



KEY-WORDS:
IPM - SUSTAINABLE CROP
PROTECTION - ESSENTIAL OILS

PROFILE

I am a first-year Ph.D. student in Plant Pathology specialized in Sustainable Crop Protection.

My project is focused on studying and testing new bio-protection products, with the aim of promoting a better and more rational use of plant protection products.

AFFILIATION

Department of Sustainable Plant Production Sciences (DIPROVES)
Università Cattolica del Sacro Cuore.

LANGUAGES



Mother tongue



Professional level

HOW TO REACH ME

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PROJECT TITLE

Characterization of PMoA and priming effect of essential oils against the pathogen *Plasmopara viticola* in grapevine

Steps of the research

- Characterization of the Physical mode of Action (PMoA) of different essential oils' active ingredients to evaluate their preventive and curative activity.
- Evaluation of essential oils on grapevine for triggering plant defence mechanisms using metabolomic analysis.
- Testing the cultivation of aromatic plants (from which essential oils are derived) in the vineyard ecosystem, and their potential effect on disease development.

Main Results

Enriching the knowledge about the protective dynamics of essential oils and their related volatile organic compounds in order to develop useful strategies in controlling grapevine downy mildew.

Research Contribution

The main objective of this project is to evaluate the efficacy of different essential oil formulations against *Plasmopara viticola* in grapevine.

Results will be beneficial for farmers by informing them of the correct management and use of essential oils.

Why should you care?

Viticulture is one of the cultivation with the the most intensive use of plant protection products.

Enlarging the current knowledge on alternative strategies, such as essential oils and other plant extracts, can help farmers in reducing the use of chemical fungicides in vineyards.