

Pinking of White Wines

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Abstract

In the late 1960s, a phenomenon was discovered in white wines. It was noted that certain white wines turned pink in the bottle. This phenomenon was dubbed as pinking. Research was done on the pinking to establish its cause and effect. Analysis of SO₂, pH and polyvinyl polypyrrolidone (PVPP) showed that a minimum of 45 mg/L of SO₂ were needed for the wine not to be susceptible to pinking. Tests on the decrease in pH showed that there was no increase in pink colour with a decrease in pH, which meant that monomeric anthocyanins were not the cause of pinking. Recent research claims that malvidin-3-O-glucoside is the most abundant monomeric anthocyanin found in pinked wines and could be the cause of pinking. This led to the theory that phenols contribute to pinking susceptibility, and this was accepted as fact in recent years. The establishment of a pinking assay in 1977 made the testing for pinking easier and cheaper for winemakers. The sales of PVPP increased as winemakers worked preventatively with their wine to decrease susceptibility to pinking.

Researching pinking susceptibility in the wine cellar is a challenge as the wine might not show pinking susceptibility year on year. In this investigative study different vitivinicultural practices have been researched to establish which practice led to pinking susceptibility in Sauvignon blanc wines. The practices that stood out, and which winemakers and viticulturists can take note of, include harvesting and growing temperatures, ripeness levels and skin contact time. The study showed that higher ripeness levels coupled with lower harvest temperatures and longer skin contact time may increase the wine's pinking susceptibility. The study also looked at different fining agents and the stages of application and found that fining agents with PVPP, ascorbic acid, gelatine and patatin will have the best effect in minimizing pinking. The anecdotal procedure for leaving wine in direct sunlight was also tested and it was found that the prescribed 15 minutes was not enough and that 60 minutes will have a better effect, but with a loss of colour.