



DREGS FROM THE KEG

ISSN 1945-1342

MAY 2015

ANOTHER BEER MOON!



THE GODS ARE TELLING US TO BREW MORE!

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Strand Brewers Club Meeting May 13th at 7 pm



1311 Post Avenue, Torrance, CA 90501

Foam at the Top

[Ryan Penrod](#), Strand President

I hope everyone is ready for a very busy few months of homebrew events. In April, we filled the club chardonnay barrel with a hoppy Saison recipe. The barrel was dosed with more than a couple bottle kegs of brett beers and two packs of brettanomyces. Secondary fermentation started quickly and after about 6 months we will start evaluating whether the barrel is ready to be emptied. Rives did some great research on brett and we learned that while brett will always ferment available sugars, much of the earthy and horse blanket notes common to brett beers are derived from brett interacting with phenols produced in the primary fermentation, not from attenuating the beer. Thanks to Rives for all his research, and look for a more detailed Dregs article soon. There has been some interesting discussion on Facebook about blending some of the beer with chardonnay, possibly from the winery that originally used the barrel. Be sure to check it out.

Also in April, I donated beer to my daughter's school fundraiser. Jason Light, another club member, and Carlos Vega, another homebrewer with a daughter at the school, donated beer. For me, it was a chance to test my new portable beer dispensing system and share homebrew with the school community. The beer was well received and I even got a chance to serve it to Vice President Rich Thornton at the fundraiser.

In the next few months there are three exciting homebrew events many club members are participating in. The first weekend in May we have the Southern California Homebrewers Festival. After the Festival was cancelled last year I know everyone is happy to see it return.

May 16th Strand Brewers Club and Pacific Gravity are hosting a homebrew tent at Bite at the Beach. This is an event that pairs craft beer with small plates from local restaurants. A few members participated last year and had a great time. If you are interested in participating, I can see if there is still space.



Chris Remensperger helping fill the Strand Brewers Club Chardonnay barrel.

On June 6th Strand is hosting a Monster Brew at Monkish. Details are still being finalized, but this should be an educational and fun event. The wort will be 85% 2-row, 5% Vienna, and 10% oats. It will be hopped to about 25 IBUs with a mix of magnum and sterling. This wort should be very versatile. A few club members have expressed interest in doing more monster brews, so I hope everyone is as excited about this as I am.



Ryan Penrod's new portable dispensing system.

The National Homebrewers Conference (NHC) will be in San Diego on June 11th -13th. Around 20 Strand members are going, and we will be hosting a booth on club night. This will be the third event (SCHF, Bite at the Beach, and NHC) this year at which we are using the club bar. Thanks to everyone who has contributed to its maintenance, especially Jeff Sanders who stores

it and all the tap sponsors that helped the club upgrade to stainless steel shanks and faucets.

In addition to all the homebrew events, the local craft breweries have reached some significant milestones. Recently King Harbor celebrated their first anniversary and Monkish celebrated their third. El Segundo Brewing Company continues to produce even more variations of delicious IPAs. Smog City keeps producing amazing beers (I hear a peach sour will be released soon). Strand Brewing Company is moving to a new location, and Phantom Carriage's recent opening has been very successful. In addition to these breweries, Select Beer and Naja's have both been recognized for the craft beer they serve. It is an exciting time to enjoy beer in Southern California.

Remember all the competitions that are coming including the California State Fair Homebrew Competition and Orange County Fair. A big thanks to Jeff Sanders for volunteering to drive the California State Fair Homebrew Competition entries to San Diego. As always, if there is something you would like Strand Brewing Club to do, contact me at president@strandbrewersclub.org

Spent Grains

[Chris Remensperger](#), Strand Treasurer

Strand Brewers Club relies on dues and raffle entries for the majority of our income, so if you have yet to settle your membership, now is still a great time. The good news is that there are many ways to pay. You may pay your dues on our website www.strandbrewersclub.org/membership, or you can pay by cash, check, or credit card at a club meeting.

It is even more important to make sure your dues are paid soon. The new Strand Brewers Club Membership Cards are coming. Cards will be printed monthly prior to club meetings for paying members (and spouses).

And we have club merchandise. If you did not get a chance to see the new club tulip glasses at the last meeting, they are gorgeous. They are \$6 per glass, or 2 for \$10.

See you at the next meeting.

What's On Tap

[Bob Wilson](#), Strand Activities Director

COMPETITIONS

Orange County Fair Homebrew Competition

Registration ends May 1st.

Entries due May 9th.

Judging: May 16th, Costa Mesa, CA.

Entry fee: \$5.

Contact: [Julie MacRae](#)

San Diego County Fair Homebrew Competition

Registration ends May 8th.

Entries due May 24th.

Judging: May 29th, Del Mar, CA.

Entry fee: \$10.

Contact: [Kate Mueller](#)

Phone: 858-792-4245

California State Fair Homebrew Competition

Registration ends May 10th.

Entries in SoCal due May 15th.

Judging: May 28th – 31st Davis, CA.

Entry fee: \$15.

Contact: [David Teckam](#)

Phone: 916-236-8407

Sonoma County Home Brewer's Competition

Entries due May 13th.

Judging: May 23rd, Petaluma, CA.

Entry fee: \$25.

Contact: [Christine Aluia](#)

Phone: 707-780-2839

Go for the Glory Bracket Competition

Entries due June 19th.

Judging: June 27th, Sacramento, CA.

Entry fee: \$8 for first entry, \$6 each additional entry.

Contact: [Mike Brennan](#)

Phone: 916-213-8744

Amador County Fair Homebrew Competition

Entries due June 27th.

Judging: July 11th, Plymouth, CA.

Entry fee: \$6.

Contact: William Tarchala

Phone: 559-321-3430

Antelope Valley Fair

Entries due TBD.

Judging: July 18th, Lancaster, CA.

Entry fee: \$TBD.

Contact: [Cory Cordovano](#)

Phone: 661-305-9166

Ventura County Fair Amateur Home Brewing Competition

Entries due August 1st.

Judging: August 2nd, Ventura, CA.

Entry fee: \$5.

Contact: [Michelle Brown](#)

Phone: 805-701-7458

Queen of Beer Womens Homebrew Competition

Entries due October 10th.

Judging: October 17th, Placerville, CA.

Entry fee: \$8 first entry, \$6 each additional entry.

Contact: [Elizabeth Zangari](#)

Phone: 530-957-8912

STRAND BREWERS CLUB EVENTS

Strand Brewers Club Iron Brewer Challenge

Round 2

July 8, 2015 Club Meeting

Ingredients: Nelson Sauvin or Southern
Cross Hops, Rye, and Peaches

Round 3

October 14, 2015 Club Meeting

Ingredients: Palisade Hops, Crystal Malt,
and Ginger

2015 Pacific Brewers Cup

The Strand Brewers Club is hosting the PBC this year. Rives Borland is the Organizer and will be needing help from all of us. Please be ready to volunteer.

Final Fridays

May 29th is the Final Friday for the month of May! Let's meet at Monkish Brewing Company at 7PM!

Final Fridays Schedule

Date	Location
May 29 th	Monkish in Torrance
June 26 th	Strand Brewing in Torrance
July 31 st	King Harbor Brewing in north Redondo
August 28 th	Absolution Brewing in Torrance
September 25 th	Dude's Brewing in Torrance
October 30 th	I assume there will be new breweries in Torrance by this time.
November 27 th	Does anyone actually want to do this the day after Thanksgiving?
December 25 th	Merry Christmas! Go spend time with your families!

BBBB . . .

Our annual Beer, Beach, Bikes (alliterative) Barcrawl takes us along the strand. This year's BBBB . . . Barcrawl will be on August 15th. Details to follow.

BEER EVENTS

[Southern California Homebrewers Festival](#)

May 1st – 3rd

It's too late to sign up now.

[Bite at the Beach 2015](#)

May 16th

A keg of beer gets you in. Contact [Ryan Penrod](#).

[2015 National Homebrewers Conference](#)

June 11th – 13th

This year's NHC is in San Diego! Looks like the Strand Brewers Club will have a strong showing!

2015 Strand Brewer of the Year

[Rick Wirsing](#), Dregs Editor

The 2015 Strand Brewer of the Year contest is underway. The current standings are as follows.

Member Name	Points
Rives Borland	28
Chris Remensperger	18
Ryan Penrod Rick Wirsing	15
Rich Thornton	10
Jeff Sanders	9
Jay Ankeney	8
Jim Wilson Hunter Thacker	7
Jim Hilbing Dan Parker	6
Jeff Hoy Chris Sousa-Wynn Jill Updyke Bob Wilson	5
Edgar Cuevas Rick Pearce	4
Steve Gardner	3
Anthony Brownstone Steve Fafard Jason Light Alex Schlee Trey	2
Ken Bones Ron Cooper Nate Federman Jimmy Gallenbach Rob Proffitt	1

If you did something that would earn points for you, make sure to let [Ryan Penrod](#) know.

Congratulations Rives Borland

[Rick Wirsing](#), Dregs Editor

Rives Borland is a first round winner in the American Homebrewers Association National Homebrew Competition in two BJCP Categories: 16E, Belgian Specialty Ale; and 25A, Cyser. Congratulations Rives! And good luck in the next round!



Rives Borland intently judging at the 2015 Mayfaire Homebrew Competition.

Water Chemistry

[Bob Wilson](#), Strand Activities Director

In “The Complete Joy of Home Brewing”, Charlie Papazian advises beginning home- brewers that water that is safe to drink and tastes good is suitable for homebrewing [Pap03]. For many brewers, the water we use is an afterthought. Compared with the importance of sanitation, for example, water chemistry plays a smaller role in a brewer’s success.

A brewer is therefore completely justified in asking, why should I alter my water chemistry? And the truth is, you probably shouldn’t. Gordon Strong advises against messing with

water too much. To his palate, overadjusted beers taste like Alka Seltzer [Str11, p. 145].

Instead, in this article we will address the question, why should I pay attention to my water chemistry? Even if a brewer changes nothing, it is wise to understand the role water plays throughout the brewing process. A knowledgeable brewer will then be in a position to make smart decisions about where best to focus their time and energy.

“Water: A Comprehensive Guide for Brewers” by John Palmer and Colin Kaminski delivers exactly what the title promises, and is an excellent source of information [PK13]. The present article does not aim to be complete or comprehensive, but rather focuses on the two most important considerations: mash pH, and flavor impact.

The first consideration is mash pH. For our purposes, pH may simply be thought of as a number describing the level of acidity. High acidity is associated with low pH. Alpha and beta amylase reactions are affected by pH; therefore pH affects efficiency and fermentability. According to Kai Troester’s article, “The Theory of Mashing”, the optimal pH range for beta amylase reactions is 5.4–5.6. For alpha amylase reactions, the optimal range is 5.6–5.8 [Tro09]. From this perspective, it seems wise to target something between 5.4 and 5.8.

There are compelling reasons to target the lower end of this range. A lower mash pH will result in a lower boil pH, which improves hop bitterness extraction. A lower boil pH will result in a lower fermentation pH. Since yeast are more tolerant of acidity than many bacteria that would infect beer, this gives yeast an advantage in the earliest stages of fermentation. Finally, a lower fermentation pH will result in a lower final pH. Strong describes beers having a high final pH as tasting heavy, harsh, and lacking in freshness [Str11, p. 261].

The good news is, with a broad range of source waters (including Los Angeles tap water) and most beer styles, the pH will automatically be in the appropriate range. That means most people do not have to worry about pH, unless they are brewing very light beers (Pilsener) or

very dark beers (stouts). Nonetheless, just as measuring the gravity of beer throughout fermentation provides useful information when things go wrong, measuring pH from mash to final product can help identify problems.



Bob Wilson lecturing about water chemistry at the April Strand Brewers Club meeting.

While pH meters are considerably more expensive than pH strips, strips are hard to read and inaccurate. General consensus is that strips are useless. Either buy a pH meter, or don't measure pH. Some pH meters have automatic temperature compensation (ATC), which corrects for the way temperature affects

the electrode in the meter. They do not, however, correct for the way temperature affects the pH of wort or beer! It is important to note the temperature at which pH measurements were taken. At 150°F, an ATC meter will measure a pH roughly 0.25 below a measurement taken at 68°F. For example, if we measure the pH at 150°F as 5.1, then cool the exact same sample to 68°F, we would measure a pH of 5.35. A non-ATC meter should include documentation on how to correct for the temperature affect on the electrochemical response of the electrode; however, ATC is a fairly standard feature.

When we talk about optimal pH ranges, these numbers are for room temperature measurements. If we measure the pH at mash temperatures, we must properly account for temperature! Moreover, since high temperatures can damage meters, we recommend always cooling samples to room temperature before measuring pH. Unfortunately, some sources do not clearly specify the temperature associated with their recommendations. Common reference temperatures include 68°F (20°C), 77°F (25°C), and 150°F (65°C). Thus, Palmer and Kaminski recommend 5.4 as the optimal mash pH (68°F measurement), while other sources tout 5.2 as the optimal (150°F measurement). This is the same recommendation! We emphasize that pH records must include the measurement temperature, or be converted to a standard temperature, to be useful. To be specific, increasing the measurement temperature by one degree Fahrenheit (Centigrade) will lower the measured pH by 0.003 (0.0055) units [PK13, p. 86].

There are online calculators that can be used to predict mash pH. I use Brewer's Friend [Fri13]. Note the pH that this tool predicts is for measurements at 77°F. The calculator supports a variety of water alterations as well as specifying the malt bill.

For very light beers, like Pilsener, we may find the mash pH is too high. As mentioned above, this can lower hop bitterness extraction, lead to spoilage, and make the beer taste dull. The easiest way to control pH throughout the brewing process is during the mash. Calcium in

brewing water will react with phosphate in malt triggering a sequence of chemical reactions that result in a lower mash pH. Basically, more calcium means lower pH. On the other hand, alkalinity sources like carbonate will result in a higher pH. So for our Pilsener, we may wish to use a water source that is high in calcium, but low in alkalinity.

There are two readily available options for adding calcium: gypsum and calcium chloride. The sulfate in gypsum will accentuate hop characteristics, while chloride will enhance maltiness. We will come back to this subject later. Reducing alkalinity is really only possible by diluting with reverse osmosis or distilled water.

With dark beers, like stouts, we may find the mash pH is too low! This can lead to problems with mash efficiency, or necessitate a longer saccharification rest. It is better to be too low than too high, but by using a water source with more alkalinity, we can increase the pH. Options for increasing alkalinity include baking soda (sodium bicarbonate) and food grade chalk (calcium carbonate), but Palmer and Kaminski note that chalk is ineffective at mash temperatures due to low solubility [PK13, p. 128].

Another way of lowering mash pH is to use acidulated malt. Acidulated malt is approved by the Reinheitsgebot, and lowers the mash pH by 0.1 units for each percentage point of the grist. For example, if the grist is 3% acidulated malt, the mash pH will be 0.3 units lower than if the acidulated malt were omitted. According to Kai Troester's article, "Mash pH Control", too much acidulated malt imparts a lactic sourness to the final product. Acidulated malt usage should be kept lower than 4–5% of the grist [Tro11]. The use of pure lactic, citric, or phosphoric acid should only be used as a last resort! Strong recommends using phosphoric acid to lower the final pH below 4.5 as needed, to prevent spoilage and improve flavor. To his palate, phosphoric acid has a more neutral flavor than lactic or citric acids.

To summarize what we have covered so far, the primary reason to alter water is to control pH during the mash. Starting with an appropriate

mash pH supports proper pH throughout the brewing process. Predicting mash pH depends on water chemistry and the amounts and types of grains used. It is complicated, but online calculators make it easy.



Mashing in.

We touched upon another important reason to alter water, the sulfate-to-chloride ratio. Sulfate accentuates hopiness, while chloride accentuates maltiness. Note there is a big difference between chlorine and chloride! Chlorine is bad, and chloride is good!

At the 2014 National Homebrewers Conference, John Palmer gave a talk on water. As part of the seminar, two pale ales were passed around, differing only in water chemistry. One had a low sulfate-to-chloride ratio, the other a high ratio. To me, the second beer was unquestionably superior, with a bright, crisp hop bitterness. The first beer had only a dull hoppiness. Yet

when John polled the audience, half preferred the first beer! This shows that taste is subjective, but more importantly it shows that an individual is likely to have water chemistry preferences. We can alter our water to make the beers the way we like best!

Because this is a matter of personal taste, there is no mathematical machinery like with pH. Palmer and Kaminski cite 50 ppm as a minimum amount for both chloride and sulfate to derive any flavor benefits. Chloride levels should not exceed 200 ppm, and sulfate levels should not exceed 500 ppm [PK13, p. 150]. Note that Palmer and Kaminski speak in terms of the sulfate-to-chloride ratio, while other sources use chloride-to-sulfate. Just remember: chloride accentuates malt, sulfate accentuates hops.

We can add chloride using calcium chloride. We can add sulfate by adding gypsum (calcium sulfate). But what's in our tap water? According to the Annual Drinking Water Quality Report published by the Metropolitan Water District of Southern California, there are five treatment plants servicing Los Angeles, Orange County, and San Diego [oSC14]. The report states which regions are "typically" served by which plants; however, source water is subject to seasonal variation. Taking the report at face value, the water served to coastal Los Angeles and San Diego has a sulfate-to-chloride ratio of 2.2, appropriate for hoppy beers. Throughout history, brewers have adapted styles to suit their local water. I suspect it is no coincidence hoppy beers are so popular here!

There remains quite a bit of uncertainty regarding the mineral profile of our tap water. The only way to know for sure is to test it, every time we brew. There are laboratories who will ship you an empty bottle for you to fill with tap water and send back. They will then measure parameters like alkalinity, chloride, and sulfate. This is inconvenient and expensive. Alternatively, you can buy the equipment and supplies needed to do the testing yourself. Many brewers prefer to invest in a reverse osmosis system, and add the chemicals desired. Personally, I have started using distilled water. That way, I know exactly what I am getting.

When brewing hoppy beers, the easiest thing to do is use tap water, perhaps boiled and cooled the night before to remove chlorine [PK13, p. 192], and consider adding a teaspoon of gypsum to the boil (for a five gallon batch). This is likely unnecessary, since Los Angeles water is already suitable for hoppy beers, but will not hurt. For malty beers, consider adding a teaspoon of calcium chloride to the boil [Str11, p. 148].

Our discussion is just the tip of the iceberg. The references below are a great place to find more information. If we think of the mineral profile as the seasoning, it can take a few iterations to "season to taste". So take good notes, and get brewing!

References

[Fri13] Brewer's Friend. Mash chemistry and brewing water calculator, v1.5. <http://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/>, May 2013. Accessed April 5, 2015.

[oSC14] Metropolitan Water District of Southern California. Annual drinking water quality report. <http://www.elsegundo.org/civicax/filebank/blobdload.aspx?BlobID=12006>, June 2014. Accessed April 7, 2015.

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[Tro11] K. Troester. Mash pH control. http://braukaiser.com/wiki/index.php?title=Mash_pH_control, March 2011. Accessed April 5, 2015.

Tell Us What You Are Doing

Come on you'all! Don't get all self conscious! We need and want your stories for The Dregs. Upgrade your brewery? Fine tune your brewing? Take a road trip? Do well in a competition? Have recipes to share? Read a good beer book? Write it up! Have club related pictures? Send all that, and anything else you think would be interesting, to [Rick Wirsing](#). Everybody will thank you!

What We Stand For

The objectives of the Strand Brewers Club are to brew beer and share information about the

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 the Strand Brewers Club support or condone, in any manner, the violation of any law, including the sale or barter of homebrewed beer, the operation of a motor vehicle under the influence of alcohol by a member or a participant in any club event, or the provision of alcohol to minors.

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.

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

2015 Club Officers

President	Ryan Penrod	310-971-6757	president@strandbrewersclub.org
Vice-President	Rich Thornton	310-376-5751	rich.one@earthlink.net
Treasurer	Chris Remensperger	310-863-6222	remensperger@icloud.com
Activities	Bob Wilson	310-849-8154	millstadt@gmail.com
Administrator	David Eaves	310-806-2772	david.eaves@yahoo.com
Dregs Editor	Rick Wirsing	310-872-9915	rmwirsing@gmail.com

TRUE

MOST PEOPLE DON'T REALIZE THAT THERE IS A LOT OF TENSION DURING THE JUDGING OF BEERS AT A HOMEBREWERS COMPETITION . . .



THIS IS THE FIRST ROUND!
WHAT DO YOU MEAN YOU
DRANK THE WHOLE
BOTTLE?

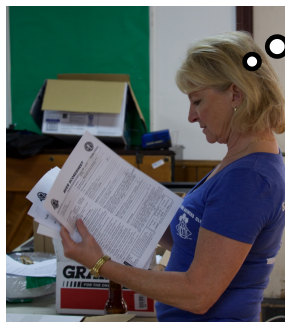


THERE'S A 23 POINT
DIFFERENCE IN OUR
SCORES.



WHAT'S A
NICE WORD FOR
PUKE?

CRAP!
THE SCORES AREN'T UP
ON FACEBOOK YET!



SHOULD I
TELL THESE GUYS
THEY CAN'T ADD . . .
OR WRITE?