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DREGS FROM THE KEG

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April 2016

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Foam at the Top

By Bob Wilson President

First, some announcements! Our April meeting will be held at The Honest Abe Cidery in Carson. I for one am looking forward to trying some (or all) of their ciders. I've made a few batches of cider in my day with some good results, so I'm glad to see LA getting some apple-y love!

The Southern California Homebrewers Festival (SCHF) is right around the corner! Every year, each club is invited to submit a beer to a Bragging-Rights-Only competition. This year's style is IPA (I hear those are popular). We'll have a club brew in the next few weeks to brew our entry, so if anyone has any favorite IPA recipes to share, please email me at president@strandbrewersclub.org (or post to the Facebook group).

Speaking of IPA, I have a confession to make. When I moved to Culver City last year, my homebrewing went on hiatus due to a combination of work and brewing obstacles at my apartment. When a friend asked me to brew for his wedding, it was just the kick-in-the-pants I needed. I brewed a Tropical IPA using all Mosaic hops (recipe below). The time off from brewing actually gave me a bunch of new ideas for beer-related projects, including software for helping me plan water treatments, step mashes and more! Look for details in a future Dregs!

A few years ago, we did a club activity where everyone brewed the same beer, a Single-Hop and Single-Malt (SMASH) recipe, but everyone chose different hops. I think it's high time we repeated the experiment, but with a slightly different beer to keep things interesting. The recipe below was originally brewed with Mosaic

hops, and I'll bring some to the April meeting. What hops do you think would work well with this recipe? Aim for the targets listed at the top of the recipe, but don't stress if your efficiency or attenuation is off. We'll taste the results at the June meeting, so you have plenty of time to plan!

I'd like to see as many different hops as possible, so if you're interested in participating, send me an email letting me know what hops you want to use. I'll try to minimize duplication. And if you have any questions about the recipe (especially the water treatment), just ask! I'll try to help you figure out a good extract recipe if you're not into the whole all-grain thing, so no excuses not to participate!

Tropical IPA (5.25 gallon batch):

Targets (assumes 70% brewhouse efficiency)

OG: 1.047

FG: 1.009

ABV: 4.9%

IBUs: 52

SRM: 5

Carbonate to 2.2 volumes

Grist

5 lbs Maris Otter

3.5 lbs White Wheat Malt

8 oz Dark Munich (10L)

4 oz Acidulated Malt

1 lb Rice Hulls (to help with lautering)

Mash at 149 degF

Hops

0.5 oz Mosaic Hops (11.3% alpha acids) - First Wort

Hops

0.5 oz Mosaic Hops - 60 minutes

0.5 oz Mosaic Hops - 20 minutes

Yeast Safale US-05

Water Treatment

Target a Chloride-to-Sulfate ratio of 1:3 and a mash pH between 5.4 and 5.7 when measured at 77 degF. I used distilled water and added 1.27 grams per gallon Gypsum and 0.49 grams per gallon Calcium Chloride. The acidulated malt in the grist will ensure the pH is at an appropriate level. See the May 2015 Dregs if you're new to water treatment.

Spent Grains

It's a new year. It is now time to pay your 2016 club dues. You may pay your dues on the club website www.strandbrewersclub.org/membership, or you can pay by cash, check, or credit card at the next club meeting. Contact [Chris Remensperger](#), Strand Treasurer, if you have any questions about paying your dues.

Jeff Sanders Memorial

By Jim Wilson, Contest Coordinator

Additional photos by Jill Updyke, David Sherfey and Lloyd Brown

Last month we honored Jeff by remembering his friendliness and generosity. The occasion also provided a chance for low key contest training, another stop in the run up to the National Championships and a new judging location's test drive. Jeff would have been enthusiastic about all these actions. Planning for the judging site and competition software had to be kneaded a bit more than expected. Judging was easy by comparison.

The club has been trying to find a room to hold exams and judge contests as long as I've been a member. We've looked at many spaces in the South Bay and have held exams at Naja's and the Hermosa Community Center but both had drawbacks. This time we tried Ryan's church, Hermosa again, the former 1321 tap room, the Redondo Elks lodge and Ryan's garage. With Todd Harding's support, the Redondo Beach Odd Fellows (IOOF) agreed that we could use their Lodge's public room. Jen Penrod was overjoyed.

We used BCOE&M competition software at the PBC and thought it would be easiest to use it again for JSM. Silly us. It's not user friendly and has plenty of room for improvement. This time there were issues with judge assignments, printing and result tabulation. It's time to find something better.

The Carolina BrewMasters club started a competition [software review](#) on Facebook last year. Perhaps there's an experienced IT person in Strand who could learn about their conclusions and recommend an option. Finding out what Long Beach and Gravity think might also be a good idea so that we're reading off the same page for PBC. Let Rives, who is our Competition Coordinator, know if you're interested.

JSM was small on purpose with 38 entries. Publicity was limited to Facebook and SBBS was the only entry drop off location. A short list of ales that Jeff enjoyed brewing and drinking were contested. These came from the UK, American, IPA, Strong, Wood Aged, Pliny Clone and Iron Brewer Experimental categories.

The morning of the contest, the Lodge location made it easy for the cadre to arrive at 8 AM. The room was plenty large. It could probably support judging 200 entries with revised seating and two sessions. While IOOF doesn't usually host outside groups, it's possible that we could hold future events there. With their agreement, the BJCP Judging Exam on Sept 10 might be next.

Hint, hint. I'm looking for a volunteer to administer the exam. Experience is not required and if you are a BJCP judge you will earn two non-judging experience points. Contact me if you want to learn more. Speaking of which, three exam seats are still available. If you've thought about becoming a judge it will never be more convenient. Email Mike Haisma to get on the list.

Before JSM judging started I told the story of Strand's history and members who died too early. We toasted Chin Sang to all of them with Anchor Steam and the judges used it as a calibration beer. By 9:30 judging was progressing well.





Edgar took orders and picked up lunch from LBJ. The tacos and *jalapeños en escabeche* were tasty and authentic. Lunch timing was a challenge. It should be easier at a larger contest where flight sizes can be evened out. After lunch, Carl Townsend led Rob and Ryan in their first BOS panel.



If we want a bigger contest, it could be publicized to a broader audience, the entry sub styles could be expanded and a Feb date considered. Feb would be particularly helpful to potential NHC entrants.

Congratulations to Strand member Dan Martin for winning and placing 3rd in the Clone and Iron Brewer category. Kudos to Rob and Rives for placing 3rd in other flights. Complete results were posted on [Facebook](#).



Shout outs to Ryan for a big effort on site selection and prizes, Rob for hosting sorting day and web setup, Chris for arm wrestling with BCOE&M and watching the budget, Michelle for data entry and logistics, Jill for scrumptious Danish pastries, Edgar for fetching lunch and our sponsors Monkish, Phantom Carriage, SBBS, Strand Brewing and Sierra Nevada.



Thanks for the memories Jeff.

Bath Tub Brewery

Brian Pheiffer

For the last 20 years, I've always brewed on my cost-effective 8 gallon stainless steel turkey fryer (like [1], but lower price during Thanksgiving). It used propane and I was outdoors – that is until a year ago when I had enough. Not because of the equipment, rather the location. It was the outdoors. Normally I enjoyed being outside, but after I had already had a hard time getting the flame hot, it started to rain, and it ultimately took me until after dark to finish the brewing. I later found that the orifice had a spider web clogging the gas since I stored the equipment outdoors. I knew I needed to find a better way – and to be able to brew without a lot of setup, tear down or heavy lifting (I'm too old for that). My thought: use a bath tub to brew indoors. Not only did this solve my earlier problems, it allows me to brew at any time of the day, in any season and in any weather. It also has the built-in benefit of existing water sources, lighting, ventilation and excellent drainage (both tub for any spills during the brew process and the toilet is excellent for yeast cakes). The hardest part was to learn how to brew with electricity since I didn't want to experiment with gas in the house, even though we have a gas stove. But that then led me to automate the process.

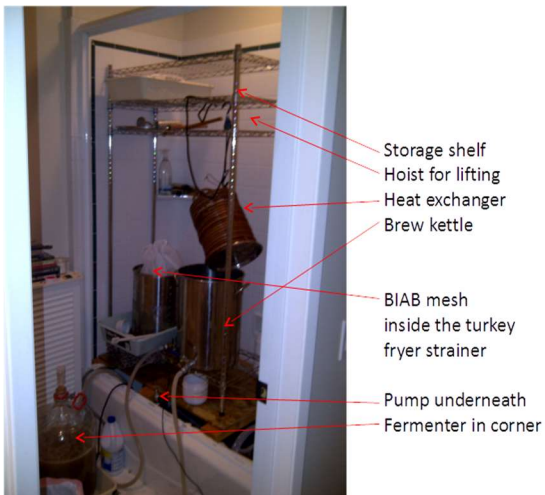


Figure 1: Bath Tub Brewery with stainless steel shelving on top of fiberglass table

I started with an existing bathroom with a bathtub / shower. I removed the sliding shower doors and made a table that sat on top of the bathtub edges with access to a pump and water valves I installed underneath. I then put a stainless steel adjustable shelf [2] on top the table and used the upper shelves not only for storage, but also for hoisting and holding items (such as my copper tubing heat exchanger and mash strainer) with simple ratchet ropes [3]. I am still using my same turkey fryer for the kettle with modifications for the valves and heating element. The best part: I have a built-in drain beneath the table from the bath tub that catches any spills and leaks in my system. And, I have a water source from the shower for rinsing as well as a hardline connection to the water source for the toilet. One of the major requirements of this brewery project was to make everything removable and allow the bathroom and bathtub/shower be reusable without any modifications. Everything simply sits on top the tub and the shower door frame holds the table in place. I can easily disconnect all the pieces and reinstall the shower doors when needed.

To build the table, I simply used particle board wood, 2x4s, and painted the whole table with fiberglass making it water proof. In retrospect, waterproofing was one of the best things I did. As shown in Figure 2, I have a water manifold made from PVC that supports two valves (for automatic filling and cooling) and a hose bib for other functions like a bottle washer. PVC is simple to work with since you can cut the plastic and glue the pieces together in a few minutes. The water inlet is connected between the toilet shutoff valve and toilet line allowing easy addition without have to turn off the

entire house water supply. I also used a refrigerator line with another shutoff valve between the toilet shutoff and table water inlet to allow for easy connection and removal of the brewery. A Chugger pump is also held underneath the table which keeps it clear of any liquids, but still close to the brew kettle. The connections for all pass through the front of the table where the 2x4 cross braces are longer than the board.

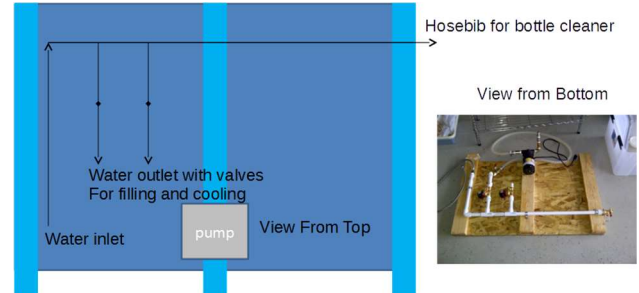


Figure 2: Underneath table shows plumbing and pump

The most difficult part of the whole project is getting the electric brewery portion working. I followed mostly the steps which are described in excellent detail by the Electric Brewery [4], with one major change: instead of drilling a junction box, I used a junction box extender [5] and covered both sides with metal covers - but punched through one metal cover for the heating element as shown in Figure 3. Alternatively, these items are also available online [6].

The other trick is to get electricity (30A 220V in my case) into the bathroom. The 220V is really needed since the power ($P=V^2/R$) goes down by a factor of 4 if only 110V were used. Fortunately, mine had a crawlspace to a nearby fuse panel that had extra capacity. I used a 4 wire 220V (2 110V branches, a neutral and a ground) since this gave me both 110V and 220V. If you use a dryer socket with 220V, it often does not have the neutral to support 110V.





Figure 3: J-box extender with inside metal cover punched for heating element

The assembled kettle with whirlpool arm, heating element, drain siphon, and temperature probe (from top to bottom) is shown in Figure 4. Here you can see I used 1/2" copper plumbing which can be easily assembled from sweating copper pipes with a propane torch. In many cases, such as the siphon and whirlpool arm, I didn't even sweat the pipes since the pressure is low enough and a friction fit is sufficient.



Figure 4: Kettle whirlpool arm, heating element, drain siphon and temperature probe

Finally, I configured my system (Figure 5) as a single kettle mash/boil with a two position motorized ball valve [7] to automatically switch when changing modes. The system also contains one valve under the table used for water fill and the second for the heat exchanger. This can be easily extended to include other kettles for assembly operation of boiling one batch

while mashing another. However, this would require more power (i.e. 220V 60A for two 6000W heaters).

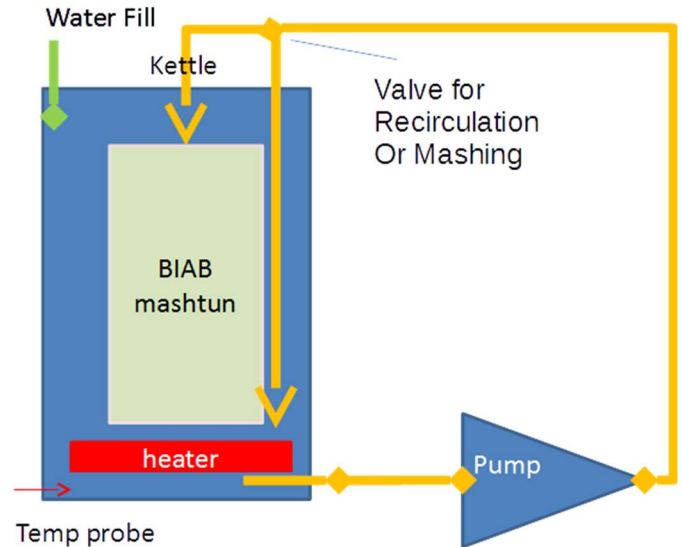


Figure 5: Turkey-fryer turned automatic single kettle mash/boil electric brewery

Because of the flexibility of this system, I have been able to try different methods of brewing, including Brew in a bag inside the turkey fryer strainer, using a gravity based mash tun atop the kettle (Figure 6) to allow some automation of the brewing process, and at another time a sealed mashtun using aluminum steam pans with lids. As described in Electric Brewery [4], hole punches are excellent for quickly making the right size in the stainless steel instead of time it takes with a step bit [8]; however, for the light materials such as aluminum, the hole punch often left rips which would cut the washers. So with aluminum, the step drills were better than the punch.

Now that I have the room and hardware, I needed something to monitor the temperature and control the heater. Here there are many options ranging from simple PID temperature controllers to the more complex automation. However, they all seemed rather limited in their capabilities (only valve and heaters) and not necessarily designed specifically for brewing beer. This is where I then started to build a more brewing friendly controller which I'll describe in a future article.



Figure 6: RIMS with gravity mashtun above kettle

References

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Field Report:

Goose Island Beer Tasting

SBBS 3/25/2016

By Jim Wilson

Dan hosted a tasting at the shop which was close to home and free on Final Friday. I was the lone Strand rep. Doh! About 15 SBBS customers who were non-club members showed up for a good event.

We didn't know what to expect. There was going to be beer which might be connected with food. GI didn't tell Dan many details. The tasting was all part of GI's cleverly named marketing tour which made a lot of stops.



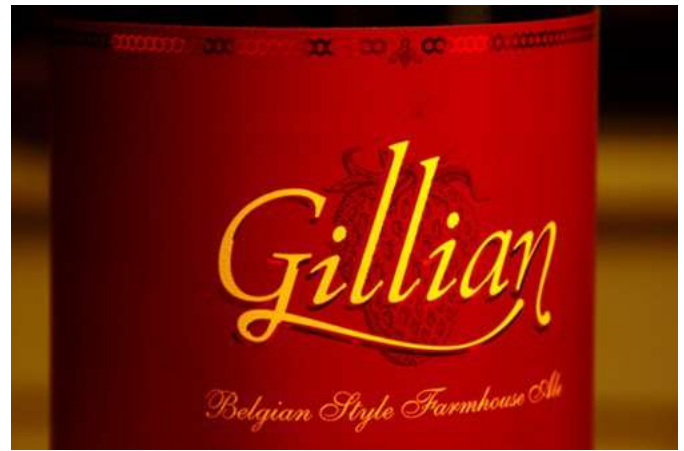
Early in the week cases of Sophie and Matilda showed up at the shop so the curtain was drawn back a little. On the 25th I got there early and had some of Dan's Hoplicious Clean Up the Kitchen IPA which featured 15 different hops.

Just about as scheduled, a van arrived with four guys who brought in another case of beer. There was a marketing dude, Tim Faith, a brewer, a lab guy and a driver, I guess, because he didn't talk. I'm sure they all had names but I'm claiming a senior moment.

The tasting started with Sophie, one of a long list of GI's beers named after women, in this case the founder's daughter. It's a Belgian Farm House Ale which is grainy, citric and spicy but maltier than classic Saisons. The only food discussion of the evening was that Sophie could be the dinner beverage with any meal instead of white wine. That's a left handed compliment for a tasty beer which doesn't have to take a second seat to wine. The brewer did discuss the grist (30% torried wheat) and mash temp (154F) but the lab guy would only say proprietary Saison type yeast and if I understood him correctly, less than 1% of the wort was fermented with Brett B as the primary yeast and then blended into the main ferment, which is unusual. All the grains were from Briess.

Next up was Matilda which is GI's homage to Orval. According to the [legend](#) Matilde, the Countess of Tuscany, lost her wedding ring and promised to support the church if she got it back. It all sounds like a very fishy premise if you ask me but there are some beautiful stained glass windows at the monastery which depict the story. Matilda is a Belgian Pale Ale with Brett B conventionally added at the end of the primary fermentation but the flavor eventually evolves into a peachy fruitiness rather than Orval's wet goat.

This was the end of tasting the accessible GI beers but a comment was made about Gillian, a Farm House ale made with strawberry, honey and white pepper that was named after the X-Files actor because she worked at GI's brew pub at one time. The label makes the connection all right.



GI makes a number of limited release wood aged and blended beers which can be hard to find when you're 1800 miles from Chicago. A selection of these "Bourbon County" beers were in the third case. In no particular order they were Stout, Coffee Stout, Barleywine, Proprietors, Rye Stout and Vanilla Rye. All were strong, complex sippers with the three stouts tilted toward the lightly roasty Bruery interpretation.

As befits a brewery owned by AB Inbev, the guys bought serious swag. Ryan would have been proud of me. There were portable and wall mount bottle openers, small and large glasses and short sleeve and baseball undershirts. My fav was the well crafted wall mount opener.



Strand Brewers Club Events

March 9th -7pm-Club Meeting

@ South Bay Brewing Supply

Iron Brewer Showcase: Hops:Hallertauer, Malt:

CaraMunich, and Blood Oranges

Comparison of bottle fermented vs. keg carbonated beers, and a new triangle test.

Club Meeting April 12-7pm

@Honest Abe Cidery

The 25th Southern California Homebrewers Festival will be held on April 29th and 30th, 2016.

Thirty-Seven homebrewers' clubs have signed up to serve homebrew to an expected 2,000 festival attendees. The Strand Homebrewers Club will be setting up our bar at the festival and serving "the best damn beer." The festival features commercial beer tastings, educational speakers, music, a raffle with great prizes, a "Bragging Rights Only" competition, and homebrew, lots of homebrew.

In order to attend the SCHF you must be a member of the [California Homebrewers Association](#). CHA memberships are on sale now for \$10. Membership benefits include discounts to Southern California breweries and home brew shops.

Registration for the SCHF began on January 1st, 2016. The initial cost will be \$35, but increases to \$40 on February 1st, and then increases again to \$45 on March 1st. Registration closes on April 24th. When you register you have the option of volunteering to work at the SCHF. Volunteers commit to two (2) hours of work during the festival in exchange for free SCHF registration. If you sign up for Sunday cleanup, you will only need to do one (1) hour of work. Volunteer registration lasts through February 1, or until all spots are filled.

The SCHF will be held at the [Vail Lake RV Resort](#), Temecula, CA. Resort rules provide:

- Maximum occupancy of 6 people per campsite;
- One RV and two vehicles maximum per campsite; and
- Excess vehicles must be parked at designated overflow parking areas.

Although there is a rule prohibiting tents, Vail Lake RV Resort has waived this rule for the SCHF.

The Strand Brewers Club has reserved nine campsites for April 29th and 30th. Each campsite has a captain who you can contact to arrange for sharing the campsite. Some of the sites are already full. The captains are as follows:

Campsite Captains	Sharing Status	Campsite Number
Rick and Penny Wirsing		84
Ron Cooper	Full	86
Jeff and Christy Hoy	Full	87
Joe Pace	Full	88
David Eaves		89
Rich Thornton		90
Chris Remensperger	Full	109
Chris Remensperger	Full	110
Nate Federman	Full	111

Note: Campsite Captains are free to trade campsites.

Also, campsites can still be reserved directly with Vail Lake RV Resort, but probably will not be close to the club campsites. That may be good or bad.

So make your plans now for the 25th Southern California Homebrewers Festival!

Iron Brewer Inner Club Competition

Recipe must include the special ingredients which must all be detectable in the finished beer.

July: Tettnang, Flaked Wheat, and Raspberries

October: Saaz, Munich, and Passion Fruit

Final Fridays

By Jeff Hoy

Hey Strand Brewers! Back by popular demand is the schedule for the remaining Final Fridays of 2016. We got a late start, but will make up for it with gusto. March launched the return of Final Friday with a

visit to the new Brouwerij West in San Pedro, which opened barely a month ago. The schedule for the remaining Final Fridays for this year are as follows. Note that, due to SCHF the last weekend in April, this month's Final Friday will be on April 22nd at Smog City Brew Co. Hope to see everyone there! Please contact me if there are any questions or conflicts.

April 22-	Smog City
May 27-	Strand
June 24-	King Harbor
July 29-	The Dudes
August 26-	Monkish
September 30-	Phantom Carriage
October 28-	3 Weavers
November 18-	Select Beers (last Friday in November is the day after Thanksgiving)
December-	TBA due to holidays & Club Party

Activities Report

By Jay Ankeney-Activities Director

We're at full Kräusen on our Summer activities planning, so let's get right to it.

Greeting Cards and Membership Drive

First, how are you coming with handing out those SBC Greeting Cards? I've given out ½ dozen already, the last one to the veterinarian's assistant when I took my mighty cat Shane in for a check-up. The assistant noticed my NHC T-shirt, mentioned that her husband really loved beer, and Shazam! A card was in her hands. Also, any time I'm quaffing a cold one at a local tap house and the topic at the bar turns to beer preferences, the surrounding folk (and the beertender) are queried "Have you ever tried a homebrew?" and are bestowed with a card. It's a great conversation starter, and potential invite to a meeting. You can pick up more cards next time we gather.

Speaking of recruiting, I am in contact with the Dept. of Parks and Recreation to arrange for information stands at the Manhattan and Hermosa piers some time in June or July, so it's time to think about volunteering. We're the 2015 "Homebrew Club of the Year" so let's present ourselves to the community.

Stuffed Sandwich day trip-- Saturday, May 14

We'll get on a bus at the Redondo and Marine Park&Ride lot at 11 AM, and return by 4 PM. Cost should be in the \$20 range.

Stuffed Sandwich is a unique beer lover's experience. Although they have brews from around the world, Marlene tells me their tap specialty in May will be Belgian beers The Stuffed Sandwich is also a generous sponsor of the Pacific Brewer Cup. More details in future Dregs, or just ask some veteran members about it.

Early summer Beach Bar Ride--Saturday, June 4

Every summer we've conducted what we call the "BBBB" in mid-August. It stands for "Beach Bar Bike Ride" (although people usually like to add in extra "B"s like "Bikini", "Blades" "Bozo", etc.) and is usually one of the Strand Brewers Club's most popular summer activities.

So this year we are experimenting with trying to institute a second one. Just as a working title, I'm calling it the "AAAA" but that can change unless someone comes up with a worthy acronym.

The idea is we gather somewhere along the South Bay bike path in the morning and spend the day peddling to various top-notch beer venues along the Strand. We'll have a pre-set list of beer stops to let you meet up with the group when you want.

We also invite friends and members of other clubs to join us, so in some years we have gathered quite a herd of riders.

Then we'll do it again toward the end of summer. This way, if you can't make one bike ride, you can probably make the other. If you ride along on both, you'll have plenty of Traveler's Tales to tell.

This is just the beginning of what we have planned for the summer.

If you have suggestions for beer-related activities, you can always contact me at jayankeney@mac.com

Competitions

Rives Borland, Competition Advisor

On 3/12 our club held a small but successful 1st Annual Jeff Sanders Memorial Homebrew Competition that went off smoothly, with judging easily finishing in one morning round, followed by BOS immediately after lunch afternoon. Congratulations go out to Rob Proffitt, Dan Martin, and me for earning ribbons. The full results can be seen [here](#). Judging occurred for the 2nd Annual LABBC on 3/26, where around 120 entries were judged, up from about 95 or so the previous year. Best of Show took place a few days later at Monkish Brewing, with the best of show panel consisting of Henry Nguyen and

Jen Fiction from Monkish, Jim Wilson, me, and Andrew Bell of The Bruery. Henry will be brewing the BOS beer recipe in the near future. The full results of the LABBC will be announced at the next Pacific Gravity meeting on 4/21 and I assume posted online shortly thereafter.



The next entry deadline that is approaching is Friday, 4/8 for [The Mayfaire](#), with the main judging taking place in Winnetka on 4/23. Other judging opportunities this month are the 1st round NHC in San Diego on 4/8 and 4/9, as well as the [LA County Fair Commercial Beer Competition](#) in Pomona also on 4/8 and 4/9. The commercial competitions pays some small compensation (has been ~\$50 in the past) to the judges. The rest of the upcoming targeted competitions are in the table at the end of this section, as always.

Last month I wrote a bit about getting carbonation levels right in your competition beers via force carbonation. This month I'll touch on bottle conditioning. The discussion is also timely, since Jeff Hoy gave a nice talk on the same topics at the March

clubs meeting. It can be trickier to dial in the exact desired levels when bottle conditioning beers, but the rewards for certain styles can be worth it. As mentioned before I think it can lead to a finer champagne like mouthfeel that may be desirable for certain styles. The small re-fermentation in the bottle can sometimes have positive flavor impacts and clean up some off flavors such as diacetyl or acetaldehyde. The active yeast will usually also help to scavenge oxygen and give the beer a longer shelf life.

The carbonation level in a bottle conditioned beer is controlled by the type and amount of sugar used. You will want to use a [priming sugar calculator](#) where the inputs are desired vols CO₂, batch size and current temp of the beer. A note about the temp of the beer – if your fermentation took place unpressurized (except for atmospheric) with an air lock or blow-off tube, the warmer the beer got the more CO₂ that came out of solution. So if the beer spent a significant amount of time at a warmer temp than the current temp than you might want to use that temp or some average as you input to the calculator. This residual CO₂ can be tricky to estimate. If you really want to dial in the residual CO₂ and you fermented in a keg or can temporarily move the beer to a keg to use as you bottling bucket, you can estimate the residual CO₂ level using the current temp and a spunding valve to measure the pressure and using the carbonation chart in reverse. Or you can apply a small amount of CO₂, gauge pressure of like 1-5psi if you don't have a spunding valve. That way you more precisely know your starting residual CO₂ level. Then you would enter the compensated temp in the priming sugar calculator. As an example, if after fermentation your beer is in a keg at 65F and 3psi gauge pressure, that would be about 1.00 vol CO₂. That is equivalent to about atmospheric pressure (0 gauge PSI) at about 56F (interpolate the chart down to 0 gauge PSI if it is not listed). So you would enter 56F in the temp of the priming sugar calculator.

The priming sugar calculator will list the amounts of different type of sugar to use. Unless I am going after some specific residual flavor profile (e.g. maple syrup, or honey) I will usually just use sucrose (table cane or beet sugar) since it is cheapest and I almost always have some in stock. Dextrose (corn sugar) will of course work fine, too. Measuring by weight is always more accurate and I prefer to use grams for better resolution. So get yourself a good gram scale with appropriate range! Boil the sugar in a small amount of water, let it cool down

and slowly mix it into the beer or rack on top of it. As a side note, I don't trust those individual sugar tabs to dissolve well or give you any kind of consistent carbonation from my experience. I much prefer bulk priming for consistency.

For most batches that have been recently fermentation and are of average ABV levels, there is probably enough residual yeast left to consume the priming sugar, assuming you did not filter the beer or do a crazy amount of fining. However it may take a while to carbonate relying on residual viable yeast (3 weeks or more). If you had a stressful fermentation (high ABV, low pH, etc.) or want to speed up the carbonation time, or just want peace of mind that it *will* eventually carbonate, you will want to add some more yeast at the same time you add your priming sugar. Dry yeast is a good candidate here since it is cheap and easy to measure accurately. You don't want to use too much yeast and end up with too thick a layer of sediment at the bottom of the bottle that can easily be stirred up. Most beer styles will bottle condition with about 1/10 the pitch rate you use for primary fermentation. Some Belgian style might traditional use closer to the same pitch rate (but you will not get much growth during conditioning). In either case, about 1 gram of dry yeast should be enough for any 5 gal batch (again get an accurate gram scale with good resolution). See this [advanced bottle conditioning primer](#) for more information.

You don't need to use the same yeast strain you used for primary fermentation if you are re-yeasting before bottle conditioning. Safale US-05 will work fine in most situations or Lallemand makes a yeast specifically for bottle conditioning called [CBC-1 Cask & Bottle Conditioned Beer Yeast](#). CBC-1 has a high alcohol

tolerance up to 14% and is tolerant of higher pressures as well as having a wide active temp range of 55-79F. It is also highly flocculent and will form the desirable tight and thin layer of sediment in the bottle. For even higher ABV beers or for low pH/high total acidity beers, Champagne yeast can be a good choice, such as Lalvin EC-1118 or Red Star Pasteur Champagne. You will want to properly rehydrate the yeast around 104F prior to using it. Adding 1.25 g Go-Ferm per each g of dry yeast during the rehydration would not be a bad idea, but might not be required just for bottle conditioning.

Once the bottles have been filled you will ideally want to move them somewhere warm around 70-80F to speed up the carbonation process, which can still take a few weeks. Have a few extra bottles that you can chill and sample periodically to ensure that they have reached the right level of carbonation prior to submitting them to the competition. For all this talk about bottle conditioning, I will say that it has become less common to see bottle conditioned beers in competition. If you look at the majority of the 1st place NHC final round winners' recipes that are published in Zymurgy in recent history, most are force carbonating. However, the 2015 BJCP style guidelines do specifically mention bottle conditioning as part of the characteristic of a few styles (Trappist Ales, Historical London Brown Ale) so it may especially benefit your scores for those styles to go to the trouble of bottle conditioning. Personally, if it wasn't for the extra effort required and less control of the carbonation level, I would probably bottle condition all my beers I put into bottle, just for the extra shelf life benefits and mouthfeel, especially if I could do it as well as Sierra Nevada Brewing does, with the consistently tight layer of sediment.

Strand Brewers Club Targeted Competitions

Competition	Entries Due	Judging Date(s)	Judging Location	Website
AHA National Homebrew Competition 1st round	past	4/8 and 4/9	San Diego, CA (additional locations available)	http://www.homebrewersassociation.org/competitions/national-homebrew-competition/competition-information/
Mayfaire	4/8/16	4/23/16	St Martin In the Fields 7136 Winnetka Ave, Winnetka, CA 91306	http://www.maltosefalcons.com/comps
California State Fair	5/6/16	5/19/16	Sacramento, CA	http://www.northerncalbrewers.com/homebrew-competition
Los Angeles County Fair	TBD (July)	TBD (July/Aug)	TBD (LA/ San Fernando Valley)	http://www.maltosefalcons.com/comps
Pacific Brewers Cup	TBD (Sept)	TBD (Sept)	TBD (LA/Long Beach)	TBD
California State Homebrew Competition	TBD	11/6/16	TBD (San Francisco, CA area)	http://www.nchinfo.org/state-comp.html
Doug King Memorial Homebrew Competition	Jan 2017	Jan 2017	TBD (LA/ San Fernando Valley)	http://www.maltosefalcons.com/comps
Romancing The Beer	Feb 2017	Feb 2017	Westlake Village, CA	http://www.toaked.com/competition/
America's Finest City	Feb/March 2017	March 2017	San Diego, CA	http://quaff.org/AFC-2016/
Jeff Sanders Memorial Homebrew Competition	March 2017	March 2017	Lawndale, CA (TBR)	http://jeffsandersmemorial.com
Mazer Cup International Home Competition (mead only)	March 2017	March 2017	Broomfield, CO	http://www.mazercup.com/
Los Angeles Belgian Brew Challenge	March 2017	March 2017	Los Angeles, CA	http://belgianbrewchallenge.com/

<https://calendar.google.com/calendar/ical/42e7c9i2uj194r0ad2ipfle7r8%40group.calendar.google.com/public/basic.ics>

https://calendar.google.com/calendar/embed?src=42e7c9i2uj194r0ad2ipfle7r8%40group.calendar.google.com&ctz=America/Los_Angeles

Tell Us What You're Doing

Your stories are welcome in the *Dregs*. Upgrade your brewery? Fine tune your practice? Take a road trip? Do well in a competition? Have recipes to share? Read a good beer book? Have club related pictures, especially for the *Dregs* cover? Send all those, or anything else you think would be interesting to the [Editor](#). Thanks!

What We Stand For

The objectives of the Strand Brewers Club are to brew beer and share information about brewing, presentation, consumption, judging and history of beer. We promote and encourage homebrewing competition and hope to foster general goodwill through the making and consuming of this noble and most excellent beverage. We aim to brew the best damn beer.

It is our policy to brew and consume beer strictly for fun. Under no circumstances does Strand support or condone in any manner the sale or barter of homebrewed beer, the operation of a motor vehicle under the influence of alcohol by a member or participant in any club event or the provision of alcohol to minors.

Strand Brewers Mentors

The following members have volunteered to answer your brewing questions and to help beginning brewers learn the craft. You should take advantage of their expertise.

Name	Location	Phone	Email
Jay Ankeney	Manhattan Beach	310-545-3983	jayankeney@mac.com
Jim Hilbing	Redondo Beach	310-798-0911	james@hilbing.us
Jim Wilson	Redondo Beach	310-316-2374	jim7258@gmail.com
Steve Fafard	Rolling Hills Estates	310-373-1724	sfafard@cox.net

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