

# Filippo Cominelli

UNIVERSITÀ CATTOLICA del Sacro Cuore



KEY-WORDS:  
INSECTS · PESTICIDE RESISTANCE ·  
INSECT REARING

## PROFILE

I am a third-year PhD student biologist specialized in Entomology. Thanks to my background i am able to adapt to different research topics.

## AFFILIATION

Department of Sustainable Crop Production (DI.PRO.VE.S.)  
Università Cattolica del Sacro Cuore

## LANGUAGES



Mother language



Level B2

## HOW TO REACH ME

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## Reference Contact

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## PROJECT TITLE

### Mechanisms of resistance to plant protection products in certain crop-damaging arthropod species

#### Steps of the research

- Sampling of field populations of various insect pest species to test for insecticide resistance.
- Genotyping and bioassays to determine the susceptibility degree to different active compounds.
- Research of novel approaches to the resistance problem.

#### Main Results

First detection on the Italian territory of mutation conferring resistance to ovicides in *Tetranychus urticae* and determination of the genetic structure of different pest populations.

#### Research Contribution

The genotyping of pest populations allows to determine which pesticides maintain their efficacy and to give farmers better advices on how to treat their crops, thus enhancing treatments effectiveness and decreasing chemicals usage.

#### Why should you care?

Pesticides provide an important tool for crop pests control and the loss of one or more similar compounds could result in major economical losses. The early detection of resistant strains within a pest population is essential to reduce a further selection of those sub-populations and to limit insecticidal resistance phenomena.