

## Special Issue

# Impact of Climate Change on Grapevines, Berries, Wine: Present and Future

### Message from the Guest Editor

Over recent decades, climate change has increasingly impacted agricultural systems, including the wine sector. While its effect on grape and wine quality varies by growing area, major global viticultural regions have seen overly fast grape ripening, causing excessive/rapid sugar accumulation in berries. This trend is mainly driven by rising temperatures and CO<sub>2</sub> levels, which boost plant photosynthesis and fruit carbohydrate accumulation. Overly fast ripening brings excessive sugar, unacceptably low total acidity, high pH, and atypical grape flavors. Also, high grape sugar stresses yeast, inhibiting fermentation (slowing it) and yielding unbalanced wines. High wine ethanol heightens hotness and bitterness, reduces acidity perception, and weakens that of key aroma compounds like higher alcohols, esters, and monoterpenes. Against this backdrop, the current *Horticulturae* Special Issue invites articles on climate change's impacts on grape and wine composition—exploring effects on main metabolites (organic acids, sugars, polyphenols, polysaccharides, minerals, nitrogen, etc.)—and key strategies (vineyards/wineries) to mitigate climate change's effects on grape and wine quality.

### Guest Editor

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### Deadline for manuscript submissions

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## 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

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