

BEXYL
BEYOND XYLELLA

OEI - Requirement No. 2

Deliverable 11.2

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1. INTRODUCTION

All Beneficiaries recognize that all research activities ongoing in BeXyl must comply with ethical principles and relevant national, EU and international legislation regardless of the country in which the research is carried out, including the highest standards of research integrity as set under Horizon program.

This deliverable describes the main ethical issues related to the research activities conducted during the first reporting period that were identified and established in the BeXyl project in accordance with national and EU directives. Detailed information on the ethical dimension of the project is provided in the **Deliverable 11.1 -** OEI - Requirement No. 1.

As requested in the Ethics Summary, the project appointed an independent external Ethics Advisor to guide the project partners in the necessary preparation and monitoring of the various ethical issues of the project. The external independent Ethics Advisor, Dr. **Ilja Richard Pavone**, from the 'Interdepartmental Center for research Ethics and Integrity (CID Ethics)' CNR, BioLaw Unit, Italy was selected to ensure that the four elements identified by the European Commission were adequately covered during the life of the project.

Additionally, within the project an Ethics Mentor (Dr. **María M. López**) was appointed to monitor and advise the partners from an ethical point of view on the programmed tasks.

The Ethics Advisor and the Ethics Mentor will be in contact with the project beneficiaries through direct communication with the Project Coordinator (Dr. Blanca B. Landa, CSIC).

Accordingly, the independent external ethics advisor and ethics mentor have been consulted primarily on the following points:

- Appropriate treatment of **human** participants;
- Appropriate treatment of **animals**;
- Appropriate treatment of **personal data**;
- Appropriate **cooperation with non-EU countries**. It should be explained in detail if materials and data are exchanged and what measures are taken to ensure EU data protection standards.

This deliverable is the first of the series of Ethics Reports to be submitted at the end of each reporting period.

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2. CURRENT ACTIVITIES PERFORMED TO MAINTAIN HIGH ETHICAL STANDARDS IN BEXYL

2.1 Humans (H)

BeXyl consortium must ensure respect for people and for human dignity and fair distribution of the benefits and burden of research. Also, BeXyl consortium must protect the values, rights and interests of the research participants.

The procedures and criteria to identify and recruit research participants have been carried out by means of a quota sampling procedure, accounting for age, sex, and location criteria (rural/urban in the case of citizens and agricultural region in the case of farmers), and farm size in the case of farmers.

Human groups involved in the project must be divided into:

- Partners from the consortium to define BeXyl stakeholder mapping survey.
- Stakeholders participating in Interviews and Focus Groups.

The participants in the surveys have been requested to give informed consent before accessing the experiment. Information is not be traceable back to the respondents and results are only reported in an aggregated manner. Forestry Commission Research Agency (FCRA) retains templates of all consent forms.

All interviewees in the surveys have signed an informed consent forms in English or in its local language. The extract from the survey consent form is attached in **Annex 1**.

For interviews is being defined a specific consent statement for each case study area. For the first case area in Cordoba is attached at **Annex 2**.

For Focus Groups consent form is still under definition to prepare with precision depending on the nature of the target group.

The social research will have different consent forms for key informant that Stakeholders because, farmers, etc., may be under different pressures and have different ways of understanding consent than our Key Informants.

Both consent forms will be based on the same ethics, but may be communicated in a different way as is appropriate to the participant. It is very important that everyone is aware of what is being done in social research and is treated equally, especially when the language is not English.

2.2 Personal data (POPD)

The activities performed at WP8 '**Ecological, social and economic impacts of Xf and outbreak management approaches**' and specifically within '**Task 8.2. Understanding stakeholder knowledge, and attitudes, and the co-design of technology uptake support**' involve the collection of information from farmers/citizens such as age, education, farm size, income, and

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country, in addition to their attitudes, preferences, and opinion on different aspects to be analysed.

Three phases of data collection which include data concerning people have either been conducted in the project already or are planned for the year 2024:

- BeXyl stakeholder mapping survey (DATA COLLECTION COMPLETE) – collecting knowledge from members of the BeXyl consortium regarding stakeholder types and groups to be mapped and stored. An online survey was defined, which used a consent statement (**Annex 1**). The statement stated that no data which is not already in the public domain should be shared by participants. The consent statement also refers to Forest Research's Code of Ethics.
- Key informant interviews (two interviews completed for **'Cordoba' case study area**, and more will be required in project year 2/3 for the '**Córdoba', 'Alicante' and 'Sorrento' case study areas**) – short semi-structured interviews with key informants to build base knowledge of location context. Consent statement used for **'Cordoba' case study area** is attached in **Annex 2**, a similar consent statement will be used for key informant interviews in other case study areas.
- Interviews and Focus groups with Stakeholders (data collection in **'Cordoba' case study area** will begin in March 2024) Focus groups with a range of Stakeholders identified as being key in the olive or almond value chain: growers and producers of plants (farms, nurseries) and crop processors (cooperatives, industry association representatives, private mills. Consent form has not yet been completed, but will be based on the form supplied in Annex 1 of OEI – requirement 1 (Deliverable 11.1) document.

For each new stage of data collection, consent forms will be reviewed to ensure appropriateness for the context (location, type of data collected, participant group).

The activities planned at WP8 '**Ecological, social and economic impacts of Xf and outbreak management approaches**' '**Task 8.4 Socioeconomic analysis of Xf impacts and adoption of IPM measures'** will also process personal data in its research work

Since the purpose of personal data collected through the surveys does not require the identification of a data subject by the researchers, according to art. 11 of Regulation (EU) 2016/679, the researchers are not obliged to maintain, acquire or process additional information in order to identify the data subject for the sole purpose of complying with this European Regulation or any other applicable national law.

Thus, no declaration of compliance or authorization is required. The designation of a Data Protection Officer is also not required.

The Joint Research Centre from European Commission (JRC) sought ethical clearance for the surveys foreseen under WP8 from the internal Ethical Review Board as part of the overall activities under the Plant Health Economics Team (Evaluation id 32588_1_22 0 6 2023).

The Board granted conditional approval on 04/07/2023 (internal reference ARES (2023)4628019) See the documents in **Annex 3**. Additional data was requested regarding the recruitment of participants. This will be provided once the outsourcing procedure to collect the data is finalised (expected Q1 2025).

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2.3 Animals (A)

Within WP2 '**New strategies and improved methods for surveillance, early detection and monitoring of *X. fastidiosa'*** and specifically in **Task 2.6. Use of canine olfactory detection of *X. fastidiosa* at inspection ports, nursery and field scale and its vectors** BeXyl will explore the use of canine olfactory for *X. fastidiosa* detection.

The requirements established in Directive 2010/63/UE which aims to improve the welfare of animals used in scientific procedures has been considered in the research program. Welfare in dog training is ensured together with the Italian National Canine Association (ENCI), avoiding that training techniques may induce fair or pain; conversely, training rely on the reinforcement (reward) of the positive outcomes perceived by the dog, thus punishment is never used, as for our research purpose there is no need to use techniques which impact negatively on the welfare of dogs.

As foreseen in the project workplan during the first reporting period several training sessions with two dogs: **Ellis** – English springer spaniel – pedigree number LO15104180 and **Paco** - Labrador retriever– pedigree number LO19111311 were carried out. The sessions were carried out in accordance with the requirements established in Directive 2010/63/UE preserving and ensuring the welfare of animals.

Training activities were all performed in a farm located in the countryside (Az. Agricola Melcarne, third party of the consortium), so that the dogs could work comfortably in large open space in open air. The training materials included potted olive plants that were not threatened/sprayed with insecticides/pesticides for the whole cycle of cultivation. Sessions included lines of 5 to maximum 10 plants, including one or more plants infected with *X. fastidiosa*.

Before starting each session, the dogs were allowed to move for few minutes to allow them to perform their physiological needs. Then each session consisted of 1 to 4 passages on the lines of plants. Between sessions the dogs were allowed to rest for at least 40 minutes, during which the dogs were allowed to rest in their kennel, with water available.

The sessions were mainly carried out in the morning, given an appropriate time lapse between meals and working sessions. Training sessions were performed from May 2023 to December 2023, with the exception of August and September when temperatures were too high for performing the training sessions. In each month, from 6 to 20 training sessions were carried out; during the non-training days. The dogs performed daily moderate physical activity (walks) and free play sessions.

As described in **Deliverable D11.1**, the training protocol involved positive training approaches, based on rewards and clickers. When the dog correctly identified the target olive plant, he was rewarded with food, toy (ball, tug) and a play session with their handler.

Through training, the dogs learnt passive indication behaviour, stopping and sitting near the target potted plant, without coming into deep contact with the soil or the plant foliage.

At the link below, there is an example of a training session.

https://drive.google.com/file/d/1oX5m2DijbkRwyZv7OzRZG-RcwmkSPLbj/view?usp=sharing

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2.4 Non-EU Countries (NEC)

Exchange of material among BeXyl partners including non-EU countries

Xylella fastidiosa is regulated in the EU as quarantine organism under Regulation (EU) 2016/2031 and Commission Delegated Regulation (EU) 2019/829) on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community. As such, the introduction of this organism into, and its spreading within all Member States, shall be banned. A derogation to this restriction is included in paragraph 5 of the article 5 of the Directive, which allows introduction and manipulation of *X. fastidiosa* for scientific purposes and to set experimental trials. The Commission Delegated Regulation (EU) 2019/829 on protective measures against pests of plants, authorise Member States to provide for temporary derogations in view of official testing, scientific or educational purposes, trials, varietal selections, or breeding. To this end, Scientific Institutions have to be authorized by the National Phytosanitary Authority and have to operate in accordance with the containment guidelines. Exchanges of the harmful organisms between scientific institutions shall be done upon obtaining the Letter of Authority (LoA) signed by the Phytosanitary Authorities of the countries exporting/importing the harmful pathogen.

When it has been considered necessary during the project implementation, some exchange of infectious materials (living bacterial cells in axenic cultures or *Xf*-infected plant materials, or living insect specimens) from non-EU Countries to EU, or vice versa, or within EU-member states, has been performed. To this end, all partners receiving living bacterial cells of infectious material have facilities that have been designated as quarantine facilities or have the permits to work with that type of material and have requested the LoA to import such materials.

Exchange of non-infectious DNA-preparations and insect vectors stored in alcohol was also performed as these samples (not containing living bacterial cells) are not covered by the EU regulations on the possession and handling quarantine plant pathogens (Regulation (EU) 2016/2031 and Commission Delegated Regulation (EU) 2019/829).

During this first reporting period beneficiaries located in Argentina, Brazil, US, and Costa Rica have performed laboratory and field experiments using *X. fastidiosa* strains and host plant cultivars (most of which are not common in EU) autochthonous from their respective regions, thus allowing to gather much more complete molecular/biological information on the complex *X. fastidiosa*/host/environment interactions. Some partner from non-EU Countries have also used some European strains that belong to sequence types (ST) also present in their respective countries.

Finally, there have also been interchanges of plants for planting through the territory of the EU that comply with the official mark of the Plant Phytosanitary Passport, for allowing their introduction and movement through protected areas, the purpose of which is to prove that this shipment is free of quarantine pests (or, where appropriate, quarantine pests from certain protected areas) and complies with the tolerance levels required for regulated non-quarantine pests.

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Detailed information of the different types of material including *X. fastidiosa* strains, vectors, entomopathogenic fungal strains, plant material and plants for planting that have been exchanged within BeXyl project during the first reporting period is provided in **Annex 4**. A summary of these interchanges is shown at **Table 1**.

Table 1. Summary of all the types of material interchanged within BeXyl project

Nº IC	Type of material	Origin	Destination	Permit required
28	*Xf* strains	EU	EU	Yes
7	*Xf* strains	Non-EU	EU	Yes
4	*Xf* strains	EU	Non-EU	Yes
4	Non-pathogenic Fungal strains	EU	EU	No
2	Seeds	EU	EU	No
3	Seeds	EU	Non-EU	No
4	Plant samples (Potentially Xf cells alive)	EU	EU	Yes
5	Plant extracts (Xf cells dead)	EU	EU	No
1	Vector samples	EU	EU	No
4	Plants for planting	EU	EU	Yes
1	Plants for planting	Non-EU	Non-EU	No*
19	Plant DNA samples	EU	EU	No
3	Plant DNA samples	Non-EU	EU	No
2	Plant DNA samples	Non-EU	Non-EU	No

All the exchanges of infectious or non-infectious material among BeXyl partners and within this reporting period have been properly documented, the correspondence and files are kept in a dedicated directory of the BeXyl shared folder, and available for any verification by the competent Plant Health Authority.

Information to EU authorities of the detection of new *Xylella fastidiosa* Outbreaks

In addition to the biosecurity provisions foreseen in the EU legislation, BeXyl partners also observe the code of ethics for plant emergencies proposed by the International Society of Plant Pathology (ISPP) following its five standards of practice. In this regards, BeXyl partners should alert authorities and colleagues of **new *X. fastidiosa* outbreaks**. In this regard, in January 2024 a new strain belonging to *X. fastidiosa* subsp. *pauca* ST53 (the same genetic

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variant that the one present in Apulia, Italy) was detected in wild and cultivated olives and oleander plants in Mallorca Island. The identification of this new outbreak was performed by partner P21-IRFAP as the Regional Official Plant Health laboratory from the Balearic Islands. Partner P2-IVIA and P1-CSIC also participated in the genetic identification of this new *X. fastidiosa* variant as Reference National Laboratories for bacteria and for *X. fastidiosa* typing, respectively. The notification was performed according to the Annex I of the Commission Implementing Regulation **(EU) 2019/1715.** This Regulation indicates that notification should be submitted to the EUROPHYT outbreak network no later than eight working days after the date of the official confirmation by the responsible official body.

Similarly, in the Apulia Region (Italy) in early February 2024, in the framework of the official monitoring program Partner P5-CNR detected the bacterium in six almond trees located in the *Xylella*-free area of this region, notoriously affected by the epidemic of *X. fastidiosa* subsp. *pauca* ST53 in olives in the southern part of the region. Further assessment on the subspecies and strain associated with the infected almond trees, revealed the occurrence of isolates belonging to the subspecies *fastidiosa* and characterized as sequence type ST1, based on the MLST analysis. This new finding was immediately notified by P5-CNR (in the role of national reference and accredited diagnostic laboratory) to the Regional Plant Health Service in order to activate the official procedures according to the Annex I of the Commission Implementing Regulation **(EU) 2019/1715,** including the notification through the EUROPHYT database. The same sequence type was detected in a batch of adults of *Philaenus spumarius* collected in September 2023 in the same area. The insects were intercepted in the framework of the official annual survey program aiming to assess the occurrence and the life cycle of this vector species in the region. Representative insects from the different locations (>100) surveyed are subjected, by the CIHEAM of Valenzano (Bari), to DNA extraction and qPCR test for *X. fastidiosa* using the broad-spectrum primers of Harper et al. (2010). Among these some of those collected in the municipality of Triggiano (province of Bari) tested positive. Such finding raised an alert for this area, which was immediately monitored to search for the potential infected host-plants. As specified above, six almond trees were intercepted as infected, while none of the olive trees sampled (>300) tested positive. As it is requested in case of new outbreak in a free area, the assessment of the subspecies was performed leading to the discovery of the subspecies fastidiosa and strain with ST1 genotype, never reported in Italy before.

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3. EVALUATION OF THE ACTIVITIES PERFORMED TO MAINTAIN HIGH ETHICAL STANDARDS IN BEXYL BY THE ETHICS MENTOR (Dr. MARÍA M. LÓPEZ)

The application of ethical codes of practice are becoming an increasingly important focus of attention for research organisations and funders of research, especially in this era of advanced information and communication technology that presents researchers with new challenges around the collation, access and management of information. The BeXyl project began after the emergency of *Xyllela fastidiosa* (*Xf*) in several EU countries in the framework of the previous H2020 projects POnTE (635646) and XF-ACTORS (727987) in which many of BeXyl's partners participated and in which the ethical aspects of research with such bacteria were already discussed.

As independent external ethics mentor, I am committed to advice and monitor, from my experience and ethical training, whether the project activities are in compliance with the highest standards of research ethics and integrity, as well as with EU (Horizon Europe regulation 2021/695), national and international laws. Bexyl also implements open science practices according to the Horizon Europe program.

According to the Article 20 of the Horizon Europe Regulation, the ethics assessment could concentrate on issues as:

- Human rights and protection of human beings
- Data protection and privacy
- Animal protection and welfare
- Environmental protection
- Malevolent use of research results
- Compliance with international, EU and national law
- Research integrity

This evaluation has three parts: the first one on Comments of the activities performed until now in BeXyl, the second one on Advices and recommendations for the next years and the third one has few Final remarks.

3.1 Comments on the activities performed

3.1.1 Humans (H)

According to the report for the Deliverable 11, the Human groups involved in the project were divided into:

- Partners from the consortium to define BeXyl stakeholder mapping survey.
- Stakeholders participating in interviews and Focus Groups.

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In the Ethics self-assessment of the DoA with amendments, it is indicated that the consortium BeXyl has foreseen the active involvement of research in Centers located in the EU and in non-EU Countries affected by *Xf*, (like partners located in Argentina, Brazil, USA, and Costa Rica because they have long consolidated experience on *Xf*). It is obvious that they represent an important added value to the research activities, and their involvement is necessary to have access to relevant background information that is helping the researchers in the EU. As they are performing experiments with their Xf strains and local cultivars, this overcomes the need to move among countries plant materials, either non-infected or infected with *Xf*. The case of the partner from Australia is different because the country is *Xylella*-free but the leader is expert in remote sensing technology, and the country is well known for the risk assessment and prevention issues. It is considered that the involvement of all these countries will be also very useful to increase the scope of the communication and dissemination plans.

The Commission and the funding bodies shall ensure the transparency of the ethics procedures without prejudice to the confidentiality of the content of those procedures.

Consequently, legal entities participating in this Project have obtained all approvals documents from the respective national, local ethics committees or other bodies, such as data protection authorities, before the start of the relevant activities. Those documents and consents are kept on file and can be provided to the Commission or the relevant funding body upon request. Partners institutions have provided the necessary details about the foreseeable ethics issues related to the objective, implementation and likely impact of their activities, that comply with ethical principles and relevant laws, including the Charter and the European Convention for the Protection of Human Rights and Fundamental Freedoms. In addition, the BeXyl partners are well known members of professional and academic bodies, which promote and adhere to a range of different ethical codes of practice.

Stakeholders have been requested to give informed consent but results are only reported in an aggregated manner. There are no comments, as the aggregated manner is enough for the objectives of the project and because Forestry Commission Research Agency (FCRA) retains templates of all consent forms. For Focus Groups consent final form is still under definition to prepare with precision depending on the nature of the target group.

As far as this mentor knows, no claim from the partners, stakeholders or the Commission has been presented.

3.1.2 Personal data (POPD)

Attention has been paid in BeXyl to the principle of proportionality, the right to privacy, the right to the protection of personal data, the right to the physical and mental integrity of every person and as well as the right to non-discrimination following the EU legislation.

In line with the General Data Protection Regulations in the EU, measures have been taken to prevent unauthorised access and processing of any data collected. Material published remain anonymous. These measures will ensure that participants are neither harmed nor disadvantaged. Additionally, the UK Forestry Commission Research Agency(Partner 30) that coordinates the socioeconomical analyses is registered as a data controller under the Data Protection Act (DPA) 2018 (Registration No: Z6542658).

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All social research conducted with participants, communities and professional colleagues adheres to the guidelines for conducting ethical socio-economic research provided by the RESPECT Project (http://www.respectproject.org/ethics/412ethics.pdf).The social scientists map stakeholder networks and explore the attitudes, experiences, values and behaviours of different stakeholders regarding existing/future IPM technologies, their deployment and barriers to uptake, opportunities and costs for *Xf* preparedness and management, through interviews, surveys and focus groups. The protocol followed for the interviewees in the surveys indicates that the participants have signed an informed consent forms in English or in the local language and the extract from the survey consent form attached at Annex 1 is correct.

For interviews for each case study area, a defined specific consent statement has been defined. Consent statement for the first case area in Cordoba (Spain) is attached at Annex 2 and also looks correct following protection standards. Two interviews were completed for 'Cordoba' case study area, and more will be required in project year 2/3 for the 'Córdoba', 'Alicante' and 'Sorrento' case study areas, for which similar consent statement will be prepared.

In WP8, the Task 8.2 'Understanding stakeholder knowledge, and attitudes, and the co-design of technology uptake support' involves the collection of information from farmers/citizens (age, education, farm size, income, and country), in addition to their attitudes, preferences, and opinion on different aspects. Three phases of data collection which include data concerning people are described and have either been conducted already or are planned: the BeXyl stakeholder mapping survey for data collection is already finalised, collecting knowledge from members of the BeXyl consortium regarding stakeholder types and groups. An online survey was defined, which used a consent statement showed in Annex 1. It is stated that no data which is not already in the public domain should be shared by participants. The consent statement also refers to Forest Research's Code of Ethics and consequently it is considered very appropriated. The social scientists will map stakeholder networks and explore the attitudes, experiences and behaviours of different stakeholders regarding existing/future IPM technologies, through interviews, surveys and focus groups. Regarding to the interviews and Focus groups with stakeholders that were identified as key in the olive or almond value chain, consent form has not yet been completed, but will be based on the form supplied in Annex 1 of OEI – requirement 1 (Deliverable 11.1) document.

Regarding to the Task 8.4 'Socioeconomic analysis of Xf impacts and adoption of IPM measures' it will also process personal data collected through the surveys but does not require the identification of a data subject by the researchers. Consequently, according to the art. 11 of Regulation (EU) 2016/679, the researchers were not obliged to maintain, acquire or process additional information and thus, no declaration of compliance or authorization was required. However, as the Joint Research Centre from European Commission (JRC) sought ethical clearance for the surveys foreseen under WP8 from the internal Ethical Review Board they granted conditional approval on 04/07/2023 (internal reference ARES (2023)4628019) as shown in Annex 3. The additional data requested regarding the recruitment of participants will be provided by the Project coordinator to JRC once the outsourcing procedure to collect the data is finalised.

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3.1.3 Animals (A)

Within WP2 and specifically in Task 2.6. 'Use of canine olfactory detection of *X. fastidiosa* at inspection ports, nursery and field scale and its vectors' BeXyl is exploring the use of canine olfactory for *X. fastidiosa* detection. The requirements established in Directive 2010/63/UE which aims to improve the welfare of animals used in scientific procedures have been taken into account. The experimental activity has started with dogs already trained to recognize *Xf* in artificial culture media, which then are trained on infected potted plants for "sniffing" the plant aroma/volatiles arising from Xf-infected plants. As such, no specific risk for the wellness of the dogs can be anticipated.

Welfare in dog training is ensured together with the Italian National Canine Association (ENCI), and techniques which could impact negatively on the welfare of the two dogs are not utilised. The sessions are carried out in in an Italian farm partner of the project in accordance with the requirements established in Directive 2010/63/UE. As described in **Deliverable D11.1**, the training protocol involved positive training approaches, based on rewards and clickers. When the dog correctly identified the target olive plant, he was rewarded with food, toy and a play session with its handler. Although some questions are indicated in the Advices, the canine olfactory detection has already been assayed for other bacterial diseases and the protocol used here is well established.

3.1.4 Non-EU Countries (NEC)

Exchange of material among BeXyl partners including non-EU countries

According to Deliverable 11 of the project there were 87 exchanges of different types of infected and non-infected biological material indicates in Table 1 for which details are shown in Annex 4 and they were considered extremely necessary during the project implementation. They have followed the EU legislation on the possession and handling quarantine plant pathogens (Regulation (EU) 2016/2031 and Commission Delegated Regulation (EU) 2019/829), are properly documented, correspondence and files kept in a dedicated directory of the BeXyl portal, and reported in the Deliverable of WP10 "Report on Safety and Security". When it has been considered necessary for scientific reasons, some exchanges of infectious materials (living bacterial cells in axenic cultures or *Xf*-infected plant materials, or living insect specimens) from non-EU Countries to EU, or vice versa, have been also performed. To this end, all partners receiving living bacterial cells of infectious material have previously confirmed they have working facilities in use that have been designated as quarantine facilities for the national authorities.

Field experiments were carried out in several EU countries using plants with the Plant Phytosanitary Passport, to prove that this kind of shipment is free of quarantine pests and complies with the tolerance levels required for regulated non-quarantine pests.

Information to EU authorities of the detection of new Xylella fastidiosa Outbreaks

In addition to the biosecurity provisions foreseen in the legislation, BeXyl also observes the code of ethics for plant emergencies proposed by the International Society of Plant Pathology (ISPP) following its five standards of practice: i) alert authorities and colleagues of new

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outbreaks; ii) honestly and accurately report information; iii) openly share biomaterial and data; iv) collaborate with experts on the problem; and v) respect and acknowledge the work of other scientists. BeXyl partners have observed such ISPP code of ethics for plant emergencies and they have alerted authorities and colleagues of two new Xf outbreaks. In Mallorca Island (Spain), in January 2024 a new strain belonging to *X. fastidiosa* subsp. *pauca* ST53 was detected in wild and cultivated olives and oleander plants. Such sequence type (ST) was not previously identified in Spain and is the same that the one destroying millions of olives in Apulia, Italy. Its identification was performed by three Spanish partners: first by P21-IRFAP from the Balearic Islands and then by P2-IVIA and P1-CSIC from Valencia and Cordoba (Spain). Similarly, in the Apulia Region (Italy) in early February 2024, Partner P5-CNR from Bari (Italy) detected the bacterium in six almond trees located in the *Xylella*-free area of this region and in the vector *Philaenus spumarius*. Further assessment identified the subspecies *fastidiosa* and characterized the sequence as ST1, never found in Italy before. Both new findings were immediately notified to the respective Regional Plant Health Services in order to activate the official procedures. The notification was correctly performed according to the Annex I of the Commission Implementing Regulation (EU) 2019/1715 and was submitted to the EUROPHYT outbreak network data base by the Spanish Ministry of Agriculture (MAPA) and the correspondent Italian Ministry.

3.2 Further advice and recommendation to maintain high ethical standards in BeXyl

3.2.1 Humans (H)

There are no special recommendations regarding humans participating as partners or stakeholders: partners are expert scientists with excellent reputation in the different domains of each WP and stakeholders are well selected in the different countries. The information available shows that everything related to them is clear and well organized by the coordination team.

3.2.2 Personal data (POPD)

It is convenient to consider the likely viewer of the information when shared / archived as well as what other data would they reasonably have access to and consider any motivation a viewer might have with respect of persons in the data. Personal data may have to be held alongside research data and linked separately with a secure cypher code.

It is convenient to inform the participants about how and when their personal data will be stored / used / shared / and if necessary, destroyed (at the request of the participants or if the contact is no longer required).

3.2.3 Animals (A)

Some details for the experiments of olfactory detection could be of interest as e.g.: the number and ST of the strains inoculated in the plants analysed, the maximum time for each session of detection and if there are one or several dogs' trainers. Indicate also if the two dogs

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perform one or more training sessions a day. Finally, it should be useful to know how the stress of the dogs is checked after every session.

3.2.4 Non-EU Countries (NEC)

Regarding exchanges of biological materials among countries and Information of EU authorities of the detection of new Xf outbreaks, no specific recommendations are made in this report because in both cases there is abundant EU legislation that must be strictly complied with, as has been done in BeXyl, according to the received information. The system is working fine with some exceptions, because the main problem for the exchanges of material is the long lapse of time that the official authorities require, in some countries, for the authorization.

3.3 General advices and recommendations

Good quality research is based on intellectual honesty and professional integrity. It includes the way to plan and conduct research, how results are recorded and reported, and how the results from research are disseminated, and applied. The prevention of the malevolent use of research results, including, fabrication, falsification and plagiarism in proposing, performing, or in reporting research results or in reviewing research have not been expressly commented in the Deliverable 11. Good research practice will allow verification of the quality and integrity of research data, provide a transparent basis for evaluation and lead to better research. The first suggestion could be to indicate if a Quality Management System (QMS), which supports quality assurance at various stages in the research cycle, is working in some institutions or organizations of partners, or stakeholders.

The second suggestion, as Biosecurity and Biocontention aspects are very relevant in the case of Xf and its vectors, should be to prepare an updated common protocol on Risk Assessments for Xf and its vectors (if it is not yet available), as part of good research practice. There may be risks associated with the job and tasks to be performed, especially for partners using living bacteriliferous vectors, or infective bacterial or plant materials, and risks related to the possible escapes of Xf cells that can take place in the laboratory or greenhouse experiments. In consequence, an strict control and the appropriate protocols for avoiding involuntary, or even voluntary, escapes could help in their prevention. Such protocols should be adapted to the Xf situation and hosts in each area and the type of work performed by the different partners.

The third suggestion is to add some comments about how Environmental protection and biodiversity issues are managed in the BeXyl Project.

3.4 Final Remarks

The ethic aspects indicated in the Deliverable 11.2 are considered very valuable and the information provided is complete and detailed. Once the report of the First reporting period is finished, it will be possible to check again some details not available at this moment.

It is worth noting the excellent collaboration between EU laboratories in the context of this and previous projects on Xf and the generosity of non-EU countries in sharing their experience.

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During the project, the Coordinating Team has provided me with the necessary information and documents, which I will keep strictly confidential and I remain at the disposal of the coordinator to clarify any issue indicated in this report.

4. EVALUATION OF THE ACTIVITIES PERFORMED TO MAINTAIN HIGH ETHICAL STANDARDS IN BEXYL BY THE EXTERNAL ETHICS ADVISOR (Dr. ILJA RICHARD PAVONE)

Research ethics and research integrity are key elements of each research project funded by the EU. The Horizon Europe Framework Programme has established high expectations. The Grant Agreement affirms:

'T*he action must be carried out in line with the highest ethical standards and the applicable EU, international and national law on ethical principles.'*

The beneficiaries must commit to and ensure the respect of basic EU values (such as respect for human dignity, freedom, democracy, equality, the rule of law and human rights, including the rights of minorities).

4.1 Comments on the activities performed

The activities performed during the project are in line with EU primary and secondary rules concerning the protection of patients involved in clinical trials, the protection of personal data, the protection of the welfare of animals and the relations with non-EU countries.

4.1.1 Humans (H)

All the activities involving human beings have been conducted according to the key principles enshrined in the EU Charter on Fundamental Rights (Nizza Charter), in particular Article 1 (Respect for Human Dignity), Article 3 (Right to integrity of the person).

Art. 3, Para. 1 states "Everyone has the right to respect for his or her physical and mental integrity", Art. 3, Para. 2, lect *a*, recognizes that in the fields of medicine and biology, "the free and informed consent of the person concerned, according to the procedures laid down by law". It is also worth recalling Article 5 of the European Convention on Human Rights and Biomedicine ('Informed Consent'), and Article 13 (Information before consent) of the Additional Protocol to the Convention on Human Rights and Biomedicine, concerning Biomedical Research; the latter affirms that "The persons being asked to participate in a research project shall be given adequate information in a comprehensible form. This information shall be documented. The information shall cover the purpose, the overall plan and the possible risks and benefits of the research project, and include the opinion of the ethics committee. Before being asked to consent to participate in a research project, the persons concerned shall be specifically informed, according to the nature and purpose of the research: i) of the nature, extent and duration of the procedures involved, in particular, details of any burden imposed by the research project; ii) of available preventive, diagnostic and

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therapeutic procedures; iii) of the arrangements for responding to adverse events or the concerns of research participants; iv) of arrangements to ensure respect for private life and ensure the confidentiality of personal data; v) of arrangements for access to information relevant to the participant arising from the research and to its overall results; vi) of the arrangements for fair compensation in the case of damage; vii) of any foreseen potential further uses, including commercial uses, of the research results, data or biological materials; viii) of the source of funding of the research project. In addition, the persons being asked to participate in a research project shall be informed of the rights and safeguards prescribed by law for their protection, and specifically of their right to refuse consent or to withdraw consent at any time without being subject to any form of discrimination, in particular regarding the right to medical care.

4.1.2 Protection of Personal Data

In line with the rules set up in the General Data Protection Regulations (GDPR) in the EU, specific measures have been undertaken to prevent unauthorised access and processing of any data collected. Material published remain anonymous.

4.1.3 Animals (A)

All the activities involving animals have been carried out respecting Art. 13 of the TFEU which recognizes that EU Member States and EU institutions in their policies must pay particular attention to the welfare of animals, since they are considered as sentient beings.

4.1.4 Non-EU Countries (NEC)

Exchange of material among BeXyl partners including non-EU countries

87 exchanges between EU and non-EU countries of infected and non-infected biological samples have been carried out in the project implementation's phasis.

They have strictly adhered to the EU secondary legislation on the possession and handling of quarantine plant pathogens (in particular, Regulation (EU) 2016/2031 of the European Parliament of the Council of 26 October 2016 on protective measures against pests of plants).

4.2 General advices and recommendations

A further sub-chapter entitled 'environment' should be added (in addition to human beings, animals…), since the impact of this research on the environment and biodiversity should be deeply assessed.

4.3 Final Remarks

The success of this project, to date, is due to the strict collaboration in the sharing of biological samples between EU and non-EU countries in line with the key principles of research integrity as enshrined in the European Code of Conduct for Research Integrity (ALLEA, revised version of 2023), namely reliability, honesty, respect, accountability.

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ANNEX 1: Consent for BeXyl stakeholder mapping survey

2. Consent for BeXyl stakeholders mapping survey

The data and contact details collected through this survey will not be shared outside of the BeXyl WP8 team of researchers. The responses will be used to inform a stakeholder map for each region, which will be published by the BeXyl project. Individual personal names will not be named in the published stakeholder map, but will help us contact key actors in the next phase of the research. Forest Research are conducting this survey and all the information gathered today will be treated and stored in line with the requirements of the UK General Data Protection Regulation (2018) and Forest Research's Code of Ethics.

Before beginning the questionnaire please read through the following statements and tick the box to confirm that you understand and agree with the points:

- **I understand that my participation is voluntary.**
- **I understand that my responses to the questionnaire will be confidential, which means the data will not be shared outside of researchers in BeXyl WP8.**
- **I understand that if I exit the questionnaire any responses I have already completed will not be used.**
- **I understand that the information and contact details gathered through the questionnaire will be processed and stored in line with Forest Research's Code of Ethics.**
- **I agree to only provide contact details that are in the public domain for GDPR reasons.**

* Please tick the box to confirm you have read and accept the above

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ANNEX 2: Consent for BeXyl key informant interviews

BeXyl key informant interviews: Participant Information & Consent Form

1. Project description and your consent

We are carrying out short interviews to improve our understanding of the locations for the BeXyl WP8.2 social case studies. The results will inform the process and content of the case study fieldwork. The data will be collected, analysed and reported by Forest Research. Once the interview starts you are under no obligation to answer all of the questions, and you may bring the interview to a close at any time without providing an explanation and with no adverse consequences.

Thank you for agreeing to take part, your support is very much appreciated.

Contact for questions about the research:
Rachel.Orchard@forestresearch.gov.uk

Please read the following statements carefully (please select 'Yes' if you understand and agree to take part in the study).

1. I understand that my participation is voluntary, and that I can withdraw my consent at any time before 31st December 2023. *

- ☐ Yes
- ☐ No

2. I understand that my responses to the research will be confidential, which means the recordings and transcripts will not be shared outside Forest Research. *

- ☐ Yes
- ☐ No

3. I understand that my research data will be anonymised; during analysis and reporting, which means it will not contain my name. *

- ☐ Yes
- ☐ No

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4. I understand the conversation will be audio recorded using a digital device so that the interview can be transcribed, and I agree to this. This will be stored securely separate to any identifiable information. *

- [ ] Yes
- [ ] No

5. I understand and agree that my words may be quoted anonymously in publications, reports, web pages, and other research outputs. The final report will be made freely available. *

- [ ] Yes
- [ ] No

6. I understand that the information gathered today will be treated and stored in line with the requirements of the General Data Protection Regulation (2018) and Forest Research's Code of Ethics. *

- [ ] Yes
- [ ] No

7. By entering my name below, I show my consent to participate in this study in line with my preferences as listed above. *

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ANNEX 3: Board granted conditional approval

Ref. Ares(2023)4628019 - 04/07/2023

EUROPEAN COMMISSION
JOINT RESEARCH CENTRE

Research Ethics Board

LETTER ON RESEARCH ETHICS APPRAISAL

JRC project id: 32588
Project acronym: PH-ECON
Project title: Economics of Plant Health
Evaluation id.: 32588_1_22062023
Rapporteur: Tilemahos Efthimiadis, Ute Lieser, Susanne Bremer-Hoffmann
Date of REB decision: 22.6.2023
REB decision: ☐ Clearance ☒ Conditional Clearance ☐ Rejected

The Research Ethics Board (REB) has reviewed the project and concluded its decision based on the documents submitted by the applicant[1].

Tab.1 The following documents have been considered for the ethics review

Document	ARES
IMS-JRC-M1.2-TMP-0004_V1.0_Ethics_issues_table.pd	Ares(2022)7174797
IMS-JRC-M1.2-TMP-0005_V1.0_Detailed_ethics_self-assessment.pdf	Ares(2022)7174797

Comments:

The scientific activity will involve a survey with European farmer regarding the adoption of precision farming for plant protection products. A draft survey was

[1] https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/how-to-complete-your-ethics-self-assessment_en.pdf

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not available for the appraisal but will include information on the farmers' education and attitudes. The need-to-know of this information in the context of the study as well as the recruitment procedure of the study participants should be better explained. Measures describing the data anonymization and procedures for recruiting study participants were not available. The REB suggest contacting the DPC regarding anonymization, storage and access to the obtained data. (Tab.2).

Table 2: Additional information needs

Documents and/or relevant references
Opinion of DPC
Clarification on the need to know the education level and attitudes of the farmer for applying precision farming techniques.
Information on the recruitment procedure including inclusion and exclusion criteria for the study

The project leader will implement appropriate actions to address ethics issues as declared in the ethics self-assessment and recommended by the REB. The lacking information should be available for ethics appraisal prior starting the relevant research activity.

It is the responsibility of the project leader that the project team is aware of the reviewed documents and the conditions of approval.

The project leader will notify the REB of any changes in the project, which might have ethical implications.

Susanne Bremer-Hoffmann
On behalf of the REB

Electronically signed on 04/07/2023 11:55 (UTC+02) in accordance with Article 11 of Commission Decision (EU) 2021/2121

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Annex 4: Detailed list of all types of materials interchanged in the first reporting period

Type of material interchanged	Description	Institution requesting the sample				Sending Institution				Permit required	Status of shipment	Origin	Destination
		Partner Number	Address	Contact Researcher	Date of request	Partner Number	Address	Contact Researcher	Date of reception				
DNA samples	In solution, obtained from 6 Xf strains isolated from *almond*	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	April-23	Outside BeXyl	Crop Diseases, Pests and Genetics Research Unit 9611 S Riverbend Ave, Parlier, CA 93648	Lindsey Burbank	December-23	No (Declaration of content, no harzaous material, etc.)	Received	non EU	EU
DNA samples	In solution, obtained from 160 Xf strains isolated from *Citrus cinensis*, *Olea europaea* and *Prunus domestica*	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	June-23	15-APTA-IAC	Centro de Citricultura Sylvio Moreira (IAC), Cordeirópolis, São Paulo,	Helvécio Coletta	September-23	No (Declaration of content, no harzaous material, etc.)	Received	non EU	EU
DNA samples	In solution, obtained from 79 citrus and olive trees plants infected by Xf from Argentina	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	July-23	27-INTA	PAVE-CIAP-INTA Argentina	Patricia Tolocka	November-23	No (Declaration of content, no harzaous material, etc.)	Received	non EU	EU
Plant extracts	in PBS (Previously frozen at -20ºC for several months) solution, obtained from 882 plants samples of from different host: Calicotome, Cistus, Helichrysum, Laurus, Polygala, Prunus, Santoline and Ulex sp. From 61 municipalities of Valencian Community	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	March-23	Associated to Partner 2-IVIA	Direcció General d'Agricultura, Ramaderia i Pesca Ciutat Administrativa 9 d'Octubre Carrer de La Democràcia, 77 - 46018 València	Ismael Serralbo	June-23	No (Declaration of content, no harzaous material, etc.)	Received	EU	EU
Plant samples	Portion of stems from almond tree potentially infected	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	01/05/2022	21-IRFAP	C/Eusebi Estada, 145. 07009 Palma de Mallorca (España)	Diego Olmo García	from june-22 to september-22	LoA approved	Received	EU	EU
Xylella fastidiosa strains	CoDiRo in culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	01/05/2022	2-IVIA	CV-315, km 10,7 46113 Moncada Valencia, (España)	Ester Marco	june-22	LoA approved	Received	EU	EU
Xylella fastidiosa strains	IVIA11529 in culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	december-22	2-IVIA	CV-315, km 10,7 46113 Moncada Valencia, (España)	Ester Marco	december-22	LoA approved	Received	EU	EU
Xylella fastidiosa strains	9a5c, Hib4, Copl22, XF 297, 858 in Culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	december-22	15-APTA-IAC	Rod. Anhanguera, km 158 - Cascalho, Cordeirópolis - SP, 13490-000, Brazil	Helvecio Coletta	pending	Requested LoA	Requested	Non-EU	EU
Xylella fastidiosa strains	TOS4 in Culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	01/05/2023	5-CNR	Via Amendola 165/A - 70126 Bari (Italia)	Maria Saponari	01/05/2023	LoA approved	Received	EU	EU
Plant samples	Portion of stems from olive tree	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	01/05/2023	5-CNR	Via Amendola 165/A - 70126 Bari (Italia)	Maria Saponari	01/05/2023	LoA approved	Received	EU	EU
Plant samples	Portion of stems from almond tree and other host potentially infected	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	01/05/2023	Associated to Partner 2-IVIA	SERVICIO DE SANIDAD VEGETAL AVDA. DE ALICANTE, S/N 46460 - Silla Teléfono: 961207723	Vicente Dalmau	june to september 2023	LoA approved	Received	EU	EU
Xylella fastidiosa strains	83_SN 17-2, 880 RO19-1, CCPM1, CIST-18 in culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	01/01/2024	9-AU	209 Life Sciences Building, Auburn, AL 36849-5413 (USA)	Leonardo De La Fuente	pending	Requested LoA	Requested	Non-EU	EU
Xylella fastidiosa strains	TOS4 in Culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	02/02/2024	5-CNR	Via Amendola 165/A - 70126 Bari (Italia)	Maria Saponari	pending	Requested LoA	Requested	EU	EU
Xylella fastidiosa strains	LSV 52.20, LSV 47.12 in culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	02/02/2024	8-INRAE	7 rue Jean Dixméras 49044 Angers cedex 01 France	Anne-Laure Boutigny	pending	Requested LoA	Requested	EU	EU
Xylella fastidiosa strains	IVIA5235 pXyl-mCh, IVIA5235 pXyl-WH1_51-mCh, IVIA5235 pXyl-WH1_A31V-mCh in culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	02/02/2024	CSIC Outside BeXyl	C/ Darwin, 3. Campus Universidad Autónoma, Cantoblanco. 28049 Madrid (España)	Rafael Giraldo	pending	Requested LoA	Requested	EU	EU
Xylella fastidiosa strains	IVIA5387.2 in culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	02/02/2024	2-IVIA	CV-315, km 10,7 46113 Moncada (Valencia)	Ester Marco	pending	Requested LoA	Requested	EU	EU
Plant samples	Portion of stems of several hosts potentially infected	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	03/02/2024	21-IRFAP	C/Eusebi Estada, 145 07009 Palma de Mallorca (España)	Diego Olmo	pending	Requested LoA	Requested	EU	EU
Xylella fastidiosa strains	XYL0078/24 in culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	04/02/2024	21-IRFAP	C/Eusebi Estada, 145. 07009 Palma de Mallorca (España)	Diego Olmo	pending	Requested LoA	Requested	EU	EU
Xylella fastidiosa strains	9a5c, Hib4, Copl22, XF 297, 858 in Culture plates	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	04/02/2024	15-APTA-IAC	Rod. Anhanguera, km 158 - Cascalho, Cordeirópolis - SP, 13490-000, Brazil	Helvecio Coletta	pending	Requested LoA	Requested	Non-EU	EU
Xylella fastidiosa strains	IVIA5770 in culture plates	8-INRAE	42, rue Georges Morel, BP 60057, 49071 Beaucouzé cedex, France	Marie-Agnès Jacques	april-23	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	april-23	LoA approved	Received	EU	EU
Xylella fastidiosa strains	LM10 y M12 in culture plates	4-UdG	Campus de Montilivi, s/n 17071 Girona (España)	Emilio Montesinos	april-23	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	april-23	LoA approved	Received	EU	EU

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Type of material interchanged	Description	Institution requesting the sample				Sending Institution				Permit required	Status of shipment	Origin	Destination
		Partner Number	Address	Contact Researcher	Date of request	Partner Number	Address	Contact Researcher	Date of reception				
Xylella fastidiosa strains	Temecula and CoDiRo in culture plates	Outside BeXyl	Estrada de Gil Vaz, Apartado 72, 7351-901 Elvas, (Portugal)	Cristina Azevedo	01/01/2023	1-CSIC	Avenida Menéndez Pidal s/n, 14004 Córdoba (España)	Blanca B. Landa	01/01/2023	LoA approved	Received	EU	EU
DNA samples	1 sample of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	31/08/2022	2-IVIA	Instituto Valenciano de Investigaciones Agrarias (IVIA) Conselleria de Agricultura, Ganadería y Pesca. Carretera CV-315, Km 10,7 46113 Moncada (Valencia) Tel. (+34) 96 342 40 00	Ester Marco	08/09/2022	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	6 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	12/09/2022	2-IVIA	Instituto Valenciano de Investigaciones Agrarias (IVIA) Conselleria de Agricultura, Ganadería y Pesca. Carretera CV-315, Km 10,7 46113 Moncada (Valencia) Tel. (+34) 96 342 40 00	Ester Marco	20/10/2022	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	47 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	12/10/2022	21-IRFAP	Laboratori Oficial de Sanitat Vegetal de les Illes Balears (LOSVIB) C/ Eusebi Estada 145 07009 Palma (+34) 971 17 61 00 ext. 62762	Diego Olmo	04/11/2022	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	17 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	01/11/2022	Associated to Partner 2-IVIA	SERVICIO DE SANIDAD VEGETAL (Conselleria de Agricultura, Ganadería y Pesca) Av. DE ALICANTE, S/N 46460 - Silla (Valencia)	Lourdes Rius	22/11/2022	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	4 samples of DNA in solution extracted from bacterial suspension	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	01/11/2022	21-IRFAP	Instituto Valenciano de Investigaciones Agrarias (IVIA) Conselleria de Agricultura, Ganadería y Pesca. Carretera CV-315, Km 10,7 46113 Moncada (Valencia) Tel. (+34) 96 342 40 00	Ester Marco	23/11/2022	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	1 sample of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	01/11/2022	21-IRFAP	Instituto Valenciano de Investigaciones Agrarias (IVIA) Conselleria de Agricultura, Ganadería y Pesca. Carretera CV-315, Km 10,7 46113 Moncada (Valencia) Tel. (+34) 96 342 40 00	Ester Marco	19/12/2022	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	1 sample of DNA in solution extracted from bacterial suspension	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	01/01/2023	21-IRFAP	Instituto Valenciano de Investigaciones Agrarias (IVIA) Conselleria de Agricultura, Ganadería y Pesca. Carretera CV-315, Km 10,7 46113 Moncada (Valencia) Tel. (+34) 96 342 40 00	Ester Marco	12/01/2023	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	3 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	01/01/2023	21-IRFAP	Instituto Valenciano de Investigaciones Agrarias (IVIA) Conselleria de Agricultura, Ganadería y Pesca. Carretera CV-315, Km 10,7 46113 Moncada (Valencia) Tel. (+34) 96 342 40 00	Ester Marco	12/01/2023	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	5 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	31/01/2023	21-IRFAP	Instituto Valenciano de Investigaciones Agrarias (IVIA) Conselleria de Agricultura, Ganadería y Pesca. Carretera CV-315, Km 10,7 46113 Moncada (Valencia) Tel. (+34) 96 342 40 00	Ester Marco	08/02/2023	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU

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Type of material interchanged	Description	Institution requesting the sample				Sending Institution				Permit required	Status of shipment	Origin	Destination
		Partner Number	Address	Contact Researcher	Date of request	Partner Number	Address	Contact Researcher	Date of reception				
DNA samples	2 samples of DNA in solution extracted from bacterial suspension	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	31/01/2023	21-IRFAP	Instituto Valenciano de Investigaciones Agrarias (IVIA) Conselleria de Agricultura, Ganadería y Pesca. Carreters CV-315, Km 10,7 46113 Moncada (Valencia) Tel. (+34) 96 342 40 00	Ester Marco	16/02/2023	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	3 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	22/02/2023	21-IRFAP	Laboratori Oficial de Sanitat Vegetal de les Illes Balears (LOSVIB) C/ Eusebi Estada 145 07009 Palma (+34) 971 17 61 00 ext. 62762	Diego Olmo	07/03/2023	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	63 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	10/06/2023	21-IRFAP	Laboratori Oficial de Sanitat Vegetal de les Illes Balears (LOSVIB) C/ Eusebi Estada 145 07009 Palma (+34) 971 17 61 00 ext. 62762	Diego Olmo	21/06/2023	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	94 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	26/09/2023	21-IRFAP	Laboratori Oficial de Sanitat Vegetal de les Illes Balears (LOSVIB) C/ Eusebi Estada 145 07009 Palma (+34) 971 17 61 00 ext. 62762	Diego Olmo	11/10/2023	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	81 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	26/09/2023	21-IRFAP	Laboratori Oficial de Sanitat Vegetal de les Illes Balears (LOSVIB) C/ Eusebi Estada 145 07009 Palma (+34) 971 17 61 00 ext. 62762	Diego Olmo	27/10/2023	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	5 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	15/12/2023	21-IRFAP	Laboratori Oficial de Sanitat Vegetal de les Illes Balears (LOSVIB) C/ Eusebi Estada 145 07009 Palma (+34) 971 17 61 00 ext. 62762	Diego Olmo	20/12/2023	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
DNA samples	1 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	10/01/2024	21-IRFAP	Laboratori Oficial de Sanitat Vegetal de les Illes Balears (LOSVIB) C/ Eusebi Estada 145 07009 Palma (+34) 971 17 61 00 ext. 62762	Diego Olmo	18/01/2024	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
Plant Extracts	41 samples in PBS (Previously frozen at -20ºC for several months)	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	12/09/2022	Associated to Partner 2-IVIA	SERVICIO DE SANIDAD VEGETAL (Conselleria de Agricultura, Ganadería y Pesca) Av. DE ALICANTE, S/N 46460 - Silla (Valencia)	Lourdes Rius	21/10/2022	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
Plant Extracts	47 samples in PBS (Previously frozen at -20ºC for several months)	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	12/10/2022	21-IRFAP	Laboratori Oficial de Sanitat Vegetal de les Illes Balears (LOSVIB) C/ Eusebi Estada 145 07009 Palma (+34) 971 17 61 00 ext. 62762	Diego Olmo	04/11/2022	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU
Plant Extracts	17 samples in PBS (Previously frozen at -20ºC for several months)	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	15/10/2022	Associated to Partner 2-IVIA	SERVICIO DE SANIDAD VEGETAL (Conselleria de Agricultura, Ganadería y Pesca) Av. DE ALICANTE, S/N 46460 - Silla (Valencia)	Lourdes Rius	22/11/2022	No (Declaration of content, no harzasous material, etc.)	Received	EU	EU

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Type of material interchanged	Description	Institution requesting the sample				Sending Institution				Permit required	Status of shipment	Origin	Destination
		Partner Number	Address	Contact Researcher	Date of request	Partner Number	Address	Contact Researcher	Date of reception				
Plant Extracts	24 samples in PBS (Previously frozen at -20ºC for several months)	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	13/10/2022	Associated to Partner 2-IVIA	SERVICIO DE SANIDAD VEGETAL (Conselleria de Agricultura, Ganadería y Pesca) Av. DE ALICANTE, S/N 46460 - Silla (Valencia)	Lourdes Rius	16/06/2023	No (Declaration of content, no harzaous material, etc.)	Received	EU	EU
DNA samples	5 samples of DNA in solution extracted from plant	1-CSIC	Sustainable Agriculture Institute (CSIC) Avenida Menéndez Pidal s/n Campus Alameda del Obispo 14004 Córdoba (España) (+34) 957 49 92 00	Blanca B. Landa	15/12/2023	21-IRFAP	Laboratori Oficial de Sanitat Vegetal de les Illes Balears (LOSVIB) C/ Eusebi Estada 145 07009 Palma (+34) 971 17 61 00 ext. 62762	Diego Olmo	20/12/2023	No (Declaration of content, no harzaous material, etc.)	Received	EU	
Vector samples	92 live specimes (non-infective *Philaenus spumarius*)	1-CSIC	Sustainable Agriculture Institute-CSIC address: Av. Menéndez Pidal, S/N, 14004 Córdoba, Spain	Blanca Landa (Primary Coordinator) and Carmen Mª Haro Mariscal	01/05/2023	1-CSIC	Institute of Agricultural Sciences (ICA)- CSIC: C/Serrano 115 dpdo, 28006 Madrid, España	Alberto Fereres	09/06/2023	No (Declaration of content, no harzaous material, etc.)	Received	EU	EU
DNA samples	80 DNA samples of vectors in solution (59 of *Philaenus spumarius* and 21 of *Neophilaenus campestris*)	1-CSIC	Sustainable Agriculture Institute-CSIC address: Av. Menéndez Pidal, S/N, 14004 Córdoba, Spain	Blanca Landa (Primary Coordinator) and Carmen Mª Haro Mariscal	jan-23	21-IRFAP	Institut de Recerca i Formació Agroalimentària i Pesquera de les Illes Balears (IRFAP): Carrer d'Eusebi Estada, 145, Nord, 07009 Palma, Illes Balears	Alicia Nieto	11/10/2023	No (Declaration of content, no harzaous material, etc.)	Received	EU	EU
Xylella fastidiosa strains	Culture plates of strain XYL1966	2- IVIA	Centro de Protección Vegeta	Ester Marco-Noales	03/03/2023	1- CSIC	Agencia Estatal Consejo Sup	Blanca B. Landa	March 2023	LoA	Received	EU	EU
Xylella fastidiosa strains	Culture plates of strains WM1-1, B3_SN 17-2, Temecula, B80 RO19-1, CCPMI, AlmaEM3, DeDonno, CIST-18	2- IVIA	Centro de Protección Vegeta	Ester Marco-Noales	01/15/2024	9- AU	Department of Entomology	Leonardo De La Fuente	Not yet	LoA	Requested	Non-EU	EU
Xylella fastidiosa strains	Culture plates of strains XYL2014/18, XYL1966/18, XF3348, XYL466/19, XYL468, XYL1961, IAS-XYL1513-1	2- IVIA	Centro de Protección Vegeta	Ester Marco-Noales	01/16/2024	1- CSIC	Agencia Estatal Consejo Sup	Blanca B. Landa	Not yet	LoA	Requested	EU	EU
Xylella fastidiosa strains	Culture plates of strains TOS4, CO33	2- IVIA	Centro de Protección Vegeta	Ester Marco-Noales	01/16/2024	3- CNR	Institute for sustainable plan	Maria Saponari	Not yet	LoA	Requested	EU	EU
Xylella fastidiosa strains	Culture plates of strains LSV 47.12, LSV 52.20	2- IVIA	Centro de Protección Vegeta	Ester Marco-Noales	01/30/2024	Outside BeXyl	French Agency for food, envi	Anne-Laure Boutigny	Not yet	LoA	Requested	EU	EU
Xylella fastidiosa strains	Culture plates of strains CFBP8073, CFBP8416, CFBP8418, CFBP8498, CFBP8356	2- IVIA	Centro de Protección Vegeta	Ester Marco-Noales	01/30/2024	8- INRAE	Collection Francaise de Bacte	Marie-Agnès Jacques	Not yet	LoA	Requested		EU
Entomopathogenic fungi	Fungal strains (EABb 01/33-Su, EABb 04/01-Tip and EAMa 01/58-Su) in culture plates, liohylized, cell suspensions, etc	P17-CRSFA	CRSFA "Basile Caramia" Via Cisternino 281, 70010 Locorotondo, Bari (Italy)	Crescenza Dongiovanni	June 2022, July 2023	P3-UCO	Agricultural Entomology, Department of Agronomy. Campus de Rabanales building C4 "Celestino Mutis" 2nd floor. 14071 Cordoba, Spain	Enrique Quesada	June 2022, July 2023	No	Received	EU	EU
Entomopathogenic fungi	Fungal strains (EABb 01/33-Su, EABb 04/01-Tip and EAMa 01/58-Su) in culture plates, liohylized, cell suspensions, etc	P6-UNITO	Department of Agricultural, Forest and Food Sciences, DISAFA Largo Paolo Braccini 2, 10095 Grugliasco, Torino (Italy)	Domenico Bosco	At the beggining of the project	P3-UCO	Agricultural Entomology, Department of Agronomy. Campus de Rabanales building C4 "Celestino Mutis" 2nd floor. 14071 Cordoba, Spain	Enrique Quesada	the beggining of the pro	No	Received	EU	EU
Entomopathogenic fungi	Fungal strains (EABb 01/33-Su, EABb 04/01-Tip and EAMa 01/58-Su) in culture plates, liohylized, cell suspensions, etc	P13-AIT	Center for Health & Bioresources. AIT Austrian Institute of Technology GmbH Konrad Lorenz Str 243430 Tulln (Austria)	Stéphane Compant	March 2023	P3-UCO	Agricultural Entomology, Department of Agronomy. Campus de Rabanales building C4 "Celestino Mutis" 2nd floor. 14071 Cordoba, Spain	Enrique Quesada	March 2023	No	Received	EU	EU
Entomopathogenic fungi	Fungal strains (EAMa 01/58-Su) in culture plates, liohylized, cell suspensions, etc	P1-CSIC	Agencia Estatal Consejo Superior de Investigaciones Científicas (ICA) C/ Serrano, 115 bis, 28006 Madrid (Spain)	Alberto Fereres	June2023	P3-UCO	Agricultural Entomology, Department of Agronomy. Campus de Rabanales building C4 "Celestino Mutis" 2nd floor. 14071 Cordoba, Spain	Enrique Quesada	June2023	No	Received	EU	EU
Xylella fastidiosa strains	TemeculaL in culture plates	4-UdG	Plaça Sant Domènec 3, 17004, Girona, Spain	Emilio Montesinos	July 2022	9- Auburn University	209 Rouse Life Sciences Building. Auburn, AL, 36849-5413, USA	Leonardo de la Fuente	30/09/2022	yes	received	Non-EU	EU
Xylella fastidiosa strains	B80 RO19-1 in culture plates	4-UdG	Plaça Sant Domènec 3, 17004, Girona, Spain	Emilio Montesinos	05/02/2021	9- Auburn University	209 Rouse Life Sciences Building. Auburn, AL, 36849-5413, USA	Leonardo de la Fuente	in progress	yes	awaiting Official Authority approval to request strain(s) from the sending institution	Non-EU	EU
Xylella fastidiosa strains	LM10 in culture plates	4- UdG	Plaça Sant Domènec 3, 17004, Girona, Spain	Emilio Montesinos	12/04/2023	1- CSIC	Calle Serrano 117m 28006, Madrid, Spain	Blanca Landa	05/05/2023	yes	received	EU	EU
Xylella fastidiosa strains	M12 in culture plates	4- UdG	Plaça Sant Domènec 3, 17004, Girona, Spain	Emilio Montesinos	12/04/2023	1- CSIC	Calle Serrano 117m 28006, Madrid, Spain	Blanca Landa	05/05/2023	yes	received	EU	EU

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Type of material interchanged	Description	Institution requesting the sample				Sending Institution				Permit required	Status of shipment	Origin	Destination
		Partner Number	Address	Contact Researcher	Date of request	Partner Number	Address	Contact Researcher	Date of reception				
Xylella fastidiosa strains	CFBP8416 in culture plates	4-UdG	Plaça Sant Domènec 3, 17004, Girona, Spain	Emilio Montesinos	05/02/2021	ssociated bacteria (C	42, rue Georges Morel, BP 60057 Beaucouzé 49071 France	Marion Le Saux	in progress	yes	awaiting Official Authority approval to request strain(s) from the sending institution	EU	EU
Xylella fastidiosa strains	LSV52.20 in culture plates	4-UdG	Plaça Sant Domènec 3, 17004, Girona, Spain	Emilio Montesinos	05/02/2021	NITAIRE de l'aliments	7 rue Jean Dixméras,49044 Angers Cedex 01, France	Amandine Cunty	in progress	yes	awaiting Official Authority approval to request strain(s) from the sending institution	EU	EU
Xylella fastidiosa strains	IVIA6629 in culture plates	4-UdG	Plaça Sant Domènec 3, 17004, Girona, Spain	Emilio Montesinos	07/02/2021	2- IVIA	Carreters de Moncada km 0,7. 46113 Moncada, Valéncia	Ester Marco	in progress	yes	awaiting Official Authority approval to request strain(s) from the sending institution	EU	EU
Xylella fastidiosa strains	XYL1961 in culture plates	4- UdG	Plaça Sant Domènec 3, 17004, Girona, Spain	Emilio Montesinos	05/02/2021	1- CSIC	Calle Serrano 117m 28006, Madrid, Spaim	Blanca Landa	in progress	yes	awaiting Official Authority approval to request strain(s) from the sending institution	EU	EU
Xylella fastidiosa strains	IAS-XYL1513-1 in culture plates	4- UdG	Plaça Sant Domènec 3, 17004, Girona, Spain	Emilio Montesinos	05/02/2021	1- CSIC	Calle Serrano 117m 28006, Madrid, Spaim	Blanca Landa	in progress	yes	awaiting Official Authority approval to request strain(s) from the sending institution	EU	EU
Xylella fastidiosa strains	IVIA11529 in culture plates	4-UdG	Plaça Sant Domènec 3, 17004, Girona, Spain	Emilio Montesinos	07/02/2021	2- IVIA	Carreters de Moncada km 0,7. 46113 Moncada, Valéncia	Ester Marco	in progress	yes	awaiting Official Authority approval to request strain(s) from the sending institution	EU	EU
Xylella fastidiosa strains	XYL2014/18, XYL1966/18, XF3348, XYL466/19, XYL468, XYL1961/18, IAS-XYL1513-1, in culture plates	8-INRAE	IRHS UMR1345, 42 rue Georges Morel, 49070 Beaucouzé,France	Jessica Dittmer	01/02/2024	1-CSIC	Institute for Sustainable Agriculture (CSIC), Alameda del Obispo S/N, 14004 Cordoba, Spain	Blanca Landa	Not yet received	Requested LOA	Planned	EU	EU
Xylella fastidiosa strains	IVIA5235, IVIA5387.2, IVIA5770, IVIA5901, IVIA6629, IVIA11529, in culture plates	8-INRAE	IRHS UMR1345, 42 rue Georges Morel, 49070 Beaucouzé,France	Jessica Dittmer	01/02/2024	2-IVIA	Plant Protection and Biotechnology Research Center, Valencian Institute for Agricultural Research (IVIA), 46113 Moncada, Spain	Ester Marco-Noales	Not yet received	Requested LOA	Planned	EU	EU
Xylella fastidiosa strains	CO33, TOS4 in culture plates	8-INRAE	IRHS UMR1345, 42 rue Georges Morel, 49070 Beaucouzé,France	Jessica Dittmer	01/02/2024	3-CNR	CNR– Institute for Sustainable Plant Protection (IPSP), Via Amendola 165/A, 70126 Bari, Italy	Maria Saponari	Not yet received	Requested LOA	Planned	EU	EU
Xylella fastidiosa strains	WM1-1, Temecula, CCPM1, AlmaEM3, DeDonno, CIST-18, B3 SN 17-2, B80 RO19-1, in culture plates	8-INRAE	IRHS UMR1345, 42 rue Georges Morel, 49070 Beaucouzé,France	Jessica Dittmer	01/02/2024	9-AU	209 Rouse Life Sciences Building, Auburn, Alabama , USA 36849	Leonardo de la Fuente	Not yet received	Requested LOA	Planned	Non-EU	EU
Seeds of Spartium junceum	seeds	27-INTA	IPAVE- INTA , Av. 11 de septiembre 4755, X5014MGO - Córdoba, Argentina	Patricia Tolocka	02/10/2023	8-INRAE	IRHS UMR1345, 42 rue Geor	Sophie Cesbron	02/10/2023	donation letter + import permit	received	EU	Non-EU
Seeds of Spartium junceum	seeds	1-CSIC	CSIC, Avda. Menéndez Pidal s/n, 14004 Córdoba	Blanca Landa	March-23	8-INRAE	IRHS UMR1345, 42 rue Geor	Sophie Cesbron	01/03/2023	EU : no need of import permit		EU	EU
Seeds of Spartium junceum	seeds	3-CNR	CNR, Via Amendola 165/A - 70126 BARI (ITALY)	Maria Saponari	March-23	8-INRAE	IRHS UMR1345, 42 rue Geor	Sophie Cesbron	01/03/2023	EU : no need of import permit		EU	EU
Seeds of Spartium junceum	seeds	9-AU	University of Auburn, 209 Rouse Life Sciences Building, Auburn, AL, 36849-5413	Leonardo de la Fuente	March-23	8-INRAE	IRHS UMR1345, 42 rue Geor	Sophie Cesbron	01/04/2023	import permit		EU	Non-EU
Seeds of Spartium junceum	seeds	15-APTA-IAC	APTA-IAC	Helvecio Coletta	March-23	8-INRAE	IRHS UMR1345, 42 rue Geor	Sophie Cesbron	01/05/2023	import permit		EU	Non-EU
Xylella fastidiosa strains	XYL2014/18, IAS-XYL1513-1 in culture plates	9-AU	209 Rouse Life Sciences Building, Auburn, Alabama , USA 36849	Leonardo De La Fuente	01/02/2024	1- CSIC	Av. Menéndez Pidal, S/N, 14004 Córdoba, Spain	Blanca B. Landa	Pending	Requested LoA	Requested	EU	Non-EU
Xylella fastidiosa strains	IVIA5235 IVIA6629, IVIA11529 in culture plates	9-AU	209 Rouse Life Sciences Building, Auburn, Alabama , USA 36849	Leonardo De La Fuente	01/03/2024	2- IVIA	CV-315, Km 10,700, Valéncia, Spain	Ester Marco	Pending	LoA approved	Requested	EU	Non-EU
Xylella fastidiosa strains	De Donno, TOS4, CIST-18 in culture plates	9-AU	209 Rouse Life Sciences Building, Auburn, Alabama , USA 36849	Leonardo De La Fuente	01/10/2024	3 - CNR	Via Giovanni Amendola, 122, 70125 Bari BA, Italy	Maria Saponari	01/11/2023	LoA approved	Received	EU	Non-EU
Xylella fastidiosa strains	CFBP8416, CFBP8418, CFBP8076, CFBP8356, CFBP8498 in culture plates	9-AU	209 Rouse Life Sciences Building, Auburn, Alabama , USA 36849	Leonardo De La Fuente	May 2023, January 202	8-INRAE	42 RUE GEORGES MOREL CS 60057, 49071 BEAUCOUZÈ, FRANCE	Sophie Cesbron	June 2023, pending	LoA approved	Received	EU	Non-EU
Xylella fastidiosa strains	B3 SN 17-2, B80 RO19-1 in culture plates	9-AU	209 Rouse Life Sciences Building, Auburn, Alabama , USA 36849	Leonardo De La Fuente	1/2023, February 202	12 - ARO	The Volcani Institute, 68 HaMaccabim Road , P.O.B 15159 Rishon LeZion 7505101, Israel	Ofir Bahar	June 2023, pending	LoA approved	Received	Non-EU	Non-EU

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Type of material interchanged	Description	Institution requesting the sample				Sending Institution				Permit required	Status of shipment	Origin	Destination
		Partner Number	Address	Contact Researcher	Date of request	Partner Number	Address	Contact Researcher	Date of reception				
DNA samples	In solution, obtained from 31 Xf strains.	10 UC	Berkeley, California, USA	Rodrigo Almeida	July, 2023	16-UCR	San José, Costa Rica	Carlos Chacón	December, 2023	No (Declaration of content, no harzasous material, etc.)	received	Non-EU	Non-EU
DNA samples	In solution, obtained from 30 Xf strains.	10 UC	Berkeley, California, USA	Rodrigo Almeida	October, 2023	16-UCR	San José, Costa Rica	Carlos Chacón	February, 2024	No (Declaration of content, no harzasous material, etc.)	planned	Non-EU	Non-EU
Plants for planting	120 olive trees 'Lecciana'	5-CNR	CNR - Institute for Sustainable Plant Protection; Via Amendola 165/A - 70126 BARI (ITALY)	Maria Saponari	May 22nd, 2023	25-AIBE	El Rebato s/n, 08739-Subirats (Barcelona) SPAIN	Mireia Bordas	June 1st, 2023	NO	Received	EU	EU
Plants for planting	75 olive trees 'Koroneiki'	8-INRAE	IRHS INRAe; 42 rue georges morel, 49070 Beaucouze-FRANCE	Sophie Cesbron	April 7th, 2023	25-AIBE	El Rebato s/n, 08739-Subirats (Barcelona) SPAIN	Mireia Bordas	June 19th, 2023	NO	Received	EU	EU
Plants for planting	30 olive trees 'Koroneiki'	9-AU	Department of Entomology & Plant Pathology. Auburn University; 209 Rouse Life Sciences Building Auburn, AL, 36849-5413 USA	Leonardo De La Fuente	April 25th, 2023	25-AIBE (through AGROMILLORA CALIFORNIA)	612 East Gridley Rd; Gridley, CA 95948 (USA)	Mireia Bordas	first week may 2023	NO	Received	Non-EU	Non-EU
Plants for planting	10 olive trees 'Oliana' + 1 olive trees 'Arbequina'	5-CNR	CNR - Institute for Sustainable Plant Protection; Via Amendola 165/A - 70126 BARI (ITALY)	Maria Saponari	January 8th 2024	25-AIBE	El Rebato s/n, 08739-Subirats (Barcelona) SPAIN	Mireia Bordas	January 19th, 2024	NO	Received	EU	EU
Plants for planting	200 almond budsticks 'Pentacebas' + 200 almond budsticks 'Avijor' + 2000 compatible rootstocks	2-IVIA	Centro de Protección y Biotecnología; CV-315 Km 10,7, 46113 Moncada (Valencia)	Ester Marco	January 19th, 2024	25-AIBE	El Rebato s/n, 08739-Subirats (Barcelona) SPAIN	Mireia Bordas	pending	NO	Requested	EU	EU

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