

**BIOVEXO – PRESS RELEASE**

## Biological pesticides to help save olive oil heritage

Vienna, 25 June, 2020 – The BIOVEXO Project was launched recently with a secured European Union funding of EUR 6.6 million to establish, select and validate top performing, sustainable biopesticides that have shown to be effective against an aggressive pathogenic bacterium *Xylella fastidiosa*. The bacterium threatens to destroy Europe's olive and almond orchards.

Since 2013, the spread of *Xylella* has been rapidly increasing in Spain and Italy due to transmission by an insect vector. The plant pathogen severely damages, and often completely destroys, olive orchards within a few years. Europe is in danger of losing orchards unless urgent solutions are found to combat *Xylella fastidiosa*. While there are some products currently on the market, there are no pesticides that are scientifically proven effective against *Xylella*, according to the European Food Safety Authority.

In the hardest-hit Apulia region of Italy, olive production has already collapsed by 65 to 80 per cent due to *Xylella*. Heritage 400-year-old olive trees have been destroyed in Italy and an estimated 100,000 jobs have been lost.

*Xylella* is spreading to other crops, such as almonds, where Spain and Mallorca especially have been hard hit. The pathogenic bacteria have also been found in France, Portugal and even Israel, highlighting the threat to Mediterranean agriculture.

Across Europe, *Xylella* is projected to cause substantial yield losses of 35 to 70 per cent in olive harvests and 13 per cent in almond harvests. Two million tonnes of olive oil production are potentially at risk in Europe unless an effective treatment to the bacterium is found.

To date, no organic solution exists on the market to battle the devastation caused by *Xylella*, flagging the urgent need to develop sustainable biopesticides to combat the spread of the disease.

In response to the increasing threat of *Xylella* outbreaks in Europe, the BIOVEXO Project aims to eliminate the disease in the long-run and introduce disease management measures which are viable both economically and environmentally. Above all, it intends to preserve some of the most impacted regions which have considerable cultural heritage value.

BIOVEXO will establish a set of biopesticides which, in combination, will target the *Xylella* bacterium directly, and will also act on its insect (spittlebug) vector transmitting the disease. Six

innovative bio-based solutions will be tested prior to market introduction, as well as examined for both preventative and curative purposes.

The AIT Austrian Institute of Technology is taking the role of Scientific Coordinator of BIOVEXO and the Vienna-based EU funding consulting and services company RTDS is acting as Project Coordinator.

BIOVEXO Scientific Coordinator from AIT, Stéphane Compant, said that the research concept of BIOVEXO was well-grounded based on previous findings and results dealing with olive protection against *Xylella*. He added that there were multiple impacts in finding effective and organic solutions to combat the disease.

“Olive oil production is in jeopardy due to the numbers of jobs that have been, and could be, lost due to this problem. It is important that we find viable solutions to protect farmers’ incomes who have cultivated orchards, sometimes centuries old, across generations, as well as guarantee European olive oil supply with less chemical residues.

Many of these olive groves are important, cultural heritage assets that have a far-reaching tourism value for Mediterranean countries. We need to act quickly to avoid farmers abandoning their groves in the process of turning to other crops,” Compant said.

During the project, small-scale on-field validation and improved formulations of the six solutions are planned. Once completed, the top-performing biopesticides will be selected for a large-scale pilot and a real-life evaluation in Apulia (Italy) and Mallorca (Spain) — the two most dominant *Xylella* outbreak regions throughout Europe.

Integrated pest management measures will be applied to the existing, as well as the newly planted orchards in the two regions, making BIOVEXO one of the most paramount efforts in the European agriculture industry in finding sustainable practices to combat the *Xylella* disease.

At least, the two best performing solutions will be brought forward, closer to the market, at the end of the project (Technical Readiness Level 7-8) by toxicity testing and sustainability assessment. Furthermore, the products will be evaluated regarding their economic potential, regulatory compliance and suitability for industry-scale production. TRL 9 aims to prove the technology concept in an operational environment with potential for commercialization.

The European Commission says that *Xylella fastidiosa* “is one of the most dangerous plant bacteria worldwide, causing a variety of diseases, with huge economic impact for agriculture, public gardens and the environment”.

## The BIOVEXO Consortium

**The BIOVEXO Project, titled *Biocontrol of Xylella and its vector in olive trees for integrated pest management*** plans to target six promising candidate biocontrol solutions acting either against *Xylella* or its vector, which include two bacterial strains, a microbial metabolite, two plant extracts, and an entomopathogenic fungus.

The Project is implemented by a diverse consortium of 11 partners, as required by the multi-disciplinary nature of the Project.

The partners of the BIOVEXO Project are RTDS Group (Austria), Austrian Institute of Technology (Austria), Consiglio Nazionale delle Ricerche (Italy), Centro di Ricerca, Sperimentazione e Formazione in Agricoltura Basile Caramia (Italy), Universidad de Sevilla (Spain), Universiteit Antwerpen (Belgium), Globachem NV (Belgium), Domca SA (Spain), Acies Bio Biotehnološke Raziskave in Razvoj Doo (Slovenia), Aimerit SL (Spain) and Asociación Agraria De Jóvenes Agricultores (Spain).

SMEs, academic institutes, and research associations leverage their complementary expertise and amalgamate the practical knowledge and best practices of the participating olive growers and farmer associations to find a best-fit bio solution.

The duration of the BIOVEXO Project is 5 years, from 1 May, 2020 until 30 April, 2025.

-ENDS-

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