



Gilchrist Hard Cider Kit Instructions:

Before starting your hard cider, briefly read through the instructions so you can formulate your plan ahead of time. Remember this is an art form, not necessarily just a science. Our hard cider kits will produce a dry-style cider. If you prefer a sweet cider, check out some of the additional resources below.

PRIMARY FERMENTATION:



- Spigot installation... Grab a 1" drill bit (a keyhole or hole-saw bit works best.) and measure 1 1/2" from the bottom. Verify that the bottom of the spigot sits slightly higher than the bottom of the bucket, this way the bucket can sit flat on a table without the spigot hitting the tabletop. This also ensures that when you bottle your cider the yeast sediment stays at the bottom and does not get bottled with your finished cider.
- Next, sanitize the fermentation bucket thoroughly. To do this mix the Sodium Metabisulphite in hot water (following the instructions on the packet included). Rinse, and set aside to let it dry.
- Now open the growlers of fresh cider and pour it into the fermentation bucket. Leave a little room at the top of the bucket, aka "head space", and you can top it off later with a little bit of fresh juice after primary fermentation is finished. Rinse growlers and set them aside for bottling later on.
- It is important to know what kind of juice you are using, pasteurized or unpasteurized. If buying juice at the store be sure to check if additives/preservatives have been put in the juice. Additives can affect the fermentation and flavor outcome, so you should avoid using juice

that has these additives. At Gilchrist Orchard, our juice comes heat-pasteurized, with no additives and no preservatives. This makes it an ideal choice for hard cider makers.

- Campden Tablets are *optional* but can help to control the flavor, by removing wild yeast, specifically in *unpasteurized* juice. These are included in the kit but are optional since our juice is already heat-pasteurized. If you choose to use the tablets, then let the cider sit for 24 hours after adding the tablets. Follow the separate instructions on Campden tablet packages, Skip to the next step if you choose not to use them.

- Pitching the yeast. Yeast Can be added (pitched) directly into the juice. When you add the yeast, it will take over as the dominant yeast strain. Before adding the yeast choose one of the included packets and read the instructions on the yeast packet. This usually involves reconstituting the yeast in **warm** water (95-100 degrees). **DO NOT OVERHEAT as it will kill the yeast.** Add the reconstituted yeast to the fermenter. Follow yeast instructions for adding the proper amount. The ratio is also listed on the yeast packaging. Generally speaking, each packet of yeast will make 5 gallons of cider, so you will only want to use about half a packet.

- Next, add one teaspoon of the provided yeast energizer to help kick off a good fermentation. Then use a large, sanitized, spoon or paddle to mix everything in.

- You are now ready to put the lid and airlock on. Add a small amount of the sanitizer solution to the airlock, or you can use a little bit of alcohol, like vodka. This keeps the airlock clean and sanitized. Don't be surprised if you see foam come up through the airlock. Just make sure to clean it and put it back on.

- Keep in a cool dry place (approx. 65-75 Degrees, according to yeast tolerance). Keep the temperature consistent as fluctuations in temperature will stress yeast and can affect fermentation. If you want to be very specific you can look up the temperature tolerance on Lalvin, Safcider, or Red Star's website.

- In a few days to one week you will see consistent bubbles coming out of the airlock and the cider will foam up. You'll be tempted to open up the fermenter and look at it but try not to do this.

- After 2-3 weeks, primary fermentation will likely be done. In some instances, it could take a little longer. The cider should now taste dry and flat. The airlock bubbler will slow down as primary fermentation finishes up. If you want to be certain, you can always purchase a hydrometer and take initial and specific gravity readings, but it is not a necessity. Depending on the sugar content of the juice our cider should fall within 5.5%-6.5% ABV.

SECONDARY FERMENTATION/BOTTLING:



· At this point you can transfer the cider (known as “racking” in the brewing world) into a secondary fermentation container and or bottle it. Use the spigot provided to empty the cider into a new container or bottle. Be sure that you don’t disturb or mix up the sediment at the bottom (called the “Lees”). This ensures that your finished cider will be clear, instead of clouded with sediment.

· If you opt to put the cider in a secondary fermentation container and you want to be creative with your blend, this is the point where you can add flavors, like oak barrel wood chips, dried orange peel, etc... Aging the cider in a secondary fermenter for a few months allows the flavor of the cider to develop, the juice to clear out, and to off-gas. If you don't want to wait that long then you can just go straight to bottling your cider.

· Bottling: Grab the reusable 64oz growlers or any other reusable wine bottles you have around the house that have good sealable caps. If you did not purchase growlers and still need to get some bottles, we would suggest using a 32oz swing top style. These have caps with a seal built-in and you can usually find them in a 12 pack. Clean, sanitize, and rinse the bottles with provided sanitizer. Let the bottles air dry. Do not use regular soaps or cleaning solutions as this can affect the taste of the cider. Use the spigot or rack off the cider into your bottles, leaving a little head space in each. The growlers have a mark that you can use for reference to fill to the correct level. Keep in mind that if you are adding sugar to make a sparkling finish, you may not want to fill exactly to the 64oz mark and instead leave a little more head space. *(see next paragraph for more details)*

STYLE OF FINISH: Sparkling or Flat, Sweet or Dry

· **Sparkling Cider:** To make a sparkling cider a small amount of fermentation is allowable in the final bottle. The carbonation that is produced during this final part of the fermentation is forced back into the cider because the bottle is capped. This makes the cider naturally fizzy. Sometimes, this can take a few weeks to achieve. In wine and cider making this method is called pétillant-naturel (“Pet-Nat” for short). If fermentation is already finished, you can also achieve this result by adding a very small amount of “priming” sugar in the bottle before capping the bottles. The ratio depends on the size of the bottle. **But beware, Do NOT add more than a proper ratio!** This will cause too much pressure to build up and bottles can explode. For the 64oz growlers, 1 teaspoon is plenty, but this also depends on the weight of the type of sugar you are using (brown sugar, maple syrup, honey, etc...) HomeCiderMaking.com has a great calculator to help determine the correct amounts.

(<https://www.homecidermaking.com/cider-priming-sugar-calculator/>). Once priming sugar is added, make sure the bottle cap is screwed on tight. Set the bottle aside in a cool, dry place. Allow several weeks for the cider to finish carbonation.

- **Still Cider** (wine-like): If primary and secondary fermentation/aging is complete, you can bottle cider “still” (just meaning that you do not add any priming sugar). Keep in a cool, and dry place, chill, and enjoy at your leisure.

- We have found that 6-8 months of aging, clarifying, and bottle priming gives the cider the best flavor profile, but it can be ready in as little as 1-3 months depending on your personal pallet.

- **Both of these methods produce a dry cider**, there may be some residual sweetness, but if you desire to make a sweet cider you have the option to back-sweeten the cider after fermentation is done. This can prove tricky because the yeast will continue to feed off of any sugar added. One of the ways that homebrewers can get around this is to add a non-fermentable sugar. There are a few other ways to do this, but be sure to check out the links below or the included booklet for other methods.

- Once ready, chill, drink, and enjoy!

Troubleshooting:

- If you detect a sulfur smell, this is a normal off-gas that is produced during the fermentation process. Your cider has **NOT** gone bad, it just needs time to off-gas. You can stir the cider with a sanitized spoon every few days to help de-gas the cider. It can also help to rack it into an aging container a third time. Try to keep the temperature of the cider consistent. If in the rare event, the smell does not go away, you can always save this batch to blend out the smell with a new fresh batch. Most artisan cider makers rarely throw out a batch of cider. The school of thought has always been that time and aging helps to cure problems.

- If your cider is still hazy and you want it to clear out, then you can do what’s called “cold crashing” and put the container in the fridge for a minimum of 24-48 hours. The colder temperature causes any pectin in the juice to fall to the bottom of the container. If you want it to clarify the cider further, leave it in the fridge longer and then simply age it in a secondary fermentation container.

Cider Resources:

Homecidermaking.com

[MN Cider Guild \(mncider.org\)](http://MNCider.org)

Cider.org.uk

NorthernBrewer.Com

[Appleblendingcider.pdf](#)

Books:

[*Cider Making, Using, and Enjoying Sweet and Hard Cider*](#) By Annie Proulx and Lew Nichols

[*The New Cider Makers Handbook*](#) By Claude Jolicoeur

[*The Big Book of Cider Making*](#) By Christopher and Kirsten Shockey

[*Cider, Hard & Sweet: Traditions and Making Your Own*](#) By Ben Watson

[*Everything Hard Cider*](#) By Drew Beechum

[*Making the Best Apple Cider*](#) By Annie Proulx (Included with Kit)

