

# Advanced Adjustments

## Adjusting Acidity:

It is very important that the acid content (also called titratable acid, or TA) of red wines to be at least 0.55 and of white wines to be at least 0.65. Brew King has adjusted the acidity at the factory; however, it is a very good idea to get into the habit of measuring the TA in case it need adjustment and to see whether your wine should undergo cold stabilization or malolactic fermentation (see below).

Even if you don't need to adjust the acidity it is a good idea to record the level in your log so that you can see what acid levels you prefer. Acid test kits are available at The Beer Nut.

## Cold Stabilization:

Winemaking in Utah has some advantages, particularly related to cold stabilization. If you have a place in your cellar or garage which gets down into the lower forties or thirties in the winter time (about 5 to 0° C) then you can perform this beneficial process. Keeping the wine at this low temperature for two to three weeks is adequate for good stabilization.

Cold stabilization not only helps settle out suspended solids, yielding a clearer wine, but it also precipitates bitartrate – cream of tartar – out of the wine, and the crystals

formed form a crust over the lees which helps keep it from becoming stirred up during racking. Moreover, the levels of tartaric acid is reduced during this stabilization which can yield a smoother wine.

You should always perform a cold stabilization if you have determined that your wine has a overly high acidity.

## Malolactic Fermentation:

Commercially produced red wines tend to naturally go through a malolactic fermentation once the primary fermentation subsides. This malolactic fermentation converts the harsh malic acid in the wine into the smoother lactic acid. Lactic acid is less powerful so the overall acidity is reduced as well.

A liquid malolactic yeast is available at The Beer Nut but needs to be special ordered. Let us know two to three weeks before you need the yeast.

You should always induce a malolactic fermentation in reds with high acidity (over TA 0.70).

Rarely should a malolactic fermentation be induced in white wines. White wines tend to taste flabby and boring with the reduced acidity. However, there has been a surge in popularity in malolactic, very oaky, full lees-contact Chardonnays produced by some California Wineries.

# The Beer Nut's Guide to Wine Kits

You can make a very good wine by following Brew Kings instructions to the letter. However, you can make a great wine, an award winning wine, by making a few adjustments to the standard instructions.

The Vintners Reserve and Selection wine kit instructions have several steps in their instructions which vary from the standard and proven wine making methods used by advanced and commercial winemakers. Brew King made these adjustments to help make the kits drinkable in a relatively short period of time. But, if you rush wine you also compromise it. Thus, to make the best wine from these excellent quality kits we highly suggest you read this pamphlet and make the adjustments suggested within.

# Basic Adjustments

## Volume:

Both the Vintners Reserve and Selection wine kits suggest raising the initial volume to 6 gallons (23 liters). Making 6 gallons with these kits will yield an alcohol content of approximately 10.5-11% which, while adequate for some whites, is really too low for most wine styles. Another problem is that 6 gallons will not fit into a 5 gallon carboy (which actually holds 5 2/3 gallons) and if you do rack into a 6 gallon carboy (which holds 6 2/3 gallons) you will need to top up with more water, effectively diluting the wine and reducing the alcohol content an additional 1.5%.

Thus, we suggest, and experience supports, that you should start with a volume of 5 1/2 gallons in your primary fermenter (this will give you a starting gravity of about 1.090). When racking into the secondary you will usually lose about 1/4 gallon. Later in the process you will top up the carboy yielding a full 5 1/2 gallons in the bottles.

## Topping Up:

The instructions recommend topping up the carboy too early. Wait until after you have finished the stirring step (which tends to make the wine foam up and would make a mess if you had already

topped up) or, even better, re-rack the wine and top up then (see the note on bottling).

## Oak:

If your kit comes with oak powder, or you decide to add oak to one that does not, wait until racking into the secondary, or perhaps when racking into a third fermenter. If you add the oak in the primary as suggested you will not have enough contact time to produce the full oak character that is desirable.

## Yeast Addition:

Even though you can simply sprinkle the yeast on top of the wine and achieve adequate results, it is better to rehydrate the yeast. By rehydrating your yeast you will get a faster fermentation, a shorter lag time, and a cleaner flavor.

## Bottling:

Both the kits, but especially the Vintners Reserve, recommend bottling the wine far too early. You will end up with a far better wine if you rack the wine into another carboy at the time the instructions would have you bottle. It is at this time you should top up the fermenter with boiled and cooled water. This will displace any air in the carboy and will protect the wine from oxidation.

After racking let the wine sit for at least one month and preferably 6 months for whites and a year (with additional rackings as sediment develops) for reds. Of course, all racking should be gentle and introduce as little air as possible. DO NOT pour from one fermenter to another; siphon carefully between them.

## Bottles and Corks:

Bottle the wine in proper corkable wine bottles. You must also soften the corks so that your corks can push them into the bottle without breakage. You can boil the corks but this tends to make them brittle and break apart when corking. It is preferable to place the corks into a warm sulfide solution made with one campden tablet per gallon of water. This will sanitize the corks while softening them.

After corking let the bottles remain upright for several days to a week, to allow the corks to seat tightly, before laying the bottles on their sides in a cool dark place.

When tasting the wine at this time it is important to note that the wine will often taste somewhat watery or acidic and may have a sulphury aroma. This is quite normal at this point and these off flavors will age away with only a little bottle conditioning.

Moreover, the act of bottling tends to give the wine a characteristic "bottle-shocked" flavor similar to that of a half-bottle of day old wine. This will fade away completely in 6-8 weeks and is no cause for concern. However, you can prevent bottle shock to some extent by adding 2 to 2 1/2 campden tablets to the wine when bottling. The tablets will reduce oxidation and prevent spoilage bacteria from growing in your wine.

## Tannin

In order to ensure that the wines are ready to drink in 28 days the Vintners Reserve kits are notoriously low in tannins. If you find that your wine is lacking complexity or tastes somewhat bland you can add tannin to the wine to liven it up.

Start by adding a small amount (1/4 - 1/2 tsp for whites and 1/2 - 1 tsp for reds) of tannin to the wine, mixing it into a small amount of wine before adding to the entire batch. Taste the wine about a week later and add more if needed. Don't over do it but remember that the tannin flavor will mellow after a few months in the bottle so shoot for a tannic flavor just above that desired in the final product, but, too little is better than too much.