



## Techniques for sunburn reduction in bunches in *Vitis vinifera* L. cv. Graciano

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(Centered, Arial 10.5, Lower Case, Full name of authors separated by commas, Presenting author underlined)

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### Abstract (250 words)

Sunburn results from a combination of excessive photosynthetically active radiation (PAR) and UV radiation and temperature that can be exacerbated by other stress factors such as water deficit. Sunburn is a physiological disorder that affects the visual and organoleptic properties of grapes. The appearance of brown and necrotic spots severely affects the commercial value of the fruit, and in extreme cases, significantly decreases yield. This damage occurs with some frequency in sensitive varieties such as Graciano. In order to mitigate these impacts, a shading technique has been proposed using protection nets that try to prevent the bunches from receiving excessive sun exposure. The experience shown in this work has been carried out during the years 2021 and 2022, using nets with shading capacity of 50% and 70%, and in 2023 using nets with 25% and 50% with shading capacity. The results have shown that the nets have significantly reduced the temperature of the bunch, also avoiding damage from sunburn. Besides, the organic acid content of the must has reached slightly higher values in the treatments with netting, compared to the control, but not significantly. In wine, the polyphenolic load has shown a variable behavior depending on the year, possibly conditioned by the variations in yield linked to the sunburn. The tasting panel has shown a certain inclination towards the wines from the net treatments.

**Keywords:** sunburn, shading, Graciano