

Techniques to achieve moderate alcohol levels in South African wine

Cape Wine Masters Seminar

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EXECUTIVE SUMMARY

Alcohol content of unfortified wines is increasing worldwide.

Growing criticism of high alcohol wines raises the question of how to achieve moderate alcohol levels. This CWM dissertation documents the trend to higher alcohol levels in wine, the reasons for this trend, and outlines techniques, decisions and interventions that can help to achieve moderate alcohol in wine production. The focus is South Africa, but most of the material is relevant for winemaking around the world.

The groundwork for attaining moderate alcohol levels begins in the vineyard, with the choice of site and establishment of the vineyard.

Subsequent viticultural practices are also important, including canopy management to ensure even ripening, limiting routine bunch thinning and bud removal, more careful harvest timing, and management of virus infection, application of water, and methoxypyrazines.

Further options are available in the winery. Sugar concentration in the must can be reduced by application of glucose oxidase enzyme, membrane treatments, or addition of water.

During fermentation, the choice of less efficient yeasts, higher fermentation temperature, allowing some evaporative losses, and retaining some residual sugar can all assist. After fermentation, alcohol removal or extended barrel maturation can be employed to help achieve moderate alcohol levels.

In isolation most of these winemaking and viticultural techniques have only a small effect on final alcohol levels, but multiple approaches can be combined for significant overall impact.

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