

J. Lohr Winery Manages Dissolved Oxygen

YSI Dissolved Oxygen Meters Ensure Quality



a xylem brand

YSI Food & Beverage Winery
Application Note A522-02



Oxygen can be extremely unfriendly to wine. Although it is a necessary component in the wine aging process, it can also be detrimental to overall wine quality. J. Lohr Winery in San Jose, California, consistently tries to minimize the amount of oxygen exposure to their premium wines in controllable locations and times during the winemaking process. Too much

oxygen can cause browning to white wines and flavor degradation in both red and white wines.

Using YSI handheld dissolved oxygen and temperature instruments, the laboratory staff at J. Lohr can readily check the stainless steel storage tanks as well as the oak barrels to determine the amount of oxygen introduction when the wine is moved from one location to another through pumps and hoses. Preventative measures can be taken if the oxygen introduction exceeds a set limit. Fittings on tank valves, hoses, and pumps can be checked as potential sources of the oxygen introduction. Sparging the receiving vessel with nitrogen can greatly diminish the amount of oxygen introduction when the wine is transferred.

In addition, the YSI 5100 bench top dissolved oxygen and temperature instrument is used to determine the dissolved oxygen amounts in the wine once it is bottled. Measuring the oxygen after bottling ensures minimal oxygen introduction from the bottling tank to a 54-valve filler. Connected to the 5100 is the YSI 5010-W wine bottle probe. The probe is made specifically to fit directly into the neck of a wine bottle with a 6-inch probe and tapered to sit atop the bottle. The probe also has a self-powered stirrer attached to the submersible end to ensure a good flow of wine past the membrane within the small confines of the bottle.



Method of Research

First, a dissolved oxygen baseline value is determined from the bottling tank using the handheld DO meters. Bottles are then pulled from the bottling line after the corker and checked immediately in the laboratory using the YSI lab DO meter and 5010-W probe. The results are used as a good Quality Assurance/Quality Control tool. If too much oxygen has been picked up, or introduced, measures are quickly taken to rectify the problem. The oxygen levels can be checked at various points in the bottling process, such as filler bowl seals and filler spouts, and problems can then be identified and corrected.

YSI 5100 and 5010-W Measure Dissolved Oxygen Directly in the Wine Bottle

This type of careful inspection allows J. Lohr Winery to continually produce high-quality wines. Today the J. Lohr products are available throughout the United States and in more than 25 countries worldwide. The goal of J. Lohr brands is to produce varietals that can compete with the finest in the world, using a style that focuses on flavor and complexity through vineyard selection, technology and innovation. This goal has led Jerry Lohr, President and Owner, and his team to develop three tiers of wines produced from estate vineyards: J. Lohr Cuvée Series, J. Lohr Vineyard Series, and J. Lohr Estates. In addition, J. Lohr Winery produces three tiers of wines to meet the needs of everyday and entry-level wine consumption: Crosspoint Vineyards, Cypress, and Painter Bridge.

For additional information regarding the J. Lohr Winery, please visit: jlohr.com

For additional information regarding the measurement of DO at the J. Lohr Winery, please contact: Susan Kanzaki Lab Supervisor, J. Lohr Winery | SKanzaki@jlohr.com

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