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Are aroma precursors a discriminant factor to characterize non-aromatic red grape varieties?

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This work aims at filling a gap in the existing literature focusing on the aromatic potential of minor varieties. This study examined the influence of the isolation method of glycosidic volatile compounds on potential aroma composition. The *Vitis vinifera* varieties selected (Marselan, Arinarnoa, Ancellota, Caladoc, Egiodola and Lacryma Christi) are cultivated in small vineyards in Southern Uruguay. In an attempt to improve the analytical methods for the isolation of the aromatic precursors from these non-aromatic red varieties, an optimized procedure using ENV+ cartridge as an alternative to the traditional method with Amberlite XAD-2 resin is proposed. Arinarnoa was used in order to evaluate the precision and reproducibility of the method, and aroma compounds were analyzed by GC-MS. The method was found to be suitable for the isolation of the lower concentration compounds with good reproducibility. We determined compounds such as C_6-alcohols, norisoprenoids (3-hydroxy-β-damascone, 3-oxo-α-ionol, vomifoliol), volatile phenols (guaiacol, 4-vinyl-guaiacol), and vanillins. The characterization of aromatic potential of several minor varieties revealed that some of these cultivars could represent an excellent option for winemaking and offer diversification strategies, besides being important for the conservation of these cultivars.

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