TOPPING UP

by

Lum Eisenman

Air contains about 21 percent oxygen, and oxygen in the air reacts readily with wine. Oxidized wines have browned colors, a Sherry character, and off odors and tastes. Oxidized wine is not always so apparent, but even small amounts of oxidation can strip wine of its fruity character. Unfortunately, oxidation is one of the most common defects in homemade wines, and much of this oxidation comes from excessive headspace in wine storage containers. Consequently, keeping wine storage containers full and tightly sealed is important. Topping up is the term used for the process of keeping wine storage containers full to minimize the contact with air and everyone agrees topping up is very important to wine maintaining quality. However, beginning winemakers often have trouble deciding how to keep their wine storage containers full, so here are a few suggestions.

(1) Top up with the same wine. Some wine is lost each time wine is racked, so 10 to 15 percent of extra wine should be made specifically for topping up containers. Store the extra wine in 5-gallon, 1-gallon or 1.5-liter containers, and use the wine from the smaller containers first.

(2) Add any available wine to fill the headspace. Most red wines are not significantly affected by small additions of other wines. Even white wine can be used, and sometimes a small white wine addition will actually improve the red color. Of course, red wines cannot be used to top up white wines, so keep the Cabernet out of the Chardonnay.

(3) Top up with a commercial wine of the same type. A bottle or two will often eliminate the headspace, and small additions of commercial wine often improve homemade wine. The major disadvantage here is the cost of the commercial wine.

(4) Use inert gases such as nitrogen or argon to fill the head space. This technique works well with large stainless steel tanks, but it is more difficult to apply to some small containers. Carbon dioxide gas must be used with care because it is quickly absorbed into the wine and produces effervescence. A little spritz in white wine may be fine, but it is seldom appreciated in red table wines. The cost of the storage container, regulator and gas may be prohibitive for small producers.

(5) Add clean, sanitized, glass marbles to the storage container to bring up the wine level. This method is easy to apply, but it has disadvantages. Sediment becomes trapped under the marbles, and the trapped sediment makes racking more difficult. In addition, the marbles roll around and dislodge sediment if the containers are moved.

(6) Add water. The disadvantages here are a (small) change in wine acidity and some flavor dilution. However, small additions of water may not be noticeable, and water is always available.

(7) Add enough food-grade mineral oil to produce an eighth inch thick layer on top of the wine. Oil is not very suitable for long term storage, but it can prevent wine oxidation for several weeks. Olive oil has been used for this purpose for hundreds of years, so it is the traditional material. But, olive oil may leave some residual smell, and it is expensive. Oil should be considered an emergency treatment. It makes a big mess in wine containers, and cleaning up the residue requires much work.

Most winemakers prefer the first method and always produce extra wine specifically topping up. These winemakers acquire a large assortment of different size carboys, jugs and bottles so the right size wine storage container is always available. Many home winemakers use a combination of the first two methods. However, any method should be considered in an emergency because any reasonable way of eliminating headspace is preferable to oxidized wine.