

LIVIN' THE BREWS

The Newsletter of the North Texas Home Brewers Association

Volume XXXIII

Issue II - February 2018



Quick Sips for February:

Officer's Meeting	@ The Londoner	February 6 th	6:30pm – 8:30pm
Club Meeting	@ Rugby House Pub	February 13 th	6:30pm – 8:30pm
Club Brewday	@ Sue and Fred David's	February 25 th	9:00am—3:00pm

These and other events can be found on our [Facebook](#) page.

Prez Sez by James Smith

Welcome to February, Homebrewers! First and foremost, thank you to Fred and Sue David for hosting a very successful winter party. The food was truly outstanding, and of course all of the great beers everyone brought were definitely enjoyed by everyone. It was really great to see quite a selection of homebrew and mead from everyone. Seems many of us have been quite busy brewing over the last several months. Hopefully, that will translate to a strong showing at Bluebonnet. Secondly, to those of you who made it out, thank you for coming and I hope everyone had a great time! Finally, big congratulations to our Brewer Royale and Brewer of the Year winners!

Now, February and March should be quite active with most of our attention turned towards preparations for the Bluebonnet Brew-Off this month and next. With that, I want to emphasize one of our 2018 objectives of getting good representation at all of the homebrew competitions throughout the year.

Here are some key dates remaining for Bluebonnet:

Check-in:

Saturday, February 3, 9:00 AM
Peace Lutheran Church
941 Bedford Eules Rd
Hurst, TX 76053

Judging:

Location: Dallas Makerspace
1825 Monetary Lane, Suite 104
Carrollton, TX 75006

Judging Date	Judging Times
Friday, February 9	6:00 PM, 7:00 PM
Saturday, February 10	9:00 AM, 11:00 AM, 1:00 PM
Friday, February 16	6:00 PM, 7:00 PM
Saturday, February 17	9:00 AM, 11:00 AM, 1:00 PM
Friday, February 23	6:00 PM, 7:00 PM
Saturday, February 24	9:00 AM, 11:00 AM, 1:00 PM
Friday, March 2	6:00 PM, 7:00 PM
Saturday, March 3	9:00 AM, 11:00 AM, 1:00 PM
Friday, March 9	6:00 PM, 7:00 PM
Saturday, March 10	9:00 AM, 11:00 AM, 1:00 PM

NOTE: All judging must be completed by 3:30 PM for all Saturday judging. Judges arriving or wishing to begin a flight after 1:00 PM on Saturday are subject to the Head Judge and Director's discretion.

And finally on the subject of Bluebonnet, I want to ask for your help with judging, and then at the awards ceremony, serving both at the "Big Thirsty" on Friday and Saturday, as well as the commercial tasting/"room crawl" People's Choice Competition. If you have any questions on this, please send me an email at president@nthba.org OR the 2018 Bluebonnet Director, Brad Berven at director@bluebonnetbrewoff.org.

Monthly Officer and Club Meetings

The February officer meeting will be held on Tuesday, February 6 at The Londoner in Addison. They are located at 14930 Midway Rd, Addison, Texas 75001. As always, club members are welcome to join. We will arrive at 6:30 and get going around 7:00. The February club meeting will be held on Tuesday, February 13 at Rugby House Pub in Plano. They are located at 8604 Preston Rd, Ste 100, Plano, Texas 75024. We will get started at 7:00, but feel free to arrive earlier.

Hope everyone has a great brewing month!

Cheers!

"Smitty"

The First Sip by Walter Hodges

We had a good start to the 2018 brew calendar. It was a bit nippy at the January Brewday, nevertheless, we had two brewers who braved the cold and came out to brew with host, Mike Grover. A decent turnout of 10-15 members showed up to provide liquid encouragement to the brewers and spectators.

Our next Brewday will be Sunday, February 25th at the home of Fred and Sue David from 9:00 to 3:00. Fred and Sue live at [6803 Overbrook Dr., Allen](#). This Brewday will give brewers an opportunity to brew a quick fermenting beer for the Bluebonnet room crawl. Fred has lots of driveway space, so bring your brew rig out and brew with Fred. Please note that this Brewday is on a Sunday.

Our Christmas/Winter party was hosted by Fred and Sue David. We had tons of food and almost filled the kegerator with beer. The weather was cooperative and with the patio heaters it was quite pleasant outside. Fourteen people participated in the white elephant gift exchange and had a good time. Rick won the Big Mohunker and receives a \$200 gift certificate to the homebrew shop of his choice. A big thank you to Sue and Fred for opening their home and hosting a great party.

I am still looking for someone to host our fall parties. The fall party is generally late September or sometime on October. Please send an email to me at: socials@nthba.org

Cheers,

Walter

Competition Corner by Zac Cathcart

We are ramping up competition season so remember to hold back a few bottles and get them submitted. You can't win if you don't enter! Here are some details on the competitions coming up in the next few months:

Bluebonnet

Bluebonnet judging is just around the corner, so make sure to save some time in your busy schedule to help out there.

<http://www.bluebonnetbrewoff.org/>

Cactus Challenge

When: Around the end of March. No official date announced yet.

They will probably be picking up entries at Bluebonnet. Please note they have a special category for this event called "Most Unusual Ingredient" which is free to enter but not eligible for best of show.

They only received 3 entries in this category last year. Fruit beers and German Wheat beers were also underrepresented with only 6 entries in each category.

<http://www.ale-iansociety.org/cactus/>

Lunar Rendezbrew

When: End of March. No official date announced yet.

They will also probably be picking up entries at Bluebonnet. Pretty standard competition rules following BJP guidelines. Standard ciders, Scottish ales and British bitters all had pretty low turnout.

<http://mashtronauts.com/rendezbrew/>

KGB Big Batch Brew

When: Mid-May.

This is a single style brewing competition. This year's style is 11C: British Strong Bitter. This competition is free to enter.

<http://thekgb.org/Big-Batch-Brew-Bash/Current-News>

CoC's

This is the schedule for Club only Competitions for the year:

April 2018	Extract Beers - must be made of at least 50% extract
June 2018	Weissbier & Witbier Categories 10A & 24A
September 2018	Altbier & Kolsch Categories 5B & 7B
November 2018	Seasonal Beers Category 30
January 2019	British Strong Ale Category 17

January's CoC (Ciders and Meads) results are in!

3 rd Place	Kevin Smith – Wanker's Fruit Punch – C2B
2 nd Place	Steven Barsalou – Wacola Applewine – C2C

1 st Place	Fred David – OG (orange Blossom) – M1B
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Cheers!

Zac

The Treasurer's Report by Kevin Smith

Thanks to Walter and James for the patient and helpful welcome to this position, and thanks to all of you for continuing to support the club.

Equity ended 12/31: \$7,515.46

Equity as of 1/22: \$7,503.22

Year-end summary:

Income: \$6,455

Expenses: \$5,563.93

Net Income: \$891.07

Current members through 5/31/2018: 120

Additional information or full copies of financial reports can be requested by club members by emailing the treasurer at treasurer@nthba.org. Current reports including P&L, Balance sheet, and bank reconciliation information will be available a few days after the end of the month and posted to <http://www.nthba.org> -> groups -> financials-corner -> financial-statement-archive

Club memberships are effective for one year from June 1st through May 31st. If your membership is not current, please renew at either Homebrew Headquarters or Wine Maker's Toy Store. You may also obtain membership forms and cards at most club events. On-line membership forms are available at: <http://www.nthba.org/forms/membership.html>

Kevin

Education Topics by Steven Barsalou

Education – Hydrometers and Refractometers

In last month's education article, we covered the math behind what drives wort density and what adjustments you might make should your brewing start to deviate from plan. As with any process you intend to monitor and improve, instrumentation and data are your friend. For brewer's, hydrometers and refractometers are the instruments needed to collect data on our wort density. Measuring wort and beer density can help a brewer with the following:

- Hitting target gravity
- Measuring mash efficiency
- Measuring fermentation progress
- Determining when fermentation has completed
- Calculating the level of alcohol in finished beer
- Calculate the level of attenuation

Hydrometers:

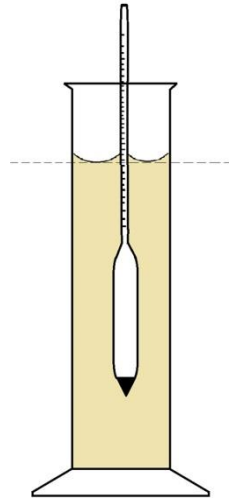


A hydrometer is a weighted glass tube that when floated in a liquid allows the user to read wort density values from the calibrated scale. There are three important factors to consider when using a hydrometer.

1. The temperature to the hydrometer has been calibrated to, which is usually 60F or 68F. Because density of a liquid decreases as temperature increases, you'll need to adjust your hydrometer readings if you take them at a temperature other than the calibration temperature. In the case of a hydrometer the calibration temperature is that of the liquid sample.

Temperature corrections can be performed in BeerSmith->Tools->Hydrometer Adjust and many online tools.

2. Read the hydrometer from the bottom of the meniscus (a meniscus is a curvature in liquid as shown in the picture below).
3. Make sure your sample is degassed. Cold and/or cold samples should be allowed to warm. Carbonated samples should be poured back and forth between containers until bubble formation ceases. Once the hydrometer is in the sample liquid, spin it like a top several times to shake any bubbles that may have formed on it, then read.



Refractometers:



Refractometers are optical devices that measure how light bends as it passes through a sample of liquid. This bending of light, known as refraction, is caused by changes to the speed of light as it passes through different media. The pencil in water shown below is a commonly used example to demonstrate this.



Like hydrometers, refractometers are calibrated to a specific temperature as well as specific substance. Refractometers are generally calibrated to sucrose (table sugar) at 68F. There are also five important factors to consider when using a refractometer.

1. You must eliminate bubbles in the sample between the prism and the prism cover. Bubbles will allow the light to pass through reducing or eliminating refraction, thus giving lower than actual readings.
2. You must allow time for the temperature of the sample and the refractometer to equalize. Due to the small thermal mass of the sample and relatively large thermal mass of the refractometer. Equilibrium should occur within 30 seconds for every 10F difference between the sample and the refractometer.
3. Refractometer may or may not have automatic temperature correction (ATC). My research shows the temperature being corrected is the temperature of the refractometer, not the temperature of the sample being measured. For models with ATC, the instrument has an automatic optical adjustment that compensates for temperature deviations away from the calibration temperature (generally 68F). Consensus among web articles shows that ATC is effective between 50F-85F. If you are brewing on an extremely cold or hot day, it may be best to leave the refractometer inside and bring your cooled samples to it. For models without ATC, corresponding correction tables should accompany the instrument.
4. Refractometers are calibrated to a sucrose and water solution which is a close approximation of grape juice in the wine industry. Due to differences in the refractive properties of maltose, a sugar found in wort, refractometer readings need to be adjusted for use in brewing. The generally accepted conversion factor is 1.04. You can calculate your own in BeerSmith->Tools->Refractometer->Calibrate Refractometer or using online tools such as Brewer's Friend (<https://www.brewersfriend.com/how-to-determine-your-refractometers-wort-correction-factor/>). The conversion factor = the refractometer Brix / hydrometer Brix, the hydrometer Brix are determined by converting from your specific gravity hydrometer reading. BeerSmith

will store this correction factor and apply it to your refractometer readings. For manual calculations, divided the observed refractometer Brix by the correction factor. You can then use the formula: $\text{specific gravity} = 1.000019 + 0.003878634261280 * \text{Brix}$

- Alcohol in the sample will also skew the refractometer readings. To correct for this, you can input the original gravity and a fermented or partially fermented refractometer reading into BeerSmith->Tools->Refractometer->Calibrate Refractometer Calculation = Fermenting wort gravity.

Some refractometers may also have scales for Plato and specific gravity. Brix and Plato are very similar units and for the purposes of homebrewing can safely be used interchangeably. In general, the literature and software do not address using specific gravity readings from a refractometer, but I believe you could calibrate your own correction factors by comparing the hydrometer readings in specific gravity to the refractometer readings in specific gravity similar to point 4 above.

Pros and Cons:

Pros:

- Hydrometer – doesn't require any complicated conversions
- Hydrometer – works properly on fermented and unfermented samples
- Refractometer – only requires a few drops as a sample, which leaves you more beer to drink

Cons:

- Hydrometer – requires a large sample, typically 8oz or more
- Refractometer – need to apply complicated conversions
- Refractometer – requires additional correction for fermented samples

Measurements:

Now that we've covered the use of these instruments, let's look at when to use them. I've put them in the order in which you should encounter them in the brew process.

- Continuous (fly) sparging – It is generally recommended to stop sparging when the gravity of the runnings drops below ~1.008-1.010 or the pH rises above 6.0. For this I would recommend using a refractometer due to the speed at which you can take a sample and have it cooled to quickly measure. That being said, I generally don't believe this to be necessary if your mash efficiency is below 90% and your boil times are 90 minutes or less.
- Mash completion – after all wort has been collected from the mash, **mix the wort** to create a homogenous mixture of sugars, then take a gravity reading. I also recommend a refractometer here as well due to the speed of collecting and cooling the sample. This reading can help you determine if you are on track to hit your target gravity and calculate your mash efficiency (see Hitting Your Gravities and Simple Beer Math in the January 2018 newsletter for more details).
- Post Boil / Prefermentation – after the wort has been chilled, mix the wort, then take a sample, and record as your original gravity. I recommend using a hydrometer for this step. The sample is already cooled and you can drink the sample after your measurement. Compare to your planned OG to see if you hit target. Combine with the volume of wort to calculate your

brewhouse efficiency. Further downline combine with your finished gravity (FG) to calculate the attenuation and alcohol content.

4. Post fermentation – take a reading determine if fermentation is complete. If visible fermentation activity ceased more than 48 hours ago and you're near your predicted final gravity (FG), it is likely your fermentation has completed. If you are not sure, take multiple readings over several days to determine if the gravity is stable. I recommend a hydrometer for this step as well. After taking your measurement, drink the sample to get first impressions about the outcome. Calculate the percentage of alcohol = $(OG - FG) * 131.25$. Calculate apparent attenuation = $(1 - (FG - 1) / (OG - 1)) * 100$.

Do not return your gravity samples back to the main wort or beer once you have chilled the wort. Doing so increases your chances for contamination.

Please email feedback on this article to education@nthba.org.

-Steven Barsalou



Interesting Links

These articles links were contributed by James Smith this month. If you have anything you would like to share with the club, please contact secretary@nthba.com so that it can be included in a future newsletter. Thanks for sharing James!

Cheers,

Jimmy

Keg Carbonation Calculator

<https://www.brewersfriend.com/keg-carbonation-calculator/>

Break Out of a Brewing Rut

<https://byo.com/article/break-brewing-rut/>

Scott Janish Blog: homebrewer, beer blogger, and researcher with a focus on reviewing and applying the academic brewing literature to make better and interesting beer!

<http://scottjanish.com/>

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North Texas Home Brewers Association

The North Texas Home Brewers Assoc. is a group with an interest in beer and homebrewing. We meet the second Tuesday of the month at various locations around the DFW area. Visitors are welcome!

"Livin' the Brews" is our monthly newsletter. We do accept advertising, although the NTHBA, its officers, assignees, and editors are not liable for losses or damages resulting from mistakes or misprints, or any other consequences of advertising in this or any other publication. Ads are \$30 for a 1/3 page and \$50 for a full page, subject to change without notice.

Readers are encouraged to submit articles. The deadline for ads and articles each month is 14 days prior to the club meeting.



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