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Título artículo: Variability in the Agronomic Behavior of 12 White Grapevine Varieties Grown under Severe Water Stress Conditions in the La Mancha Wine Region

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RESUMEN:

Viticulture around the world is currently affected by climate change, which is causing an increasing scarcity of water resources necessary for the maintenance of vineyards. Despite the drought hardiness of grapevine (*Vitis vinifera* L.), this threat seriously compromises its cultivation in the near future, particularly in wine-growing areas with a semi-arid climate. Identifying varieties capable of producing suitable yields and good-quality grapes under drought conditions is integral to ensuring the sustainability of the wine sector. This study focuses on vines from both minority and widely grown varieties, which were supplied only with the water intended to ensure their survival. The carbon and oxygen isotope ratios, yield, and quality parameters were evaluated on the vines and musts during the period of 2018–2020. The results revealed that not all varieties responded equally well to drought. Albillo Real, Coloraillo, Macabeo, and Verdejo adapted well to drought conditions, simultaneously maintaining high yields and must quality. By contrast, Pedro Ximénez can be considered poorly adapted. This variety was the one that produced the lowest yield and had low acidity levels in the must.

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