

Cider: The Misunderstood Fermentation
Bill DeGraffenreid

I've been brewing beer for nearly ten years and making wine for the past three and a half. I've also made about eight batches of cider over the years. Without a doubt in my mind, cider is the easiest beverage to produce and I'm rather surprised that more people don't do it. Perhaps it is seen as an alternative to soft drinks: sickly sweet and the sort of thing that young college kids drink as an alternative to the normal swill found at keggers. I will admit, that there are some mass produced, soda-like versions of cider to be found on the market, but when you make your own – you can have a lot of fun.

While cider may currently be categorized as a “less than manly” drink – it was not always the case. In the colonial times and early years of the United States, cider was the beverage of choice for most. Largely due to the ease with which apples grow in New England and Mid-Atlantic. The ciders of that time were made with more tart apples than are found today, varieties that we might casually identify as crab apples. But this tartness balanced nicely with the sweetness to make a very balanced beverage. They were generally aged in barrels, so wood-aged characteristics were also common. The tradition of ciders was not unique to the States; it was carried to our shore by our British forefathers. I'm told that some fine examples of ciders can still be found in the Isles and across the channel in France: they love their *pommes* too! They also make a really famous brandy from apple cider as a base: calvados.

So what happened to cider in the states? Well, the immigrants from Continental Europe (Germany, Poland, etc.) that came in the 1800s were much more interested in beer. And as people moved west, large amounts of land made growing large quantities of barley possible. Prohibition made the need for cider apples, which aren't great for eating, disappear. No reason to grow things that aren't useful. Note the contrast to grains and grapes: still useful even when not being fermented.

So, where does that leave us today? In the Sacramento region, we are very lucky to live in a region where apples are produced in fairly large quantity. Less than an hour to the east, we can find a wide variety of apples: sweet and tart alike (alas, the tarts today aren't quite up to the same tartness as yesteryear – but perhaps one day they will be). The adventurous among us can buy apples, cut them up, and use a grape press to extract the juice. The sane among us, yours truly included, usually buys the fresh raw cider already in convenient gallon jugs. Could I tweak my recipe by making my own custom blend? Sure – but if you've ever used a press for wine, remember the effort involved with squeezing grapes and remember that apples are a lot firmer.

Raw cider has wild yeast in it. The powdery substance that you find on tree fresh fruit contains yeast, in addition to dust and other fun stuff. Here you have to make a decision: do you feel lucky? I have personally never killed off the wild yeast when using raw cider. BUT, I don't feel lucky enough to leave it all to the wild beasts: I always pitch my own yeast. Am I insane? Perhaps, but in my defense many winemakers use spontaneous fermentation. Furthermore, my father-in-law worked seasonally at a

cidermill in his teenage years and the family would always “hide” a bottle or two in the back of the refrigerator with the lid on very loosely. Three weeks later, they began to enjoy it. I’ll admit I’ve had some complexity in my ciders that I attribute to the presence of the wild yeast. Some judges have loved it, others hated it. I still sleep soundly at night.

How to kill the yeast? I’d probably turn to winemaking tricks: one crushed Campden tablet for each gallon of juice. Let it sit for 24 - 36 hours in an airlocked container then pitch yeast. I’ve also been told that heating the juice to 150°F for about 20 minutes also works. Don’t go higher though: they say that you activate the pectin in the juice and it gets very cloudy. To me, having to “cook” the juice takes the simplicity out of the process.

What kind of yeast: here is where you can have some fun. I’ve used cider yeast, champagne yeast, and English ale yeast all with very good success. White wine yeast can also be used, but I haven’t tried it yet. If you use champagne yeast, you will have a very dry cider; it breaks down sugars that other strains can’t. You should use a heavy pinch or two of yeast nutrient and well aerate your “must”: apple juice isn’t as good of a medium for yeast growth as wort.

You can also play around with the addition of other fermentables. Table sugar, brown sugar, honey, other kinds of fruit juice, and frozen apple juice concentrate: I’ve used them all. You can have some fun. Cranberry-apple, “Crap”, is very good – I use about a half gallon in five – so is Pomegranate-apple. I had a lot of fun with a New England Style Cider a few years ago; it is strong, wood-aged stuff with extra sugar added and raisins.

How do you finish it up? I always do a lengthy (three – four weeks) secondary to let it clarify. Don’t freak out if your final gravity is less than 1.000 – it happens sometimes: apple juice is highly fermentable. Bottle your cider with 2 – 3 oz of priming sugar or force carbonate. Or not: cider need not be sparkling. One thing that I’ve noticed over the years is that fermented cider “holds on” to its bubbles more than beer. I’ve lost many a siphon when racking. Be patient and try to have as little turbulence as possible to keep the CO2 in solution.

Do you have to go to Apple Hill? Am I restricted to doing this in the fall? No. I’ve made cider with “Tree-top” apple juice. It’s not the most flavorful juice to be found, so consider kicking it up with some juice concentrate. The nice thing about it is that it’s been pasteurized and filtered: no wild yeast to muck things up. Trader Joes carries a couple of blends of apple juice, also pasteurized. These juices are more flavorful and will probably make a better cider.

If I’ve captured your attention and you decide to make your own, while patiently waiting for it to finish, try some of the local ciders: Fox Barrel and Two Rivers both make fine ciders and are in wide distribution in our area. Cheers!

New England Cider
Bill DeGraffenreid

4 Gallons Apple Juice
1/2 lb Light Brown Sugar
1 lb White Sugar
2 oz Honey
1/2 lb Seedless Raisins
2 oz Oak Chips
1 Tablespoon Yeast Nutrient
White Labs Cider Yeast (WLP 755)

Dissolve sugars, honey, and nutrient in warmed 1/2 gallon juice. Once dissolved, add to remaining juice in carboy. Shake well and pitch yeast. After fermentation subsides, bring saucepan of water to a boil. Add raisins to boiling water for a minute. Remove raisins, and chop them up on a sanitized cutting board (don't forget to clean knife too). Add to carboy. Fermentation will take off again. After four more days, rack into clean carboy with oak chips that were steamed to sanitize. Let age in secondary for one month. Bottled with 1/3 C dextrose. Don't be afraid to let these bottles age: this stuff is in excess of 9% ABV!