

# **Precision viticulture: the benefits of selective harvesting**

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Thanks to a study investigating the benefits of precision harvesting by testing and analyzing the effectiveness of selective harvesting, Beatrice Danesi (Catholic University of the Sacred Heart in Piacenza) was awarded third prize in the first edition of the AgriFood Future Award for the agriculture category.

The award was presented last May 9th in Salerno during Agrifood Future Research, a moment of in-depth analysis connected to the national AgriFood Future event promoted by Unioncamere in collaboration with the Chamber of Commerce of Salerno. In just two editions, this event has become one of the main forums for discussing the future of agri-food systems.

The AgriFood Future event, under the scientific direction of Professor Alex Giordano, in 2024 and 2025, has fostered a series of meetings between businesses, institutions, and trade associations to promote dialogue among technology, communities, and food production, based on the concept of FoodSystem 5.0. A concrete stimulus to ensure that it is not innovations guiding our future, but rather that technological solutions guarantee sustainable development from environmental, social, and economic perspectives.

With the AgriFood Future Award, the goal was to provide further encouragement by rewarding, in collaboration with Image Line, those research works capable of proposing innovations aimed at bridging the gap between scientific production and the needs of the agri-food system. Concrete studies that tackle problems and propose solutions that can be implemented by the industry.

Danesi's work, titled "Exploiting vineyard variability through selective harvesting of a white grape variety," earned third place in the Agriculture category for making an important contribution in identifying targeted interventions capable of improving grape quality, optimizing productivity, and reducing costs and environmental impact.

### **Problems Addressed**

- Variability in grape ripeness and quality within a vineyard.
- Uniform harvesting that does not consider different grape quality characteristics.
- Inefficiency of traditional harvesting, leading to increased costs and waste.
- Impact of climate change on grape ripening.

### **Proposed Solutions**

- Use of vigor maps and satellite images to identify vineyard areas with different ripeness levels.
- Implementation of selective harvesting with advanced grape harvesters.
- Optimization of wine quality through targeted grape selection.

### **Target Companies**

- Wineries and quality wine producers.
- Companies developing grape harvesting machines and precision agriculture solutions.
- Wine consortia and research institutions in viticulture.

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Fonte: <https://www.ruralhack.org/en/precision-viticulture-selective-harvesting/>