

Hard Cider Basics for NW Gardeners

15-20 lbs fruit=1 gl. juice (5 ½ - 6 gls. juice= 5 gl. carboy after primary ferment). Sweet, commercial 'dessert' apples give more juice than cider or russet varieties. 100-120 lbs fruit is needed for each 5 gl. carboy. 5% up to 20% should be Astringent (bittersweet or bittersharp) (5-20lbs) our best cider has been about 10-15% bittersharp, 30-40% aromatic/tart and the rest neutral

Some good varieties of cider apples for our area:

Kingston Black- Bittersharp, strongly biennial, fruit has soft tannins and can be used for purposes other than cider.

Yarlington Mill- Bittersweet, slightly biennial.

A good balance of sugars, acids and tannins, suitable for varietal cider or blending.

Harry Masters Jersey- Bittersweet, somewhat biennial. Good variety for blending

Reines des Pommés- A full bittersweet, producing sweet astringent juice. One of the few cider varieties that is not strongly biennial.

Tremletts Bitter- A full bittersweet with very astringent, sweet fruit (most years). Somewhat biennial

Brown Snout- Bittersweet, soft tannins and high sugar make it suitable for varietal cider or blending.

Dabinette- a full bittersweet, consistent cropper, late to ripen. Good for blending or as a varietal cider.

Neutral varieties can make up 30-60% (50 lbs)

Jonagold, Melrose, Liberty, Honeycrisp, Spartan, Akane, Elstar, Pinova, Sayaka, Zestar, Tsugaru, Beni Shogun Fuji

Tart varieties- 10-20% (10 lbs)

Gravenstein, Karmijn, Queen Cox, Freedom, Idared

Aromatic- 10-20% (20 lbs)

Red Alkmene, Gravenstein, Karmijn, Queen Cox, Ashmeads Kernal, Roxbury Russet, Ananas Reinette



Equipment:

Grinder and press, or purchased fresh juice. If purchasing juice, try to get unpasteurized or UV pasteurized. Heat pasteurization usually yields a less desirable cider.

Primary fermenters- We like 6 gl. food grade buckets with lids

Hygrometer or refractometer

pH meter

Sanitizers- Iodine, Sulfur based, or acid based (preferred) such as Star-San

Carboys- glass preferred

Airlocks- multiple designs exist; get ones that are easy to clean

Yeast

Pectic Enzyme, yeast nutrients (optional)

Sulfiting agents: metabisulphite, sulphur dioxide or SO₂

Process:

Wash and sanitize the primary fermenter(s). If pressing your own apples, wash and sanitizer your press and grinder. Wash the apples before grinding. Do not use windfalls or fruit that has any sign of rot.

Fill the primary fermenters to about 4 inches below the rim. If using several varieties of apples, you can blend by mixing the apples during pressing. or mix the juice after pressing. If making a varietal (single variety) cider, keep the juices separate.

After blending, test the juice for specific gravity and pH.

Sulfiting before adding yeast protects the cider from various 'cider sickness' or problems. If the fruit was clean, and the pH low enough, you can skip the sulfiting. Adding pectic enzyme now will give you a clear cider at the finish.

Addition of Sulphur Dioxide		
Juice pH	SO ₂ needed in parts per million (ppm)	Campden Tablets per gallon or ml. of 5% SO ₂ stock solution per litre
Above 3.8 (insipid)Lower pH to 3.8 with addition of malic acid.....	
3.8 - 3.5	150	3
3.5 - 3.3 (balanced)	100	2
3.3 - 3.0	50	1
Below 3.0 (sharp)	None	None

24 hours after sulfiting, pitch your yeast. Almost any brewer's yeast will work, and different yeasts will produce different flavors in your cider. We have tried many wine, champagne, and even some ale yeasts, and have come to prefer Epernay or Cotes des Blanc for our cider. Experiment with different yeasts on the same juice to find your preference. Yeast nutrient can be added with the yeast to ensure a quick start to your fermentation.

Fermentation should begin within 48 hours. At this point, we keep our cider inside the house, usually with room temperatures of 60-70 degrees. Many yeasts need some warmth to get going. Slow to start ciders can be subject to problems. Ciders that ferment too fast also can have off flavors. The goal is active fermentation within that 2 day period. This initial fermentation will be quite foamy, hence the headspace in the primary fermentor. After about a week, the fermentation will slow down and become steady. Check the specific gravity; it should be somewhere around 1.005 or 1.006. At this time, the cider can be transferred/racked into your sanitized carboys/secondary fermentors and fitted with airlocks to finish the ferment. We move our carboys to a cool, insulated room in our barn to finish the fermentation. The cider will slow down because of the cooler temperatures; this slow fermentation is believed by many to give a richer cider flavor. Check the carboys occasionally for bubbling. As the cider approaches dryness, the bubbles will become tiny and infrequent. At this point, you can draw some of the cider out and check again for specific gravity. A good specific gravity for bottling is 1.001-.997 if you like dry cider.

Bottling

Once again, sanitation is critical! Wash and sanitize your bottles. Rack the cider off the lees into a sanitized bottling bucket. If you want some bottle carbonation, add a sugar solution to the bottling bucket. 1 cup of sugar boiled in 2 cups of water will dose 5 gallons of cider. Fill the bottles and cap with crown caps. Still cider can be bottled in wine bottles and corked. Cider can also be racked into kegs and force carbonated.

References

The Wittenham Hill Cider Page - <http://www.cider.org.uk/frameset.htm>

Talisman Farm Cider - <http://www.talisman.com/cider/#FAQ>