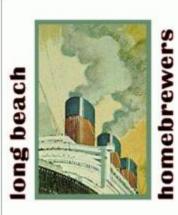
## January 2015 Volume 24 Number 1

# Brens The Brens



The Newsletter of the Long Beach Homebrewers

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# Next Meeting

Tuesday, January 13 at 7 pm. At **Stein Fillers** 4160 Norse Way Long Beach 90808 562-425-0588 brew@steinfillers.com

http://www.longbeachhomebrewers.com

# President's Message

My fellow Long Beach Homebrewers,

New Years day is a symbol of starting over, but this year it is also a milestone for our club. This year is the 25th anniversary of when the Long Beach Home Brewers was founded back in 1990. Our members have come and gone through the years, but our passion for creating tasty homebrew has not.

There have been massive changes in the home brewing community in the past 25 years, including the discovery of different flavors of hops, types of specialty grains, and the founding of White Labs in 1995. Personally I have seen an explosion of growth in the popularity of home brewing in the short 7 years I have been brewing. I attribute the popularity of beer to clubs like ours that helped to educate people what good beer can taste like.

While it is always a good thing to introduce good beer to people, it has been a double edged sword by increasing the demand (and therefore the price as well) of beer. Back in 1990 there was only 284 breweries open in the US, according to the Brewers Association. As of last June the total number of breweries was 3040, which is still short of the 4131 breweries in 1873, but this is the first time we have had more than 3000 breweries since the 1870's.

To help celebrate our 25th year as a club, we are working with our local breweries to host events throughout the year. Our first event will be March 23rd, so be sure to save that date on your calendar as this will be an event that you don't want to miss!

As always, Happy Brewing!

Josh

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## Continued from page 1

## 2015 Monthly Style Schedule

Here are the styles for each month.

January: Wheat

**February**: Extract Only\*\* (\*\* Homebrewer of the Year Competition)

March: Flower Power (beers made with flowers)
April: Maibock/Helles Bock (Category 5a)\*\*
May: SMASH (Single Malt And Single Hop)

June: Fruit Beer (Category 20)\*\*

July: American Ale (Category 10)

August: Mead (Categories 24, 25, and 26)\*\*

September: Sour Ale (Category 17)
October: Sweet Stout (Category 13b)\*\*

**November**: Spice/Herb/Vegetable Beer (Category 21) **December**: Standard Cider and Perry (Category 27)

## Tastings at the December meeting (Winter Specialty: Cat. 21b)

Enrique Classic American Pilsner

Steve T. Double Chocolate Cherry Stout

Calvin N. Saison

Honey Blonde

Adam W. IPA

Graham Pale Ale

Richard H. Brown Ale

## Calibrating: Do things work correctly?

by: Calvin Ninh

In the spirit of the holiday season, I hope you enjoyed getting new brewing toys. Before using them in your brewing set-up, it is important to make sure things works correctly. Each part should fit and be cleaned before using. Pots should be defect free. Fittings and attachments should not leak. Markings should be readable. Measuring tools should be subjected to initial testing to check if they work properly.

## An example

Let's look at a thermometer. It measures temperature during mashing or steeping grains. For example, temperature affects what things are extracted from the grains and the conversion of starches to sugars. Things that are extracted and converted affect the mouth feel and flavors of the beer. Thermometers are also used during fermentation. Fermenting at a high temperature can lead to harsh, fusel alcohol notes in beer. Fermenting too low makes the yeast dormant. Thus partially fermented beer may end up tasting sweet. It can also lead to off flavors such as diacetyl (buttery flavor like movie popcorn). So, temperature control is pretty important to brewing



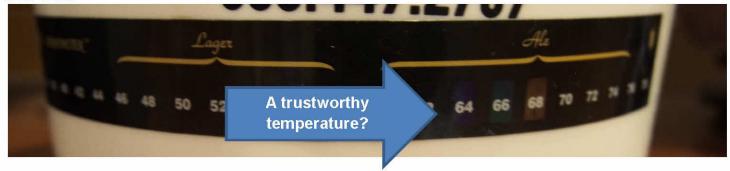
Getting stuff is wonderful. Putting stuff away is troublesome.

beer. It would suck to have an expensive thermometer that did not work correctly.

#### What to do

Think about this: the expensive, lab-grade thermometer that gives incorrect readings is less useful than a grocery-store thermometer that gives decent readings. Routinely checking tools and markings would ensure that they work properly. Calibration is the comparison of your tool to a measurement of something known. In high-tech companies, they have standards and other references that metrology personnel use to ensure things work correctly. Homebrewers do not have expensive stuff to use. That's where resourcefulness comes in.

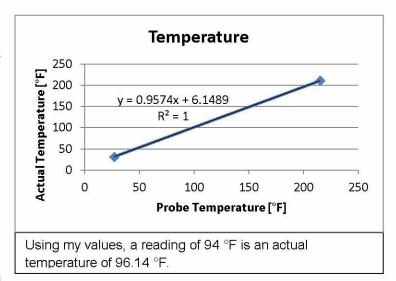
To calibrate a thermometer, measure the freezing and boiling points of water. Check out Colby's "Calibrating Thermometers: Techniques" for an example of how to do it (link is below). It uses inexpensive ice water and boiling water to test a thermometer. The boiling and freezing points of water are relatively constant and they are easily measureable. Those are two known reference points. Water boils and freezes at the same temperatures at my house, Stein Fillers, and your place (unless there is a huge change in elevation or water purity, but that's another detailed topic on colligative properties). Since the boiling and freezing points are known for a given elevation, thermometer readings are checked against them. Overall, you have to put in effort to make sure your tools work.



## Why all the work?

Two reference points will give instruments a proper range of use. For example, a thermometer used in brewing would give unreliable readings for liquid nitrogen. Liquid nitrogen's temperature is a lot lower than ice. It is far outside the range your thermometer is tested for. However, every reading between ice and steam temperatures are valid.

Some sources suggest using a single point as a calibration check. This is such with reading the specific gravity of distilled water for hydrometers or using pH 4 buffer for pH meters. Doing so does not give a range of use range. Thus, values could be incorrect. Here is a thermometer example:



- (1) Ice water reads at 27 °F (water actually freezes at 32 °F at sea level). A brewer could just add 5 °F to each reading, right?
- (2) Boiling water reads at 215 °F (not the usual 212 °F). Now the brewer has to subtract 3 °F. But, the same thermometer was used.
- (3) So, can the brewer add 5 °F when measuring cold and subtract 3 °F when measuring hot? Not exactly since 94 °F is in the center of the range. It is questionable on what to do there.

Thus, the brewer can make a calibration curve. It will adjust each measured reading to an actual value. From my values, a 2 °F temperature difference in the mash is the difference between a light bodied and medium bodied beer. Even small adjustments make a large difference.

## How much work to do



It's a lot of work. But, if you want great beer, then get to it.

Most objects change over time. Measurement tools can change due to mechanical wear, component aging, user abuse, and incorrect adjustments. Brewers should check their tools periodically. Checking before every measurement can be excessive. Also, checking during or before a brew session is serious work. Brew days are long enough with setting up to cleaning. Annual checking is very good and gets you through the year. Also, brewers should check tools whenever they think measurements are fishy. A good intuition would prevent a bad batch.

A serious homebrewer will gather a lot of tools over time. Different tools will provide different measurements. Some other things to check are volumes, pH, flow rates, weights, heating/cooling rates, and specific gravities. Information on

checking other equipment is also posted online or can be found by asking around. It is tons of work to get everything exact. Precise measurements help brewers make good beer and aids in recreating a past brew. But, a majority of homebrewers continue to make good beer without exact values. Getting down those details is a difference between good and fantastic beers.

## **Key Points**

- Never assume things work out of the box. Check for yourself.
- Keep things in good condition.
- Check and maintain your brew toys.
- Bad measurements = bad beer.

## Resources:

Chris Colby. "Calibrating Thermometers: Techniques". < <a href="http://byo.com/light-ale/item/412-calibrating-thermometers-techniques">http://byo.com/light-ale/item/412-calibrating-thermometers-techniques</a>>

Clyde Coombs. Electronic Instrument Handbook, 3<sup>rd</sup> edition.

Brad Smith. "Mash Temperature and Beer Body in All Grain Brewing". <a href="http://beersmith.com/blog/2012/12/20/mash-temperature-and-beer-body-in-all-grain-brewing/">http://beersmith.com/blog/2012/12/20/mash-temperature-and-beer-body-in-all-grain-brewing/</a>

# **Brewers Spotlight: Alfredo Rocha**



Hi Alfredo! Thanks for joining us on the very first LBHB Brewers Spotlight! My Pleasure, thanks for having me!

# What is your occupation / what do you do outside of home brewing? I'm a Project Manager at Internet Brands.

## When, how and why did you get started in home brewing?

I read an article (forgot the source) that said if I can heat a can of Campbell's Soup I can make my own beer. I took that challenge and bought my first kit at Stein Fillers.

## How long have you been with Long Beach Home Brewers?

I have been with LBHB for a little over two years.

#### What have been your favorite experiences in homebrewing?

I enjoy several things in homebrewing. I like the constant tinkering and process improvement in building out your brewery. I enjoy the smell of the mash and the boil as I brew outdoors. And I enjoy being part of the club and its events.

## Roughly how many beers/ciders/meads have you brewed?

I try to brew twice a month so I'm probably over 40 batches brewed.

#### Any other achievements in homebrewing?

I've recently won my first three awards and was featured on a special on homebrewing on the spanish network Telemundo.

http://www.telemundo52.com/noticias/videos/Cerveza-hecha-en-casa--234784911.html?vid=a

#### What was your first homebrew system, and what do you have now. Do you plan on expanding?

My first homebrew system was a 5 gallon pot for extract brewing in my kitchen. Within 2 months I got my first keg that I converted into a keggle, a cooler mashtun, and single burner for 5 gallon batches. I then added a King Kooker for my stand and burners, and some pumps to support 10 gallon batches. I'm also currently building out a 3 vessel 55 gallon system that has passed my water test and am now investing in fermentation capacity and temp control for that volume.

#### What homebrew do you have on tap / in bottles now?

I have a cream ale, hefeweizen, and belgian wit on tap with bottles of an imperial stout, belgian golden strong, and IPA sitting in an fridge.

## Do you have a "Go-To" recipe / house beer that you brew often? If so, what is it and why is it your Go-To?

My go-to recipe is probably my version of a Hefeweizen. It's more of an American style hef, using west-coast C hops, pomello zest, and Hef IV yeast for minimal banana/clove. It constantly scores 35+ in comps despite its non-traditional approach (though I do get knocked for that). It's a family favorite. More like a Hefe Lite or Krystalweizen.

## Describe something you created or improved to make a function of the brewing process less complicated for you?

There's nothing I really created, though I've implemented several things that I find on Homebrewtalk.com

#### What are your top 3 favorite commercial beers?

No way I can answer this. I drink too much and enjoy too many for my own good. For some reason, I do find myself going to the Italian restaurant Johnny Carinos in Downey a lot to have the Old Rasputin on nitro. I think I may have killed this keg by myself. \$7 for a 22oz pour. Yes please.

#### Who do you admire in the brewing / homebrewing world?

I admire all the LBHB'ers who have gone on to go commercial. Julian, Chris W, Chris at Timeless, Porter, etc. I also admire several of the those who have paved the way with literature and blogs that make things easier, like Sam at Dogfish, Mike Hess of Hess Brewing, and Dick Cantwell of Elysian. And all the great brewers at LBHB, too many to name.

# Any tips for someone who is newer at brewing? Was there a tip that you once received that you want to pass on that changed your homebrewing?

The first tip I received was the importance of climate control in fermentation, even if it's just an old fridge with a temperature controller. This alone does wonders in improving your beer as a beginner. Another tip is: don't be afraid to ask questions. We have all f\*cked up somewhere along the way of becoming better brewers, so no question or situation is too embarrassing to solve by asking.

#### Anything else you want to write about? Have at it.

Glad to be part of the LBHB. Lots of great brewers in the club and a wealth of knowledge and good times. Cheers

Follow me on Instagram @los barbones beer

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Thanks for talking to us Alfredo. See you next time on LBHB Brewers Spotlight!

