1. Backchannel

The web is a great place to start dialing in your skills...just beware the hacks, trolls and dweebs!

(IF YOU COULD JUST STOP ON BY THE TWITTER AND SAY HI)

THAT'D BE GREAT

#NHC40in40

Mike: @homebrew68
Barry: @stepmash

Wi-Fi access:
Username: AHA2014
Password: Brewtoad

Compliments of Brewtoad
2. Keep it simple!

It’s homebrewing, not rocket science! Well, some guys probably use rockets to brew, but usually it’s not rocket science...

Correcting SG/FG according to temperature and hydrometer calibration temperature ($T_{cal}$).

\[
Corrected \ SG = SG \times \frac{1.00130346 - (1.34722124 \times 10^{-4} \times T_{SG}) + (2.04052596 \times 10^{-6} \times T_{SG}^2) - (2.32820948 \times 10^{-9} \times T_{SG}^3)}{1.00130346 - (1.34722124 \times 10^{-4} \times T_{cal}) + (2.04052596 \times 10^{-6} \times T_{cal}^2) - (2.32820948 \times 10^{-9} \times T_{cal}^3)}
\]

Calculating ABV

\[
ABV = \left( 100 \times \frac{SG - FG}{0.79} \right) + 0.5
\]
How are you involved in the Homebrewing community?  #NHC40in40
4. Networking-part 2: how we started and where we went...
5. Formulation of recipes: bringing balance to the Force

- Knowing what’s a good recipe, and what’s not so bueno...
- all about balance, not quantity
  - know your malts!
  - Know your hops!
  - know your yeast!
- Like learning the ways of the Force, it’s all about practice, patience, studying and not giving in to the Dark Side...
6. Brewing Software:

Lots of stuff out there—both free and for a fee.
- Some are PC and Mac based, some are smartphone apps
- Some are both!
- Brew day timers, substitutions on the fly

Beersmith, with cloud recipes(!)
Brew Math
Brew Buddy
Beer Tools Pro
Brewpal
ProMash

What brewing software do you use?
#NHC40in40
7. Kicking off your training wheels

Now that you’ve started your own recipe formulation, it’s time to take bags of malted grain and make them delicious.

- It’s not that tough!
- You control ingredients
- SRM values are more accurate in your beer
- Reduced costs
- Requires a small capital investment
  - burner
  - mash tun
  - bigger pot

Graduate from bottling. Get it?
8. Cleaning & Sanitizing

You can’t sanitize something that isn’t clean! PBW, Easy Clean, 1 Step, Oxyclean free.

MORE IS NOT ALWAYS BETTER!!!!!
9. Gadgets: you gotta have some toys!

- Keg washer vs. carboy brush drill mount thingy™
- Digital hop scale in grams
- Mash paddle: Just for the symbolism if anything!
- pH meter: should you get one?
- Refractometer vs. Hydrometer
- BeerBug Brewing cap (beerbug.com)
- Quick start propane torch: be safe + make crème brûlée!

What is your favorite homebrewing gadget? #NHC40in40
10. Podcasts

Brewing Network

Brew Bubbas

Basic Brewing Radio

BeerSmith

Tons more!
11. Enter a contest: If Pabst won a blue ribbon, you can too.

- Why do it?
  - Feedback and what then?
  - Judges will give suggestions when done right
  - You can display your hardware as proof of your zymurgilological prowess!
  - Why the heck not?
12. Avoiding problems #1: Degassing meads and wines: how and more importantly WHY

Can be done with mix-stir, brew spoon, stainless whisk

Helps in clearing wine and mead

Adds O2

Reduces CO2 toxicity to yeast
13. Blending Beers, Alternate Ingestions

- Why blend?
  - New flavors
  - Sours
  - Smooth out flavors

- When to blend?
  - Secondary
  - At the tap
  - With non-beer beverages

- Blending with FOOD!

What are some of your most interesting or craziest blends or recipes using homebrew? #NHC40in40
14. BRAGGOTS

Two schools of thought…
Either way, BRAGGOTS ROCK!

Do you ferment wort and honey together or blend in secondary? #NHC40in40
15. Kegging: easier than you think

The price? It may be what you think...

- Time savings
- Nothing to recycle/bottles
- Impress your friends!
- Impress your enemies!
- Cleaning
- Force carbing/accuracy
  - What you’ll need...
  - Costs
16. Random Secret Weapons: Amylase Enzyme

- It breaks complex sugars into simpler sugars, which yeast eat.
- It can dry out beer quite nicely.
- When do you use it?
- YES: stuck fermentation, high mash temp., unfermentable sugars
- NO: bottle conditioning, over-dry beer
17. Let’s DEBATE *RIGHT NOW* : Adjuncts in homebrew...Yes or No?

**YES**
- If it makes you feel good, do it.
- Stylislistical accuracy.
- Beat B-M-C at their own game!

**NO**
- If it makes you feel dead inside, don’t do it.
- Bunched panties are *most* uncomfortable.
- I’ll get my cooked corn flavor the old-fashioned way by not cooling my wort quickly, thank you very much.

Adjuncts-yes or no? Why or why not?

#NHC40in40
18. Brew In A Bag (BIAB)

- All-grain brewing at extract prices!
- Australian method of choice
- Stovetop in the winter
- Concentrating wort allows for high gravity brews
- Hack of the day: paint strainer bag! About $1.50/ea.

Great write-up on beersmith.com
Google: “Beersmith BIAB”
19. Off flavours: In my beer? You’re kidding me, right?

- Seriously, this never happens to me...
- Maybe you should get some help for that smell...
- I’m just asking for a friend... *my* beer turned out great!
- So, did this ever happen with other people you’ve brewed with...?

What off-flavors are there?: Palmer, chapter 21. Learn it, know it, Live it...

Can you fix it? Well, maybe. stay tuned...

Taste for yourself: Off-flavor tasting kits from cicerone.org
20. Avoiding Problems #2: Fermentation conditions

- Temperature is your ally or your nemesis. How do you keep it consistent?
- Give in to the Dark Side.
- Keep that airlock full of cheap booze.
- Know when you need a blow-off tube!
- How long do you stay in primary?
  - Diacetyl rest
21. Internet DIY plans.

OK, we said we were all about keeping it simple. Sometimes, we just can’t do that!

- Build your own tun/manifold
  - Plans in “How to Brew”
- Brewtus 10 online plans
- Fan on pot for defoaming
- Keg washer
- Grow Hops / Make a trellis
- Wort chillers
- Sparge arms
- SAVE $$$$$$$$

Backchannel: what homebrew equipment have you built yourself?
#NHC40in40
22. OLD HOPS:
WHO YOU CALLING OLD?

- DON’T DITCH THEM...USE THEM!
- Fine for bittering: so say Charlie P. and Ray D.
- Saisons, sours and lambics
- Controls the “wildness” of sours
23. Clarifying your beverages

Why? Eyes as important as tongue and nose

- Cold crash
- Chitosan and Kieselgol
- Isinglass
- (Shellfish warning)
- Filters $

Sometimes crystal clear is bad!
24. Yeast washing

- A good way to save on materials
- Unusual strains
- Doesn’t take a lot of effort
- Patience....
- The key is sanitation!
- Keep track of which generation you are harvesting and using.

How many times have you reused a strain of yeast?
#NHC40in40
25. Polish That Turd!
Never say die! You might be able to rescue a beer or mead...

- Try adding fruit
- Try adding spices
- Adjust toward the off flavor...it’s easier than trying to mask it altogether...in other words, use it!
- Sometimes, it’s a tasty turd!

Have you ever polished a turd?
Do tell! #NHC40in40
26. Bottling

- Methods
- Why bottle instead of keg?
- Straight off the keggerator? Why not?!
27. Your patience will be rewarded

Don’t rush things...no one likes it to be over right away. :(  
Condition high gravity beers  
Remember what Paul Masson said...  
Patience is aging meads for medals and flavor...
28. Support your LHBS!

- Immediate help and advice

- Support your online purveyors as well, but be conscious of the plusses of both
29. Brew for YOU first:- Unusual additives

Give it up! What are some of the unusual, surprising, flash-of-genius or just plain ridiculous things you’ve put into a beer, mead or cider? #NHC40in40
30. Glassware: is it really a thing or are you just being a snob?

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<thead>
<tr>
<th>Glassware Type</th>
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**Answer:** It’s a thing, you’re not being a snob. **Decant and pick the right glass. Period!**
31. Host a tasting party…
- Commercial or homebrew or both
- Feedback without competition fees
- Show off your glassware
- Show off your cellar
32. Brew Club activities

- Holiday Beer Exchange
- Guess the style game
- Brew with your sponsor
- Interclub contests
- Intraclub contests
- Hosted brew days
- Educational talks: expand on one of these 40 things...
- Pub crawls / Beer Festivals
- Pairings
- An entire state homebrew festival (!)
- Iron Brewer
- BJCP, Cicerone training
- What else?!?!?

What are some activities that your homebrew club does?  #NHC40in40
CHILI COOK-OFF
SATURDAY NOV. 17 1:00pm - 5:00pm
Kuinnhenn Brewery

$5 Entry Fee
$7 Unlimited tastings
27 Unlimited samples
$50 cash
Brew Club Champ: $50 voucher

Prizes
People's Choice: Brisket starter kit or $50 cash
Sponsors Choice: $50 cash

Rules
- All chili must contain at least 1 lb. of beef per entry. Pork or/and beed may be commerced, but remember that the meat must be cooked separately. The meat does not need to be cooked out of the pot. The meat can be added to the pot at any time.
- The entry fee is non-refundable. No refunds will be allowed.
- All entries must include a detailed description of the ingredients and cooking method. The winner will be chosen by popular vote.
- The公平 winner will be chosen by popular vote. The winner will be chosen by popular vote.
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33. Know your local laws:
It is now legal in all 50 states to homebrew!!!!!!!!!!!!

BUT...it may be illegal to:
- Transport it
- Make too much of it
- Bring it into a licensed establishment
- Have an event/tasting

Support the AHA’s efforts to liberalize homebrewing laws!
34. Cloning a beer

★ Start with an established clone recipe from the source
★ Buy a clone kit online or at Brewing World
★ Talk directly to brewers
★ Master individual ingredients and then reverse engineer it
★ Come up with witty names that play off the original
35. Initiating Brewing Virgins

- Some are just plain afraid
- Some may simply be BS-ing. Avoid BS-ers. They will waste your time.
- Training wheels are good here. Commercially available kits are just fine...
- Have them come by when you are brewing. That usually seals the deal...that and a few homebrews....
- Invite other brewing friends when you invite novices. The conversation really helps someone take the plunge.
36. Fruit and stuff…

- Beer
- Mead
- Cider

- Primary or secondary?
- Chuck it in or sterilize it first?
- Balance

- What’s the most unusual fruit (or veg) you’ve used? #NHC40in40
37. Stuck fermentations

- DON’T GIVE UP! What is the \(^%#@^{*}\) problem?!?
  - Degas it—it’s drowning in CO2!
  - pH levels—know your target level!
  - Nutrient, O2—everyone’s gotta eat!
  - temperature—more sensitive than my wife!
  - Time—what's your damn hurry?
  - Bad yeast—remember, IT’S ALIVE!
  - Not enough yeast—Don’t cheap out or get lazy!
  - Too much alcohol—in this case, that’s a bad thing...
Things you should never trust...

STRANGERS

SOMEONE THAT SAYS, "HERE, HOLD THIS."

CATS-THEY ARE ALWAYS SCHEMING

NIGERIAN PRINCES

NIGERIAN PRINCE NEEDS $100K?

WHERE'S MY CHECKBOOK?

A FART. NEVER TRUST A FART.

SUSPICIOUS QUOTE MARKS

RESTAURANTS THAT HAVE TO ADVERTISE THEIR FOOD AS "RESTAURANT QUALITY"
38. AVOIDING PROBLEMS #3: Calibrate your thermometer!
39. BREW IT UP! Share it generously!

And go to the Michigan Homebrew Festival!
-Thursday, August 14 - Sunday, August 17 at Groveland Oaks Campground.

www.mhfsite.com
40. Never forget those that helped and Pay It Forward!

SPECIAL THANKS TO:

- Anthony Kilimas in the booth
- KGB
- Nate Widener, who helped us kick off the training wheels!
- AHA, Charlie and everyone who puts on this insane endeavor!
- Brewing World / Kuhnhenn Brewing Co.
- Brew Bubbas: Jerry, Craig and Todd.
- Antony Hayes: thanks for the chat, mate.

Mike: @homebrew68
Barry: @stepmash