INTRODUCTION

Bonarda vineyards (Vitis vinifera) L. produce high yields per hectare resulting, under certain agro-ecological conditions, in wines with low levels of phenolic compounds. Therefore, the aim of this study was to evaluate the effect of methyl jasmonate (MeJ) applications on phenolic composition and sensory properties of Bonarda wines.

RESULTS AND CONCLUSION

- All wines presented similar levels of pH, total acidity and alcohol. Foliar treatments (10 and 20 mM) increased phenolic content (anthocyanins, tannins) in wines, showing greater biosynthesis at higher doses. In the case of cluster spraying, the opposite tendency was observed; possibly due to an interaction effect between the applied doses and the high temperatures in the exposed bunches, generating a degradation of some compounds (Fig. 2).

- Sensory analysis revealed a clear influence of the elicitor applications in wines organoleptic characteristics (Fig. 3). T1F and T2F wines were described with higher color intensity, yellow black fruit aromas, and an intense violet hue, whereas a more pronounced fresh fruit and herbaceous-like attributes characterized the control wines.

- In conclusion, the foliar application of MeJ at verasion may induces grapevine phenolic biosynthesis, generating wines with more tannins, anthocyanins and better chromatic characteristics that wines made from control grapes. In addition, this technique is more simple and accessible to the winemaker than the defoliation of plants and application in bunches.

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