Most winemakers use one or another of the available fining agents prior to filtering and think of fining only as a **clarifying** agent. While that is indeed the main purpose for fining any wine, fining actually can be done for several other reasons including **colour**, **odour**, **flavour** and **stability**.

The most commonly-used fining agents perform their tasks by attracting the positively and negatively charged particles in the unclear wine as they, the fining agents, also have positive and negative charges. Examples include **bentonite(-)**, **Sparkolloid(-)**, **gelatine(+)** and **egg white(+)**, and **silicon dioxide** or **kieselsol(-)**. Usually bentonite and egg whites are used by themselves, but gelatine followed by kieselsol is commonly used to fine white wines.

Other commonly-used finings include **carbon (charcoal)** and **PVPP (polyvinylpolypyrolidone)**, also called **polyclar**, a synthetic fining agent, which do not carry electrical charges. They work by adsorbtion: condensing and holding a gas or soluble substance upon their surfaces.

Bentonite is probably the choice of most winemakers, as it is easy to prepare and easy to use. It is prepared as a **5%** slurry by mixing 50 grams of bentonite powder into one litre of hot water. It is important that the resultant mixture be very smooth and free of lumps, so it is recommended that the slurry be prepared in a blender. Let the slurry stand for at least twenty-four hours and stirred well prior to use. The standard dosage is **4.5 cc per litre**. Over-fining with bentonite may strip wine flavour, reduce body and colour in young red wines and impart an earthy flavour.

Gelatine is used for two basic reasons: clarification and reduction of overly astringent wines. It is also used prior to fermentation in order to reduce astringency and improve clarity. Gelatine is usually used with kieselsol, the two opposing electrical charges attracting most of the suspended solids. Gelatine is prepared from a powder form much finer than that used for cooking (look for 100 bloom, the measure of gelatine particles) at the rate of between **0 .02 to 0.04 grams per litre**. It may be necessary to use more than the recommended amount if the object is to reduce astringency. It is best to do lab tests before treating the entire batch, particularly if the intent is to reduce astringency. To prepare gelatine, mix the desired quantity in a small amount of very hot water and stir until it is dissolved. Once it has been dissolved, stir it into the wine. Liquid gelatine is available from R.J. Spagnols with a recommended addition rate of **0.66 cc per liter of wine**. As a standard mixture, it works well enough with kieselsol for clarification, but if astringency reduction is desired, it is best to experiment with gelatine powder. Also, unless it comes in less than one litre containers or it is not used up in reasonable time, it can deteriorate, as it is an animal protein.

Egg White or **albumen** is a common fining agent for red wines because it reduces the harsher tannins. Some winemakers claim that it imparts a silkiness to the wine. Egg whites are used at the rate of **3 to 4 per twenty-five gallon barrel**. Since egg white contains both albumens (soluble in water) and globulin (insoluble), a bit of salt is necessary. Whip the whites into the water and salt until a smooth mixture is attained without foam, which will float on the surface of the wine and be ineffective.

Kieselsol is the commercial name for liquid **silicon dioxide** and is readily available from R.J. Spagnols. It is used to reduce bitter components from white wines, and used with gelatine is a very effective clarifying agent. While the directions on the label recommend **2.2 cc per litre**, addition at the rate of 1.4 cc per litre seems to be effective.

In the strictest sense, **carbon** and **PVPP** are not fining agents in that they are not used for clarifying. Rather, they are used to remove or reduce oxidative odours and to reduce browning in white wines and reduce the "pinking" effects of some grape varieties.

Carbon (activated charcoal) is used to remove colour - **decolorizing carbon**, and to remove off-odours such as oxidation -

deodorizing carbon
, and is usually used in conjunction with PVPP as oxidized white wines generally show a brown tinge. Use at the rate of
0.025 to 0.6 grams per litre
. It is best to make lab tests before adding to the entire batch, as too much carbon will strip the wine of both flavour and colour. Since carbon is a very fine powder, it may be desirable to use bentonite also in order to compact the sediment.

PVPP removes the brown effect from oxidized white wine and is used to prevent the pink colour from some grapes. If used to remove the brown colour, it should be used in conjunction with carbon. Use at the rates between **0.12 to 0.72 grams per litre**. As it is also a very fine powder, adding bentonite will compact the sediment.

Other finings include **potassium caseinate**, used to rid the wine of slight off-flavours and excess oak flavours; and **tannin**, used with gelatine, reduces the risk of colloidal hazes.

Each fining agent should be used for its intended purpose; and lab tests should be performed in order to determine the proper amount for the required task. If the first attempt does not do the job, it can be done again; but using too much of any fining agent can result in undesirable effects. Once the purpose has been achieved, usually within two to three weeks, the wine should be racked off the sediment in order to prevent unpleasant results from degradation of the sedimented materials.

This article courtesy of VAWA & Bill Collings