

Selection of yeast strains for optimal fermentation of Queensland Verdelho wines

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Verdelho is a variety for which Queensland is becoming well known. The objective of this pilot project was to trial commercially available yeasts for optimal development of regional character of Queensland Verdelho wines. Three commonly used white wine yeasts (EC1118 and QA23 from Lallemand, VL3 from Laffort Oenologie), two new hybrids (AWRI 1502 and AWRI 1503 from Mauri Yeast Australia) and a co-inoculation (VIN13 and NT116 from Anchor Yeast) were used to prepare small experimental batches of wine from Granite Belt Verdelho grapes. At the end of fermentation, most strains resulted in residual sugar of 3 to 4.5 g/L although VL3 and AWRI 1503 seemed to become stuck at significantly higher levels (17.8 and 12.9 g/L respectively). This led to production of around 0.6% less ethanol and seems to reflect problems with fructose assimilation, as most of the residual sugar was fructose. Whether this is related to the small fermentation volumes remains to be determined. When the wines were presented to winemakers and judges for sensory evaluation, feedback on all wines was positive. The scores from the 20 point scoring system were statistically similar. Wines were evaluated at bottling and 6 months later, and seem to have improved with some time in bottle. While some sensory differences were noted, the standard show judging criteria used for evaluation did not help to differentiate the wines. Further trials will be undertaken with larger ferment volumes, enabling sufficient wine to be produced for trained panel sensory evaluation for further discrimination of sensory profiles.

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