

The Essentialist

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Homemade Apple Cider



A cider press makes this fun and easy. Apples are chopped or ground into a fine pulp, then pressed or squeezed to release their juice. The resulting liquid is called 'cider' if unfiltered, or 'juice' if filtered to a clear liquid. Unfiltered juice/cider can be fermented to make 'sweet' or 'hard' (dry) cider.

The final juice or cider can be pasteurized for a longer refrigerated shelf life (up to 3 weeks), or left raw (7-days). *[photo from Happy Valley Ranch; see sources.]*

Juicing the Apples

Keep all utensils clean and sterilized, and wash hands before handling apple pulp. Sanitize utensils by boiling in water for 10 minutes and then allowing to air dry in a protected area; or you can soak in a bleach bath (1 Tbsp liquid bleach per gallon of water) for at least 1 minute.

1. First, obtain your apples. You may choose all one variety, or a mix of varieties. While they don't need to be flawless, they should be free of spoilage (or cut away spoiled areas). Don't use apples that appear brown, decayed or moldy. They should be firm and ripe for best flavor. About 20 - 40 apples will make a gallon of juice, depending on size and variety.
2. Next, wash and rinse apples well. Use a fruit & veggie wash or diluted bleach solution. If you are using groundfall apples and don't intend to pasteurize your cider, a fruit & veggie wash (or diluted bleach solution) is recommended, as groundfall can be contaminated with animal waste. (1 Tbsp liquid bleach per 2-3 gallons water, or 1 tsp per gallon water).
3. Wash jars and bottles in hot soapy water and rinse well, so that no soap remains.
4. If you are using a press that chops and presses, add the cleaned apples to the press.
5. Otherwise, core apples and cut them into quarters or smaller pieces and process in a food chopper, food processor, or sturdy blender. Wash and rinse hands well. Then transfer the pulp to a piece of washed (and well-rinsed), good quality muslin, or into a muslin bag. Gather the cloth around the pulp and squeeze into your cleaned jars/bottles. Or transfer to a press to squeeze out the juice.
6. At this point, you have apple juice (although it is called "cider" unless it has been allowed to settle to a clear juice, and filtered). It can be consumed as is, or pasteurized, but if you want to make sweet or hard cider, do not pasteurize first. (3, 4) See below for pasteurization instructions. The cider/juice will keep, unfermented, up to 2 weeks if refrigerated.

Sweet Cider

Wild fermentation happens because of natural yeasts that enter your brew from the air, converting the sugars in the juice to alcohol, and releasing CO₂ (carbon dioxide) bubbles.

1. Begin with freshly squeezed/pressed apple juice/cider (not filtered or pasteurized). If you want clear cider, let the bottled juice stand at 72° F for 3 - 4 days, to settle.
2. Transfer juice/cider to clean bottles, to just below the brim. Stopper with a new, clean wooly-cotton plug (rather than a regular lid or cap) for safety purposes, to avoid explosion: If pressure builds up during fermentation, the cotton will pop out to release the pressure.
3. After 3 - 4 days at room temperature, a sediment will form as fermentation bubbles rise to the top. This is when you want to stop the fermentation, and “rack off” the cider to clean bottles (see below). Pasteurize the cider if desired. Store in refrigerator. (4)

Alternate Method:

This method uses liquid whey as an inoculant to jump-start the fermentation. Do not use powdered sweet dairy whey, nor whey protein powder. Refer to [Making Yogurt, Kefir & Whey at Home](#) (8) for easy instructions to make liquid whey from yogurt or kefir.

1. Make a half-gallon (2 quarts) of fresh juice/cider, skimming off as much of the foam as you can with a spoon.
2. Strain juice/cider into a very clean, large bowl. Add 1 heaping Tablespoon sea salt and ½ cup liquid whey to the strained juice, stirring. Cover with a clean cotton cloth (secure with a rubber band or string), and let sit at room temperature for three days.
3. Skim off any foam/scum at the top, then pour into a very clean half-gallon jar, cover tightly and refrigerate. Flavors will develop over the next several weeks, eventually attaining a sweet, buttery flavor and slight effervescence. The sediment should settle at the bottom and remain there if the cider is poured off carefully for serving. (1)

Hard Cider

Use same process as for sweet cider (above), but allow to ferment for a longer period at room temperature. A glass air lock can be used instead of the cotton plug. Or use three thicknesses of clean muslin, stretched over the top of the bottle opening and secured well around the neck. See [Gathering Summary: Making Beer at Home](#) (7) for more information on using an airlock.

The cider will become quite frothy, and may foam over the top after about 10 days. This is normal; just wipe off the bottle and replace the muslin with clean fabric and let the frothing continue until the foaming stops and fermentation is complete. At this point, all the sugars in the apple juice will have been turned into alcohol; the beverage is dry, not sweet. (4)

In his book *Wild Fermentation* (2), Sandor Katz says that for his cider:

“after 3 days [of fermenting] it was “bubbly, mildly alcoholic, sweet;” after 5 days it had ‘lost its sweetness, still bubbly, not at all sour;’ after a week ‘hard and dry;’ and a day later ‘starts to have a sour edge.”

However in another recipe he calls "Cider Take Two," it ferments slowly for 1 - 2 months while the sediment collects on the bottom and the liquid begins to clear, then is siphoned to a new clean bottle, without the sediment, and ferments another 2 - 4 months, for 4 - 5 months total; then aged in the bottle for yet another 1 - 2 months before it's ready for drinking.

Racking Off

If you are making a small quantity, you could carefully pour from the original bottle to a new, clean one, leaving the sediment behind. But for larger quantities, siphoning is more practical; it can also be used for smaller quantities.

To rack off:

1. Insert a clean, 3-foot long rubber tube, into the liquid; suck at the outer end with your mouth.
2. As soon as you feel liquid in your mouth, pinch off your end with your fingers and insert the tube into an empty, clean and sterilized bottle that is placed below the full bottle. Liquid will flow from the upper bottle into the lower bottle, leaving the sediment behind. (4)

See [Gathering Summary: Making Beer at Home](#) (7) for more information on using an racking.

Pasteurizing Cider

This is an optional process. Heat cider to at least 160° F (or as high as 185° F), measured with a cooking or milk thermometer. Don't allow to boil, for the best flavor. Skim off any foam and pour into clean, sanitized and heated glass jars. Refrigerate immediately.

For more on the pros and cons of pasteurization, see [Food Safety & Pasteurization](#) (7)

Freezing Cider

Pour hot cider into glass freezer containers, leaving ½ inch head space for expansion. Refrigerate until cool, then transfer to freezer.

Apple Cider Vinegar

Vinegar happens if you let the cider continue to ferment, past hard cider, to the sour vinegar.

1. Transfer cider to a wide-mouth crock or dark jar with 25% of the container left empty to allow room for foaming. The wide mouth allows for more exposure of the surface to the fermenting yeasts in the air.
2. Cover the jar with a triple layer of cheesecloth to keep out dust and insects.
3. Let sit in a cool, dark place for 4 - 6 months. Then taste for desired strength.
4. When ready, strain through cheesecloth. It may be pasteurized, if desired. (2, 4)

Refer to the University of Georgia Extension Service file (see references) for more detail.

NOTE: homemade vinegars should NOT be used for pickling, because the acidity is not as carefully controlled as for commercial vinegars.

Supplies & Sources

- Withey's in Kalispell has a good selection of fermentation supplies, including airlocks, bottles and carboys, etc..
- Cider Press:
 - [Pleasant Hill Grain: Cider Press & Apple Grinder](http://www.pleasanthillgrain.com/fruit_press.asp) (www.pleasanthillgrain.com/fruit_press.asp)
 - [Happy Valley Ranch: Homestead Cider Press](http://www.happyvalleyranch.com/?gclid=CI6rwJaGn50CFSNQagodc0YzAA) used for photo on front page of this document (www.happyvalleyranch.com/?gclid=CI6rwJaGn50CFSNQagodc0YzAA)
- Make Your Own Cider Press:
 - [Mother Earth News: How to Build a Cider Press](http://www.motherearthnews.com/Do-It-Yourself/1976-09-01/How-To-Build-A-Cider-Press.aspx) (www.motherearthnews.com/Do-It-Yourself/1976-09-01/How-To-Build-A-Cider-Press.aspx)
 - [Instructables: Homemade Cheese and Cider Press](http://www.instructables.com/id/Homemade_cheese_and_cider_press/) (www.instructables.com/id/Homemade_cheese_and_cider_press/), with photos
 - [Building an Apple Grinder](http://www.sentex.net/~mwandel/press/apple_grinder.html) (www.sentex.net/~mwandel/press/apple_grinder.html)
 - [Makezine.com: Make a Combination Cheese and Cider Press](http://blog.makezine.com/archive/2009/01/cheese_and_cider_press.html) (blog.makezine.com/archive/2009/01/cheese_and_cider_press.html)

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