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IMPACT OF ANTHROPIC USES ON THE HISTORICAL VINEYARD OF CLOS CRISTAL

Etienne Neethling^{1,a}, Cécile Coulon-Leroy¹, Annouck Morel d'Arleux¹, Léa Martinat² and Hervé Quéno³

¹ESA, USC 1422 INRA-GRAPPE, Ecole Supérieure d'Agricultures, 55 rue Rabelais, 49007 Angers, France

²Alliance Loire, Cave Robert et Marcel, Route des Perrières, 49260 Saint-Cyr en Bourg, France

³CNRS, UMR 6554 LETG, Université Rennes 2, Place du Recteur Henri Le Moal, 35043 Rennes, France

* Corresponding author: E. Neethling, Email: e.neethling@groupe-esa.com

Within the terroir concept, climate is a key environmental component and understanding its role at different scales is essential in framing management practices to better express and promote a wine's local identity. Located in Saumur-Champigny (LIFE-ADVICLIM pilot site), France, the vineyard of Clos Cristal provides specific environmental conditions for vines to grow with its historical walls. In this perspective, this study aims to characterize and quantify the interaction between temperature variations and grapevine responses across different spatial and temporal scales. Firstly, with its 1 500 hectares of vineyards, Saumur-Champigny is considered to have many local climates as a result of its complex topography and landscape elements such as the Loire river. A network of temperature data loggers was installed in 2013, and temperature variations and grapevine behaviour were recorded over several growing seasons. Secondly, situated in Saumur-Champigny, the Clos Cristal vineyard offers a strong pattern of microclimates due to its unique anthropic architecture. In 2018, temperature data loggers were also installed in this vineyard. Study results show strong temperature variabilities both over space and in time, which are reflected on grapevine performance and berry composition. The study concludes on the implications of these findings for adapting viticulture to climate change.