Happy Stout and Oregon Craft Beer Month as declared by the Oregon Brewer’s Guild. February has lots of fun beer events like Zwickelmania which allows you access to Portland breweries on February 15th, and the rest of the state on February 22nd, see the OBC website for list of breweries participating.

There is The Festival of Dark Arts by Fort George on February 15th in Astoria, OR. There is also the Oregon Beer Awards on February 18th at Revolution Hall in SE Portland, OR. I always enjoy going to the awards ceremony to see which of my favorite beers won awards.

Recently some of you were probably been busy brewing for PCB’s Stout Bout, KLCC, SheBrew, National Homebrew Competition, and or many other competitions coming up. While others may just be brewing as I did a few weeks ago to fill the kegerator.

We our having our first “Out” meeting at Migration Brewing, 18188 NE Wilkes Rd, Portland, OR 97230 (Gresham Pub). There will be tours, food, and great beer. I look forward to seeing you there!

Cheers!

Jon Campbell
SheBrew Competition and Festival

It's not too late to enter a beer. This is the 4th Annual SheBrew Hombrew Competition and it is open to amateur female identified homebrewers. The deadline is Friday Feb. 21, 2020. Drop off locations are: F.H. Steinbart’s in Portland, Mainbrew in Hillsboro, Bader Beer and Wine in Vancouver and The Hoppy Brewer in Gresham so one of those location is near you.

Assistance is still needed for the SheBrew Competition in the form of judges, stewards and help with bottle sorting. If you can help, please go to the SheBrew website and sign up. To register an entry or to help click this link:  http://shebrew.oregonbrewcrew.org/

The competition will be followed by a fundraising event supporting the Human Rights Campaign. Female homebrewers and professional brews will have beer there for a people's choice award.

Bottle sorting will take place at Portland Cider on Feb 27th from 4:30 - 7:30 PM.

Judging will take place at Portland Cider on Saturday, February 29, 2020 starting at 8:30.

**The Festival will be on March 8, 2020 at Castaway Portland.** Come and vote for your favorite home brewer and sample a great many more beers.
Competition Corner

First off a congratulations to members winning medals last month at PBC StoutBout!

Jimmy Mack -- Silver - American Stout

Dan Schlegel [w Frank Hammack and Kevin Burgess] 3(!) silvers, in spiced stout, fruit stout and wood aged stout.

Ian Romanick, gold in Irish stout and Best of Show! (irish stout was also the first of the obc style challenges, so they will be getting a bonus prize at the next in meeting for their exemplary win)

KLCC also had a number of OBC members win medals, as well!

Dan Schlegel (w/ Frank Hammock): 1 Gold (NEIPA)
Jeremy Fetz: 2 Bronze (NEIPA, German Pils)
Chris Campbell: 1 Silver (Pre-Pro Lager) 1 Bronze (APA)
Jason Barker: 1 Gold (Belgian Blonde) 1 Silver (Belgian Golden Strong)
Sander Hoekstra: 1 Bronze (Witbier)
Kevin Callais: 1 Silver (DIPA)
Chuck MacAluso 1 Gold (Wheatwine) 2 Silver (English Barleywine, English Porter) 2 Bronze (American Barleywine, BDSA)

Krausen Cup run by Imperial has been cancelled this year, so the next OSHBOTY comp is Spring Fling in Bend in April; note that the drop off day is early, its traveling far, and its not at a brewery so storage on their end is well the best they can do; so on lighter styles be extra anal with your bottling to get little oxygen in the bottles. In the meantime JBLM has a dropoff in Vancouver again this year, hopefully a few OBC members will represent, I believe Chuck Maculoso won BOS last year.

And of course, don't forget about SheBrew! Entries due 2/21 (still time to brew), Judging is 2/29, and judging/stewarding is open to all genders, so I expect to see the BJCP judges in our club to be there to help out, it's always a great comp to judge.
National & Local Competitions

SheBrew
02/29 Portland - - (Steinbarts, Mainbrew drop off 2/21)
All BJCP styles. Female identified brewers only.
http://shebrew.oregonbrewcrew.org/ | https://www.shebrew.beer/

NHC 1st Round
Open Enrollment/Application: January 14 to January 22
Acceptance Email, Entry Registration & Payment:
Notified by February 14 (7 days to pay after notification)
First Round Shipping Window: February 20 to March 5
First Round Judging:
March 13th to April 5th (Seattle March 13-15)


Washington Mead and Cider Cup
03/07 Everett, WA
http://beerrenegades.com/competitions/

Mazer Cup
03/20 Broomfield, CO (Must arrive 3/13/2020)
Major mead only comp
http://beerrenegades.com/competitions/

JBLM Homebrew Comp
03/28 Olympia, WA (Drop off at Bader in Vancouver 3/23)
All BJCP styles
https://competitions.hopsclub.com/2020jblm/

Spring Fling
04/24 Bend, OR (Dropoff @ Steinbarts 4/10)
All BJCP styles. OSHBOTY!
https://springfling.brewcompetition.com/

Oregon Homebrew Festival
05/16 Corvallis, OR
All BJCP styles. OSHBOTY!

Complete list at: https://www.homebrewersassociation.org/competitions/aha-bjcp-sanctioned-competition/#calendar
Oregon State Homebrewer of the Year (OSHBOTY) sanctioned competitions: https://
Hey everyone, this month’s meeting is an out meeting. February 13th at Migration Brewing in Gresham. We are having food made for us, as we cannot bring our potluck to this venue. We also will have a token for each of you to get your first beer, on OBC. After that they have agreed to give you happy hour prices. Please drink responsibly.

I want to say thank you to everyone who brought food to last months meeting, and also to anyone who helped set up and clean up for me as I was unable to make the meeting! Without you, my position would have not been fulfilled, and I appreciate each and every one of you. I look forward to having a beer with you soon.

Also, let’s talk really quick about our April meeting. I have decided to move our new annual Mac-N-Cheese Competition to April. Last year it was in June I believe. April is a great time to have some hot casseroles, yeah?! So get your recipes dialed in and put it on your calendar to wow us in April! We will chat more about this later.

Cheers,
Torri Hansmann
503-396-1141
Torri.hansmann@oregonbrewcrew.org
OBC Bru-niversity - Troubleshooting

Poor Head Retention

[This article relies on the work of Charlie Bamforth (U Davis) and his book on foam, (FOAM: Practical Guides for Beer Quality, C. Bamforth 2012) and Brewing textbooks, (Technology Brewing & Malting, W. Kunze 2014) I don't quote sources throughout due to length. There are Bamforth lectures on youtube, i recommend them.]

Intro: Personally, I don’t think there are many things finer than a pilsner with a huge whipped cream rocky head after a long day; yes it is cosmetic, but we drink with our eyes as well, and it is a sign of quality. If you walk into a new brewery, order an IPA, a beer that should be easy to have a pleasant head, and get served a glass with a collapsing foam and a few scummy looking bubbles on a muddy beer… I don’t know about you, but I immediately start wishing I just went to Breakside instead. Appearance matters, and as homebrewers, we have control of our process, I encourage you all work on your head retention; it’s something that is dependent on your entire process, and will likely make you a better brewer.

Quick Science: The main foam positive compounds in beer are medium weight proteins, particularly Lipid transfer Protein, LPT1, when partially denatured, and possibly Protein Z. High proportions of these in the finished beer will create a stiff foam. Also bubble geometry matters a lot - ideally, there should be a fine foam of uniform bubbles. Smaller bubbles with less surface area are less likely to pop; but the presence of larger bubbles will force smaller bubbles to feed into them creating larger bubbles until they pop. Lipids/fatty acids and higher alcohols break down surface tension and are very foam negative. So what we want is a beer high in LTP1, and low in lipids and large and small chain proteins (which will interfere with LTP1 forming a lattice) with a fine bubble structure.

So what can be done?

Obviously depending on the beer you are making, all the following cannot happen in every beer, but it is the sum of the whole, the following factors will work for and against creating a beer with those parameters. But remember, foam is but one factor of a beer, do those things that make sense for the beer you are making, and what is technically possible on your system.

Malt Selection: Lower modification malt is foam positive; but lower modification malt is generally not available to homebrewers, even weyermann malts are all fully modified. That said very high
modification above 45% is foam negative. Some domestic 2 rows can be close to that. If you have a sack, some brands will print a link to the analysis on the bag. Total protein should be between 9-12% Malted wheat has been shown to be very strongly foam positive.

And I know that this goes against homebrew wisdom, but Carapils, Carafoam, and all crystal malts have been shown to be foam negative. Yeah, not what it says on the package... If you are one of the brewers that throw a half a lb of carapils in most batches (I did for a good while) for head retention; look at the research from U Davis, and less rigorous evidence from Brulosophy and elsewhere, and ask yourself if it is really the case.

**Mashing:** Protein rests in the 120s are foam negative if not needed. (if you are not making a witbier or similar, its likely really not needed.) Excessive rests (more than 20 min) in the 140s (F) can cause excessive lipid breakdown and cause fatty acid solubility in the wort. Beta amylase breaks down in 20 minutes at mash temps, consider doing a step Hochkurz Mash (147-160-168) if it makes sense. A high alpha rest around 160-162 and a mash out around 168 aids in extracting foam positive glycoproteins. In general though excessive total mash times are likely to extract foam negative lipids from the malt, and recirculation if you have it, aids in leaving more unpleasant compounds in the mash tun and not in the boil.

**Boil/Hops:** Too aggressive or long of a boil can overly denature and break down LTP1 proteins, Boil off rates in excess of 15% (which is common with homebrewers due to kettle geometry) and boils over 90 minutes have been shown to be highly foam negative. A good hot break is essential for removing foam negative proteins and lipids, A PH around 5.5 at start of boil and sufficient calcium (50ppm) will aid in good break. At the end of boil, the PH should be 5.1 or lower (may require an acid addition) for good cold break formation, and ideal fermentation.

Hops are in general very foam positive, specifically iso-alpha-acids from boil hops. Lower cohumulone hops produce more of the right iso-alpha-acid and are more foam positive.

Commercial brewers can add hexa- and tetra- iso hop extracts which are ridiculously foam positive at the rate of 2-3ibu worth.

**Transfers:** While there are some who say there is value to fermenting on trub, the lipids and denatured proteins in the hot and cold breaks are quite foam negative. If possible, clear beer into the fermenter that is free of the hot and cold break will avoid this.

**Fermentation:** This is by far the biggest factor by far in head retention, with the most chance for foam negative factors. Stressed yeast can produce fusel alcohols (strongly foam negative) leave acetaldehyde (foam negative) and a host of lipid based compounds. Like 90% of homebrew problems, the best thing you can do is pitch enough fresh healthy yeast and oxygenate well at pitching, and ferment in the lower 2/3rds of yeast's temperature range.. Very excessive pitch rates can be foam negative, and all autolysis (yeast death) is strongly foam negative. When yeast cells die, they burst, releasing a pile of lipids into the beer. Package the beer as soon as fermentation is complete and cleaned up, and ensure yeast is healthy to begin with. High alcohol beers are also foam negative, but we have also all seen belgian 10% beers with endless rocky foam, so this can be overcome.

**Packaging:** Carbonation matters; obviously higher carbonated beers will be easier to form a large head, but also how the beer is carbonated. Naturally carbonated beer, thru science I don't
understand, produces a finer foam, which is foam positive, as does more gently force carbonated beers (set and forget). Also yeast fermenting under pressure as in natural carbonation, produces glycerin which is foam positive. There is some evidence that foam forming proteins may get used up through excessively rough handling, but my gut feeling that this is of the order of leaving it in your trunk for a month. Kegs arrive from Germany and pour with impeccable foam, as a homebrewer I doubt this is our issue.

And like everything else, oxidative processes create a host of foam negative compounds over time. I’m sure you’ve all bought a dusty import bottle at some point, poured it and watched the pretty head immediately collapse to a thin gross head that looks like a petri dish.

Serving: Not to state the obvious, but soap residue on glasses is strongly foam negative, always rinse your glass before pouring a beer; sadly this is often the number one problem. Commercially, serving with 10% or more of nitrogen forms a more stable foam. To get the large rocky beer foam poured at German beer bars like Prost, there is a technique to it; half the beer is poured aggressively then left to sit. Then when the foam dries out slightly the rest of the beer is poured to lift the rocky foam. Search youtube for “Slow pour pils” to see the method.

Papers, Posts & Podcasts

- You sounded off on Facebook about what we thought were the trends in 2020.
- It appears we were spot on with HopCulture’s & Vinepair’s own 2020 Beer Predictions.
- Jump on the bandwagon and Make Your Own Hard Seltzer (via Craft Beer & Brewing)
- Jenn McPoland talks SheBrew with homebrewingdiy.beer… There’s still time to brew & enter!
- What’s your favorite piece of equipment? Reddit’s r/homebrewing sounds off on theirs.
Don't forget the OBC Pilot System!

**Fabulous upgrades to the Pilot System!**

This year, we decided to spend the full pilot system budget on much needed upgrades and improvements. A Brobdingnagian thank you to Brian Haslip for ordering the parts and assembling/transfiguring the system! Great job!

Some of the improvements include:
- Added a 2nd, better pump on a new stand
- Improved the existing pump
- Added switches to both pumps
- Replaced all of the hoses
- Added a sparge arm
- Replaced the thermometers with a digital one
- Added a 3rd burner high BTU (Blichmann stand donated by Jim Thompson), that thing is a massive improvement!

Future improvements will include:
- Replacing the other burners with high BTU
- Etching of the interior of the kettles
- Possible new kettles to expand the system
- Others? Your suggestions requested

In addition to the amazing upgrades and improvements, we are also improving the sign-out process. There are new forms to complete that will allow you to request specific parts instead of the entire thing. This will enable multiple members to utilize the system simultaneously. Look for the new sign-out form online in 2019 to reflect these changes.

Any questions? Send them to jim.thompson@oregonbrewcrew.org
Happy brewing!
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OBC Cup Standings

http://www.oregonbrewcrew.org/obccup

OBC Member of the Year (MOY)

http://www.oregonbrewcrew.org/moy

If you are willing to write up an educational article, equipment or ingredient review, or any other home-brew related information or experience for the newsletter, please email me at: g.scott.stukey@oregonbrewcrew.org

Alternatively, share it with the group on Facebook or tag us on Instagram.

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