

Making Big Red Wines

by Elia Gallo

What makes a big red wine:

- Age worthy
- Flavour
- Complexity
- Colour
- Body
- Long finish
- Alcohol

Assessment of Grape Quality and Wine Making Needs

Wine Style: Decide what style of red wine you wish to make. Light bodied or full bodied.

Big Red Grape varieties: Cabernet Sauvignon, Cabernet Franc, Merlot, Pinot Noir, Zinfandel, Syrah, Nebbiolo.

Drinkability: How soon do you need to drink it. Will it be a lay down wine or consumed within the first year.

Storage: How is your storage capacity. Do you have adequate space and ideal temperature. Will you barrel age, bulk age in glass, bottle age.

Grape Characteristics: Is the fruit ripe or is it unripe. Unripe fruit will produce young bitter tannins, higher acid levels, little body or structure, vegetal flavours, sugar addition will be required. Ripe fruit will produce higher alcohol, plummy, dried fruit flavours, more structure, body, complexity.

Crushing

Crush & De-stem: If you want a long term fermentation leave about 10% whole bunches. These can be crush by hand when stirring the must after sugar has run out to keep some CO₂ on top of must.

Juice run-off: Remove a portion (10-40%) of the juice prior to fermentation. This will increase the skin to juice ratio produce a more a flavourful and darker wine. Run-off juice can be used for rose, blending, added to second runs.

Carbonic Maceration: Percentage of the batch (10-25%) to under go this process, then it can be blended back into the main batch. This will increase fruitiness, decrease acid and make the wine drinkable earlier.

Pre-Fermentation Maceration: Cold soak the must prior to fermentation. Addition of pectin enzymes will help break down fruit, add colour and increase fruit in the wine. SO₂ should be added to restrict growth of natural yeast. SO₂ between 10-50 PPM, depending on condition of grapes and whether wine will go through malo-lactic ferment.

Fermentation

Choice of yeast & temperature:

- Ester producing yeast at a cooler temperatures (15-20C), early drinking wines i.e. RA17, GRE
- Complexity producing yeast at higher temperatures (25-29C) aged wines i.e. RC212, BM45, D254
- Acid reducing yeast (i.e. 71B)
- Killer yeast for infected, stuck, or high sugar musts (18% alc) i.e. EC1118, KV 1116

Chaptalisation: Almost invariably carried out in lean years. A process that is necessary to raise sugar levels (for alcohol production) to where the wine has the desire stability. Big wines should be balanced with alcohol; if alcohol overpowers leaves you with a hot finish.

Maceration on the Skins: How much tannin is too much tannin? Going back to fruit assessment, how ripe are these tannins?

5 days for unripe. 10 days for ripe.

Taste the wine, it will tell you!

The addition of skins from another grape variety. Press down the cap 3-5 times a day, it mixes the juice with skins to add flavour and colour. Extended maceration up to 3-4 weeks with no oxygen or sealed with CO2 or nitrogen.

Malolactic Fermentation: Invariably improves the quality of red wines by lowering the acid level and adding complexity and mouthfeel. Performed right after primary fermentation and also best time to add oak chips. Control of malolactic fermentation is best achieved at a warm temperature (>20C) and low SO2 levels <25PPM for a complete and total conversion. Once finished the winemaker can apply sulphur dioxide and cold stabilize.

Maturing

Racking Frequency: Rack a few days after pressing, to get wine off heavy lees, can impart H2S. During the first racking, splash and get some air into the wine. Second racking after malo-lactic fermentation is complete. Use your nose! If it does not smell right or the solids have had time to condense its time to rack.

Choice of Oak: The choice between new or used oak can be determine by how ripe the grapes were. Very rich wine or higher alcohol wine can hold a higher level of oak, in which case this may be a greater use of new oak. Medium toast American adds chocolate/vanilla flavours, French adds licorice, and spice flavours.

Can blend oak chips to add complexity, always toast oak chips under the broiler or BBQ.

Fining: Used to remove excess tannins or to prepare the wine for filtration. Egg whites soften wine, Polyclar removes oxidized flavours, browning and SO2. Other fining agents available. If not in a rush, in time tannins and solids will drop out, cold stabilization also helps. Treat with caution you can test fining on a sample before adding to bulk wine, fining can strip your wine.

Filtration: A personal decision or to ensure stability.

Blending to Improve Structure and Balance

Acid: Blend higher acid grapes with lower acid grapes. Typically Ontario (high acid) with California (low acid). 1998 was the reversed. If blending malo-lactic wine with none, be careful should be sulphited and filtered with fine filter.

Alcohol: The balance of alcohol is very important in big reds. Alcohol gives body, glycerine, warmth, and long finish. Increasing alcohol in wine is fine if it has enough flavour, tannins, and oak. Blend higher alcohol wine (13-15%) with lower alcohol (11-12%)

Tannin: Can blend younger wine with older to add tannin, fruit, and complexity. Or can strip tannin with egg white, or just wait it will drop out.

Colour: In a big red you need massive colour. Blend lighter coloured with more intense. Hybrids like Baco noir and Dechaunac add a lot of colour if blended in small quantities (5-15%). Use pectin enzyme and colour X during fermentation to extract colour.

Flavour: Blend wines with ripe cooked fruit (Zinfandel, Syrah) with wines of vegetal flavours (Cab Franc, Baco Noir). Always blend to your taste.

Bouquet: Blending wines with light nose (Pinot Noir, Gamay, and Merlot) with wines with big nose (Cab Sauv & Franc, Zinfandel, Syrah). Even a wine with volatile acidity can be blended into a wine in small amounts to improve nose.

Rules for blending

- Always prepare test samples before making final additions to bulk wine.
- You're the one who has to drink the stuff, so blend to your taste or nose, it is good to get a second or third opinion.
- Have fun, experiment with different varieties, vintages, oak, etc.
- Make multiple blends to see how they develop; it will often surprise you.
- Never blend a faulted wine into a good wine, it could ruin the batch.
- Team up with other winemakers and trade batches or blend together. It's a good way to increase the number of wine styles in your cellar.
- You can create an earlier drinking wine if blending with gamay. pinot, merlot.
- You can create an age worthy wine if blending with cab sauv, syrah.

Top 10 Tips for making Big Red Wines

- Get the best possible grapes you can afford.
- Join a wine making club, to discuss winemaking techniques.
- Keep good records, so you will have the ability to replicate your successes, and not repeat your failures.
- Maintain a clean environment, carboys, bottles, equipment, etc.
- Run off juice prior to fermentation, to increase flavour and complexity.
- Ferment in bigger batches, holds the heat better (up to 85-90F in 2nd-3rd day of primary) and extracts better colour.
- Team up with a buddy, it's more fun working in the cellar with a partner, you can share the workload, and provide valued advice.
- Make bigger batches of wine, a 23L carboy is not enough. Batches should be demi-john size.

- Buy/drink wines from all over the world, in order to make good wines you need a good palette and nose.
- Experiment and have fun, winemaking is not a science it's an art.