1. *Content of the 'Topic Description' document*

1.1. Topic area

Management of pest/vector

1.2. Links to the Euphresco Strategic Research Agenda

The topic addresses the following objective(s) of the 2017-2022 Euphresco Strategic Research Agenda

☒ Objective 2017-R-7.1: to validate cost-effective and socially acceptable phytosanitary measures for consignments (pre-border and at border)

1.3. Topic title

A non-chemical oak log treatment for mitigating oak wilt, *Bretziella fagacearum*

1.4. Description of the problem the research should solve

Oak (*Quercus* sp.) represents the highest value log export from the United States to the European Union, and these logs have historically been treated with methyl bromide prior to export. The European Commission has recently notified the United States that the European Union would not renew the use of methyl bromide after December, 2020. USDA-APHIS has proposed an integrated systems approach that features sulfuryl fluoride fumigant in combination with various best management practices to achieve equivalent risk reduction to previous methyl bromide fumigation, while also maintaining sufficient quality of oak logs for final veneer processing in Europe. The decision on acceptance of this systems approach has not yet been made due to technical considerations.

However, a simple, standalone treatment for oak wilt has been identified that offers higher levels of efficacy and less complexity than the proposed systems approach. Vacuum and steam in combination has proven effective in eliminating the oak wilt pathogen in red oak logs, but the industry requires quality testing of treated logs before acceptance. The vacuum steam research team (USDA and Virginia Tech) proposes a series of test shipments of vacuum steam treated logs to Europe, to be processed into veneer and graded for quality. The initial test shipment from Maryland, USA to the Czech Republic is fully funded, and will be undertaken in October, 2021 through a partnership between Danzer Veneer Americas, Inc., Virginia Tech, and USDA-APHIS. Subsequent test shipments to Europe will be negotiated at a later date after a commitment has been made to purchase and place a larger, commercial vacuum steam chamber in the mid-Atlantic seaboard region (USA) through a federal/state/industry partnership.

1.5. Description of the expected results

- Quality report from Danzer staff on grading of white oak logs (both vacuum steamed and control logs) from initial test shipment. This report will inform and support the construction of a fully scaled vacuum steam chamber for additional test shipments of vacuum steam treated logs from the United States to Europe.
- Outreach campaign on vacuum steam treatment protocol and logistics to industry and regulatory authorities in the United States and Europe.

1.6. Beneficiaries of this research product

- National Plant Protection Organizations
- Log export and veneer industry
- Regulatory authorities in European countries and the United States

1.7. Research funders and research contribution/ distribution

Funding organisation	Research activity and researchers involved
1. Department of Agriculture, Animal and Plant Health Inspection Service, United States of America Jennifer Nicholson Jennifer.S.Nicholson@usda.gov	-Project coordination; -Arrange initial test shipments and evaluation of treated logs to Czech Republic in partnership with cooperators; Contact person: Ron Mack E.mail address: ron.mack@usda.gov
2. Danzer Veneer Bohemia Dynhara, Czech Republic Dominik Tyr	-Coordination and reception of test shipment and conducting veneering, grading; Contact person: E.mail address:
3. University of Naples Federico II, Italy Antonio Evidente evidente@unina.it	-Contribution to be detailed; Contact person: Antonio Evidente E-mail address: evidente@unina.it Contact person: Alessio Cimmino E-mail address: alessio.cimmino@unina.it Contact person: Marco Masi E-mail address: marco.masi@unina.it
4. Forest Research Institute, Poland Tomasz Oszako t.oszako@ibles.waw.pl	-Contribution to be detailed; Contact person: Tomasz Oszako E.mail address: t.oszako@ibles.waw.pl
5. Danzer Veneer Americas, United States of America Vijay Reddy	-Coordination of the procurement and shipping of logs to Maryland; Contact person: E.mail address:
6. Maryland Department of Natural Resources, United States of America Dan Rider	-Coordination of the test shipment and involvement of Maryland state department officials; Contact person: E.mail address:
7. Mill Creek Lumber Company, United States of America Don Beazley	-Location of the vacuum steam treatment of oak logs and loading into shipping containers for transport; Contact person: E.mail address:
8. Rural Maryland Property Investment Fund, United States of America Susan O'Neill	-Funding of the initial test shipment of treated logs in Maryland; Contact person: E.mail address:

9. Virginia Tech Department of Sustainable Materials, United States of America Mark White	-Operation of the vacuum steam equipment and treat experimental logs; Contact person: E.mail address:

1.8. Research project partnership outside Euphresco

Euphresco funding ensures a certain level of transnational collaboration among Euphresco member countries. It is possible, if the funding consortium is interested, to contact funding organisations or research groups outside the geographical area covered by Euphresco members. The Euphresco coordinator could advertise the research topic in order to have an enlarged collaboration. If funders are interested in this possibility, please check the case below:

☒ The funding consortium of the topic mentioned in section 1.2 requires that the topic is advertised outside the Euphresco network

1.9. Any other relevant information on content

None.

2. *Euphresco management aspects of the project*

2.1. Indication of the topic budget

Funding organisation [a]	Mechanism [b]	Total Budget [c]
1. USDA APHIS	NC	€
2. Danzer (CZ)	NC	€
3. UNINA (IT)	NC	€
4. Danzer (US)	NC	€
5. Maryland DNR (US)	NC	€
6. Milk Creek (US)	NC	€
7. RMPIF (US)	NC	€
8. VT (US)	NC	€

[a] First member is project coordinator. A minimum of two partners are necessary for each proposal. Add lines as needed.
[b] Please indicate the preferred mechanism (e.g. real pot RP; virtual pot VP; non-competitive NC), or several mechanisms if there is flexibility.
[c] Optional, as this amount can still change in the next phase. In-kind contribution should also be indicated in this column.