

SOLUTION FOUND FOR CORK LOVERS

For 300 years corks have been used to seal wine. Considering the technical advances that have occurred in the interim, it's surprising that cork is still the number one way of sealing wine bottles. In recent decades dissatisfaction with the unacceptably high rate of cork faults - most notably musty taint and premature oxidation - has grown to a level that some are now questioning whether natural cork has a future as a closure. Consequently, attention has turned to screwcaps and synthetic corks as alternatives. However, these are not without their own problems, and as yet no single alternative closure has been able to match the versatile sealing characteristics of a good cork. And until now, none of the technical and quality control advances made by cork companies have been able to guarantee that what they supply to winemakers will be free of



taint and of a uniform standard.

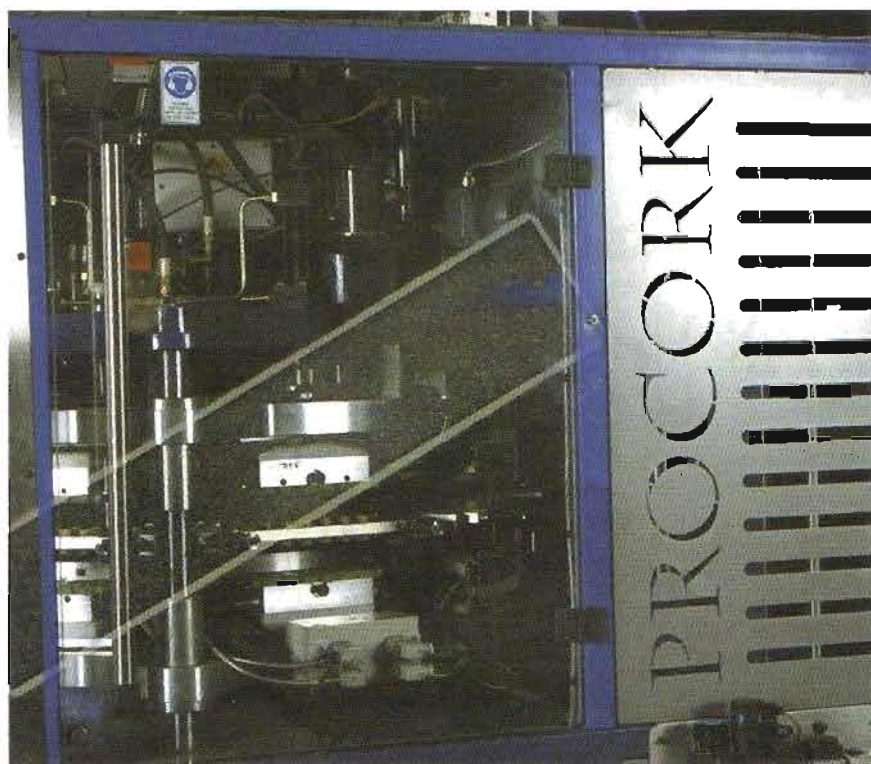
Now, though, there is a solution for those who want to use natural cork but demand a higher level of performance. ProCork is an exciting new solution to the problem of cork taint and variability that is rapidly gaining market share in Australia, and is now expanding to Europe. It's a membrane-based technology that involves the application of a thin, transparent five-layer membrane to the ends of natural or technical corks, which then acts

as a barrier to TCA transmission from the cork to the wine. This membrane also prevents the cork 'scalping' volatile components from the wine, and acts as a partial oxygen barrier, thus removing

the risk of premature oxidation which can be caused by inconsistencies in the mechanical properties of corks. In Australia production is currently at a level of 50 million per year, which is roughly one fifth of that of screwcaps. This level of endorsement by producers is particularly impressive given that ProCork has only been in the market for 10 months, and the ready acceptance of screwcaps by Australian producers and consumers.

The membrane is attached to the ends of the cork by means of a heat treatment. The result is an extremely robust adhesion and so far no problems have been encountered with the membrane detaching during the insertion process. In tests using heavily TCA contaminated corks sealed with ProCork, none of the wines show TCA at above-perception threshold levels (2 ng/litre).

Besides its performance in combating cork taint and oxidation, one of the advantages of ProCork is that it is virtually undetectable by consumers, and thus is suitable for more conservative markets where there is a degree of resistance to cork alternatives. The only visible difference between a ProCork-treated and untreated cork is that the former has a slightly shiny



appearance. No consumer re-education is therefore needed by winemakers who choose to adopt this closure solution.

It is now clear that the oxygen transmission characteristics of wine closures are key to their performance. While it was once thought that the ideal closure was a hermetic seal that acted as a total barrier to any gas transfer, the results from several recent trials have shown that super-tight seals such as those provided by tin-lined screwcaps often result in problems with sulfur-like odours - known as 'reduction' - that develop in an absence of any oxygen ingress. On the other hand, synthetic corks, with their higher oxygen transmission characteristics, fail to protect the wine sufficiently and the result is early oxidation within a few years. Natural corks are slightly more variable in their performance, but on average lie somewhere between these extremes. Research has shown that ProCork-treated closures seal a little more tightly than the average natural cork, but allow enough oxygen transmission that reduction problems have not been encountered in trials. It sits at the balance point between oxidation and reduction that permits successful wine ageing.

Australian winemaker Matthew Barry, who owns Victorian winery Mount Avoca, was the first winemaker to commercially release wine using ProCork in 2003. His decision to look for an alternative which provided the proven aging qualities of natural cork, without the side affects, ended with ProCork. He has been able to reduce packaging costs and has reported increasing customer satisfaction as well as an increase in show results in the highly competitive Australian wine show system. "Cork has a long history and despite its drawbacks is a proven product for wines which benefit from long term cellaring," says Barry. "ProCork simply removes the drawbacks, leaving everything about cork that has captivated wine lovers for centuries."

In order to take this success to a global market ProCork has now set its sights on France and Italy and is now transforming into a European company under the guidance of newly-appointed Chairman David MacInnes. MacInnes, who was born in Scotland, cut his teeth with ICI in the UK before setting up major plants for ICI/Zeneca in both South America and China.

He now hopes to establish similar production facilities with the same success with ProCork. "Already we are building machines for Europe and we are



Mount Avoca winemaker Matthew Barry and ProCork founder and Chief Executive Officer Gregor Christie



ProCork Chairman David MacInnes

actively recruiting European staff. Portugal is the most likely place for us to set up production although machinery is likely to be built in Cambridge as well as Italy," he said.

"The use of the membrane on cork appeals to me because cork is a natural sustainable product and is backed by solid scientific research," says MacInnes. "The

membrane has been independently tested by organisations such as Australian Wine Research Institute (AWRI) and has been shown to optimise the aging of wine, and that is ultimately why it is will be just as successful in Europe as it is in Australia."

For further information visit the ProCork website at www.procork.com.