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### **Physiological and qualitative consequences of curettage on grapevine grape berry and young wine of Sauvignon variety from the Bordeaux region.**

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Esca, one of the most devastating grapevine trunk diseases, has increased in incidence worldwide over the past decade. Currently, there are no chemical products registered for Esca, as sodium arsenite was banned in 2001 in France and in 2003 in Europe. As a non-chemical therapeutic treatment, curettage has been adopted by growers, but published studies evaluating its efficacy are rare. Curettage consists of physical removal of the white-rotted wood (i.e., amadou), caused by Basidiomycete wood-rotting fungi associated with Esca. It is thought to preserve the healthy part of the vine from being contaminated by these fungi. The aim of this study was thus to examine the influence of curettage on vine growth, nutrient content, and fruit and wine quality. This work presents a synthesis of 3-year experiment of Sauvignon vines curretted in 2014 in a plot in Bordeaux. There were three treatments: (i) untreated, asymptomatic vines, (ii) untreated vines with leaf symptoms (control), and (iii) treated vines (in 2014) with no leaf symptoms following treatment. For each treatment, fertility and growth, chemical composition of the fruit and wine, and sensory quality of the wine were evaluated. Our results showed that in comparison with control vines, treated vines had lower vigor and fertility, but there was no effect of treatment on fruit quality. Wine made with fruit from treated vines was not different from that of control vines in terms of aromatic markers. Wine made with fruit from control vines was less appreciated by a sensory panel, and was characterized by a decrease in aromatic markers and an increase in oxidative markers. Our findings suggest that curettage may minimize the impact of Esca on wine quality, albeit after 3 years. As such, curettage can be considered effective for management of Esca in the short term.