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Título artículo: Aroma potential assessment in recovered minority red grape varieties by characterization with UHPLC-TOF/MS of intact glycosidic precursors

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RESUMEN: In the context of climate change, there is a growing interest in investigating novel grapevine varieties that may bolster the resilience of current viticultural practices. The analysis of intact glycoside aroma precursors is crucial for understanding the enological potential of grape varieties, as these compounds significantly influence the sensory attributes of wines. This study characterizes the profile of intact glycoside aroma precursors in two recovered minority red grape varieties, Moravia Agria and Tinto Fragoso, cultivated under varying water deficit conditions: deficit (moderate water stress conditions) and survival (severe water stress) irrigation. The analysis was conducted using UHPLC-TOF Mass Spectrometry and compared with Tempranillo grapes as reference. In total, 20 glycosidic compounds were identified in the minor grape varieties, spanning chemical classes such as benzenoids, aliphatic alcohols, monoterpenes, and norisoprenoids. Tempranillo exhibited a higher concentration of glycoside aliphatic alcohols, whereas grapes from the minor varieties subjected to survival water conditions displayed an increased presence of benzenoid glycosides. Findings would underscore the adaptability of Moravia Agria and Tinto Fragoso to semiarid environments and suggest their potential to diversify viticulture in the face of a climate change scenario. Therefore, these varieties could contribute positively to the production of new wines, given their aromatic potential.