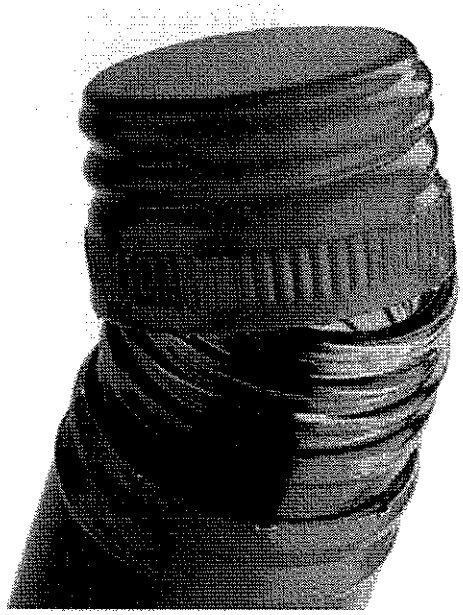

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Opening a can of worms: bottles under screwcap may contain more than you bargained for

CLOSURES | SCREWCAPS

The twist of the screwcap

Say what you like about screwcaps, but they combat the risk of a faulty wine, don't they? Er, no actually, says PAUL WHITE

A FEW WEEKS ago I ordered a bottle of wine at a smart restaurant in Wellington in New Zealand. The sommelier snapped off the screwcap, filled our glasses, set the bottle down and left without another word. Later I queried why we hadn't been offered the opportunity to try the wine. His response was that any wine sealed under screwcap had to be in perfect condition, so there was no need to seek our approval.

The bottle, in fact, drank very well. Yet a couple of days earlier I had opened a bottle of Amisfield Riesling 2003, sealed under screwcap, which was hopelessly oxidised. Although screwcapped wines can claim to be free of cork-derived TCA, they can't yet claim to be free of all faults.

During the launch of the New Zealand Screwcap Initiative in September 2001, we were told screwcaps had completely eliminated the risk of oxidation as well as TCA. When I noted the anaerobic nature of screwcaps and questioned whether this could create reduction issues, we were told this was a manageable teething problem and would be overcome in time. It hasn't.

During a blind tasting of NZ Gewurztraminers in late 2002, we discovered serious faults in four out of eight screwcapped wines. Two were reduced, another showed an undefinable, quasi-reduced grubbiness, and the fourth was oxidised. Compared to the 3–10% (often quoted but rarely quantified) cork taint rate, this 50% failure rate was shocking.

Then, in November 2003, I judged at the Australian Alternative Varietals Wine Show in Milawa. I recorded the reasons why my fellow judges had tossed out faulty wines and, after the show, cross-referenced these to closure types. Of the 33 Pinot Gris sampled, 18 were in stelvin, and six were faulty. Three of these had closure-related faults: oxidation and reduction, with a 16% failure rate. Other classes I judged, of admittedly smaller samplings, showed a failure rate of up to 50%.

Faulty levels of oxidation and reduction are just as unacceptable as corkiness. Let's be clear here, a little funkiness can be a good thing. But there comes a point where reduction turns into a permanent aroma and flavour with sulphurous characters akin to struck flint, burned match, rubber, cabbage, or rotten eggs.

The reductive process is caused by hydrogen sulphide formed by yeast in the absence of oxygen during fermentation. Normally, H_2S will bond with any oxygen available after fermentation, and break down into something less smelly. However, in oxygen-free environments, H_2S bonds instead with alternative molecules in the wine, ending up permanently bound into its flavours.

Clinical research by the Australian Wine Research Institute suggests a strong possibility of reduction problems in screwcaps. A study of Semillons bottled with various enclosures tested at 18 and 36 months rated screwcapped wine significantly higher in a reduced or rubbery character than all other enclosures, including natural corks. A second study randomly picked Rieslings off retail shelves – and found 25% of screwcaps showed reduced characters.

Institute tasters concluded that after a period in the bottle, some commercial wines can develop this aroma, and it seems most common in wines under screwcap. This suggests screwcaps' air tightness may be a primary factor in the emergence of reduced characters.

The reasons for oxidation in screwcapped wines are less clear. Leakage after transport and quality control at filling are both possibilities. But the fact is that both oxidation and reduction are showing up in screwcapped wines. The shame is that consumers have been lulled into believing screwcaps can't be faulty. But whereas they have no hesitation in returning corked wine, it's much more difficult to do this with screwcaps.

Paul White is a wine writer from Oregon, and a former captain of Oxford University's blind tasting team