

Post Fermentation Handling of Wines*

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Fermentation transforms the must into a young wine. Proper handling of young wines is very critical because mistakes made at this early stage can irreversibly damage the wine quality.

The post fermentation checkup begins by first determining the completeness of fermentation. This should be done by analyzing the wine for residual sugar and alcohol content. Do not rely on hydrometer readings or organoleptic tasting to determine the completeness of fermentation but test the residual sugar level by using a sugar testing (Clinitest method) or Rebelein method. A wine with residual sugar of 0.1 percent or less is considered dry. However, in practice, some wines with 0.2 percent or even slightly higher levels have been found to be biologically stable. When producing wine with a sweeter finish, some residual sugar may be retained. However, such a wine will need special care to avoid any refermentation by the wine yeast.

After determining the completeness of primary or alcoholic fermentation, the wine should then be checked for malolactic fermentation (MLF). The desirability of MLF is a matter of wine style, but the vintner should know the status of the MLF regardless of the wine style. If MLF is not desired, then the wine should be handled in a way to discourage MLF. This would include prompt racking, low pH, an adequate free SO_2 and storage under relatively cool conditions.

Musts inoculated with a malolactic culture should be closely monitored and favorable conditions should be maintained to allow the bacteria to complete the fermentation. The malic acid content should preferably be lowered to less than 0.1 g/ liter.

Once the alcoholic and MLF are complete, the wine should be analyzed for free and total SO_2 , total titratable acidity, and volatile acidity (VA). Determining free SO_2 is necessary to calculate the amount of SO_2 to be added after racking the wine. The V A level serves as a reference point in the event of spoilage in the future.

The chemical analysis of the wine should be followed by its sensory evaluation. The purpose of such an examination is to detect any off odor in the young wine following the fermentation.

Once the completeness of fermentation and the soundness of a young wine is insured, the young wine is ready for racking.

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