

# Monica Fittipaldi Broussard

UNIVERSITÀ CATTOLICA del Sacro Cuore



## KEY-WORDS:

PLANT PATHOLOGY · BIOCONTROL ·  
ESSENTIAL OILS · IPM · MODELS ·  
GRAPE · TOMATO

## PROJECT TITLE

### Use of essential oils in crop protection

#### Steps of the research

My research project's aim is to evaluate the potentialities of essential oils-based products in crop pest control. The first part of my work concerns the study of the state of the art of the use of these natural substances for crop protection. In detail, a meta-analysis will be carried out on the use of essential oils for the protection of grapevines and tomato with the aim of understanding the range of efficacies and to highlight the most promising oils. The second phase will be focused on the characterization of the resulting essential oils, studying the physical and molecular mode of action will then be studied. Tests will then be carried out in greenhouse and in the open field, collaborating in the optimization of an ad hoc formulation. The data collected will then be used for the integration of a forecasting model in order to insert the essential oil-based product in an integrated pest management strategy in synergy with innovative methods and chemical products with the aim of reducing the use of the latter.

## PROFILE

I am a PhD student in Plant Pathology specialized in Biocontrol agents and sustainable pest management tools.

I strongly believe that sustainable agriculture is possible.

## AFFILIATION

Department of (DIPROVES)  
Università Cattolica del Sacro Cuore

## LANGUAGES



Mother language



Level C1



Level B2



Level A2

## HOW TO REACH ME

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## Reference Contact

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## Why should you care?

The European Commission targets to reduce by 50% the use and risk of chemical pesticides, endorsing the list of candidates to substitution. In view of that, to cope with the growing demand for food and ensure sustainable food production to safeguard human and environmental health, there is a crucial necessity to find non-chemical alternatives for disease management.