



# ALL ABOUT HOPS, part 2

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# SOME OF MY HOPPED CIDERS

1. Hallelujah Hopricot  
(*Cascade, Amarillo*)
2. Fresh Hop Hallelujah  
Hopricot (*wet Cascade*)
3. Hallelujah *Hallertauer*
4. Bartlett *Amarillo*
5. Bartlett *Simcoe*
6. Bartlett *Citra*
7. Bartlett *Galaxy*
8. d'Anjou *Mosaic*
9. d'Anjou *Sauvin Nelson*
10. Taylor's Gold *Simcoe*
11. Double-Hopped Revival  
(*Citra, Amarillo*)
12. Lúpulo Marron (*many*)
13. Hopped Pomegranate  
(*Willamette, Liberty, Mosaic*)
14. 7 Deadly Sins: ENVY (*10 hops*)
15. Hopland #1-#8 (*many hops*)
16. Hopland in Space (*Chinook, Cascade, Ella*)

HOPPED

CIDER

 F  FESTIVAL

*"All hops all day long!"*

# WHY PUT HOPS IN CIDER?

Are you trying to copy **flavors found in beer**?

Are you trying to use an **ingredient you love** or grows in your region?

Are you looking for **validation from beer drinkers**?

Are you trying to make a **gluten-free alternative** to beer?

Are you trying to add **depth and complexity** to your apple-forward ciders?

Are you trying to create a **hop-forward cider**?

Are you trying to add **layers in flavors & aromas** to complement other yeast or fruit?

**Are you jumping on the bandwagon with no knowledge of hops?**

# WHO ELSE IS MAKING HOPPED CIDER?

1. 2 Towns
  2. Angry Orchard
  3. Anthem
  4. Apple Outlaw
  5. Big B's
  6. Bull Run
  7. Cider Riot!
  8. Citizen
  9. Colorado Cider
  10. Doc's Draft
  11. Eaglemount
  12. Finnriver
  13. Fox Tail
  14. Grizzly
  15. HUB Cider
  16. Les Vergers de la  
Colline
  17. Merridale
  18. New West
  19. Oliver's
  20. Portland Cider
  21. Red Tank
  22. Rogue
  23. Sasquatch
  24. Schilling
  25. Sociable
  26. Square Mile
  27. Stem Ciders
  28. Swift
  29. Texas Keeper
  30. Tieton
  31. Two Rivers
  - 32. *Wandering Aengus***
  33. Woodchuck
- ...and dozens  
more I'm sure!

# HOW TO START

1. Purchase high-quality Cascade pellets from a great grower/seller (e.g. Crosby Hop Farm: [beau@crosbyhops.com](mailto:beau@crosbyhops.com))
  - ➔ Sold in 44 lb mylar bag in box, you can buy from local HBS in 1 lb bags
  - ➔ Price is ~ \$8-\$15 per pound
  - ➔ Buy 1 pound per beer barrel (31 gallons)
2. Put pellets into a nylon hop bag, tie the entire bag shut, not just with the pull-string

# HOW TO START

3. Use pull-string to tie off inside your tank, maybe with zip ties
  - ➔ Tie to carb stone
  - ➔ Tie to a custom-made steel loop
  - ➔ Throw in an IBC with a bottle-float tied to the string
  - ➔ Bag will be extremely heavy when wet
4. Wait 5 days at ambient (55-65 F) then chill tank for packaging, or rack cider off into brite tank to chill

# HOW TO MAKE REALLY GOOD HOPPED CIDERS

- **Read hop books:** *For the Love of Hops* by Stan Hieronymus
- **Learn from pro brewers:** Seek out *GABF* or *World Beer Cup* IPA winners in your region and ask for their secrets **AFTER** you've read a book. (*But be careful with the beer translations!*)
- **Try new hops:** Buy small quantities of *exotic hops* from breweries or home brew shops and play with them
- **Talk to homebrewers:** These guys are *serious* hop heads!
- **Drink hoppy beers:** Don't limit yourself to just IPA, seek out single-hop beers. *The best hoppy brewers in the world drink lots of hoppy beers.*



# COMMON HOP VARIETIES & CHARACTERISTICS

Aroma or Flavor hops, **not bittering**

“Wet” or “Fresh” hops, straight from the field **in season**



**Cascade**

**Most common:**  
grapefruit and citrus



**Amarillo**

Tropical, grapefruit,  
“Super Cascade”



**Centennial**

Floral and lemon



**Citra**

Melon, lime, lychee,  
passionfruit



**Simcoe**

Pine, earth,  
citrus



**Chinook**

Spice, pine,  
grapefruit

# ADVANCED DRY HOPPING TECHNIQUES

—Rev Nat's Secrets—

- Multiple additions: *5 days out & 3 days out* from packaging
- *Layer different varieties* at each addition
- Use far more than “recommended” up to 10 lbs per barrel!
  - Beware *Law of Diminishing Returns*
- Use *complimentary hops*: Chinook (pine) & Citra (citrus)
- Experiment *outside the norm* (Nobles, Ella). Look to So Hemisphere
- Do not allow extended *7+ days* contact time
- *Control headspace*, tank pressures for aroma
- Keep oxygen away: *purge brite tanks* with CO<sub>2</sub>
- If not filtering, dry hop in the presence of *fermentation*
- Expect *measurable IBUs* (Hopricot is ~19 IBUs)

# “BREWING” CIDER

- Boil pellets for an hour in apple juice or cider
  - Use IPA recipes
  - Don't just follow the IPA advice though! Experiment
- Use “hop bursting” techniques or continuous hop additions ala 60 Minute IPA where most hops are added with 20 minutes remaining in the boil
  - Plan ahead for caramelization of the juice due to boiling: possibly boil a fraction of your final juice size with a full amount of hops
- Whirlpools are great for low-heat, low bitterness extraction due to sub 180 degree heat and “no” isomerization
- Use of a hopback with whole-leaf is awesome: Always aroma hops
- Work with brewers to best utilize their brewhouse equipment
  - How many degrees are lost going to the whirlpool? How fast can you bring to a boil? How much steam loss anticipated? How much can you fit in your hopback?
- Pass through a heat exchanger, considering hitting with oxygen in-line (due to boil depletion), then ferment normally

# FINAL NOTES

- Do not filter hops (do not crossflow!)
- Package in brown glass due to UV “skunky”
- Send your cider to my Hopped Cider Fest in April!
- Barrel age before or after hopping
- Don’t fear pasteurization, keep kegs cold
- Boiled hops have never clarified for me with gelatin, sparkaloid, extreme wait times, enzymes
- Randalls add extra charge of hoppiness at point of service
- Whole leaf floats, sort of. Pellets sink, sort of.
- Store opened mylar bags in a corny keg purged with CO2

**Why am I giving away all my secrets? Thousands of IPAs are made annually from brewers with access to the exact same ingredients and only one wins Gold.**

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