



craft
winemaking

OXIDATION

What is Oxidation?

Oxidation is one of the most common problems found in home winemaking. When wine is exposed to oxygen the aroma, flavour and colour begins to degrade. The wine takes on unpleasant aromas such as the smell of sherry or caramel in whites, and wet cardboard with hints of chocolate for reds. During the early stages of oxidation the wine will have a sour taste that evolves to a solvent taste. Although oxidized wines undergo a degree of browning, all wines that show signs of browning are not necessarily oxidized. Browning is a natural part of the aging process and the wine is only oxidized if it is accompanied by the aroma and flavour profile described above.

How did my wine become oxidized and what can I do to prevent it?

There are typically three areas of the home winemaking process where oxidation usually occurs.

- 1) The Primary Fermenter – During an active fermentation, yeast utilize the oxygen that is present in the must. While a healthy fermentation is active, there is little fear of oxidation. While the yeast are active they also produce carbon dioxide. Since carbon dioxide is heavier than air, it forms a protective blanket on top of the wine that reduces the chance of oxygen coming in contact with the wine. It is suggested that wines be racked to the carboy while the specific gravity is around 1.010 since the yeast are still producing carbon dioxide at this point. Wines that ferment dry but remain in the primary run the risk of the protective carbon dioxide blanket dissipating. If this happens, there is a large surface area of wine in contact with oxygen, putting it at risk.
- 2) The Carboy – It is advised to top up wines post stabilising to within two inches of the airlock. This greatly reduces the surface area that oxygen can make contact with.
- 3) Bottle Storage – Wine that is bottled should sit upright for one day and then be stored on its side. The wine should be stored in a relatively humid room at 16 °C/ 60 °F. The humidity will prevent the corks from drying out and allowing a path of oxygen contact. The cooler temperature inhibits oxidation since heat speeds up the process.

What else can I do to avoid oxidation?

Sodium and potassium metabisulphite are not only sanitizers but anti-oxidants. RJS Craft Winemaking wine kits have enough sulphite supplied in the add pack to protect the wine from short term oxidation while allowing it to be consumed early. Those wishing to age their wines long term, should add an extra ¼ teaspoon of sulphite.

Remember to:

- Rack from the primary to the carboy at a specific gravity of around 1.010.
- Store bottles upright for 1 day, then lay them down in a humid, cool place.
- Add extra sulphite for longer aging periods.

For further information on craft winemaking, visit www.rjscraftwinemaking.com.