



Yeasts, and how they flavour your wine

Yeast strain	Used on	What the yeast does	Effect in the glass
Lalvin 71B, Zymaflore X16	<i>Nouveau</i> wine	Increases production of isoamyl acetate	Increases fermentation esters, especially banana
Zymaflore VL3, X5	Sauvignon Blanc	Increases release of thiol compounds	Enhances exotic fruits
Zymaflore VL1	Gewurztraminer	Beta-glucosidase releases terpenes	Increases aromatics
Rhône 4600	Viognier and rosé	Increases fatty acid esters	Increases aromatics, especially pineapple and apricot
Zymaflore RB2, Lalvin RC212, RA17	Pinot Noir	Increases cherry aromas and spice	Increases varietal aroma
Lalvin CY3079	Chardonnay	Releases more polysaccharides during autolysis	Increases hazelnuts and brioche, and mouthfeel
Enoferm Syrah	Syrah	Increases glycerol	Increases body and mouthfeel
Zymaflore VL2	Barrique-aged wines	Increases transformation of wood extract into volatile compounds	Enhances wood effect
Uvaferm SVG	Sauvignon Blanc	Metabolises 25% of malic acid	Reduces acidity
Enoferm CSM	Cabernet Sauvignon	Reduces pyrazine quantity or perception	Reduces herbaceous character
Lalvin ICV-D21	High-alcohol wines	Makes polysaccharides that absorb volatile compounds	Reduces cooked aromas

don't have to convert all the sugar into alcohol – some could be diverted. But here's the rub – the carbon atoms have to go somewhere. One recently developed yeast strain makes as much as 1.5% less alcohol: but it makes more glycerol and lots more ethyl acetate (nail polish remover). It's not easy to find alternative targets to alcohol that don't radically change the flavour and aroma spectrum of the wine. 'That's what yeasts do – create alcohol. If you change that, you change the whole story,' says Charlotte Gourraud at yeast producer Laffort. Yeast is best for making adjustments to minor components rather than looking for major shifts. I would be surprised if a low-alcohol yeast could be found without a profound homogenising effect.

Preserving diversity

A potential homogenising effect on flavour is one major argument against using cultured yeasts. 'The idea that cultured yeast will homogenise flavours is simplistic. It's putting all the onus of flavour creation on the yeast as opposed to the grapes and the talent of the winemaker,' says Dumont. 'There are about 200 strains, which leaves good opportunities for biodiversity,' says Charlotte Gourraud.

How far can yeast influence the flavour of wine? 'You can tailor your product to reach your customer by identifying consumer preferences, the effect that a choice has on a customer, and its genetic composition,' says researcher Linda Bisson at the University of California. 'Once we've identified the flavour compounds, we can manipulate the taste. We derive flavours from the yeast, not the grapes.'

'You can achieve almost any taste through these aromatic yeasts,' agrees biodynamic guru Nicolas Joly, but as the most vociferous opponent of using cultured yeasts, he draws a different conclusion.



His basic criticism is that 're-yeasting', as he calls it, obliterates local character and vintage variation. 'Re-yeasting is the consequence of a series of mistakes. It means you have destroyed your local yeasts,' he says. Admitting that cultured yeasts can be used to make good wine (albeit lacking typicity of place and year), Nicolas believes that consumers should be informed. 'Using yeast is okay as long as the consumer is not cheated. The label should say that cultured yeasts were used to give flavour.'

The alchemist tried to turn base metal into gold. Yeast does something more interesting: it turns grape juice into wine. The winemaker can use the alchemy of yeast to direct development of style, or can take the alternative view that natural variation from indigenous yeast is an essential part of wine's character. There are no half measures here – if you use cultured yeast, you have to choose a specific strain(s), and even an attempt to be neutral (what is neutral, anyway?) is a choice. Using indigenous yeasts lets nature choose. The decision is one of the most crucial that influences wine style. **D**

'Using different yeasts is a way of building complexity. I may use one for mouth-building properties and another for aromatics'

Christopher Christensen (pictured left), Bodkin Wines

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