

Barrel Prep and Maintenance

Starting out:

When starting with a dry barrel you need to soak it to make the staves swell and seal the joints. Skipping this step will result in a big mess and wasted beer. Using hot clean water, fill the barrel and continue to top up with hot clean water until it stops leaking. Change the water every two days, usually in 4-6 days, the barrel will be properly swelled.

A new barrel may require a soak with BAROLKLEEN. BAROLKLEEN is a compound that softens the harsh tannins that is in new oak. Usage: 1 pound per 5 gallons warm water, let sit two days. After two days, flush with clean water until it runs clear.

To sanitize oak barrels, use a combination of potassium metabisulfite (sulfite) and citric acid. Mix one tablespoon sulfite and one teaspoon citric acid per gallon of clean water. The citric acid will decrease the pH of the sulfite solution, making it more effective. Keep this solution in the barrel for a couple days to sanitize, then flush with clean water before putting in any beer.

Sulfite/citric acid also makes a good

“holding solution” if you don’t have a beer ready to go into the barrel. I wouldn’t leave this in the barrel for more than a few months at a time, the oak flavor will leach out into the solution.

Using your barrel:

After rinsing out the barrel fill it up all the way with your beer. Make sure there is very little air space beneath the bung. Use a good quality rubber bung, wood bungs can leak or allow air into your barrel.

Topping up is one of the most important maintenance procedures. During the aging time, liquid will evaporate out of the barrel. This is good and bad. The evaporation will increase the complexity and body of the beer, but it will leave an air space in the barrel. It is necessary to continue to add beer back into the barrel to “top up”. Air space in the barrel can lead to oxidation and even acetic acid.

If you use Brett in your beer, it will remain in the barrel. Once a barrel is infected with anything, i.e. yeast, brett, bacteria, etc... it will usually stay infected! A barrel is almost impossible to sterilize.

Taste your beer every few weeks. If the barrel is brand new, taste it every day or so. The newer the barrel, the quicker it will impart the “oaky” taste. Once you get your beer to where you want it, leave it for a few more days. Over time, the oak flavor will mellow out and blend in more with the flavors of the beer.



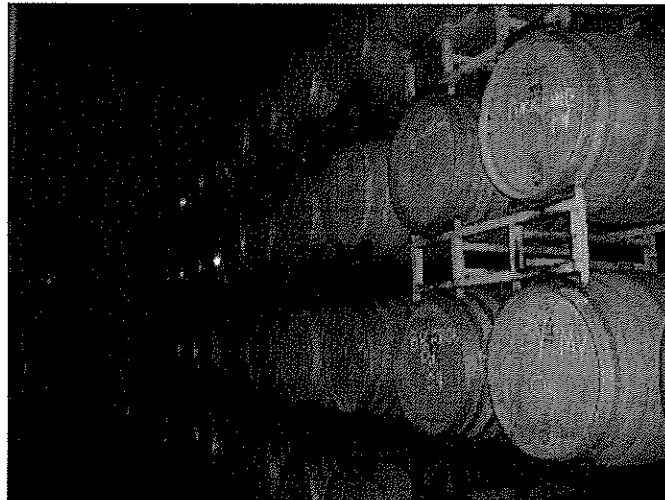
Types of Oak

There are three main types of oak that are available to brewers, each having its own characteristics. Select what type of oak you want depending on what flavors you would like to achieve.

French Oak: The traditional oak for winemaking. French oak has a tighter grain than American oak, leading to slower evaporation. It also has less aromatics and more subtle flavors than American, but contains more tannins. Flavors include toast, coffee, chocolate and vanilla.

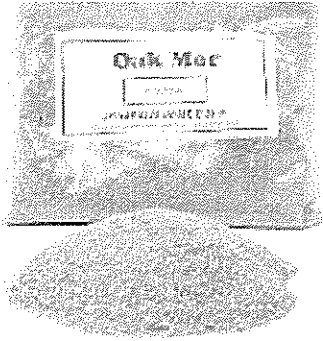
American Oak: More winemakers are using American oak nowadays. American oak imparts a more intense oak flavor and aroma than French. It has more sweet and vanilla flavors due to a high concentration of lactones and vanillin present in the wood, but less tannins than French.

Hungarian Oak: More similar to French oak than American, being more subtle in oak flavor, but has a unique black pepper spices to it no other oak has.

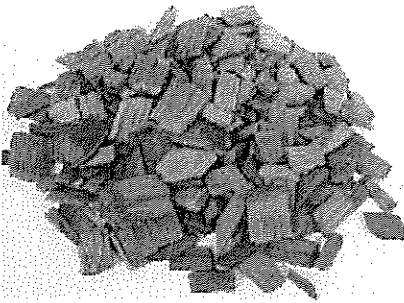


Oak Barrel Alternatives

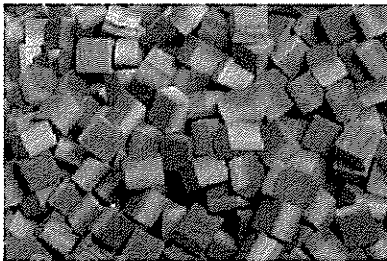
There are many different oak barrel alternatives on the market. Each has its own usage and taste. Decide what you want to achieve, then select the proper oak product. Here are a few common ones:



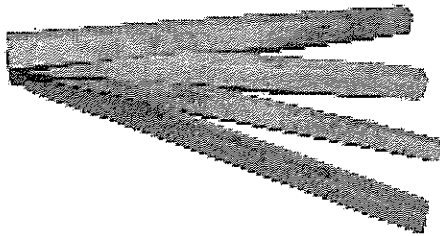
Oak powder: Gives off oak flavor FAST, but also VERY harsh. Can foul up racking tubes, filters and pumps. I discourage use of this product.



Oak chips: Good for flavor and aroma, but not so much for the color. Easier to use and strain out than oak powder. Imparts flavor fairly quick, but not as fast as powder. A decent product.



Oak cubes (or beans): Good for flavor, aroma and color. This take a bit longer to impart the oak flavor, but does give a fuller and rounded oak flavor than powder or chips. Also not as harsh as powder. A good product to use.



Oak Staves (and oak spirals): Like the oak cubes, staves give a nice full oak flavor and aroma, but does take a while to impart the flavor. Many different types of oak staves available on the market. My preferred oak alternative.

Oak alternatives are easier to use and less expensive than oak barrels. Sanitizing these products can be very easy. Before putting them in your beer, they can be soaked in sulfite, boiled, steamed, even microwaved! Then just drop them in.