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- Crush (break the skins) and de-stem the grapes. For most grape varieties, about 90% of the larger stems should be removed.
- Test for total acidity following the instructions in your acid testing kit. If the acidity is less than .7%, add enough tartaric acid to bring it to that level.
- Test for sugar with your hydrometer. Correct any deficiencies by adding enough sugar to bring the reading up to 22% (22 degrees brix).
- When these tests and corrections have been completed, the must should be sulfited. Estimating that you will get roughly one gallon of juice yield for every 16 lbs. of grapes, calculate the anticipated amount of juice. Using this estimate, add enough sulfite to give you a sulfur dioxide (SO2) level between 50 and 130 parts per million (ppm). The amount needed will depend on the condition of the grapes, with moldy grapes getting the most concentrated dose.
- Unless you have found it necessary to add more than 65 parts per million SO2 in step 4, yeast should be added immediately. If using more than 65 parts per million SO2, you must wait six hours before doing so. Add also 1/4 oz of yeast food for every 100 lbs. of grapes. Your yeast culture (or dry wine yeast) should be spread somewhat evenly across the surface of the crushed grapes (now called "must"). Stir it in thoroughly after eight to twelve hours.
- The must should be stirred twice a day until fermentation begins. The beginning of fermentation will be obvious, as the grape skins will be forced to the surface, forming a solid layer (called a "cap"). Once the cap has formed, it should be pushed or "punched" back down into the fermenting juice twice a day until it is ready to be pressed. You may use your hand or a clean 2x4 to push down the cap.
- At some point, while fermenting on the skins, the must temperature should be allowed to reach as high as 90° F., at least briefly. This will help extract color from the skins. The rest of skin fermentation should take place at 60-75°F.
- Add ML starter (optional) to the wine about half to two thirds through fermentation. You may also add this at the end of fermentation if you have the Enoferm Alpha strain of bacteria.
- When the desired level of color has been achieved (usually from five to fourteen days of active fermentation) your wine should be pressed to separate the wine from the skins. Funnel the wine into secondary fermentors, filling them 3/4 full. Attach a fermentation lock, and allow the containers to set until all visible signs of fermentation have ceased (at least a week or as long as two weeks.)
- At the end of fermentation, when no more bubbles are coming up through the lock, rack the wine off the gross lees. Place wine in storage containers (glass, stainless steel, or oak). Top up the containers and let stand for a month.
- One month later, rack the wine away from the lees again, add sulfite to about 20 ppm, and keep in topped up containers for four to six months. You must top up barrels, from respiration, and visible inspect carboys. This is a good time to add oakboys or oak chips. Add sulfite every few months. If you inoculated for ML, test the wine to be sure it is complete.
- Around May or June of the following year, you might want to fine the wine for clarity (following the instructions supplied with your fining agent.) Optional treatment would be the more aggressive clarification via filtration. If the ML fermentation hasn't finished, keep the sulfite level below 20 ppm and warm the storage containers for a month to encourage completion.
- By late July or August (just before you need your storage containers for the next year's crush), carefully rack the wine to a sanitary bottling container, then siphon into bottles, cork them, and lay them down for bottle aging. At bottling time, adjust the sulfite to at least 30 ppm, if you plan to store the wine. If possible store your filled bottles on their sides. Otherwise, store them with the corks down. Most red wines will benefit from at least one year's additional aging.

Typical Time Line for Red Wine Fermentation

Active Yeast Fermentation in Primary Fermentors	Pressed wine moved to Secondary fermentors, stored 3/4 full	Rack off gross lees and top up containers	Rack off lees again and sulfite, test for ML, store in cool place for aging, topping and sulfiting every couple months. Add Oakboys	Racking off less, adjusting sulfite, fining or filtering, or just topping up	Rack to bottling container, adjust flavor with oak extract, add sulfite, cork and store.
5-14 Days	1 - 2 weeks	1 month	4 to 6 months	1 to 3 months	Usually in time for next harvest

