

Clarifying Your Wine

by Paul Dunseath © 2000

Most wines will clear naturally, given sufficient time, and the process can be accelerated by chilling it, either in a fridge or by setting it outside in cool (but not arctic) conditions. However, to achieve the maximum in clarity, it is usually necessary to employ other methods to remove the last trace of haze.

The least intrusive of these is the use of "finings". These are materials which are added to the wine, and which act on the basis that hazes are usually charged with static electricity (it is the electrical charge which keeps the particles apart, and thus maintains the haze), and the fining material neutralizes the charge, allowing the particles to clump together and settle out.

Historically, such materials as milk, beef blood, egg white, and gelatin were used. Some "traditional" winemakers use them to this day; however the trade has produced a series of products which eliminate the guesswork and problems (but see also Roy Ellis' article on Reducing Oxidase in oxidized wines" using skim milk powder: (AWO News Issue #7).

One of the most widely used fining agents is "**Bentonite**", technically montmorillonite clay. This is mixed into a slurry with hot water, allowed to stand overnight to absorb water and swell, then stirred into the wine to be cleared. The slurry develops both positive and negative charges, and neutralizes those of the wine. However, it does result in a fair amount of deposit and consequent wastage of wine.

Another is a blend of agar-agar and diatomaceous earth, sold under the brand name of "**Sparkaloid**". It is simmered in water for half an hour, then stirred into the wine, and is generally effective against most hazes.

Still a third are two-liquid system, one of which contains **calcium silicate & gelatin**, the other **Kieselsohl & Chitin**. The two are added to a wine must and stirred in, and clarification usually begins in 24 hours. Wastage is minimal.

For really stubborn hazes, or to achieve the maximum in brilliance in a wine, many experienced winemakers resort to filtering their wines (as, indeed, do many commercial operations). A variety of wine filters are on the market for the amateur, ranging from those in which the pressure is developed by pumping air into a vessel containing the wine and thus forcing it through a set of filter pads, to motor-driven pumps. All have the potential danger of exposing the wine to oxidation, so it is important, when using a filter, to ensure that the wine is protected either by addition of potassium metabisulphite or by using Vitamin C (Ascorbic Acid).

The price of filters varies from under \$100 to several hundred dollars, while the filter pads cost typically about \$1.50 each (you will need two for a pump-type filter, more for a motor-driven one), and

come in pore sizes (i.e. the openings in the filter material) from 7 microns (coarse filter) to 3 microns (fine filter) to less than 1 micron (sterile filter). The finer the pore size, the less wine that can be filtered before it clogs. If a wine is reasonably clear, one might succeed in filtering 20 litres through a fine filter before replacing it, and of course more with a coarse and less with a sterile. The decision to filter is obviously a personal one.

Without doubt, it produces a wine of the highest possible brilliance, but at some cost in terms of potential oxidation or contamination. And it can be a lot of work.

Fining is less intrusive and can produce almost the same result, although it does require racking to remove the wine from the deposit.

As a purist, I would have to argue that the best results - overall, that is - come from letting nature take its course, and nudging it only to the extent required if nature doesn't cooperate. That means using finings if possible, and filtering if necessary, but not necessarily filtering.

On the other hand, there is no argument that the prize-winning wines in competitions have almost invariably been filtered. Go figure.