



AMERICAN TARTARIC PRODUCTS INC.

Tannins vs Oak Chips



There are plenty of choices in regards to how best to macerate red grapes so as to achieve the right level of polyphenol extraction essential for color stability and mouthfeel. Manipulating parameters such as fermentation temperatures, pump overs, cap punch downs, and fermenter size are a few of the possibilities.

Another area is the use of either Tannins or Oak Chips, or a combination of both. How do we know which ones to use? To determine this, one must first ask what is the winemaker trying to achieve?

If color stability combined with enhanced mouthfeel are the primary objectives, then the use of a combination of hydrolysable and condensed tannins such as **Color-Tan** are required for the job. You might assume that by using oak chips you will increase the tannins available to bind with the anthocyanins and, more importantly, the pigmented polymers which are formed by the chemical linkage between tannins and anthocyanins. However, anthocyanins are very reactive and bleached by both sulphur and oxygen, both of which are present in abundant quantities early in fermentation. To avoid this, it is critical that hydrolysable tannin (chestnut) be present during the first 24 hours of red fermentation, as well as condensed tannin (quebracho) during fermentation to stabilize color. In using oak chips alone, the tannin is not actually extracted from them until after primary fermentation is initiated and you have achieved an alcohol level of 6% or higher.

The use of fermentation tannins not only aids in color stabilization, but does so without excessive maceration of the fruit which can lead to harsh bitter characters which require additional work post-fermentation to remove.

Apart from this, the use of fermentation tannins which contain Tara gall extract, such as **Gallic-Tan**, can be extremely effective against Botrytis. The Gallic-Tan can act directly on the Polyphenoloxidases present in the must to deactivate them, which in turn allows the winemaker to preserve both the aromatic precursors and prevent the associated browning. This can be especially beneficial in white varieties since it will also allow for a more effective use of SO₂ due to its antioxidant effect.

Our trained staff is qualified and ready and waiting to assist you. Please call your local representative for any of your winemaking needs.

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