

BIO-Based pESTicides production for sustainable agriculture



THE PROJECT

The BIOBESTicide project will validate and demonstrate the production of an effective and cost-efficient biopesticide. The demonstration will be based on an innovative bio-based value chain starting from the valorisation of sustainable biomasses, i.e. beet pulp and sugar molasses, and will exploit the properties of the oomycete Pythium oligandrum strain I-5180 to increase natural plant defenses, to produce an highly effective and eco-friendly biopesticide solution for vine plants protection.

BIOVITIS, the project coordinator, has developed, at laboratory level (TRL4), an effective method to biocontrol one of the major causes of worldwide vineyards destruction, the Grapevine Trunk Diseases (GTDs). The protection system is based on the oomycete Pythium oligandrum strain I-5180 that, applied at optimal time and concentration, colonises the root of vines and stimulates the natural plant defences against GTDs, providing a protection that ranges between 40% and 60%.

BIOBESTicide project will respond to the increasing demand for innovative solutions for crop protection agents, transferring the technology to a DEMO Plant able to produce more than 10 T of a high-quality oomycete-based biopesticide product per year (TRL7).

The BIOBESTicide project will validate the efficiency of the formulated product on vineyards of different geographical areas. To assure the safety of products under both health and environmental points of view, a full and complete approval dossier for Pythium oligandrum strain I–5180 will be submitted in all the European countries.



OBJECTIVES

BIOBESTicide objectives are:

- To build a DEMO plant producing 10T of high-quality oomycete-based biopesticide product per year to be used in viticulture
- To design the optimal product formulation to deliver Pythium oligandrum strain I-5180 and optimise the efficiency of the products
- To manage the logistics solutions of the whole process to minimise losses and reduce costs associated
- To test the products in controlled environments and practice conditions to demonstrate the performance of the product. In

parallel, to monitor any unintended impact on the environment and potential risks for human health

- To comply with the European regulation on Plant Protection Product (PPP) and to submit an approval dossier in order to obtain an authorisation for marketing the product
- To ensure the sustainability of the established value chain
- To demonstrate and showcase to relevant stakeholders the feasibility of the *oligandrum-based* biopesticide producing value chain;
- To involve specific categories of interest in the project such as farmers, companies involved in harvesting, storage and transportation of biomass, vinery companies, policy makers,



PARTNERS





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Regulatory Affair

ence, from Innovation to Marke

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