VALIDA Vitis - Enhancement of water and nutritional savings for the optimization of the production of vine cuttings of *Vitis vinifera*

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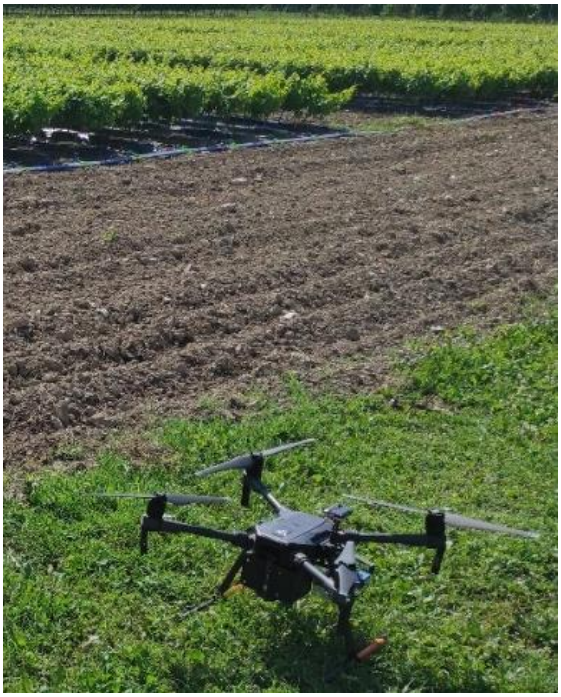
The project started in 2022, is jointly funded by PON funding (http://www.ponricerca.gov.it/) and Vivai Cooperativi of Rauscedo (VCR), which is recognized to be one of the world leading producers of grafted vine cuttings.
The project is under the supervision of Valentino Casolo and Paolo Sivilotti from the University of Udine, together with Yuri Zambon and Elisa De Luca from the VCR research centre.

Climate change and sustainability pose significant challenges to research efforts aimed at conserving resources and developing innovative strategies to enhance plant survival. Requirements that are particularly pronounced within the nursery industry, in which plants are exposed to various types of stress such as pruning and grafting.



The main target the is to investigate the potential for managing plant reserves, specifically non-structural Carbohydrates (NSC), through the implementation of various agronomic practices. The underlying hypothesis is that smaller plants with higher NSC content may better cope with incoming stress events. Various experiments have been and will be performed on different combinations of cultivars and rootstocks of grafted cuttings. Classical morpho-functional measurements have been utilized to evaluate the balance between water consumption, growth, and the accumulation of reserves. Moreover, the project involves the adoption of 4.0 sensors and remote sensing technology.