



Directions: Making Cider

Start by taking a gravity reading. A good stable cider should start out at 1.045 – 1.065 S.G. and it may take the addition of sugars to reach this depending on the blend, variety, region and season in which your cider is produced. You can add cane sugar, brown sugar, maple syrup, molasses, honey, treacle and/or raisins to reach a higher-than-naturally occurring O.G. Check out the cider style guidelines at BJCP.org for more details, however, **do not rely completely on a recipe calling for specific volumes of various sugars.** Instead, begin by taking a specific gravity reading and determine the S.G. of the sweet cider, then, by adding sugar(s), raise the gravity to the desired level.

Cider is usually purchased or even pressed at a cool temperature, discouraging early, natural fermentation. When deciding whether or not to sulfite your cider or perry, consider the freshness of the cider and for how long you will store it, and at what temperature, before you begin the fermentation process. Remember, cider is full of natural yeast; if you don't get yours in, they will start without you!

Next, determine the flavor profile you'd like to obtain from your cider or perry. Do you want a dry beverage? A sweet drink? A tart sipper? A smooth, crisp summer quencher? The profile of your cider beverage is the derivative of three correlating characteristics: (1) alcohol, (2) acidity and, (3) fruit flavor. Each of these components act upon each other. For instance, a lower alcohol beverage will better showcase the fruit profile just as a higher alcohol volume will subdue the delicate play of acidity. Lesson here: **keep your gravity under control for early attempts in order to ensure a more drinkable beverage.** Once you've mastered these lower gravity ciders (1.040 - 1.050), the experience you've mustered will help you obtain future successful batches. **Remember: unlike beer, the sugars in cider and perry are completely fermentable. Your final gravity will fall below 1.000 F.G. leaving you with a naturally completely dry beverage.**

However, you can sweeten your finished cider and this is a common practice to be explained below. Also, consider whether your intent is to make apple wine or apple cider. The main difference being the starting gravity as apple wine's (S.G. of 1.070 - 1.100) gravity is boosted significantly with cane sugar (*chaptalization*). This higher gravity and resulting higher alcohol percent lends to a vinous quality and lighter body in the resulting beverage.

Choose Your Yeast

All yeast is 'cider yeast' because any strain can be used. Always use fresh yeast, but beyond that, experiment!

The naturally occurring yeast in your sweet cider (the light colored sediment on the bottom of the jug) will ferment your cider; however, you will have no control over these wild yeast's flavor profile. We recommend pitching a yeast strain isolated specifically for wine or beer making.

Here are a few popular choices for apple cider among customer's and employee's Siciliano's: the wine yeasts Lalvin K1-V1116, EC-1118, Red Star Champagne, Cote De Blancs, Whitelabs Champagne and Sweet Mead Yeast and dry Ale yeasts Safale S-56, S-04. **We recommend S-56 or K1-V1116 for a first batch.**

Research the yeast strain you choose to discover its optimal fermentation temperature. After initial fermentation, try reducing the temperature for a "cold conditioning" stage. This will help the yeast completely flocculate and mellow the profile of your cider or perry.

Clarifying

Even though BJCP guidelines do not necessitate your apple or pear beverage's clarity, a translucent cider has nice appeal. Here are a few ways clear up a cloudy cider.

- 1) Do nothing; accept your cider's natural appearance and let it be.
- 2) Be patient. Have you racked the cider from the lees? In our experience, most ciders will clear on their own. This may take from as little as a few weeks up to months. Be patient!
- 3) Try reducing the temperature of your cider after fermentation in order to assist the yeasts in *flocculating* out of suspension. Many things will fall out at a cooler temperature, give it a try on a persistently cloudy cider.
- 4) Add a fining agent to clear it up. A good one is LQ K.C. super finings, a double punch of both chitosan and kieselsol which has consistent results. Also try polyclar, gelatin, or isinglass. Adding pectic enzyme and/or wine tannin to the initial recipe formulation will also assist in achieving clarity.

Perfect Your Product

Once fermentation is complete, **it is common practice to sweeten, increase the body or acidity of, or blend your ciders.**

Remember: cider sugars are completely fermentable and will finish completely dry. You cannot stop fermentation at a certain point along the way with any

practical additive.

In order to sweeten your finished cider, try a product called 'wine conditioner', a mixture of liquid invert sugar and potassium sorbate. Sorbate inhibits renewed fermentation so be careful if you plan to bottle condition your product for carbonation: it will not work. Add the wine conditioner to a small sample of your cider to see how you like it, then continue to add to taste until a proper sweetness is achieved.

If you desire both a carbonated and sweetened beverage, force carbonation may be the tool you are looking for. See the accompanying article on this website for kegging details and instructions.

Glycerin is another additive which can be used to increase the perception of body or mouth feel. Again, add to taste and experiment.

If your finished cider tastes mild or bland, try adding some acid blend or malic acid (the acid naturally occurring in apples). Remember, the profile of your cider is a balance of acidity, alcohol and fruit. Altering one of these can accentuate or mellow the other variables. Experiment and keep clear and concise notes.

Oak Aging

Fermenting or storing your cider in contact with oak can add complexity to its body and mouthfeel, a vanilla flavor and aroma, and a deeper amber hue. While aging in a true oak barrel is an art requiring skill, knowledge, and practice, adding oak chips or cubes is simple. Experiment with toast levels, amount, and contact time.

Cider makers will also blend various batches of oaked or unoaked ciders to achieve a desired flavor profile. This is another part of the art of cider making. Experiment. Try blending cider into your beers and vice-versa.

Spicing

Spices can also be employed in cider making. Try a blend of old-world mulling spices, cinnamon, vanilla, nutmeg, cloves or anything else that sounds good to you. Create a tincture by soaking the spices in spirits like grain alcohol, brandy, rum, apple jack or apple brandy. After a few weeks of soaking, strain out the spices and blend into your fermented cider. Spices can also be added into the fermenter itself or simmered in a mixture before the initial fermentation starts. Another way to use seasonal spices is to heat up your fermented beverage and add the spices directly to the mug you're sipping from.

Sparkling or Still...

The BJCP Style Guidelines lists three levels of carbonation for bottled ciders: still, petillant (lightly carbonated) and sparkling. A still cider has zero CO₂ dissolved into solution and therefore can be bottled in cork-able wine bottles.

Petillant and sparkling ciders must be capped in appropriate bottles or corked with a champagne corker and appropriate equipment. Prime with 2-3oz corn sugar for petillant or 5oz per 5-gallon batch for sparkling. Consider adding fresh yeast along with the priming solution if the cider has bulk-aged longer than a couple months. This is not completely necessary as yeast still remains in solution even after months of bulk aging; however, adding fresh yeast will greatly speed up the carbonation process.

Storing and Aging

Fermented cider is alive with yeast; therefore, like wine, its profile will continue to develop over years. As a rule, ciders with a lower starting gravity and tannin presence will peak in character sooner than higher AVB batches. Keep a journal and samples of your batches over the years and take careful note of subtle changes. You may find certain recipe formulations tend to taste best fresh and others after months of bulk aging.

Go to BJCP.org

Read the style guidelines and learn about the history of apple cider! Visit Beertown.org and read about apple events. Attend the Great Lakes Old World Syder Competition held annually in Grand Rapids, MI. For more information about this excellent local apple cider event contact Rex Halfpenny mibeerguyd@aol.com. Get involved!