AWRI COMMERCIAL SERVICES
OUR KNOWLEDGE, YOUR RESOURCE

The Australian Wine Research Institute

New calculator for conversion of dissolved oxygen (DO) to total package oxygen (TPO)

What is it?

The AWRI has developed a new method for estimating the total package oxygen (TPO) in wine using just a dissolved oxygen reading. Currently, most wineries and bottling facilities monitor oxygen uptake at bottling as the dissolved oxygen (DO) only in the wine, although approximately 70% of the oxygen in the bottle is present in the headspace. Our new method allows the total package oxygen – oxygen present both in the wine and the headspace – to be estimated just by measuring the DO. This allows a greater understanding of how much oxygen in present in the bottled product.

The new TPO calculator available from AWRI Commercial Services allows users to convert a DO reading into an indicative TPO value for the bottled wine. The fill height, wine colour, wine temperature and bottle style also influence the TPO and are required inputs in the calculator.

Why is it important?

Most bottling facilities measure the DO of a wine before and after bottling, and this can be used for important winemaking decisions, such as adjusting free and total sulfur or ascorbic acid, as well as controlling the performance of production processes. However, the DO measurement misses approximately 70% of the oxygen in the bottle which is present in the headspace. This can lead to lower addition rates of these preservatives, and in turn to a shorter than expected shelf-life for a product.

What does the calculator cost?

The once-off cost is $250 and an annual subscription fee is $100.

Prices are ex GST and a $25 Sample Handling fee applies to each invoice.

Where can I find out more?

For further information on the AWRI's TPO calculator please contact us:

Commercial Services

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