



Making Vinegar at Home



Making your own vinegar at home gives you the opportunity to make vinegar with deep, rich flavors that far surpass most of what's available on the mass market. The process of making vinegar is simple, requiring just a few basic steps and basic equipment. First, you must make or obtain alcoholic liquid such as wine or hard cider. Next you introduce a vinegar starter containing acetic acid bacteria. These bacteria eat the ethanol and chemically change it into acetic acid, the stuff that makes vinegar taste like vinegar. Then you age the vinegar and let the bacteria do it's thing. After this time, you can flavor to taste if necessary, and bottle the vinegar for use or storage.

Ingredients for Homemade Vinegar

- **Vinegar Starter** (acetic acid bacteria)
- **Alcoholic liquid** - any alcoholic beverage with an ABV below 18%, traditionally **wine**, but you can also use **hard cider** or potentially even fermented malt beverage (beer), although avoid beers that are too bitter or hoppy as the hops inhibit the bacteria. For malt vinegar, brew a batch of wort without hops and ferment with beer yeast, then use that beer for the vinegar base. If you are using wine, make sure that the sulfite concentration of the wine is less than 20 ppm of free SO₂. Sulfites are used to reduce the activity of vinegar bacteria, which is just the opposite of what you want right now. If you are making your own wine or cider for vinegar-making, don't use any sulfites.
- **(Optional) - Flavoring Agents** - Herbs, garlic, onion, spices, fruit, and so on, get creative! Good bets include garlic, onion, scallions, basil, tarragon, chives, thyme, rosemary, hot chilies, raspberries, etc.

Equipment

- **Glass container or carboy** - Do not use any material that will interact with the vinegar, such as iron, aluminum, or plastic.
- **Cheesecloth or loosely fitted lid for the glass container or carboy**
- **Coffee filter or cheesecloth**
- **Resealable glass bottles and closures**
- **Funnel** - (optional) helpful to use for filling glass bottles after fermentation

Instructions

1. **Clean:** Start with squeaky clean (or sanitized) equipment. There will be a full-scale microorganismic war going on in your vinegar and the more of your vinegar bacteria's enemies you wipe out, the better chance the bacteria have of making good vinegar for you.
2. **Set-up:** Pour the starter into the container and swirl to coat the surfaces with the acetic acid bacteria. Pour the alcoholic liquid into the container to about three-quarter's capacity.
3. Cover the opening to the jar or carboy with cheesecloth or a lid loosely screwed on so air can still get in but flies and other contaminants and debris cannot. Oxygen is necessary for this process, so do not tightly close the lid and do not use a stopper and airlock.

4. Put the container in a warm, dark place, where it will not be disturbed or in the way. Keep the container away from direct sunlight and maintain a temperature of 60-80F.
5. **Wait and Ferment:** Wait and let the acetic acid bacteria do their work! Full fermentation usually takes 3-4 weeks, but potentially can go for up to 6 months. Check the vinegar's progress regularly by smell and taste. When the vinegar smells like vinegar, with an intense vinegary smell that almost almost burns your nostrils, and tastes like vinegar to the strength that you want it, it is done with fermentation.
6. **(Optional-Add Flavorings)** If you want to make flavored vinegar, place flavoring material in a small cheesecloth or muslin bag and suspend in the vinegar until desired strength is reached. This will take about 4 days, except for garlic, which takes only 1 day. For every 2 cups of vinegar, use *one* of the following: ½ cup crushed fresh herbs, 1 tablespoon of dried herbs, 2 large cloves of garlic, or 8 small green onions. Adjust the amounts to taste, but be careful not to overload the vinegar. Too much vegetable matter can destroy the acid and ruin the preservative quality of the vinegar.
7. **Filter:** When fermentation is done, you can get ready to bottle the vinegar for use and/or storage. First, you'll want to filter the vinegar using a cheesecloth or coffee filter. This will remove the mother of vinegar, a glob of acetic acid bacteria, which you can save and reuse to make vinegar again.
8. **(Optional-Alcohol Removal, Pasteurization, and Reduction)** Unless you ferment the vinegar for a very long time, there is probably alcohol still left in it, which you can remove if you want to by boiling the vinegar. If you do choose to do this step, you might as well pasteurize and reduce the vinegar while you're at it. Pasteurization kills the bacteria so that you can store the vinegar for longer and reducing the vinegar concentrates its flavours. To pasteurize the vinegar, heat it to 170 degrees Fahrenheit (77 degrees Celsius) and hold the temperature there for at least 10 minutes.
9. **Bottle:** Sanitize the bottles or jars you want to use to store the vinegar. You can use any size or shape bottle or jar that you want, but ideally it will be glass. Pour the vinegar into the sanitized bottles and/or jars (a funnel makes this easier) and top up to within about an inch of the closure. Securely seal the containers with the vinegar in them -- screw cap, cork, or EZ-cap/grolsch are all fine options.
10. **Use or Store:** Use your vinegar or store it and see how it ages. Unpasteurized vinegar can be stored in the refrigerator for a few months. Pasteurized vinegar can be stored at room temperature almost indefinitely, as long as they are kept out of direct sunlight.

Please don't hesitate to call, email, or stop by the Shop with any questions!