New techniques to make wines less alcoholic

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As wines get more and more potent and wine drinkers more and more assailed by these rising alcohol levels, new techniques for removing the alcohol from finished wines are coming out of the woodwork, I'm delighted to say – at least two from France and one from Australia (where the Wine Research Institute reports that mean alcohol levels of all wines analysed rose from 12.4 per cent in 1984 to 14.2 in 2002 – a cool year!).

Of course winemakers can and do always add water, as has been discussed here several times, but this inevitably changes the constitution of the wine. There is also current work on producing yeasts designed to produce less alcohol, but this will require genetic modification. The aim of these new technologies is to reduce the alcohol level without changing the flavour or indeed any other characteristics, without using chemicals or expensive technologies. Some of them used today, such as the so-called spinning cone and reverse osmosis, require either impossibly high capital investment by an individual winery or that the wine be moved to another site to be processed which itself is far from ideal.

Michel Rolland, no less, is involved in the development of some alcohol-reducing technology in Bordeaux, as yet to be launched as far as I know. Now here's another scheme from Bordeaux. Reports earlier this week (see The Guardian online) tell of a French company Lir who have developed a technology to transform wines of any sort into a drink of only six per cent alcohol rather than wine's usually 13-plus. Because EU law requires 'wine' to have at least eight per cent alcohol, they have to find a new name for this grape-based product and are calling it Lir. (Not sure they have tested this in anglophone markets…)

But a new Australian technique sounds rather different. Memstar AA harnesses reverse osmosis and something called evaporative perstraction, not to create a completely different sort of drink but to find what its proponents call the alcoholic 'sweet spot' of individual wines. You can find a good article about this and the work done on it already by Clark Smith of Vinovations in California who practises reverse osmosis to reduce the alcohol in many a wine there here.

They claim that many winemakers today are beginning to have their doubts about today's elevated alcohol levels. "Many high alcohol wines seem heavy and lack fruit flavour and freshness. At the extreme they are dull and jammy and seem to age prematurely" argues David Wollan of Memstar who claims further that this technology, practised initially on Pirramimma in McLaren Vale, for example, has demonstrated that individual wines tend to have an 'ideal' alcoholic strength at which they show best. Finding this 'sweet spot', he claims (which by a happy coincidence is eminently achievable via his technology) is akin to tuning a radio. This technology, which is movable from winery to winery like a mobile bottling line, is not about making a low alcohol wine, just one that tastes balanced and is comfortable to drink.

You can download his complete paper and revel in the detail of evaporative perstraction here. They apparently already have two units in Australia and one going in to Chile.

Doubtless there are and will be many other technologies to answer this current crying need, but even Wollan admits that the ideal answer probably lies in much more radical work in the vineyard.