

# Hop Substitution: How Do We Make the Beers We Want in this Crazy Hop Market?

Introduction: By Chris Frey of the AHA Governing Committee

Hops: We love Hops

- Nutritional

- Great for Beer

- Man Boobs (plant estrogen)

- A defining character of American Craft Brewing

However many of us can not brew the beers we made a year ago

Malt

- Different problem with similar circumstances

- Malt is still available though expensive

- Some Hop varieties are not available at all

Why the Shortage?

- You've heard it all before

- A reduction in Acreage (more than 50% since 1992)

- Therefore a reduction in pounds produced

- Slight increase of acreage last year, too little too late

- Not enough hops for demand

- 10 to 15% shortfall

How Did Something Like This Happen

- '90's glut caused poor prices

- Many reduced Hop acreage for more profitable crops

- Some got out completely

- Excess inventory fed market long after acreage PONR

- We are at the mercy of the Large Breweries

- AB/InBev, Miller/SAB, Coors/Molsen, Modelo, Heineken

- Panic buying

- Big money multi-year contracts

- Reduction of Growers 80% since 1966

- Infrastructure cost
- Transportation cost
- Land values
- Weak dollar
- Buying practices (hoarding)
- Fire at Yakima Chief didn't help

### Future of Hop Market

- Aromas and low yield hops will suffer the most
- It will get worse before it gets better
- High alphas will be taking most of the acreage
- Cost will remain high for a while

### Starting a Farm

- Good Luck with that
- Cost (equipment, infrastructure, land, harvest etc)
- Time (three years before decent yield)

### Why Certain Varieties are Unavailable

- Yield
- Alpha per acre
- Disease resistance
- Big Boys demand

### What Are the Consequences?

#### For the Larger Brewer (and I don't mean me)

- Very little impact
- Prices will go up a bit
- Branded beers will stay pretty much the same

#### For Smaller Breweries and Brew Pubs

- Branded beers will have some problems
- Many will have to reformulate some Brands
- Other brands will go away for awhile
- Most small brew pubs are okay with different
- Some will go out-of-business

## Home Brewers

End of the supply chain

And as you know crap rolls downhill

Upside is Home brewers don't need a lot

Downside you won't be making your Favorites

Unless you already use "exotic" hops

## Okay, What Hops Will be Scarce

Chris Colby's article for BYO (Brew Your Own)

Quotes Chris Graham as saying that C-hops are scarce

Cascade, Chinook, Centennial and Columbus

Fairly self explanatory

Along with Amarillo, Simcoe Pearle and Northern Brew

Rising stars in the hop world

Don't look for much in the way of Hops from

New Zealand, Australia or China

## Europe Had a Bad year

German Nobles will be hard to find

And expensive if you do find them

## AND NOW FOR SOMETHING COMPLETELY DIFFERENT . . .

### Say Hello to . . .

Glacier

Opal

Argentinean Cascades

**General Trade Perception:** These Argentinean-grown Cascades are not like American Cascade - they have a very mellow and sweet character that is grassy, with herbal, peppery, and spicy undertones. A versatile hop to use for ales and lagers - strangely, with its sweet/spicy aroma this hop would make a good substitute for Hallertau-type and Golding-type hops, but not a good substitute for American Cascade!

**Aroma:** Lemon grass with herbal spicy undertones.

**Alpha Acids:** 3.2% w/w

Sterling

Vanguard

Liberty  
Palisades

## Substitutions

Well as a purist I don't believe there can be substitutes  
No BJ's List  
Our taste panel research is confidential for now  
Our brands will not be impacted this year  
Commercial substitution list are available  
Beer Smith, BYO and Hop Union have online list  
I have a distillation of the more popular substitutes

## What to do

Bad luck for you Hop heads (Cascades)  
Not so much for us Malt heads

## First Thing . . . Protect the Hops You Have

Correct storage is key  
Vacuum seal if you can  
If not use an inert gas to replace the air (Nitro, CO2)  
Sub-zero freezer or non-frost-free  
Pack it in ice before freezing

## Trade and Barter

## Pool Your Hops

## Make Friends with Your Local Brewer

## Take Advantage of Hop Samples

## Take Advantage of Boil Times

## H2O Profiles

Certain water profiles accentuate bitterness

## Change Your Hopping Schedule

No more mash hopping  
High alphas for bittering  
Save aroma and flavor hopes for advantageous addition  
Use creative blending of Hops  
Dry Hop longer with fewer Hops  
Make dryer beers to raise perceived Hop levels

## Reuse Hops

Whole Hop users  
Late additions and dry Hops

## Substitutions

Use different but similar Hops  
Blend the Hops you want (have) with the Substitute

## Do What Home Brewers Do Best *GROW YOUR OWN*

Experiment

Play!

Do what made American craft brewing the most interesting beer in the world

Walk on the wild side

This could be good for the industry as a whole

Have we been in a rut?

Be historical (hemp, peat, heather).

*SAVE YOUR HOPS FOR COMPETITIONS*

Even if you do all these things you will still be making different beer. There is no getting around that.

Will everyone taste the difference? Of course not, but you will.

The most important thing to remember is to have FUN!

The American spirit and experimentation that went on in the early days of Home and craft brewing were exiting times. Go back to those roots and make things new again

*TROEG'S IN HARRISBURG PA*

It's you; every one of you and all those kitchen, basement and backyard brewers who can't be here today. All the brewers before us whose shoulders we stand on. The Jim Koch's and the Greg Koch's and the Vinnie Cilurzo's the Tommy Author's the John Maier's the Garret Oliver's my mentor Dan Gordon and the thousands of brewers out there that make up a small but committed group of intense single minded endeavor. To make the best beer possible, to raise the art and craft of brewing to a level only previously dreamed of.

Yes these will be difficult times for pro brewers and home brewers alike; but I say YES WE CAN. Yes we can still change the face of brewing.

To quote Margaret Mead, "Never doubt that a small group of thoughtful and committed citizens can change the world. Indeed, it is the only thing that ever has."

Thank you; give yourself a round of applause.

Thank you

Questions?