Cider Revolution

Making Great Cider from Everyday Ingredients

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Overview

- Cider Basics
- Ingredients
- Process
- Acid and Tannins
- Tips on Making Ciders
- Putting It All Together

What is Cider?

- Fermented apples or apple juice
- Can be extended to included perry (pear cider)
- Standard Cider and Perry (BJCP Cat 27)
  - **27A Common Cider**
  - 27B English Cider
  - 27C French Cider
  - 27D Common Perry
  - 27E Traditional Perry
- Specialty Cider and Perry (BJCP Cat 28)
  - 28A New England Cider
  - **28B Fruit Cider**
  - **28C Applewine**
  - **28D Other Specialty Cider/Perry**

Traditional vs. Nontraditional

- Traditional
  - Made using blends of varietal apples
  - Generally specialty cider apples - bittersharp, bittersweet
  - Involves pressing apples
  - Wine or Cider Yeasts
  - 6-12+ months of aging
- Nontraditional (Focus of this talk)
  - Common ciders made with grocery store juice
  - Conducive to fruit and specialty ciders
  - Can be made with beer yeast
  - Much shorter aging times (1-8 weeks)

General Process

- Very quick "brew day" - 15-30 mins
  - Add juice to sanitized fermenter
  - (optional) Add pectic enzyme and wait 12-24 hours
  - Add nutrients
  - Pitch yeast
  - Oxygenate / Aerate
- Fermentation / Aging (1-8 weeks)
  - Ferment out all the way (around 1.000 FG)
  - Add fruits, spices, or oak (if desired)
  - (optional) Age until clear
  - Stabilize and backsweeten (optional), bottle/keg

Ingredients

- Apple Juice
  - (or Pear)
- Nutrients
- Yeast

Photo credit: Brian Trout

Ingredients - Apple Juice

- Will any juice work?
  - Almost any - cannot contain sulfites / sulfates
  - I have never found a juice that won't work
- I prefer filtered over organic
  - Subjective - didn't care for the one organic batch I tried
- I typically use juice from local grocery stores, whatever is cheapest
  - Look for sales
  - Typical price - about $20 for 5g
  - CostCo carries Kirkland juice that is not from concentrate
- Optional: Additional sugar to increase ABV

Ingredients - Nutrients

- Nutrients are important - unlike wort, apple juice lacks nutrients
- Recommendations for 5g batch
  - 1/2 tsp Fermaid-K
  - 1/4 tsp DAP (Diammonium Phosphate)
- For low-gravity ciders, no need to stagger
  - More relevant for meads and applewines

Ingredients - Yeast

- Traditionally wine or cider yeasts have been used
- Wine yeast - can require longer aging
- Cider yeast - lots of sulfur produced, low alcohol tolerance
- I prefer beer yeast, particularly Belgian
  - Belgian esters work well with the fruits in the cider
  - Cal ale or English yeasts can work very well too.
  - Experiment
  - Dregs from bottles can be used too - "Party Cider"

White Labs / QUAFF Yeast Experiment

- 7 selected yeast strains, all brewed using same process and ingredients
  - WLP002 - English Ale
  - WLP028 - Edinburgh Ale
  - WLP500 - Trappist
  - WLP575 - Belgian Blend
  - WLP775 - English Cider
  - WLP810 - SF Lager
  - WLP862 - Cry Havoc

Photo credit: Larry Stein

- Temperatures: midpoint of recommended ranges

Yeast Experiment Photos

Photo credit: Larry Stein

Yeast Experiment Photos (2)

Photo credit: Larry Stein

Yeast Experiment Results

Yeast	Judges	Cidermakers	Public	Overall Rank
WLP002 - English Ale	2	1	1	1
WLP028 - Edinburgh Ale	1	2	3	2
WLP862 - Cry Havoc	3 (tie)	3	2	3
WLP775 - English Cider	3 (tie)	4	4	4
WLP500 - Trappist Ale	5	6	5	5
WLP575 - Belgian Ale Blend	6	5	6	6
WLP810 - SF Lager	7	7	7	7

Yeast Experiment Notes

- Ciders were not backsweetened, and sweetened versions could have very different results
  - The favorite was WLP002, which came out sweetest
  - Indicates preference for sweeter ciders
- The lager strains may not have had enough time to age, especially WLP810

Process

- Tools
- Fermentation
- Aging / Conditioning
- Backsweetening
- Stabilization
- Carbonation

Photo credit: Brian Trout

Process - Tools

- More basic than even extract brewing
  - Great for beginners - low startup cost
- 5-6.5g fermenter: carboy, better bottle, etc.
- Food-grade funnel
- Airlock or blowoff hose
- Packaging equipment (kegging preferred)

Process - Tools (Small-Batch Cider)

- Small batches can be fermented right in the 1 gallon juice jugs.
- Just add yeast!
- Jugs are reusable for small-batch experiments

Process - Fermentation

- For WLP500, moderate room temp (~75F) works well
- I don't usually bother with temp control for ciders, as beers take priority.
  - Note: I live in an area with very moderate temps.
- Ciders have proven to be very forgiving, temperature-wise.

Process - Aging / Conditioning

- Optional, but recommended
- If aging on fruits or oak, 2-6 weeks to develop character
- Can achieve a clear cider if aged long enough
- My record is brew day to serving in 5 days
- Lately, I have been aging until the cider drops clear, 3-8 weeks.
- Secondary is optional, I only use secondary for yeast reuse purposes

Process - Backsweetening

- I find completely dry ciders made using this process somewhat unpleasant - tart and too dry
- I typically backsweeten about 10%
  - 1/2 gallon of juice (or equiv) to 4.5 gall cider
- Fruit juices or syrups can be used instead of apple juice to achieve other flavors
- Added at kegging
- Requires special considerations in packaging

Process - Stabilizing

- Backsweetened ciders can NOT be bottle conditioned as-is - bottle bombs
- Ok to serve straight from keg or bottled still and kept cold
  - Otherwise, stabilization is required

Process - Stabilizing (2)

- I use (added at kegging):
  - 4-5 campden tablets (Potassium Metabisulfite)
  - AND 3-4 tsp Potassium Sorbate
- Using both will ensure that yeast are stopped and do not restart

Photo credit: Brian Trout

Process - Carbonation

- Force carbonate
- 2-3 volumes of CO2
- If not kegging:
  - You can either drink the cider still (uncarbonated), which is ok by style guidelines
  - or, not backsweeten and bottle condition
  - (or use artificial sweeteners, but don't do that)

Acid and Tannin

- Recent experiments to make more traditional ciders without traditional apples
- Deficiencies are acid (malic) and tannins
- I have been experimenting with adding malic acid and wine tannin to my ciders
  - to emulate the use of bittersweet and bittersharp cider apples
- This was done in the tart cherry cider I shared today
- Oak and fruit skins can also provide tannins

Making Fruit Ciders

- Fruit syrups
  - I prefer Zergut, very natural (fruit juice + sugar)
  - Smart and Final carries a broad range of Torani syrups (less natural)
- Fruit juices
  - Check your local market
- Aging on wine grapes / pomace
  - ~0.5 - 1 gallon or pomace to batch
  - Age for 2-6 weeks
  - Nice tannins and vinous character
- Aging on fruits
  - Dried work well

Making Specialty Ciders

- Spiced Ciders
  - Holiday spiced cider
  - Spiced Perry w/ Trader Joe's Spiced Pear Juice
- Bourbon Oaked Cider
- Other woods and spirits
- Hopped Ciders
- Cysers (Apple + Honey), may not fall under ciders depending on amount of honey
- Stan's Apple Pie Cider
- Edworts Apfelwine
- Use your imagination

Putting it all Together: Tart Cherry Cider Recipe

- Ingredients:
  - 4.5 g apple juice
  - 1/2 tsp Fermaid-K
  - 1/4 tsp DAP
  - 1 tube WLP500 Trappist yeast
  - 1 bottle of Zergut Tart Cherry Syrup
  - 5 campden tablets
  - 4 tsp potassium sorbate

Putting it all Together: Tart Cherry Cider Recipe (2)

- Process:
  - Add first 3 ingredients to fermenter
  - Pitch yeast
  - Oxygenate / aerate / shake carboy
  - Ferment at 75F until done fermenting. Optionally, age until clear.
  - Siphon into keg
  - Add bottle of cherry syrup, campden, and potassium sorbate to keg
  - Purge keg and shake to mix everything in
  - Force carbonate to 2.5 volumes
  - Enjoy!

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  - Judges: Randy Barnes, Cole Davisson, Jenny DuRose, Brett Goldstock, Harold Gulbransen, Joe Kurowski, Greg Lorton, Kara Taylor, Brian Trout, Eric Woltz
  - Steward: Gaaron Varner
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Questions?

Photo credit:
Larry Stein

Bourbon Oaked Cider Recipe

- Ingredients:
  - 5 gal apple juice
  - 1/2 tsp Fermaid-K + 1/4 tsp DAP
  - 1 tube WLP500 Trappist yeast
  - 2 oz oak chips soaked in enough bourbon to cover them
  - 5 campden tablets + 4 tsp potassium sorbate
- Process
  - Brew as normal with apple juice. Ferment all the way out.
  - Pour off and reserve bourbon and add oak chips to fermenter.
  - Age on oak for at least 2 weeks.
  - Keg, stabilize, and backsweeten as usual, adding about half of the reserved bourbon (to taste).

Peach Cider Aged on Apricots Recipe

- Ingredients:
  - 4 gal apple juice
  - 1 gal Trader Joe's Dixie Peach juice
  - 1/2 tsp Fermaid-K + 1/4 tsp DAP
  - 1 tube WLP500 Trappist yeast
  - 1.5 lbs dried apricots
  - 5 campden tablets + 4 tsp potassium sorbate
- Process
  - Brew as normal with apple juice + 1/2 gal peach
  - After about a week, add apricots
  - Allow to age at least 2 weeks
  - Keg and stabilize as usual, adding 1/2 g peach juice

Cider Aged on Syrah Grapes Recipe

- Ingredients:
  - 5 gal apple juice
  - 1/2 gal to 1 gal red grape pomace (skins and seeds)
  - 1/2 tsp Fermaid-K + 1/4 tsp DAP
  - 1 tube WLP500 Trappist yeast
  - 1.5 lbs dried apricots
  - 5 campden tablets + 4 tsp potassium sorbate
- Process
  - Brew as normal with 4.5 gal apple juice
  - After about a week, add grape pomace
  - Allow to age at least 2 weeks
  - Keg and stabilize as usual, adding 1/2 gal apple juice