

Filippo Del Zozzo



KEY-WORDS:
CANOPY GEOMETRY · LIGHT
INTERCEPTION · WATER USE
EFFICIENCY · ABIOTIC STRESS

PROFILE

I am a PhD student in viticulture specialized in Grapevine Physiology, Canopy Management and Climate Change Adaptation.

AFFILIATION

Department of Sustainable Crop Production (DIPROVES)
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LANGUAGES



Mother language



Level B2

HOW TO REACH ME

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Reference Contact

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Dr. Tommaso Frioni

PROJECT TITLE

Study of grapevine (*V. vinifera* L.) canopy management for a climate change resilient viticulture

Steps of the research

- Evaluation of double cropping in open field conditions to increase yield and quality of the crop.
- Determination of whole canopy Water Use Efficiency of different canopy geometries under progressive drought exposure.
- Validation of a model based on light interception to predict water use and photosynthetic rates of different canopy geometries.
- Calibration and validation of sap and trunk sensors versus the whole canopy gas exchange system.

Main Results

- Feasibility of double cropping under field conditions in temperate climates.
- Prediction of vineyard water use as a function of canopy geometry, light interception, VPD and water availability.
- New timely accurate sensors for water stress detection.

Research Contribution

First study of double cropping under field conditions in temperate climates and identification of growth factors affecting the technique. Characterization of canopy architectures for the selection of geometries best suited to climate change. Early and low-cost water stress detection.

Collaborations

The University of Adelaide – 2022-2023
Prof. Cassandra Collins

Why should you care?

Global warming will impose dramatic changes to agriculture. Grapevine is one of the most threatened species, drought and extreme temperatures are affecting yield and grape quality. Understanding the most suitable practices to improve abiotic stresses tolerance at the canopy level will confer new adaptation insights for viticulture management.