

Title: ' **Cork defenders: Put a screw cap in it** '

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Cork is enjoying a renaissance, as at least one expert says cork taint has been reduced to 1 per cent of wines sold in the U.S. That's still too much, especially when there's an option that does the job without the damage

As a fan of screw-cap seals for wine, it pains me to report that cork, like Whitney Houston and high-waist trousers, is threatening a comeback.

Some avid wine drinkers know – and too many do not – that cork is highly susceptible to a foul-smelling but otherwise harmless defect commonly known as cork taint. Officially called 2,4,6-trichloroanisole, it is not to be confused with those little particles falling into the bottle as you wrestle with a dried-out cork. TCA is a specific chemical fault and it smells, depending on whom you consult, like mouldy cardboard, damp newspapers, sweaty socks or my neighbour's unwashed dog in the rain.

Cork taint forms when a mould that randomly grows on the bark of cork oak trees (that's what cork is) comes in contact with chlorine. Usually this happens during the bleaching or washing process, but sometimes just from contact with chlorine in the air or rainwater.

The problem is shockingly pervasive. Most experts agree that at least 5 per cent of cork-sealed wines over the past decade have been tainted with TCA. (There is no central agency that collects international data on cork taint.)

TCA is the main reason screw caps began popping up on wine-store shelves during the past decade. In some regions cork holds roughly two-thirds of the market compared with about 95 per cent three decades ago, when the source of cork taint was first identified.

But will the tide turn against the screw cap? I fear so. Cork suddenly seems to be getting renewed validation in the wine-trade press, and not just by people with ties to the paleolithic and tightly concentrated cork industry, either.

The U.S. publication Wine Business Monthly recently published a survey of 229 American wineries rating cork the best seal based on a number of factors, including consumer perception as well as performance on the bottling line. Also this summer, Decanter magazine reported that a New Zealand brand, Nobile, had elbowed out U.S. giant Kendall-Jackson as the top-selling sauvignon blanc in the United States. This occurred after Nobile decided to switch from its long-established screw cap to a cork seal.

And this was the big news for me: One respected enologist recently published a trade article saying that TCA is "no longer a major problem for the American wine industry." I had to call him.

Christian Butzke, an enology professor at Purdue University in Indiana and formerly with the University of California at Davis, one of the world's leading wine schools, is also chief judge of the Indy International Wine Competition. It's not exactly the Academy Awards of wine, but the Indy competition does get 2,200 commercial wine entries. So it affords Prof. Butzke the chance to study cork-taint frequency on a large scale. His conclusion, based on the past two years' worth of entries, is that less than 1 per cent of wines on U.S. shelves are noticeably corked.

That would be progress. TCA is one of the most pungent substances on the planet. Some humans can detect it down to two parts per trillion. Not million, trillion. A tablespoon of pure TCA could contaminate all the wine produced in North America in a year. One glass-full could spoil all the wine in the world.

Prof. Butzke said the industry has made big strides both in reducing the cork's exposure to chlorine in the first place and in harnessing new technologies to extract TCA from already-infected cork. "That does not mean that the problem has completely disappeared," he said. "But at under 1 per cent it really becomes irrelevant."

Others aren't so sure about Prof. Butzke's sanguine figure, though. George Soleas, senior vice-president of logistics and quality assurance at the Liquor Control Board of Ontario, applauds efforts to reduce taint and agrees incidence has dropped substantially, but he's not buying the "insignificant" claim.

In 2001, Dr. Soleas mounted a study of 2,600 wines based on objective laboratory testing (not human sensory evaluation by wine judges, as in the Indy competition). He found that 5 to 6 per cent of traditional natural corks were tainted with TCA, in line with estimates. That's more than one bottle in every two cases.

Products with a newer, cheaper form of cork known as a twin disk, featuring two natural cork disks at both ends and a middle composed of pulverized and reconstituted cork remnants glued together, showed an even higher TCA rate of 7 to 8 per cent. It gets worse from there. Almost 30 per cent of wines with so-called agglomerated corks made entirely from reconstituted fragments were contaminated. "Those were the biggest offenders by far," Dr. Soleas said.

The LCBO lab continues to test regularly for TCA, and Dr. Soleas estimates that the 2001 numbers have likely dropped by 30 to 40 per cent. That's good, but hardly as rosy as Prof. Butzke believes it to be.

And still, even at a human detection rate of 1 per cent, cork taint is, in my opinion, a big problem. This is because TCA does its dirty work even when you can't perceive it's there.

At "subrecognition" levels, there's no telltale musty smell. But even low concentrations of less than five parts per trillion will greatly diminish the fruitiness of a wine. It's sort of like forgetting to remove your sunglasses at the opera and hating the performance because the stage lighting was too dim.

I'd argue that subrecognition TCA is the most insidious problem of all. I taste many wines repeatedly in my job, and I often suspect that a wine is corked even when it's not musty because it lacks the fruit I know it should have. An absence of fruit is TCA's smoking gun. But how does one argue with a sommelier that a bottle's corked when it doesn't directly smell or taste corked?

Problems with corks by no means end at TCA, either. Cork, a natural substance, is hugely variable. If you randomly pull two wine bottles from the shelf, there's a chance that the cork in one bottle will be 1,000 times more porous to air than the cork in another bottle. Even if you believe that air is necessary for wine to age gracefully (a quaint old notion contested by new research), it's more likely that your cork will let in too much air than just enough.

Yes, some experts argue that screw caps have their flaws, too. Dr. Soleas, who is a fan of screw caps, notes that they are an "external closure" and thus are vulnerable to denting, which can break the airtight seal. Also, screw caps are so impermeable to air that they can lead to another problem, known as "reduction." Some wines that have been starved of oxygen during production can develop a stinky, rotten-egg smell – the result of bacterial breakdown of sulfites and the formation of hydrogen sulphide. But it's not as bad as it sounds in most cases, and unlike TCA, hydrogen sulphide is highly volatile and blows off in the glass with exposure to air.

Me, I'll take a handful of rotten eggs over a mountain of sweaty socks any day.