

# Special Issue

## Challenges in Current Viticulture: Drought, Heat, and Solar Radiation

### Message from the Guest Editors

The global viticulture sector is facing growing challenges due to the intensifying impacts of climate change. Increasing drought frequency, heat waves, and irregular rainfall patterns are altering vineyard ecosystems and grapevine physiology. Drought may lead to vine water stress which restricts plant water and carbon availability during key phenological stages, reducing vine growth and productivity. Heat stress can alter vine metabolism, berry development, and wine composition by hastening ripening, degrading aromatic and color compounds, and increasing the risk of sunburn damage. Similarly, excess solar radiation can impair photosynthesis, oxidize key grape metabolites, and modify sensory attributes. We kindly invite researchers to submit their manuscripts to this Special Issue, "Challenges in Current Viticulture: Drought, Heat and Solar Radiation." The aim is to gather significant contributions that advance the understanding of how climatic stressors—particularly drought, elevated temperatures, and solar radiation—affect grapevine physiology, vineyard productivity, grape composition, and wine quality.

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### Guest Editors

Dr. Marina Anic  
Dr. Jordi Oliver-Manera  
Dr. Zvezdana Markovic

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### Deadline for manuscript submissions

20 June 2026



# Horticulturae

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### Message from the Editor-in-Chief

Horticultural plants and their products provide sustenance, health, and beauty. A confluence of factors is putting increasing pressure on horticultural production to evolve, and innovative research is addressing these challenges. *Horticulturae* provides a venue to communicate research results in a rapid manner with open access, allowing everyone the opportunity to stay abreast of leading research addressing horticulture. I invite you to consider publishing the results of your research in this high quality, peer-reviewed journal.

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### Editor-in-Chief

Prof. Dr. Luigi De Bellis  
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