

## Glucose and Fructose for the prediction of final alcohol concentration



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Also known as the "fermentable sugars", glucose and fructose are the two **main sugars utilised by the yeast** during fermentation. This analysis is often requested at the end of fermentation to investigate or remedy stuck or sluggish fermentations.

However, this is not the only time that these results may be beneficial for the winery during harvest season. Compared to °Balling, the analysis of **glucose and fructose can provide a better estimate of potential alcohol** concentration after fermentation. That is because °Balling is only an approximation of the amount of dissolved sugars and not an accurate indication of the amount of fermentable sugars. Other than that, at high °Balling or fruit that has been affected by fungal growth, the error in prediction is even more pronounced.

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°Balling is measured as a % by weight and greatly influenced by the density of the juice. On the other hand, glucose and fructose is measured as weight by volume and is independent of juice density, therefore, it is not uncommon for the sum of the glucose and fructose content to not coincide with °Balling.

Sucrose is not included in the analysis of glucose and fructose. If any sucrose was added during the winemaking process (for example secondary fermentation of MCC), the inversion of the sample should be done. This is the process by which sucrose is broken apart into glucose and fructose.

**Sampling tip:** Take care to not have juice samples start fermenting in the time between sample preparation and delivering to Vinlab as the glucose and fructose results will not be representative of the original sample.

