

Paolo Bonini



KEY-WORDS:
GRAPEVINE, AGRIVOLTAIC, CLIMATE
CHANGE, MULTIFUNCTIONAL
IRRIGATION

PROFILE

I am a first-year Ph.D. student in Viticulture specialized in grapevine physiology.

AFFILIATION

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

LANGUAGES



Mother language



Level C1

HOW TO REACH ME

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Reference Contact

Prof. Stefano Poni

PROJECT TITLE

Digital transition in vineyard

Steps of the research

- Agrivoltaics application on grapevines (*Vitis vinifera* L.).
- Physiological analysis through whole canopy gas exchange measurements.
- Identification of physiological characters affected by the shading effect (polyphenols and aroma compounds).
- Application of a multifunctional irrigation system in the vineyard to counteract the detrimental effects of climate change (excessive heat, drought, and spring frost).

Main Results

Insights into vine physiology for the validation of two innovative techniques aimed at adapting to climate change.

Research Contribution

When validated, this information would confirm the efficacy of these techniques in contrasting the negative effects of climate change for more stress resilient vineyards. Expected results are the achievement of dual-use of land, decreased physiological damages to the grapevine, and avoiding yield reductions.

Collaborations

University of Adelaide - 2024
Prof. C. Collins

Why should you care?

Climate change puts wine grape production at risk in terms of both quality and quantity. This translates into a lower economic value of the product, a major problem for small farmers and large companies alike.

These techniques achieve multiple benefits by making the vineyard more resilient.