



Accademia
di Agricoltura
di Torino

INNOVATIONS FOR THE SUSTAINABLE
VINEYARDS MANAGEMENT IN THE LANGHE,
ROERO AND MONFERRATO UNESCO AREA

Alberto Cugnetto

ROME, 20 February 2025

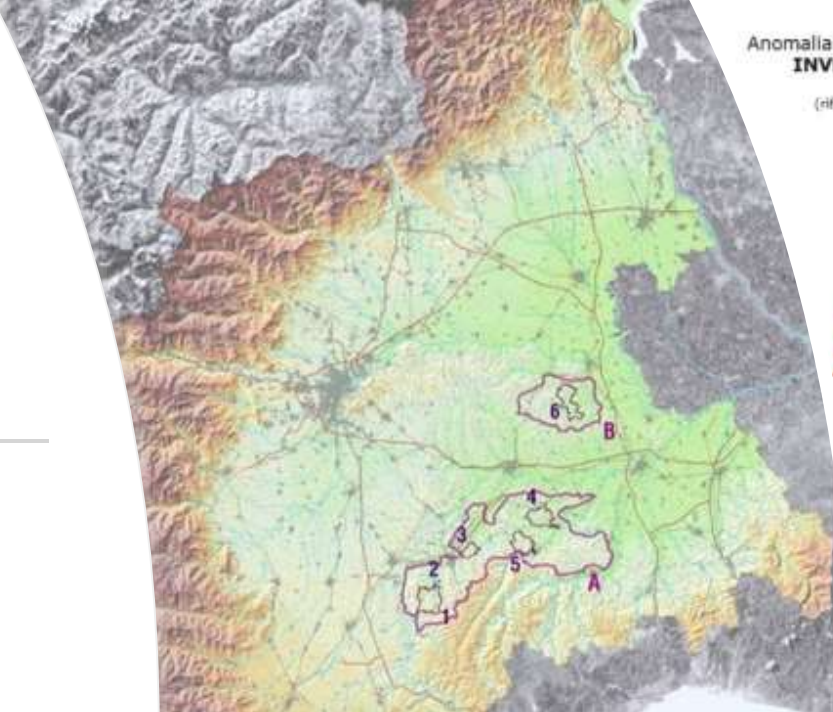


UNESCO LANGHE ROERO AND MOFERRATO

- From 2014
- 10,789 hectares
- 29 municipalities
- larger protected area
101 municipalities.

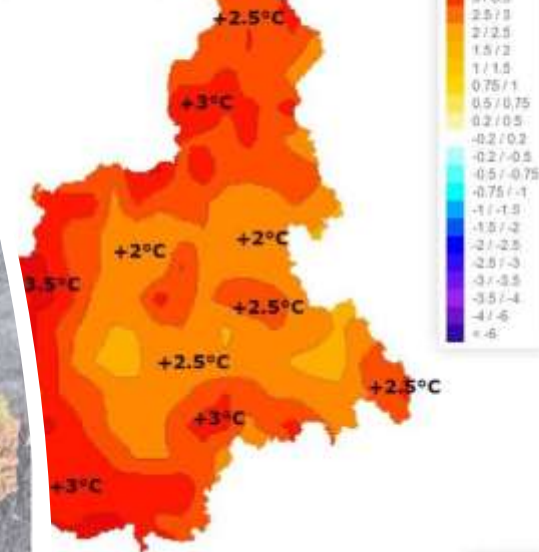
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Areas heavily affected by
climate change



Anomalia di Temperatura media -
INVERNO 2023-2024

(riferimento 1991-2020)





SUSTAINABLE

INNOVATION IN

VITICULTURE

Vision: A systemic transformation that aligns viticulture with environmental and social needs, ensuring long-term prosperity for future generations.

KEY PILLARS

1. Environmental Sustainability -

Efficient resource use (water, soil, biodiversity), reduction of greenhouse gas emissions and pesticides, adoption of regenerative agriculture and precision viticulture.

2. Social Responsibility -

Fair working conditions, support for local communities, supply chain transparency, and preservation of cultural and landscape heritage.

3. Economic Resilience -

Sustainable business models, fair market access, value-added strategies, and





Main Innovation Drivers

Quality research, better varietal
expression.

1980 - ...

Improvement of viticulture
sustainability

1990 - ...

Climate change damages mitigation

2010 - ...

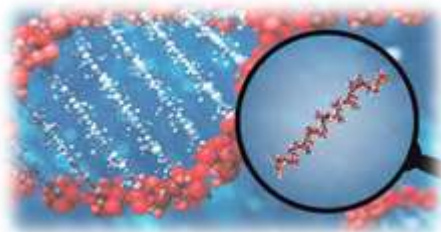


Quality
research
for
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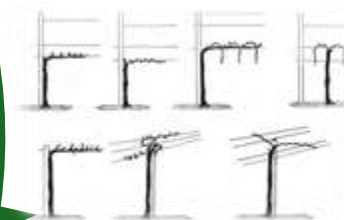
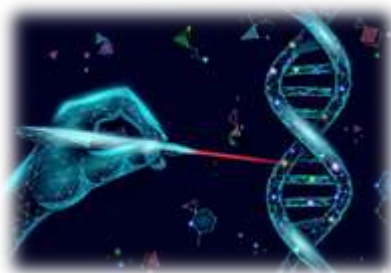
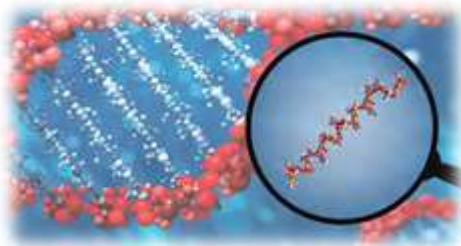


Sustainability improvement





Climate change damages mitigation





Climate Change and Viticulture: Hail

Nets as a tool to control the microclimate of the grape clusters.



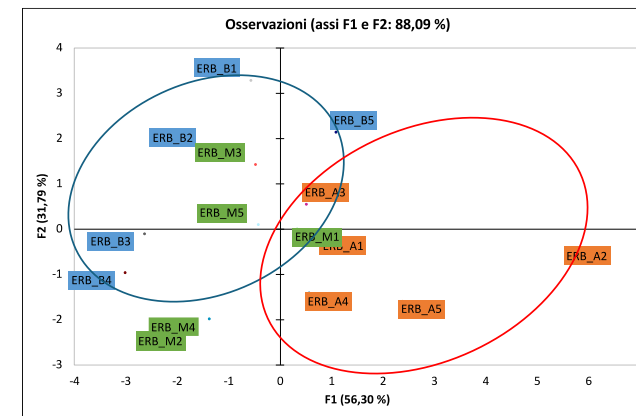
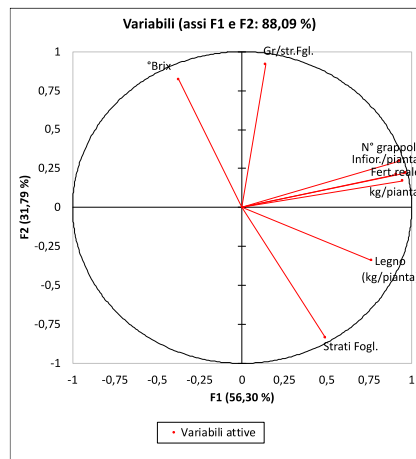
Colored Anti-Hail Nets Modify the Ripening Parameters of Nebbiolo and a Smart NIRS can Predict the Polyphenol Features

[Alberto Cugnetto](#)¹, [Giorgio Masoero](#)¹

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Erbaluce Tenuta Roletto CLASSI NDVI 2021



Sentinel-2 in Erbaluce and Nebbiolo vineyards

Alberto Cugnetto, Giorgio Masoero, Giuseppe Sarasso Enrico Borgogno Mondino

Conclusions

Tradition vs Innovation: Acceptability of these innovations and their diffusion among producers

Are the GI and UNESCO specifications in question a constraint?



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Thanks for
the attention!