

Fermentation Products for Enhancing Color and Body



1. Segments – Bags tied off under fermenting must. Bags follow wine into the press tank for MLF and aging. Use at 4 to 8 # /ton.

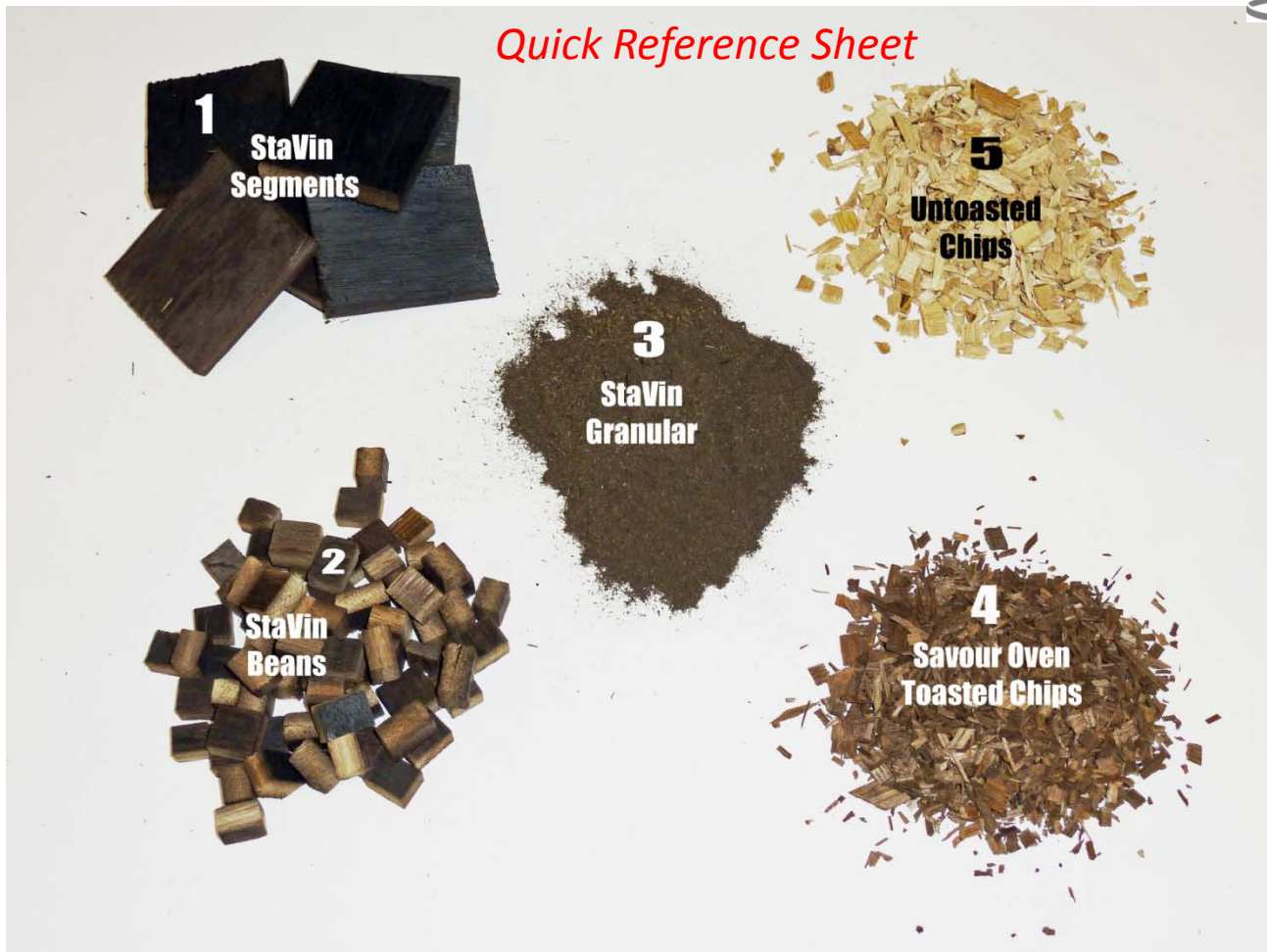
2. Beans – Bags tied off under fermenting must. Can be used for multiple fermentations or moved with wine into the press tank for MLF and aging. Use at 4 to 8 #/ton.

3. Granular – Dosed in after destemming grapes. Use at ½ to 2 #/ton. Best if dosed in two adds, at crush and 4 days later.

4. Toasted Chips* - Dosed in after destemming grapes. Use at 1 to 6 #/ton, removed at pressing.

5. Untoasted Chips*- Dosed in after destemming grapes. Use at 1 to 2 #/ton, removed at pressing.

* Best use may be combination of toasted and untoasted chips. Decrease use of chips by ½ if they are used in combination with fermentation tannins. (suggest using tannins at ¼ to ½ suggested rates when used with chips).



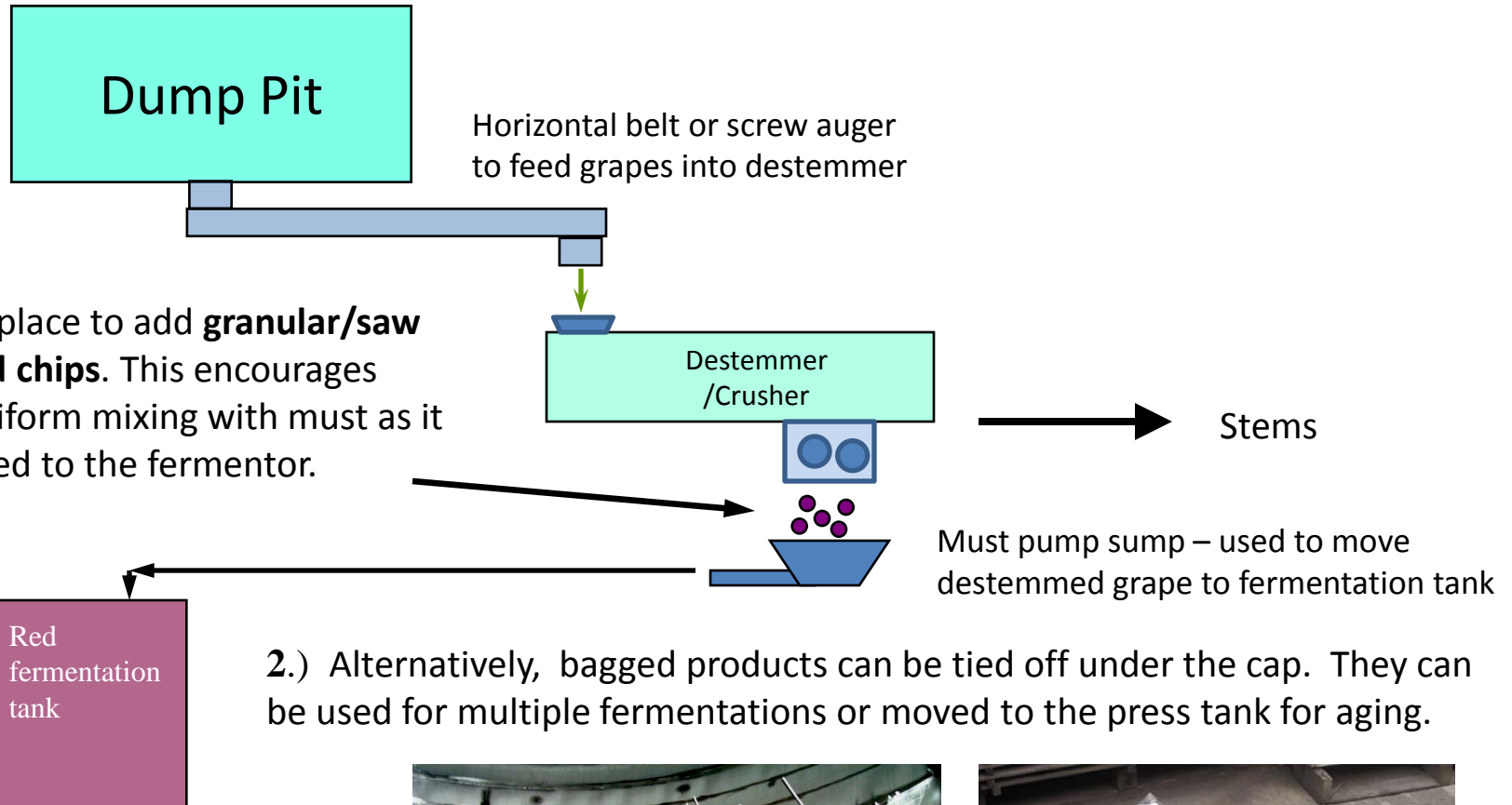
Why Add Toasted Oak at Crush?

1. Compounds developed during the toasting process aid in the initiation of anthocyanin stabilization from the start of fermentation.
2. Aromatic aldehyde compounds extracted from the toasted oak may aid in the stabilization of Co-pigment stacks (protective mechanism for monomeric anthocyanins).
3. These compounds appear to have sparing effect on acetaldehyde produced by yeast in exponential growth phase, enabling effect described above, #1, to be more effective.
4. The same reactive compounds described above also appear to react with polyphenolic material (tannins) from the grape enhancing mid-palette mouthfeel in wines.
5. Used in combination with macro aeration, certain “green/vegetal” characters in the must can be minimized.

Why Add Un-Toasted Oak?

Untoasted Oak appears to complement toasted oak and work in concert to aid in color stabilization and produce increased smoothness and mouthfeel. This is thought to be due to the ellagitannins and various polysaccharides extracted from the untoasted oak. Those compounds are degraded during the toasting process.

Where Should Toasted Oak be Added?



1.) Best place to add **granular/saw dust and chips**. This encourages good uniform mixing with must as it is pumped to the fermentor.

2.) Alternatively, bagged products can be tied off under the cap. They can be used for multiple fermentations or moved to the press tank for aging.

3.) Chips and granular are removed at pressing with the pomace.



How Much?

1. Even on high tier wine, benefits in mouthfeel have been seen with the addition of small amounts of toasted oak. Larger forms , (Beans, Segments and Staves) of toasted oak are usually preferred at 4 - 8 #/ton. Using the lower amounts when combining with un-toasted oak products, chips, long beans and segments. Some winemakers use as little as 2 #/ton toasted oak.
2. Untoasted Oak added at up to 2 #/ton has been found to complement toasted oak additions with color stabilization and mouthfeel enhancement. Use at approximately 25% of the toasted oak addition
3. Most wines benefit in the range of 2 – 8 #/per ton of grapes. Low end for some color stabilization and body building. Use the higher end of the range when “green / vegetal” characters may be suspected in the fruit. Again use the lower addition rate when using in combination with un-toasted oak products.

What About Using Tannins with Toasted Oak?

1. Many winemakers prefer to use purified tannins in addition to toasted oak, with the thought they all work synergistically to improve color and mouthfeel.
2. When you use the combination, reduce the toasted oak addition by 50% and reduce the recommended tannin addition by 50 to 75%. Since these types of products work synergistically, you need less of both to accomplish the intended task of color stabilization and building body.
3. Using less of purified tannin and oak, as described above, will minimize the potential for over use. The over addition of either product may increase a harsh aftertaste to the wines.