<i>Echium plantagineum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
52	<i>Elaeagnus angustifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
53	<i>Encelia farinosa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
54	<i>Erigeron canadensis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
55	<i>Erigeron karvinskianus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
56	<i>Erodium moschatum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
57	<i>Euryops chrysanthemoides</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
58	<i>Euryops pectinatus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
59	<i>Fallopia japonica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
60	<i>Ficus carica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
61	<i>Frangula alnus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
62	<i>Fraxinus americana</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
63	<i>Fraxinus angustifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
64	<i>Fraxinus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
65	<i>Genista corsica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
66	<i>Genista ephedroides</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
67	<i>Genista</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
68	<i>Genista tridentata</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
69	<i>Genista</i> × <i>spachiana</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
70	<i>Ginkgo biloba</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
71	<i>Gleditsia triacanthos</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
72	<i>Grevillea juniperina</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
73	<i>Hebe elliptica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
74	<i>Hebe</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
75	<i>Helianthus annuus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
76	<i>Helianthus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
77	<i>Helichrysum italicum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
78	<i>Helichrysum</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
79	<i>Helichrysum stoechas</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
80	<i>Hibiscus syriacus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
81	<i>Ilex aquifolium</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
82	<i>Iva annua</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
83	<i>Koeleruteria bipinnata</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
84	<i>Lagerstroemia indica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
85	<i>Lagerstroemia</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
86	<i>Laurus nobilis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
87	<i>Lavandula angustifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
88	<i>Lavandula dentata</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
89	<i>Lavandula latifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
90	<i>Lavandula</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
91	<i>Lavandula stoechas</i>	<i>Xf</i> subsp. <i>multiplex</i>	A

N	Plant species	Pest	Category
92	<i>Lavandula</i> × <i>heterophylla</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
93	<i>Lavandula</i> × <i>intermedia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
94	<i>Lavatera cretica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
95	<i>Liquidambar styraciflua</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
96	<i>Lonicera implexa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
97	<i>Lonicera japonica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
98	<i>Lupinus aridorum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
99	<i>Lupinus villosus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
100	<i>Magnolia grandiflora</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
101	<i>Medicago arborea</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
102	<i>Medicago sativa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
103	<i>Metrosideros excelsa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
104	<i>Metrosideros</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
105	<i>Myrtus communis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
106	<i>Nerium oleander</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
107	<i>Olea europaea</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
108	<i>Olea europaea</i> subsp. <i>sylvestris</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
109	<i>Olea</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
110	<i>Osteospermum ecklonis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
111	<i>Pelargonium graveolens</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
112	<i>Pelargonium</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
113	Periwinkle (common name)	<i>Xf</i> subsp. <i>multiplex</i>	A
114	<i>Perovskia abrotanoides</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
115	<i>Phagnalon saxatile</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
116	<i>Phillyrea angustifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
117	<i>Phillyrea latifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
118	<i>Phlomis fruticosa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
119	<i>Pistacia vera</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
120	<i>Plantago lanceolata</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
121	<i>Platanus occidentalis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
122	<i>Platanus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
123	<i>Polygala myrtifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
124	<i>Polygala</i> × <i>grandiflora nana</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
125	<i>Prunus armeniaca</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
126	<i>Prunus avium</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
127	<i>Prunus cerasifera</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
128	<i>Prunus cerasus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
129	<i>Prunus domestica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
130	<i>Prunus dulcis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
131	<i>Prunus persica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
132	<i>Prunus salicina</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
133	<i>Prunus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
134	<i>Pteridium aquilinum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
135	<i>Quercus coccinea</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
136	<i>Quercus falcata</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
137	<i>Quercus laevis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
138	<i>Quercus macrocarpa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
139	<i>Quercus nigra</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
140	<i>Quercus palustris</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
141	<i>Quercus phellos</i>	<i>Xf</i> subsp. <i>multiplex</i>	A

N	Plant species	Pest	Category
142	<i>Quercus robur</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
143	<i>Quercus rubra</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
144	<i>Quercus shumardii</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
145	<i>Quercus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
146	<i>Quercus suber</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
147	<i>Ratibida columnifera</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
148	<i>Rhamnus alaternus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
149	<i>Rhamnus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
150	<i>Robinia pseudoacacia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
151	<i>Rosa canina</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
152	<i>Rosa</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
153	<i>Rosmarinus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
154	<i>Rubus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
155	<i>Salvia mellifera</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
156	<i>Salvia officinalis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
157	<i>Salvia rosmarinus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
158	<i>Sambucus nigra</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
159	<i>Sambucus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
160	<i>Santolina chamaecyparissus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
161	<i>Santolina magonica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
162	<i>Sapindus saponaria</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
163	<i>Solidago virgaurea</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
164	<i>Spartium junceum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
165	<i>Spartium</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
166	<i>Strelitzia reginae</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
167	<i>Ulex europaeus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
168	<i>Ulex minor</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
169	<i>Ulex</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
170	<i>Ulmus americana</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
171	<i>Ulmus crassifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
172	<i>Ulmus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
173	<i>Vaccinium ashei</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
174	<i>Vaccinium corymbosum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
175	<i>Vaccinium</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
176	<i>Vinca major</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
177	<i>Vinca</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
178	<i>Westringia fruticosa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
179	<i>Xanthium strumarium</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
180	<i>Acer platanoides</i>	<i>Xf</i> subsp. <i>multiplex</i>	C
181	<i>Calicotome</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	C
182	<i>Cistus</i> × <i>incanus</i>	<i>Xf</i> subsp. <i>multiplex</i>	C
183	<i>Liriodendron tulipifera</i>	<i>Xf</i> subsp. <i>multiplex</i>	C
184	<i>Polygala</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	C
185	<i>Polygala</i> × <i>dalmasiana</i>	<i>Xf</i> subsp. <i>multiplex</i>	C
N	Plant species	Pest	Category
1	<i>Acacia saligna</i>	<i>Xf</i> subsp. <i>pauca</i>	A
2	<i>Acacia</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
3	<i>Amaranthus retroflexus</i>	<i>Xf</i> subsp. <i>pauca</i>	A
4	<i>Asparagus acutifolius</i>	<i>Xf</i> subsp. <i>pauca</i>	A
5	<i>Catharanthus roseus</i>	<i>Xf</i> subsp. <i>pauca</i>	A

N	Plant species	Pest	Category
6	<i>Chenopodium album</i>	<i>Xf</i> subsp. <i>pauca</i>	A
7	<i>Cistus albidus</i>	<i>Xf</i> subsp. <i>pauca</i>	A
8	<i>Cistus creticus</i>	<i>Xf</i> subsp. <i>pauca</i>	A
9	<i>Citrus sinensis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
10	<i>Citrus</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
11	<i>Coffea arabica</i>	<i>Xf</i> subsp. <i>pauca</i>	A
12	<i>Coffea</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
13	<i>Dodonaea viscosa</i>	<i>Xf</i> subsp. <i>pauca</i>	A
14	<i>Eremophila maculata</i>	<i>Xf</i> subsp. <i>pauca</i>	A
15	<i>Erigeron bonariensis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
16	<i>Erigeron</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
17	<i>Erigeron sumatrensis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
18	<i>Euphorbia chamaesyce</i>	<i>Xf</i> subsp. <i>pauca</i>	A
19	<i>Euphorbia terracina</i>	<i>Xf</i> subsp. <i>pauca</i>	A
20	<i>Grevillea juniperina</i>	<i>Xf</i> subsp. <i>pauca</i>	A
21	<i>Hebe</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
22	<i>Heliotropium europaeum</i>	<i>Xf</i> subsp. <i>pauca</i>	A
23	<i>Hibiscus rosa-sinensis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
24	<i>Hibiscus</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
25	<i>Laurus nobilis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
26	<i>Lavandula angustifolia</i>	<i>Xf</i> subsp. <i>pauca</i>	A
27	<i>Lavandula dentata</i>	<i>Xf</i> subsp. <i>pauca</i>	A
28	<i>Lavandula</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
29	<i>Lavandula stoechas</i>	<i>Xf</i> subsp. <i>pauca</i>	A
30	<i>Myoporum insulare</i>	<i>Xf</i> subsp. <i>pauca</i>	A
31	<i>Myrtus communis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
32	<i>Nerium oleander</i>	<i>Xf</i> subsp. <i>pauca</i>	A
33	<i>Olea europaea</i>	<i>Xf</i> subsp. <i>pauca</i>	A
34	<i>Olea europaea</i> subsp. <i>sylvestris</i>	<i>Xf</i> subsp. <i>pauca</i>	A
35	<i>Osteospermum fruticosum</i>	<i>Xf</i> subsp. <i>pauca</i>	A
36	<i>Pelargonium fragrans</i>	<i>Xf</i> subsp. <i>pauca</i>	A
37	<i>Pelargonium</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
38	Periwinkle (common name)	<i>Xf</i> subsp. <i>pauca</i>	A
39	<i>Phillyrea latifolia</i>	<i>Xf</i> subsp. <i>pauca</i>	A
40	<i>Pistacia vera</i>	<i>Xf</i> subsp. <i>pauca</i>	A
41	<i>Polygala myrtifolia</i>	<i>Xf</i> subsp. <i>pauca</i>	A
42	<i>Prunus avium</i>	<i>Xf</i> subsp. <i>pauca</i>	A
43	<i>Prunus domestica</i>	<i>Xf</i> subsp. <i>pauca</i>	A
44	<i>Prunus dulcis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
45	<i>Prunus</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
46	<i>Rhamnus alaternus</i>	<i>Xf</i> subsp. <i>pauca</i>	A
47	<i>Salvia rosmarinus</i>	<i>Xf</i> subsp. <i>pauca</i>	A
48	<i>Spartium junceum</i>	<i>Xf</i> subsp. <i>pauca</i>	A
49	<i>Ulex parviflorus</i>	<i>Xf</i> subsp. <i>pauca</i>	A
50	<i>Vinca minor</i>	<i>Xf</i> subsp. <i>pauca</i>	A
51	<i>Westringia fruticosa</i>	<i>Xf</i> subsp. <i>pauca</i>	A
52	<i>Westringia glabra</i>	<i>Xf</i> subsp. <i>pauca</i>	A
53	<i>Polygala</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	C

N	Plant species	Pest	Category
54	<i>Prunus persica</i>	<i>Xf</i> subsp. <i>pauca</i>	C
55	<i>Quercus ilex</i>	<i>Xf</i> subsp. <i>pauca</i>	C
N	Plant species	Pest	Category
1	<i>Morus alba</i>	<i>Xf</i> subsp. <i>morus</i>	A
2	<i>Morus rubra</i>	<i>Xf</i> subsp. <i>morus</i>	A
3	<i>Morus</i> sp.	<i>Xf</i> subsp. <i>morus</i>	A
4	<i>Nandina domestica</i>	<i>Xf</i> subsp. <i>morus</i>	A
N	Plant species	Pest	Category
1	<i>Coffea arabica</i>	<i>Xf</i> subsp. <i>sandyi</i>	A
2	<i>Coffea</i> sp.	<i>Xf</i> subsp. <i>sandyi</i>	A
3	<i>Hemerocallis</i> sp.	<i>Xf</i> subsp. <i>sandyi</i>	A
4	<i>Jacaranda mimosifolia</i>	<i>Xf</i> subsp. <i>sandyi</i>	A
5	<i>Magnolia grandiflora</i>	<i>Xf</i> subsp. <i>sandyi</i>	A
6	<i>Nandina domestica</i>	<i>Xf</i> subsp. <i>sandyi</i>	A
7	<i>Nerium oleander</i>	<i>Xf</i> subsp. <i>sandyi</i>	A
8	<i>Polygala myrtifolia</i>	<i>Xf</i> subsp. <i>sandyi</i>	C
N	Plant species	Pest	Category
1	<i>Chitalpa tashkentensis</i>	<i>Xf</i> subsp. <i>tashke</i>	A
N	Plant species	Pest	Category
1	<i>Coffea arabica</i>	<i>Xf</i> subsp. <i>fastidiosa/sandyi</i>	A
2	<i>Coffea canephora</i>	<i>Xf</i> subsp. <i>fastidiosa/sandyi</i>	A
N	Plant species	Pest	Category
1	<i>Pyrus pyrifolia</i>	<i>Xylella taiwanensis</i>	A

Appendix B – Host plant species artificially infected

List of host plant species, artificially infected, of *X. fastidiosa* subsp. unknown (i.e. not reported in the publication), subsp. *fastidiosa*, subsp. *morus*, subsp. *multiplex*, subsp. *pauca*, subsp. *sandyi* and subsp. *tashke* according to categories A, B, C, D, E (as reported in Section 2.4.2):

- A) Plant species positive with at least two detection methods (among: symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation) or positive with one method (between: sequencing, pure culture isolation).
- B) The same as point A, but also including microscopy: plant species positive with at least two detection methods (among: microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation) or positive with one method (between: sequencing, pure culture isolation).
- C) Plant species positive with at least one detection method (among: symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation).
- D) Plant species positive with at least one detection method including microscopy (microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation).
- E) All positives plant species reported, regardless of the detection methods (positive records but without the detection method specified, symptom observations, microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing, pure culture isolation).

N	Plant species	Pest	Category					
1	<i>Acer macrophyllum</i>	<i>Xf</i> subsp.unknown	A					
2	<i>Acer negundo</i>	<i>Xf</i> subsp.unknown	A					
3	<i>Aesculus californica</i>	<i>Xf</i> subsp.unknown	A					
4	<i>Alnus rhombifolia</i>	<i>Xf</i> subsp.unknown	A					
5	<i>Ambrosia artemisiifolia</i>	<i>Xf</i> subsp.unknown	A					
6	<i>Ambrosia</i> sp.	<i>Xf</i> subsp.unknown	A					
7	<i>Arabidopsis thaliana</i>	<i>Xf</i> subsp.unknown	A					
8	<i>Artemisia douglasiana</i>	<i>Xf</i> subsp.unknown	A					
9	<i>Baccharis pilularis</i>	<i>Xf</i> subsp.unknown	A					
10	<i>Baccharis salicifolia</i>	<i>Xf</i> subsp.unknown	A					
11	<i>Brassica nigra</i>	<i>Xf</i> subsp.unknown	A					
12	<i>Carya illinoensis</i>	<i>Xf</i> subsp.unknown	A					
13	<i>Catharanthus roseus</i>	<i>Xf</i> subsp.unknown	A					
14	<i>Citrus aurantiifolia</i>	<i>Xf</i> subsp.unknown	A					
15	<i>Citrus clementina</i>	<i>Xf</i> subsp.unknown	A					
16	<i>Citrus clementina</i> × <i>C. sinensis</i>	<i>Xf</i> subsp.unknown	A					
17	<i>Citrus jambhiri</i>	<i>Xf</i> subsp.unknown	A					
18	<i>Citrus reshni</i>	<i>Xf</i> subsp.unknown	A					
19	<i>Citrus reticulata</i>	<i>Xf</i> subsp.unknown	A					
20	<i>Citrus sinensis</i>	<i>Xf</i> subsp.unknown	A					
21	<i>Citrus</i> sp.	<i>Xf</i> subsp.unknown	A					
22	<i>Citrus sunki</i>	<i>Xf</i> subsp.unknown	A					
23	<i>Citrus unshiu</i>	<i>Xf</i> subsp.unknown	A					
24	<i>Citrus</i> × <i>limonia</i>	<i>Xf</i> subsp.unknown	A					
25	<i>Citrus</i> × <i>nobilis</i>	<i>Xf</i> subsp.unknown	A					
26	<i>Coffea arabica</i>	<i>Xf</i> subsp.unknown	A					
27	<i>Coffea</i> sp.	<i>Xf</i> subsp.unknown	A					
28	<i>Conium maculatum</i>	<i>Xf</i> subsp.unknown	A					

N	Plant species	Pest	Category					
29	<i>Coprosma repens</i>	Xf subsp.unknown	A					
30	<i>Coriandrum sativum</i>	Xf subsp.unknown	A					
31	<i>Cyperus eragrostis</i>	Xf subsp.unknown	A					
32	<i>Echinochloa crus-galli</i>	Xf subsp.unknown	A					
33	<i>Fagopyrum esculentum</i>	Xf subsp.unknown	A					
34	<i>Fraxinus latifolia</i>	Xf subsp.unknown	A					
35	<i>Hakea petiolaris</i>	Xf subsp.unknown	A					
36	<i>Hedera helix</i>	Xf subsp.unknown	A					
37	<i>Lobularia maritima</i>	Xf subsp.unknown	A					
38	<i>Medicago sativa</i>	Xf subsp.unknown	A					
39	<i>Morus alba</i>	Xf subsp.unknown	A					
40	<i>Morus</i> sp.	Xf subsp.unknown	A					
41	<i>Nerium oleander</i>	Xf subsp.unknown	A					
42	<i>Nicotiana benthamiana</i>	Xf subsp.unknown	A					
43	<i>Nicotiana tabacum</i>	Xf subsp.unknown	A					
44	<i>Parthenocissus quinquefolia</i>	Xf subsp.unknown	A					
45	Periwinkle (common name)	Xf subsp.unknown	A					
46	<i>Persea americana</i>	Xf subsp.unknown	A					
47	<i>Platanus occidentalis</i>	Xf subsp.unknown	A					
48	<i>Populus fremontii</i>	Xf subsp.unknown	A					
49	<i>Prunus cerasifera</i>	Xf subsp.unknown	A					
50	<i>Prunus dulcis</i>	Xf subsp.unknown	A					
51	<i>Prunus persica</i>	Xf subsp.unknown	A					
52	<i>Prunus salicina</i>	Xf subsp.unknown	A					
53	<i>Prunus</i> sp.	Xf subsp.unknown	A					
54	<i>Pyrus pyrifolia</i>	Xf subsp.unknown	A					
55	<i>Quercus agrifolia</i>	Xf subsp.unknown	A					
56	<i>Quercus lobata</i>	Xf subsp.unknown	A					
57	<i>Quercus rubra</i>	Xf subsp.unknown	A					
58	<i>Rhus diversiloba</i>	Xf subsp.unknown	A					
59	<i>Rosa californica</i>	Xf subsp.unknown	A					
60	<i>Rubus hedycarpus</i> subsp. <i>procerus</i>	Xf subsp.unknown	A					
61	<i>Rubus rigidus</i>	Xf subsp.unknown	A					
62	<i>Rubus ursinus</i>	Xf subsp.unknown	A					
63	<i>Salix laevigata</i>	Xf subsp.unknown	A					
64	<i>Salix lasiolepis</i>	Xf subsp.unknown	A					
65	<i>Salvia apiana</i>	Xf subsp.unknown	A					
66	<i>Salvia mellifera</i>	Xf subsp.unknown	A					
67	<i>Sambucus canadensis</i>	Xf subsp.unknown	A					
68	<i>Sambucus</i> sp.	Xf subsp.unknown	A					
69	<i>Spartium junceum</i>	Xf subsp.unknown	A					
70	<i>Swainsona galegifolia</i>	Xf subsp.unknown	A					
71	<i>Symphoricarpos albus</i>	Xf subsp.unknown	A					
72	<i>Teline monspessulana</i>	Xf subsp.unknown	A					
73	<i>Ulmus americana</i>	Xf subsp.unknown	A					
74	<i>Umbellularia californica</i>	Xf subsp.unknown	A					
75	<i>Urtica dioica</i>	Xf subsp.unknown	A					
76	<i>Vaccinium corymbosum</i>	Xf subsp.unknown	A					
77	<i>Vaccinium</i> sp.	Xf subsp.unknown	A					
78	<i>Vicia sativa</i>	Xf subsp.unknown	A					

N	Plant species	Pest	Category
79	<i>Vinca major</i>	<i>Xf</i> subsp.unknown	A
80	<i>Vinca minor</i>	<i>Xf</i> subsp.unknown	A
81	<i>Vitis arizonica</i> × <i>V. rupestris</i>	<i>Xf</i> subsp.unknown	A
82	<i>Vitis arizonica/candicans</i> × <i>V. rupestris</i>	<i>Xf</i> subsp.unknown	A
83	<i>Vitis californica</i>	<i>Xf</i> subsp.unknown	A
84	<i>Vitis labrusca</i> × <i>V. vinifera</i>	<i>Xf</i> subsp.unknown	A
85	<i>Vitis rotundifolia</i>	<i>Xf</i> subsp.unknown	A
86	<i>Vitis rotundifolia</i> × <i>V. rupestris</i>	<i>Xf</i> subsp.unknown	A
87	<i>Vitis rupestris</i>	<i>Xf</i> subsp.unknown	A
88	<i>Vitis</i> sp.	<i>Xf</i> subsp.unknown	A
89	<i>Vitis vinifera</i>	<i>Xf</i> subsp.unknown	A
90	<i>Morus rubra</i>	<i>Xf</i> subsp.unknown	B
91	<i>Prunus domestica</i>	<i>Xf</i> subsp.unknown	B
92	<i>Vitis arizonica/candicans</i>	<i>Xf</i> subsp.unknown	B
93	<i>Vitis aestivalis</i> var. <i>smalliana</i>	<i>Xf</i> subsp.unknown	B
94	<i>Vitis rufotomentosa</i>	<i>Xf</i> subsp.unknown	B
95	<i>Ambrosia acanthicarpa</i>	<i>Xf</i> subsp.unknown	C
96	<i>Ambrosia trifida</i> var. <i>texana</i>	<i>Xf</i> subsp.unknown	C
97	<i>Amsinckia douglasiana</i>	<i>Xf</i> subsp.unknown	C
98	<i>Anisantha rigida</i>	<i>Xf</i> subsp.unknown	C
99	<i>Avena fatua</i>	<i>Xf</i> subsp.unknown	C
100	<i>Brachiaria plantaginea</i>	<i>Xf</i> subsp.unknown	C
101	<i>Bromus</i> sp.	<i>Xf</i> subsp.unknown	C
102	<i>Callistephus chinensis</i>	<i>Xf</i> subsp.unknown	C
103	<i>Canna</i> sp.	<i>Xf</i> subsp.unknown	C
104	<i>Ceratochloa cathartica</i>	<i>Xf</i> subsp.unknown	C
105	<i>Citrus deliciosa</i> × <i>C. sinensis</i>	<i>Xf</i> subsp.unknown	C
106	<i>Citrus medica</i>	<i>Xf</i> subsp.unknown	C
107	<i>Citrus tangerina</i>	<i>Xf</i> subsp.unknown	C
108	<i>Citrus</i> × <i>tangelo</i>	<i>Xf</i> subsp.unknown	C
109	<i>Clarkia amoena</i> subsp. <i>lindleyi</i>	<i>Xf</i> subsp.unknown	C
110	<i>Coprosma baueri</i>	<i>Xf</i> subsp.unknown	C
111	<i>Cotoneaster rotundifolius</i>	<i>Xf</i> subsp.unknown	C
112	<i>Cynodon dactylon</i>	<i>Xf</i> subsp.unknown	C
113	<i>Cyperus esculentus</i>	<i>Xf</i> subsp.unknown	C
114	<i>Cytisus scoparius</i>	<i>Xf</i> subsp.unknown	C
115	<i>Daucus carota</i> subsp. <i>sativus</i>	<i>Xf</i> subsp.unknown	C
116	<i>Digitaria sanguinalis</i>	<i>Xf</i> subsp.unknown	C
117	<i>Dysphania ambrosioides</i>	<i>Xf</i> subsp.unknown	C
118	<i>Epilobium brachycarpum</i>	<i>Xf</i> subsp.unknown	C
119	<i>Epilobium ciliatum</i>	<i>Xf</i> subsp.unknown	C
120	<i>Eragrostis diffusa</i>	<i>Xf</i> subsp.unknown	C
121	<i>Erodium cicutarium</i>	<i>Xf</i> subsp.unknown	C
122	<i>Fallopia convolvulus</i>	<i>Xf</i> subsp.unknown	C
123	<i>Grevillea alpina</i>	<i>Xf</i> subsp.unknown	C
124	<i>Helianthus annuus</i>	<i>Xf</i> subsp.unknown	C
125	<i>Hordeum murinum</i>	<i>Xf</i> subsp.unknown	C
126	<i>Hordeum vulgare</i>	<i>Xf</i> subsp.unknown	C
127	<i>Iva annua</i>	<i>Xf</i> subsp.unknown	C
128	<i>Lactuca serriola</i>	<i>Xf</i> subsp.unknown	C

N	Plant species	Pest	Category
129	<i>Lathyrus cicera</i>	<i>Xf</i> subsp.unknown	C
130	<i>Lathyrus clymenum</i>	<i>Xf</i> subsp.unknown	C
131	<i>Lathyrus sativus</i>	<i>Xf</i> subsp.unknown	C
132	<i>Leptospermum laevigatum</i>	<i>Xf</i> subsp.unknown	C
133	<i>Lolium multiflorum</i>	<i>Xf</i> subsp.unknown	C
134	<i>Lolium temulentum</i>	<i>Xf</i> subsp.unknown	C
135	<i>Lonicera japonica</i>	<i>Xf</i> subsp.unknown	C
136	<i>Melilotus albus</i>	<i>Xf</i> subsp.unknown	C
137	<i>Melilotus albus</i> var. <i>annuus</i>	<i>Xf</i> subsp.unknown	C
138	<i>Melilotus indicus</i>	<i>Xf</i> subsp.unknown	C
139	<i>Melilotus officinalis</i>	<i>Xf</i> subsp.unknown	C
140	<i>Mentha</i> sp.	<i>Xf</i> subsp.unknown	C
141	<i>Oenanthe sarmentosa</i>	<i>Xf</i> subsp.unknown	C
142	<i>Oenothera elata</i>	<i>Xf</i> subsp.unknown	C
143	<i>Olea europaea</i>	<i>Xf</i> subsp.unknown	C
144	<i>Parthenocissus tricuspidata</i>	<i>Xf</i> subsp.unknown	C
145	<i>Paspalum dilatatum</i>	<i>Xf</i> subsp.unknown	C
146	<i>Pelargonium</i> × <i>hortorum</i>	<i>Xf</i> subsp.unknown	C
147	<i>Pennisetum clandestinum</i>	<i>Xf</i> subsp.unknown	C
148	<i>Pennisetum glaucum</i>	<i>Xf</i> subsp.unknown	C
149	<i>Persicaria maculosa</i>	<i>Xf</i> subsp.unknown	C
150	<i>Phalaris minor</i>	<i>Xf</i> subsp.unknown	C
151	<i>Phalaris paradoxa</i>	<i>Xf</i> subsp.unknown	C
152	<i>Phleum pratense</i>	<i>Xf</i> subsp.unknown	C
153	<i>Photinia arbutifolia</i>	<i>Xf</i> subsp.unknown	C
154	<i>Pittosporum crassifolium</i>	<i>Xf</i> subsp.unknown	C
155	<i>Platanus</i> sp.	<i>Xf</i> subsp.unknown	C
156	<i>Poa annua</i>	<i>Xf</i> subsp.unknown	C
157	<i>Poncirus trifoliata</i>	<i>Xf</i> subsp.unknown	C
158	<i>Reseda odorata</i>	<i>Xf</i> subsp.unknown	C
159	<i>Rheum rhaponticum</i>	<i>Xf</i> subsp.unknown	C
160	<i>Rubus vitifolius</i>	<i>Xf</i> subsp.unknown	C
161	<i>Rumex crispus</i>	<i>Xf</i> subsp.unknown	C
162	<i>Sambucus cerulea</i>	<i>Xf</i> subsp.unknown	C
163	<i>Sonchus asper</i>	<i>Xf</i> subsp.unknown	C
164	<i>Sorghum halepense</i>	<i>Xf</i> subsp.unknown	C
165	<i>Sorghum</i> × <i>drummondii</i>	<i>Xf</i> subsp.unknown	C
166	<i>Syringa vulgaris</i>	<i>Xf</i> subsp.unknown	C
167	<i>Syzygium paniculatum</i>	<i>Xf</i> subsp.unknown	C
168	<i>Trifolium fragiferum</i>	<i>Xf</i> subsp.unknown	C
169	<i>Trifolium hybridum</i>	<i>Xf</i> subsp.unknown	C
170	<i>Trifolium incarnatum</i>	<i>Xf</i> subsp.unknown	C
171	<i>Trifolium pratense</i>	<i>Xf</i> subsp.unknown	C
172	<i>Trifolium repens</i>	<i>Xf</i> subsp.unknown	C
173	<i>Trifolium repens</i> var. <i>latum</i>	<i>Xf</i> subsp.unknown	C
174	<i>Urtica dioica</i> subsp. <i>gracilis</i>	<i>Xf</i> subsp.unknown	C
175	<i>Vicia monantha</i>	<i>Xf</i> subsp.unknown	C
176	<i>Vitis acerifolia</i>	<i>Xf</i> subsp.unknown	C
177	<i>Vitis aestivalis</i>	<i>Xf</i> subsp.unknown	C
178	<i>Vitis arizonica</i>	<i>Xf</i> subsp.unknown	C

N	Plant species	Pest	Category			
179	<i>Vitis arizonica</i> hybrid	<i>Xf</i> subsp.unknown			C	
180	<i>Vitis arizonica/girdiana</i>	<i>Xf</i> subsp.unknown			C	
181	<i>Vitis arizonica/girdiana</i> × <i>V. rupestris</i>	<i>Xf</i> subsp.unknown			C	
182	<i>Vitis berlandieri</i>	<i>Xf</i> subsp.unknown			C	
183	<i>Vitis candicans</i>	<i>Xf</i> subsp.unknown			C	
184	<i>Vitis cinerea</i>	<i>Xf</i> subsp.unknown			C	
185	<i>Vitis cinerea</i> × <i>V. berlandieri</i>	<i>Xf</i> subsp.unknown			C	
186	<i>Vitis girdiana</i>	<i>Xf</i> subsp.unknown			C	
187	<i>Vitis labrusca</i>	<i>Xf</i> subsp.unknown			C	
188	<i>Vitis lincecumii</i>	<i>Xf</i> subsp.unknown			C	
189	<i>Vitis monticola</i>	<i>Xf</i> subsp.unknown			C	
190	<i>Vitis munsoniana</i>	<i>Xf</i> subsp.unknown			C	
191	<i>Vitis palmata</i>	<i>Xf</i> subsp.unknown			C	
192	<i>Vitis riparia</i>	<i>Xf</i> subsp.unknown			C	
193	<i>Vitis simpsonii</i>	<i>Xf</i> subsp.unknown			C	
194	<i>Vitis tiliaefolia</i>	<i>Xf</i> subsp.unknown			C	
195	<i>Vitis vulpina</i>	<i>Xf</i> subsp.unknown			C	
196	<i>Vitis</i> × <i>champinii</i>	<i>Xf</i> subsp.unknown			C	
197	<i>Vitis aestivalis</i> var. <i>smalliana</i> × <i>V. simpsonii</i>	<i>Xf</i> subsp.unknown			C	
198	<i>Vitis bloodworthiana</i>	<i>Xf</i> subsp.unknown			C	
199	<i>Vitis nesbittiana</i>	<i>Xf</i> subsp.unknown			C	
200	<i>Vitis shuttleworthii</i>	<i>Xf</i> subsp.unknown			C	
201	<i>Vulpia myuros</i>	<i>Xf</i> subsp.unknown			C	
202	<i>Xanthium orientale</i>	<i>Xf</i> subsp.unknown			C	
203	(<i>Prunus salicina</i> × <i>P. angustifolia</i>) × (<i>P. salicina</i> × <i>P. munsoniana</i>)	<i>Xf</i> subsp.unknown				D
204	<i>Prunus angustifolia</i>	<i>Xf</i> subsp.unknown				D
205	<i>Prunus avium</i>	<i>Xf</i> subsp.unknown				D
206	<i>Prunus cerasifera</i> × <i>P. salicina</i>	<i>Xf</i> subsp.unknown				D
207	<i>Prunus salicina</i> × (<i>P. salicina</i> × <i>P. cerasifera</i>)	<i>Xf</i> subsp.unknown				D
208	<i>Vitis arizonica</i> × <i>V. vinifera</i>	<i>Xf</i> subsp.unknown				D
209	<i>Chenopodium quinoa</i>	<i>Xf</i> subsp.unknown				E
210	<i>Citroncirus webberi</i>	<i>Xf</i> subsp.unknown				E
211	<i>Citrus macrophylla</i>	<i>Xf</i> subsp.unknown				E
212	<i>Nicotiana clevelandii</i>	<i>Xf</i> subsp.unknown				E
213	<i>Prunus armeniaca</i>	<i>Xf</i> subsp.unknown				E
214	<i>Prunus hortulana</i>	<i>Xf</i> subsp.unknown				E
215	<i>Prunus mexicana</i>	<i>Xf</i> subsp.unknown				E
216	<i>Prunus mume</i>	<i>Xf</i> subsp.unknown				E
N	Plant species	Pest	Category			
1	<i>Amaranthus blitoides</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A			
2	<i>Ambrosia acanthicarpa</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A			
3	<i>Ambrosia artemisiifolia</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A			
4	<i>Catharanthus roseus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A			
5	<i>Chenopodium quinoa</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A			
6	<i>Conium maculatum</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A			
7	<i>Convolvulus arvensis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A			
8	<i>Cyperus esculentus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A			

N	Plant species	Pest	Category				
9	<i>Datura wrightii</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
10	<i>Echinochloa crus-galli</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
11	<i>Erigeron canadensis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
12	<i>Eriochloa gracilis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
13	<i>Erodium moschatum</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
14	<i>Eucalyptus camaldulensis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
15	<i>Eucalyptus globulus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
16	<i>Helianthus annuus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
17	<i>Ipomoea purpurea</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
18	<i>Lactuca serriola</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
19	<i>Malva parviflora</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
20	<i>Medicago sativa</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
21	<i>Nicotiana glauca</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
22	<i>Nicotiana tabacum</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
23	<i>Portulaca oleracea</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
24	<i>Prunus dulcis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
25	<i>Prunus</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
26	<i>Rubus ursinus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
27	<i>Rumex crispus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
28	<i>Simmondsia chinensis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
29	<i>Solanum lycopersicum</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
30	<i>Solanum melongena</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
31	<i>Sonchus oleraceus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
32	<i>Sorghum halepense</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
33	<i>Vaccinium corymbosum</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
34	<i>Vaccinium</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
35	<i>Vicia faba</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
36	<i>Vicia sativa</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
37	<i>Vitis</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
38	<i>Vitis vinifera</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
39	<i>Xanthium strumarium</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A				
40	<i>Arabidopsis thaliana</i>	<i>Xf</i> subsp. <i>fastidiosa</i>		B			
41	<i>Dendranthema</i> × <i>grandiflorum</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
42	<i>Laurus nobilis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
43	<i>Myrtus communis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
44	<i>Olea europaea</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
45	<i>Prunus dulcis</i> × <i>P. webbii</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
46	<i>Prunus persica</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
47	<i>Prunus persica</i> × <i>P. webbii</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
48	<i>Prunus webbii</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
49	<i>Rubus rigidus</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
50	<i>Sambucus canadensis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
51	<i>Vinca major</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
52	<i>Vitis</i> × <i>doaniana</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
53	<i>Vitis acerifolia</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
54	<i>Vitis aestivalis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
55	<i>Vitis arizonica</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
56	<i>Vitis arizonica/candicans</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
57	<i>Vitis berlandieri</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		
58	<i>Vitis californica</i>	<i>Xf</i> subsp. <i>fastidiosa</i>			C		

N	Plant species	Pest	Category
59	<i>Vitis candicans</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
60	<i>Vitis champinii</i> × (<i>V. solonis</i> × <i>V. othello</i>)	<i>Xf</i> subsp. <i>fastidiosa</i>	C
61	<i>Vitis cinerea</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
62	<i>Vitis girdiana</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
63	<i>Vitis labrusca</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
64	<i>Vitis monticola</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
65	<i>Vitis riparia</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
66	<i>Vitis rupestris</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
67	<i>Vitis tiliaefolia</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
68	<i>Vitis treleasei</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
69	<i>Vitis vinifera</i> hybrid	<i>Xf</i> subsp. <i>fastidiosa</i>	C
70	<i>Vitis vulpina</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
71	<i>Vitis nesbittiana</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
72	<i>Vitis shuttleworthii</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	C
73	<i>Liquidambar styraciflua</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	E

N	Plant species	Pest	Category
1	<i>Acer rubrum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
2	<i>Ambrosia artemisiifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
3	<i>Carya illinoensis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
4	<i>Liquidambar styraciflua</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
5	<i>Medicago sativa</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
6	<i>Nicotiana tabacum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
7	<i>Olea europaea</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
8	<i>Pistacia vera</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
9	<i>Platanus occidentalis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
10	<i>Polygala myrtifolia</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
11	<i>Prunus cerasifera</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
12	<i>Prunus dulcis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
13	<i>Prunus persica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
14	<i>Prunus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
15	<i>Quercus falcata</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
16	<i>Rubus fruticosus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
17	<i>Rubus ursinus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
18	<i>Vaccinium corymbosum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
19	<i>Vitis vinifera</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
20	<i>Catharanthus roseus</i>	<i>Xf</i> subsp. <i>multiplex</i>	C
21	<i>Prunus persica</i> × <i>P. webbii</i>	<i>Xf</i> subsp. <i>multiplex</i>	C
22	<i>Prunus webbii</i>	<i>Xf</i> subsp. <i>multiplex</i>	C
23	<i>Vaccinium</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	E

N	Plant species	Pest	Category
1	<i>Bidens pilosa</i>	<i>Xf</i> subsp. <i>pauca</i>	A
2	<i>Brachiaria decumbens</i>	<i>Xf</i> subsp. <i>pauca</i>	A
3	<i>Brachiaria plantaginea</i>	<i>Xf</i> subsp. <i>pauca</i>	A
4	<i>Catharanthus roseus</i>	<i>Xf</i> subsp. <i>pauca</i>	A
5	<i>Citrus reticulata</i>	<i>Xf</i> subsp. <i>pauca</i>	A
6	<i>Citrus sinensis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
7	<i>Citrus</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
8	<i>Citrus</i> × <i>nobilis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
9	<i>Coffea arabica</i>	<i>Xf</i> subsp. <i>pauca</i>	A

N	Plant species	Pest	Category			
10	<i>Coffea</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A			
11	<i>Echinochloa crus-galli</i>	<i>Xf</i> subsp. <i>pauca</i>	A			
12	<i>Medicago sativa</i>	<i>Xf</i> subsp. <i>pauca</i>	A			
13	<i>Nerium oleander</i>	<i>Xf</i> subsp. <i>pauca</i>	A			
14	<i>Nicotiana clevelandii</i>	<i>Xf</i> subsp. <i>pauca</i>	A			
15	<i>Nicotiana tabacum</i>	<i>Xf</i> subsp. <i>pauca</i>	A			
16	<i>Ocimum basilicum</i>	<i>Xf</i> subsp. <i>pauca</i>	A			
17	<i>Olea europaea</i>	<i>Xf</i> subsp. <i>pauca</i>	A			
18	<i>Polygala myrtifolia</i>	<i>Xf</i> subsp. <i>pauca</i>	A			
19	<i>Solanum americanum</i>	<i>Xf</i> subsp. <i>pauca</i>	A			
20	<i>Arabidopsis thaliana</i>	<i>Xf</i> subsp. <i>pauca</i>		B		
21	<i>Chenopodium album</i>	<i>Xf</i> subsp. <i>pauca</i>			C	
22	<i>Digitaria horizontalis</i>	<i>Xf</i> subsp. <i>pauca</i>			C	
23	Periwinkle (common name)	<i>Xf</i> subsp. <i>pauca</i>			C	
24	<i>Prunus avium</i>	<i>Xf</i> subsp. <i>pauca</i>			C	
25	<i>Prunus dulcis</i>	<i>Xf</i> subsp. <i>pauca</i>			C	
26	<i>Salvia rosmarinus</i>	<i>Xf</i> subsp. <i>pauca</i>			C	
N	Plant species	Pest	Category			
1	<i>Morus alba</i>	<i>Xf</i> subsp. <i>morus</i>	A			
2	<i>Nerium oleander</i>	<i>Xf</i> subsp. <i>morus</i>	A			
N	Plant species	Pest	Category			
1	<i>Catharanthus roseus</i>	<i>Xf</i> subsp. <i>sandyi</i>	A			
2	<i>Medicago sativa</i>	<i>Xf</i> subsp. <i>sandyi</i>	A			
3	<i>Nerium oleander</i>	<i>Xf</i> subsp. <i>sandyi</i>	A			
4	<i>Prunus dulcis</i>	<i>Xf</i> subsp. <i>sandyi</i>	A			
5	<i>Vinca major</i>	<i>Xf</i> subsp. <i>sandyi</i>	A			
6	<i>Nicotiana tabacum</i>	<i>Xf</i> subsp. <i>sandyi</i>			C	
N	Plant species	Pest	Category			
1	<i>Nicotiana benthamiana</i>	<i>Xf</i> subsp. <i>tashke</i>			C	

Appendix C – Host plant species infected in unspecified conditions

List of host plant species, infected in conditions not specified (i.e. the kind of infection (natural or artificial) was not specified in the reference), of *X. fastidiosa* subsp. unknown (i.e. not reported in the publication), subsp. *fastidiosa*, subsp. *multiplex*, subsp. *pauca* and subsp. *sandyi* according to categories A, B, C, D, E (as reported in Section 2.4.2):

- A) Plant species positive with at least two detection methods (among: symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation) or positive with one method (between: sequencing, pure culture isolation).
- B) The same as point A, but also including microscopy: plant species positive with at least two detection methods (among: microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation) or positive with one method (between: sequencing, pure culture isolation).
- C) Plant species positive with at least one detection method (among: symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation).
- D) Plant species positive with at least one detection method including microscopy (microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing and pure culture isolation).
- E) All positives plant species reported, regardless of the detection methods (positive records but without the detection method specified, symptom observations, microscopy, symptoms observation on the test plant in experimental vector transmission, ELISA, other immunological techniques, PCR-based methods, sequencing, pure culture isolation).

N	Plant species	Pest	Category
1	<i>Ampelopsis arborea</i>	<i>Xf</i> subsp.unknown	A
2	<i>Catharanthus roseus</i>	<i>Xf</i> subsp.unknown	A
3	<i>Catharanthus sp.</i>	<i>Xf</i> subsp.unknown	A
4	<i>Citrus jambhiri</i>	<i>Xf</i> subsp.unknown	A
5	<i>Citrus sinensis</i>	<i>Xf</i> subsp.unknown	A
6	<i>Coffea arabica</i>	<i>Xf</i> subsp.unknown	A
7	<i>Hibiscus schizopetalus</i>	<i>Xf</i> subsp.unknown	A
8	<i>Morus nigra</i>	<i>Xf</i> subsp.unknown	A
9	<i>Nerium oleander</i>	<i>Xf</i> subsp.unknown	A
10	<i>Prunus persica</i>	<i>Xf</i> subsp.unknown	A
11	<i>Prunus sp.</i>	<i>Xf</i> subsp.unknown	A
12	<i>Sambucus canadensis</i>	<i>Xf</i> subsp.unknown	A
13	<i>Vitis munsoniana</i>	<i>Xf</i> subsp.unknown	A
14	<i>Vitis rotundifolia</i>	<i>Xf</i> subsp.unknown	A
15	<i>Vitis sp.</i>	<i>Xf</i> subsp.unknown	A
16	<i>Vitis vinifera</i>	<i>Xf</i> subsp.unknown	A
17	<i>Ambrosia sp.</i>	<i>Xf</i> subsp.unknown	B
18	Periwinkle (common name)	<i>Xf</i> subsp.unknown	B
19	<i>Acer sp.</i>	<i>Xf</i> subsp.unknown	C
20	<i>Carya illinoensis</i>	<i>Xf</i> subsp.unknown	C
21	<i>Citrus sp.</i>	<i>Xf</i> subsp.unknown	C
22	<i>Prunus dulcis</i>	<i>Xf</i> subsp.unknown	C
23	<i>Prunus salicina</i>	<i>Xf</i> subsp.unknown	C
24	<i>Pyrus sp.</i>	<i>Xf</i> subsp.unknown	C
25	<i>Teline monspessulana</i>	<i>Xf</i> subsp.unknown	C
26	<i>Vaccinium darrowii</i>	<i>Xf</i> subsp.unknown	C
27	<i>Vaccinium sp.</i>	<i>Xf</i> subsp.unknown	C

N	Plant species	Pest	Category
28	<i>Prunus angustifolia</i>	<i>Xf</i> subsp. unknown	D
29	<i>Vitis labrusca</i>	<i>Xf</i> subsp. unknown	D
30	<i>Morus</i> sp.	<i>Xf</i> subsp. unknown	E
31	<i>Nicotiana tabacum</i>	<i>Xf</i> subsp. unknown	E
N	Plant species	Pest	Category
1	<i>Ambrosia artemisiifolia</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
2	<i>Lupinus</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
3	<i>Prunus dulcis</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
4	<i>Sambucus</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
5	<i>Vitis rotundifolia</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
6	<i>Vitis</i> sp.	<i>Xf</i> subsp. <i>fastidiosa</i>	A
7	<i>Vitis vinifera</i>	<i>Xf</i> subsp. <i>fastidiosa</i>	A
N	Plant species	Pest	Category
1	<i>Ambrosia trifida</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
2	<i>Morus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
3	<i>Platanus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
4	<i>Prunus cerasifera</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
5	<i>Prunus domestica</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
6	<i>Prunus dulcis</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
7	<i>Prunus salicina</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
8	<i>Quercus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
9	<i>Rubus fruticosus</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
10	<i>Rubus</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
11	<i>Vaccinium corymbosum</i>	<i>Xf</i> subsp. <i>multiplex</i>	A
12	<i>Vaccinium corymbosum</i> × <i>V. angustifolium</i> hybrid	<i>Xf</i> subsp. <i>multiplex</i>	A
13	<i>Vinca</i> sp.	<i>Xf</i> subsp. <i>multiplex</i>	A
14	<i>Liquidambar styraciflua</i>	<i>Xf</i> subsp. <i>multiplex</i>	C
15	<i>Quercus laevis</i>	<i>Xf</i> subsp. <i>multiplex</i>	C
16	<i>Quercus rubra</i>	<i>Xf</i> subsp. <i>multiplex</i>	C
N	Plant species	Pest	Category
1	<i>Citrus sinensis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
2	<i>Citrus</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
3	<i>Coffea</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
4	<i>Hibiscus fragilis</i>	<i>Xf</i> subsp. <i>pauca</i>	A
5	<i>Hibiscus</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
6	<i>Nerium oleander</i>	<i>Xf</i> subsp. <i>pauca</i>	A
7	<i>Prunus domestica</i>	<i>Xf</i> subsp. <i>pauca</i>	A
8	<i>Prunus</i> sp.	<i>Xf</i> subsp. <i>pauca</i>	A
N	Plant species	Pest	Category
1	<i>Coffea arabica</i>	<i>Xf</i> subsp. <i>sandyi</i>	A
2	<i>Nerium oleander</i>	<i>Xf</i> subsp. <i>sandyi</i>	C

Appendix D – *Xylella fastidiosa* Multilocus Sequence Types

Number of records for each plant species natural, artificial and infected in not specified conditions by different multilocus sequence types (STs). The records for natural infection are divided per country. In general, the subspecies and the STs are reported as in the publication. If the subspecies and/or the STs are inferred from another publication or obtained from personal communication of the author of the publication, a note is added in the genotyping comment column of the Excel file available in Zenodo in the EFSA Knowledge Junction community (<https://doi.org/10.5281/zenodo.1339343>). Abbreviations: AR (Argentina), BR (Brazil), CR (Costa Rica), EC (Ecuador), FR (France), HN (Honduras), IT (Italy), MX (Mexico), PT (Portugal), ES (Spain), US (United States of America).

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>fastidiosa</i>			22					4		47	120		193	155	9	357
ST1								3		47	98		148	154	2	304
<i>Acer</i> sp.											1		1			1
<i>Amaranthus blitoides</i>														1		1
<i>Ambrosia acanthicarpa</i>														2		2
<i>Calicotome spinosa</i>										2			2			2
<i>Catharanthus roseus</i>														2		2
<i>Cercis occidentalis</i>											1		1			1
<i>Chenopodium quinoa</i>														2		2
<i>Cistus monspeliensis</i>										2			2			2
<i>Citrus sinensis</i>											1		1			1
<i>Conium maculatum</i>														2		2
<i>Convolvulus arvensis</i>														1		1
<i>Cyperus esculentus</i>														1		1
<i>Datura wrightii</i>														1		1
<i>Echinochloa crus-galli</i>														1		1
<i>Erigeron canadensis</i>														1		1
<i>Eriochloa gracilis</i>														1		1
<i>Erodium moschatum</i>														2		2
<i>Eucalyptus camaldulensis</i>														2		2
<i>Eucalyptus globulus</i>														1		1
<i>Genista lucida</i>										2			2			2
<i>Helianthus annuus</i>														3		3

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Ipomoea purpurea</i>														2		2
<i>Juglans regia</i>										2				2		2
<i>Lactuca serriola</i>														3		3
<i>Malva parviflora</i>														2		2
<i>Medicago sativa</i>											3			3	11	14
<i>Metrosideros</i> sp.											1			1		1
<i>Nicotiana glauca</i>														2		2
<i>Nicotiana tabacum</i>														1		1
<i>Olea europaea</i>														1		1
<i>Pluchea odorata</i>											1			1		1
<i>Polygala myrtifolia</i>										3				3		3
<i>Portulaca oleracea</i>														1		1
<i>Prunus avium</i>										8	2			10		10
<i>Prunus dulcis</i>										10	22			32	30	63
<i>Rhamnus alaternus</i>										2				2		2
<i>Rubus ursinus</i>														2		2
<i>Rumex crispus</i>														1		1
<i>Ruta chalepensis</i>										1				1		1
<i>Sambucus canadensis</i>											2			2		2
<i>Sambucus</i> sp.											1			1		1
<i>Simmondsia chinensis</i>														2		2
<i>Solanum lycopersicum</i>														1		1
<i>Solanum melongena</i>														1		1
<i>Sonchus oleraceus</i>														1		1
<i>Sorghum halepense</i>														1		1
<i>Spartium junceum</i>											1			1		1
<i>Teucrium capitatum</i>										1				1		1
<i>Vaccinium corymbosum</i>											2			2	2	4
<i>Vaccinium</i> sp.														5		5
<i>Vicia faba</i>														1		1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total	
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total				
<i>Vicia sativa</i>															1		1
<i>Vitis aestivalis</i>											2						2
<i>Vitis girdiana</i>											1						1
<i>Vitis sp.</i>								2			31					1	34
<i>Vitis vinifera</i>								1		14	26				53		94
<i>Vitis vinifera</i> hybrid															4		4
<i>Xanthium strumarium</i>															3		3
ST17			1														1
<i>Coffea arabica</i>			1														1
ST18			1														1
<i>Vitis sp.</i>			1														1
ST19			1														1
<i>Coffea arabica</i>			1														1
ST2											17					7	24
<i>Ambrosia artemisiifolia</i>										1						1	2
<i>Coffea sp.</i>										1							1
<i>Vitis hybrids</i>										2							2
<i>Vitis rotundifolia</i>										5						1	6
<i>Vitis sp.</i>										5							5
<i>Vitis vinifera</i>										3						5	8
ST20			1														1
<i>Coffea arabica</i>			1														1
ST21			1														1
<i>Coffea arabica</i>			1														1
ST3											1						1
<i>Lupinus aridorum</i>										1							1
ST33			1														1
<i>Coffea arabica</i>			1														1
ST4											4				1		5
<i>Medicago sativa</i>															1		1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Vitis</i> sp.											4		4			4
ST47			2										2			2
<i>Coffea arabica</i>			1										1			1
<i>Vitis</i> sp.			1										1			1
ST52			1										1			1
<i>Coffea arabica</i>			1										1			1
ST54			1										1			1
<i>Coffea arabica</i>			1										1			1
ST55			1										1			1
<i>Coffea arabica</i>			1										1			1
ST56			1										1			1
<i>Coffea arabica</i>			1										1			1
ST57			1										1			1
<i>Coffea arabica</i>			1										1			1
ST59			1										1			1
<i>Vitis vinifera</i>			1										1			1
ST60			1										1			1
<i>Vitis vinifera</i>			1										1			1
ST61			3										3			3
<i>Citrus sinensis</i>			1										1			1
<i>Coffea arabica</i>			2										2			2
ST72			1										1			1
<i>Coffea arabica</i>			1										1			1
ST75									1				1			1
<i>Coffea canephora</i>									1				1			1
ST76			2										2			2
<i>Coffea arabica</i>			2										2			2
ST77			1										1			1
<i>Coffea arabica</i>			1										1			1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>fastidiosa/sandyi</i>			3					1					4			4
ST72			2										2			2
<i>Coffea arabica</i>			2										2			2
ST75								1					1			1
<i>Coffea canephora</i>								1					1			1
ST76			1										1			1
<i>Coffea arabica</i>			1										1			1
<i>morus</i>											24		24			24
ST29											9		9			9
<i>Morus alba</i>											3		3			3
<i>Morus rubra</i>											4		4			4
<i>Morus</i> sp.											2		2			2
ST30											5		5			5
<i>Morus alba</i>											4		4			4
<i>Nandina domestica</i>											1		1			1
ST31											6		6			6
<i>Morus</i> sp.											6		6			6
ST62											4		4			4
<i>Morus alba</i>											4		4			4
<i>multiplex</i>		4			90		54		65	109	203		525	44	16	585
ST10											8		8			8
<i>Prunus domestica</i>											3		3			3
<i>Prunus persica</i>											3		3			3
<i>Prunus</i> sp.											2		2			2
ST15											3		3			3
<i>Prunus cerasifera</i>											3		3			3
ST22											3		3		1	4
<i>Ambrosia psilostachya</i>											1		1			1
<i>Ambrosia trifida</i>											2		2		1	3
ST23											12		12			12

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Acer rubrum</i>											1		1			1
<i>Ambrosia trifida</i>											2		2			2
<i>Helianthus</i> sp.											3		3			3
<i>Iva annua</i>											2		2			2
<i>Quercus rubra</i>											1		1			1
<i>Ratibida columnifera</i>											2		2			2
<i>Solidago virgaurea</i>											1		1			1
ST24											5		5	3		8
<i>Cercis occidentalis</i>											1		1			1
<i>Liquidambar styraciflua</i>											3		3	2		5
<i>Prunus dulcis</i>														1		1
<i>Ulmus crassifolia</i>											1		1			1
ST25											4		4			4
<i>Encelia farinosa</i>											4		4			4
ST26		2									12		14	4		18
<i>Alnus rhombifolia</i>											1		1			1
<i>Prunus cerasifera</i>											2		2	1		3
<i>Prunus domestica</i>		2									1		3			3
<i>Prunus dulcis</i>														1		1
<i>Prunus persica</i>														1		1
<i>Prunus</i> sp.											8		8			8
<i>Rubus fruticosus</i>														1		1
ST27											6		6		2	8
<i>Ginkgo biloba</i>											1		1			1
<i>Lagerstroemia</i> sp.											1		1			1
<i>Prunus cerasifera</i>															1	1
<i>Prunus dulcis</i>											2		2		1	3
<i>Prunus</i> sp.											2		2			2
ST28											4		4		1	5
<i>Ambrosia trifida</i>											2		2		1	3

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Helianthus</i> sp.											1		1			1
<i>Iva annua</i>											1		1			1
ST32											2		2		1	3
<i>Rubus fruticosus</i>															1	1
<i>Rubus</i> sp.											2		2			2
ST34											1		1			1
<i>Prunus cerasifera</i>											1		1			1
ST35											1		1			1
<i>Xanthium strumarium</i>											1		1			1
ST36											1		1	1		2
<i>Prunus cerasifera</i>														1		1
<i>Prunus</i> sp.											1		1			1
ST37											2		2			2
<i>Lupinus aridorum</i>											1		1			1
<i>Lupinus villosus</i>											1		1			1
ST38											1		1			1
<i>Platanus occidentalis</i>											1		1			1
ST39											6		6			6
<i>Koelreuteria bipinnata</i>											1		1			1
<i>Liquidambar styraciflua</i>											4		4			4
<i>Prunus</i> sp.											1		1			1
ST40											4		4		1	5
<i>Prunus cerasifera</i>											3		3		1	4
<i>Sambucus</i> sp.											1		1			1
ST41											6		6		2	8
<i>Prunus domestica</i>															1	1
<i>Prunus salicina</i>											1		1		1	2
<i>Prunus</i> sp.											2		2			2
<i>Ulmus americana</i>											2		2			2
<i>Ulmus</i> sp.											1		1			1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
ST42											16		16		3	19
<i>Ambrosia trifida</i>											2		2		1	3
<i>Sapindus saponaria</i>											1		1			1
<i>Vaccinium ashei</i>											6		6			6
<i>Vaccinium corymbosum</i>											2		2		1	3
<i>Vaccinium corymbosum</i> × <i>V. angustifolium</i> hybrid															1	1
<i>Vaccinium</i> sp.											5		5			5
ST43											5		5		2	7
<i>Vaccinium corymbosum</i>															1	1
<i>Vaccinium corymbosum</i> × <i>V. angustifolium</i> hybrid															1	1
<i>Vaccinium</i> sp.											5		5			5
ST44											2		2			2
<i>Quercus palustris</i>											1		1			1
<i>Quercus rubra</i>											1		1			1
ST45											6		6			6
<i>Acer griseum</i>											1		1			1
<i>Ampelopsis cordata</i>											1		1			1
<i>Cercis canadensis</i>											3		3			3
<i>Gleditsia triacanthos</i>											1		1			1
ST46											3		3			3
<i>Celtis occidentalis</i>											1		1			1
<i>Chionanthus</i> sp.											1		1			1
<i>Prunus armeniaca</i>											1		1			1
ST48											1		1			1
<i>Sapindus saponaria</i>											1		1			1
ST49											1		1			1
<i>Prunus</i> sp.											1		1			1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
ST50											2		2			2
<i>Fraxinus americana</i>											1		1			1
<i>Fraxinus</i> sp.											1		1			1
ST51											3		3		1	4
Periwinkle (common name)											1		1			1
<i>Vinca</i> sp.											2		2		1	3
ST58											1		1		1	2
<i>Ambrosia trifida</i>											1		1		1	2
ST6					8					53	12		73	17	1	91
<i>Acacia saligna</i>										1			1			1
<i>Asparagus acutifolius</i>										1			1			1
<i>Calicotome spinosa</i>										2			2			2
<i>Catharanthus roseus</i>														1		1
<i>Cistus albidus</i>										1			1			1
<i>Cistus salviifolius</i>										1			1			1
<i>Helichrysum italicum</i>										6			6			6
<i>Helichrysum stoechas</i>										2			2			2
<i>Laurus nobilis</i>										1			1			1
<i>Lavandula angustifolia</i>										1			1			1
<i>Lavandula dentata</i>										2			2			2
<i>Lavandula latifolia</i>										1			1			1
<i>Medicago sativa</i>														4		4
<i>Nicotiana tabacum</i>														1		1
<i>Olea europaea</i>										1			1	1		2
<i>Phagnalon saxatile</i>										2			2			2
<i>Polygala myrtifolia</i>										2			2	1		3
<i>Prunus armeniaca</i>										2			2			2
<i>Prunus cerasifera</i>														1		1
<i>Prunus domestica</i>										2			2			2

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Prunus dulcis</i>										19	12		31	5	1	37
<i>Rhamnus alaternus</i>										4			4			4
<i>Rubus ursinus</i>														1		1
<i>Salvia rosmarinus</i>										2			2			2
<i>Spartium junceum</i>					8								8			8
<i>Vitis vinifera</i>														2		2
ST6 and ST7					1								1			1
<i>Cistus monspeliensis</i>					1								1			1
ST6 and/or ST7					76								76			76
<i>Acacia dealbata</i>					1								1			1
<i>Acer pseudoplatanus</i>					2								2			2
<i>Anthyllis hermanniae</i>					1								1			1
<i>Artemisia arborescens</i>					2								2			2
<i>Asparagus acutifolius</i>					2								2			2
<i>Calicotome villosa</i>					1								1			1
<i>Cercis siliquastrum</i>					1								1			1
<i>Cistus creticus</i>					1								1			1
<i>Cistus monspeliensis</i>					2								2			2
<i>Cistus salviifolius</i>					2								2			2
<i>Coronilla valentina</i>					2								2			2
<i>Cytisus scoparius</i>					1								1			1
<i>Cytisus</i> sp.					2								2			2
<i>Cytisus villosus</i>					1								1			1
<i>Euryops chrysanthemoides</i>					1								1			1
<i>Genista corsica</i>					1								1			1
<i>Genista ephedroides</i>					2								2			2
<i>Genista</i> × <i>spachiana</i>					2								2			2
<i>Hebe</i> sp.					2								2			2
<i>Helichrysum italicum</i>					3								3			3
<i>Lavandula angustifolia</i>					2								2			2

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Lavandula dentata</i>					2								2			2
<i>Lavandula</i> sp.					3								3			3
<i>Lavandula stoechas</i>					2								2			2
<i>Lavandula</i> × <i>heterophylla</i>					2								2			2
<i>Lavandula</i> × <i>intermedia</i>					3								3			3
<i>Medicago sativa</i>					1								1			1
<i>Metrosideros excelsa</i>					2								2			2
<i>Myrtus communis</i>					2								2			2
<i>Pelargonium graveolens</i>					2								2			2
<i>Pelargonium</i> sp.					2								2			2
<i>Phagnalon saxatile</i>					1								1			1
<i>Polygala myrtifolia</i>					7								7			7
<i>Polygala</i> sp.					1								1			1
<i>Prunus cerasifera</i>					2								2			2
<i>Prunus dulcis</i>					1								1			1
<i>Quercus suber</i>					2								2			2
<i>Rosa canina</i>					1								1			1
<i>Salvia rosmarinus</i>					2								2			2
<i>Spartium junceum</i>					3								3			3
<i>Westringia fruticosa</i>					1								1			1
ST63		1											1			1
<i>Prunus domestica</i>		1											1			1
ST67		1											1			1
<i>Prunus domestica</i>		1											1			1
ST7					4				65	5	24		98	16		114
<i>Acacia longifolia</i>									2				2			2
<i>Acacia melanoxylon</i>									1				1			1
<i>Adenocarpus lainzii</i>									1				1			1
<i>Artemisia arborescens</i>									2				2			2
<i>Artemisia</i> sp.									2				2			2

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Asparagus acutifolius</i>									1				1			1
<i>Athyrium filix-femina</i>									1				1			1
<i>Calluna vulgaris</i>									1				1			1
<i>Catharanthus roseus</i>														1		1
<i>Cistus inflatus</i>									1				1			1
<i>Cistus salviifolius</i>									1				1			1
<i>Coprosma repens</i>									2				2			2
<i>Cytisus scoparius</i>									2				2			2
<i>Dodonaea viscosa</i>									2				2			2
<i>Echium plantagineum</i>									1				1			1
<i>Erigeron canadensis</i>									1				1			1
<i>Erodium moschatum</i>									1				1			1
<i>Frangula alnus</i>									1				1			1
<i>Genista tridentata</i>									1				1			1
<i>Hebe</i> sp.									1				1			1
<i>Hibiscus syriacus</i>									1				1			1
<i>Ilex aquifolium</i>									2				2			2
<i>Laurus nobilis</i>									1				1			1
<i>Lavandula angustifolia</i>									2				2			2
<i>Lavandula dentata</i>									2				2			2
<i>Lavandula</i> sp.									1				1			1
<i>Lavandula stoechas</i>									1				1			1
<i>Lavatera cretica</i>									1				1			1
<i>Magnolia grandiflora</i>									1				1			1
<i>Medicago sativa</i>									1				1	2		3
<i>Metrosideros excelsa</i>									1				1			1
<i>Metrosideros</i> sp.									1				1			1
<i>Myrtus communis</i>									2				2			2
<i>Nerium oleander</i>									1	1			2			2
<i>Nicotiana tabacum</i>														1		1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Olea europaea</i>									1		7		8	4		12
<i>Olea sp.</i>											1		1			1
<i>Pelargonium graveolens</i>									1				1			1
<i>Plantago lanceolata</i>									1				1			1
<i>Polygala myrtifolia</i>					4					2			6	1		7
<i>Prunus cerasifera</i>														1		1
<i>Prunus dulcis</i>										3	9		12	4		16
<i>Prunus persica</i>									1				1			1
<i>Prunus sp.</i>											1		1			1
<i>Pteridium aquilinum</i>									1				1			1
<i>Quercus robur</i>									1				1			1
<i>Quercus rubra</i>											2		2			2
<i>Quercus suber</i>									2				2			2
<i>Rosa sp.</i>									1				1			1
<i>Rubus fruticosus</i>														1		1
<i>Salvia mellifera</i>											3		3			3
<i>Salvia officinalis</i>									1				1			1
<i>Salvia rosmarinus</i>									2				2			2
<i>Sambucus nigra</i>									1				1			1
<i>Strelitzia reginae</i>									1				1			1
<i>Ulex europaeus</i>									2				2			2
<i>Ulex minor</i>									2				2			2
<i>Ulex sp.</i>									1				1			1
<i>Vinca major</i>									2				2			2
<i>Vinca sp.</i>									1				1			1
<i>Vitis vinifera</i>														1		1
ST79					1								1			1
<i>Polygala myrtifolia</i>					1								1			1
ST8											13		13			13
<i>Alnus rhombifolia</i>											1		1			1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Carya illinoensis</i>											2		2			2
<i>Platanus occidentalis</i>											7		7			7
<i>Platanus</i> sp.											1		1			1
<i>Quercus palustris</i>											1		1			1
<i>Ulmus americana</i>											1		1			1
ST81										51	1		52	1		53
<i>Acacia</i> sp.										2			2			2
<i>Cistus albidus</i>										1			1			1
<i>Clematis cirrhosa</i>										1			1			1
<i>Ficus carica</i>										6			6			6
<i>Fraxinus angustifolia</i>										2			2			2
<i>Lavandula angustifolia</i>										1			1			1
<i>Lavandula dentata</i>										2			2			2
<i>Olea europaea</i>										6	1		7			7
<i>Olea europaea</i> subsp. <i>sylvestris</i>										4			4			4
<i>Phillyrea angustifolia</i>										1			1			1
<i>Polygala myrtifolia</i>										4			4			4
<i>Prunus domestica</i>										2			2			2
<i>Prunus dulcis</i>										11			11	1		12
<i>Rhamnus alaternus</i>										3			3			3
<i>Salvia rosmarinus</i>										4			4			4
<i>Santolina magonica</i>										1			1			1
ST82											2		2			2
<i>Vaccinium ashei</i>											2		2			2
ST83											2		2			2
<i>Vaccinium ashei</i>											2		2			2
ST87									54				54			54
<i>Acacia dealbata</i>									1				1			1
<i>Asparagus acutifolius</i>									1				1			1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Calicotome spinosa</i>							2						2			2
<i>Calicotome villosa</i>							1						1			1
<i>Cercis siliquastrum</i>							2						2			2
<i>Cistus monspeliensis</i>							2						2			2
<i>Cistus salviifolius</i>							2						2			2
<i>Cistus</i> sp.							3						3			3
<i>Cytisus scoparius</i>							2						2			2
<i>Elaeagnus angustifolia</i>							2						2			2
<i>Ficus carica</i>							2						2			2
<i>Helichrysum italicum</i>							1						1			1
<i>Helichrysum</i> sp.							2						2			2
<i>Laurus nobilis</i>							1						1			1
<i>Lavandula angustifolia</i>							2						2			2
<i>Lavandula dentata</i>							1						1			1
<i>Lavandula</i> sp.							1						1			1
<i>Lonicera implexa</i>							1						1			1
<i>Myrtus communis</i>							1						1			1
<i>Phagnalon saxatile</i>							1						1			1
<i>Phillyrea latifolia</i>							1						1			1
<i>Polygala myrtifolia</i>							6						6			6
<i>Prunus dulcis</i>							5						5			5
<i>Rhamnus alaternus</i>							3						3			3
<i>Salvia rosmarinus</i>							3						3			3
<i>Spartium junceum</i>							5						5			5
ST9											28		28	2		30
<i>Quercus coccinea</i>											2		2			2
<i>Quercus falcata</i>											1		1	1		2
<i>Quercus laevis</i>											2		2			2
<i>Quercus nigra</i>											1		1			1
<i>Quercus palustris</i>											11		11			11

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Quercus phellos</i>											1		1			1
<i>Quercus robur</i>											1		1			1
<i>Quercus rubra</i>											5		5			5
<i>Quercus shumardii</i>											1		1			1
<i>Quercus</i> sp.											3		3			3
<i>Rubus fruticosus</i>														1		1
<u>pauca</u>	6	126	8	4	4		332			16		3	499	186	23	708
ST11		52											52	14	3	69
<i>Catharanthus roseus</i>														2		2
<i>Citrus sinensis</i>		22											22	4	3	29
<i>Citrus</i> sp.		29											29			29
<i>Coffea arabica</i>														4		4
<i>Coffea</i> sp.		1											1			1
<i>Nicotiana tabacum</i>														4		4
ST12		3											3		3	6
<i>Citrus sinensis</i>		2											2		2	4
<i>Citrus</i> sp.		1											1		1	2
ST13		11											11	86	3	100
<i>Arabidopsis thaliana</i>														1		1
<i>Bidens pilosa</i>														3		3
<i>Catharanthus roseus</i>														14		14
<i>Citrus reticulata</i>														3		3
<i>Citrus sinensis</i>		5											5	20	3	28
<i>Citrus</i> sp.		6											6	21		27
<i>Medicago sativa</i>														3		3
<i>Nicotiana clevelandii</i>														1		1
<i>Nicotiana tabacum</i>														12		12
<i>Ocimum basilicum</i>														3		3
Periwinkle (common name)														1		1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total	
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total				
<i>Solanum americanum</i>															4		4
ST14		8													8	4	12
<i>Coffea arabica</i>		1													1		1
<i>Coffea</i> sp.		6													6	2	8
<i>Prunus domestica</i>																1	1
<i>Prunus</i> sp.		1													1	1	2
ST16		40													40	15	56
<i>Citrus sinensis</i>															1		1
<i>Coffea arabica</i>		2													2	7	9
<i>Coffea</i> sp.		17													17	1	18
<i>Nicotiana tabacum</i>															6		6
<i>Olea europaea</i>		21													21	1	22
ST53			7		4								2		345	67	418
<i>Acacia saligna</i>															3		3
<i>Amaranthus retroflexus</i>															3		3
<i>Asparagus acutifolius</i>															3		3
<i>Catharanthus roseus</i>															2	7	9
<i>Chenopodium album</i>															5	1	6
<i>Cistus creticus</i>															1		1
<i>Coffea arabica</i>			2												1	3	3
<i>Coffea</i> sp.															1	1	2
<i>Dodonaea viscosa</i>															2		2
<i>Eremophila maculata</i>															1		1
<i>Erigeron bonariensis</i>															3		3
<i>Erigeron</i> sp.															6		6
<i>Erigeron sumatrensis</i>															1		1
<i>Euphorbia chamaesyce</i>															2		2
<i>Euphorbia terracina</i>															1		1
<i>Grevillea juniperina</i>															1		1
<i>Hebe</i> sp.															1		1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Heliotropium europaeum</i>							3						3			3
<i>Laurus nobilis</i>							2						2			2
<i>Lavandula angustifolia</i>							2						2			2
<i>Lavandula</i> sp.							1						1			1
<i>Lavandula stoechas</i>							1						1			1
<i>Medicago sativa</i>														1		1
<i>Myoporum insulare</i>							1						1			1
<i>Myrtus communis</i>							1						1			1
<i>Nerium oleander</i>			5				16						21	7	4	32
<i>Nicotiana tabacum</i>														4		4
<i>Olea europaea</i>					1		215						216	32		248
<i>Osteospermum fruticosum</i>							1						1			1
<i>Pelargonium fragrans</i>							1						1			1
<i>Pelargonium</i> sp.							1						1			1
Periwinkle (common name)							1						1			1
<i>Phillyrea latifolia</i>							1						1			1
<i>Pistacia vera</i>							1						1			1
<i>Polygala myrtifolia</i>					1		19						20	8		28
<i>Prunus avium</i>							8						8	3		11
<i>Prunus dulcis</i>							8						8	4		12
<i>Prunus persica</i>					1								1			1
<i>Quercus ilex</i>					1								1			1
<i>Rhamnus alaternus</i>							4						4			4
<i>Salvia rosmarinus</i>							3						3			3
<i>Spartium junceum</i>							1						1			1
<i>Vinca minor</i>							1						1			1
<i>Westringia fruticosa</i>							4						4			4
<i>Westringia glabra</i>							1						1			1
ST64		1											1			1

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total	
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total				
<i>Citrus sinensis</i>		1											1				1
ST65		1											1	2			3
<i>Catharanthus roseus</i>														2			2
<i>Citrus sinensis</i>		1											1				1
ST66		1											1				1
<i>Coffea arabica</i>		1											1				1
ST68		1											1				1
<i>Coffea arabica</i>		1											1				1
ST69	5												5		1		6
<i>Citrus sinensis</i>	4												4		1		5
<i>Olea europaea</i>	1												1				1
ST70		2											2	2	2		6
<i>Catharanthus roseus</i>														2			2
<i>Hibiscus fragilis</i>															1		1
<i>Hibiscus rosa-sinensis</i>		1											1				1
<i>Hibiscus</i> sp.		1											1		1		2
ST71		1											1				1
<i>Prunus domestica</i>		1											1				1
ST73													1				1
<i>Coffea arabica</i>													1				1
ST73 and ST53			1										1				1
<i>Coffea arabica</i>			1										1				1
ST74				4									4				4
<i>Coffea arabica</i>				4									4				4
ST78	1												1				1
<i>Prunus dulcis</i>	1												1				1
ST80										16			16				16
<i>Acacia</i> sp.										2			2				2
<i>Cistus albidus</i>										1			1				1
<i>Lavandula dentata</i>										2			2				2

<i>X. fastidiosa</i> subspecies/sequence type	Natural Infection													Artificial infection Total	Infection not specified Total	Grand Total
	AR	BR	CR	EC	FR	HN	IT	MX	PT	ES	US	Unknown	Total			
<i>Olea europaea</i>										2			2			2
<i>Olea europaea</i> subsp. <i>sylvestris</i>										2			2			2
<i>Polygala myrtifolia</i>										2			2			2
<i>Prunus dulcis</i>										2			2			2
<i>Salvia rosmarinus</i>										2			2			2
<i>Ulex parviflorus</i>										1			1			1
ST84		3											3			3
<i>Olea europaea</i>		3											3			3
ST85		1											1			1
<i>Olea europaea</i>		1											1			1
ST86		1											1			1
<i>Olea europaea</i>		1											1			1
<i>sandyi</i>			1		1	1					24	1	28	4	1	33
ST5											24		24	4		28
<i>Hemerocallis</i> sp.										1			1			1
<i>Jacaranda mimosifolia</i>										1			1			1
<i>Magnolia grandiflora</i>										1			1			1
<i>Nerium oleander</i>										21			21	1		22
<i>Prunus dulcis</i>														1		1
<i>Vinca major</i>														2		2
ST72						1						1	2		1	3
<i>Coffea arabica</i>												1	1		1	2
<i>Coffea</i> sp.						1							1			1
ST76			1		1								2			2
<i>Coffea</i> sp.			1										1			1
<i>Polygala myrtifolia</i>					1								1			1
Grand Total	6	130	34	4	95	1	386	5	65	172	371	4	1,273	389	49	1,711

Appendix E – References included in this update

List of the 86 references included in this fourth update of the *Xylella* spp. host plant database. Informative data listed in Table 5 were extracted from those references and added to the database.

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Annex A – Links to data and interactive reports

Data are available as interactive reports on the Microstrategy platform at the following link: <https://www.efsa.europa.eu/en/microstrategy/xylella>

Raw data and related metadata are published in Zenodo in the EFSA Knowledge Junction community, this report refers to **Version 4** (<https://doi.org/10.5281/zenodo.1339343>).