

# Effectiveness of fibers from "cabernet sauvignon" (*vitis vinifera*) pomace as fining agents for red wines

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Recent findings have highlighted the potential of fibers from grape cell wall material to be fining agents for red wines as alternatives to animal-derived proteins. The affinity of those fibers for grape proanthocyanidins (also known as condensed tannins) seems to depend on the initial phenolic composition of the wines to be fined and on the applied dose of fibers. In the present work, "Cabernet Sauvignon" grapes were harvested at three different maturity levels and used for making red wine. The pomaces of the three vinifications were used to obtain the cell wall fibers. Each wine was treated with the three purified fibers at two different doses (0.2 g/L and 2.5 g/L) under winery-like conditions in order to check the potential of fibers as fining agents. Color and phenolic composition of the treated wines were determined immediately after the treatments and after four and nine months of wine bottle ageing. The effectiveness of the fining strongly depends on the initial wine matrix. Wines treated at high doses had lower color density and higher hue than control untreated wines. Small differences were observed in the phenolic content of the treated wines. Those differences were dose dependent and almost disappeared after several months of ageing. The maturity of the grapes from which the fibers came had no influence on the effectiveness of the fining. Additionally, there was no evidence of polysaccharide release from the fibers to the wine. © 2018 Mariona Gil et al.