



# Homebrewers of Peoria

## MINUTES FROM THE LAST MEETING:

Editors note: And now to make a silk purse out of a sow's ear worth of minutes I got from last month's meeting!

### WHAT'S OLD ON TAP:

**Treasurer's Report** - We have approximately \$473.61 ...

**Elections:** It's that time again for elections this/next month...for VP and Trustee...and you just might be nominated even tho you might not be there!!! Kodie and Don are nominated (and have accepted) the position of Trustee. The position of VP is open.

**Membership/Dues:** We talked about different ways to attract more members. With the upcoming JayCees Brewfest, we are trying to prepare different advertizing materials for this. Ideas that were discussed were: business card with the next 3 HOPs meeting dates plus bullet points of why to join HOPS, waving new memebers foa year, and being sure we have plenty of membership/newsletters at the festival. FYI dues are due...\$18, give money to Kodie.

**JayCees Brewfest & Black & Tan Contest:** The brewfest is coming up this month...April 20 & 21st. On Fri. the 20th, Dave S will be conducting the Black & Tan beer contest somewhere at the festival...you are most welcome to come by anytime after 6pm and either observe or help out. Has anyone talked to the Jay Cees or Specialty about the tables being set-up for Fri. night? Sat. the 21st is the big day when we set up our HOPs station and serve beer. How is the Beer dispenser upgrade update coming??? Melanie will revamp the HOPs banner by the brewfest.

### WHAT'S NEW ON TAP:

**Members:** Welcome back to Paul Hodge...it's been awhile. Congratulations to Kevin on his upcoming wedding...too bad it's the day of the JayCee beerfest...

## HOPS

PRESIDENT  
John Martin

VICE PRESIDENT  
Don Summers

TREASURER/  
MAILER  
Kodie Brush

TRUSTEE  
Dave Scuffham

SECRETARY/  
EDITOR  
Melanie Martin

## MISCELLANEOUS STUFF:

**"Ask Dr. Langlapp":** Pass your brewing questions through the HOPs email. Questions/answers will be reprinted in the newsletter, as we them.

**Wanna Strut Your Stuff???** Made any good beer lately??? Bring some to the meetings and strut your stuff all over the bar tables!!! We're always thirsty!

**Had any good beers or been to an intresting pubs, beer functions or liquor stores lately???** Send me your new finds and I'll help pass the word. For this month, Dave S raved about **St. Arnold's Super Lawn Mower Kölsch**...a beer he had on a recent trip to Houston, TX...can't believe he drank the last one the day before the meeting!

**BEER EDUCATION:** John will discuss water and how it influences your brewing outcome.

**BEER HOPPERS:** 4th Tues of the month at 6:30...location to be decided at each meeting prior...in March we went to Paddy O'Flaherty's at the Ashland house. Mark Hummel, a nationally known blues harmonica player was there with a great back-up band. Great band and excellent food and beers!

Some things  
Brewn'

401 E. Main St  
Galesburg, IL  
61401

Proprietors:  
Jim and Mary  
Smith

Hours:  
Mon.-Fri. 12-6pm  
Sat. 10am-5pm  
Closed Sun.  
(309) 341 4118

**HOPs Club Members Only:** (with a 10% HOPs membership discount!)  
Website: [somethingsbrawn.com](http://somethingsbrawn.com). Call Jim the day before the meeting if you'd like him to bring you anything...hint, he can't always make it to the

# MONTHLY BEER EDUCATION

(Everyone, who wants to, can participate!!!)

**THE PRESENTER:** You can sign-up (see open months below) for either:

- 1) a **beer style** and present it with commercial versions and one you may have made **or**
- 2) bring in some **intresting/unique beers** we may not have ever had or it's been awhile or
- 3) present an **intresting brewing aspect/equipment** that we all can learn from or
- 4) **introduce us to something you are intresting in** as far as brewing/beers are concerned.



The main idea behind this education is to continue learning about beers. Remember, you have a budget of \$20 on the purchase of commercial beers that the club will reimburse you for. Give Kodie B. your receipts.

Here is the education schedule. Choose a month not already taken, select your topic...(oh and be sure to let the editor know so it makes the schedule!)

## 2007

April .....	Water .....	John M.
May .....	(open) .....	???
June .....	(open) .....	???
July .....	(open) .....	???
August .....	(open) .....	???
September .....	(open) .....	???
October .....	(open) .....	???
November .....	(open) .....	???
December .....	(open) .....	???

## 2008

January .....	(open) .....	???
February .....	(open) .....	???
March .....	(open) .....	???

(Don't forget to sign-up for any of the open months with your editor...wanna change? Let her know that too!)

# A Monthly Mind Exercise...

## BEER EDUCATION:

(The following is taken from [brewingtechniques.com](http://brewingtechniques.com))

### Water...the main beer ingredient

#### DEMYSTIFYING WATER ANALYSIS TABLES

**Q:** I sent for a copy of the water analysis from my local water company, and now that I've got it, I can't make heads or tails of it. Please help!

**DM:** The problem here is that your water analysis is very comprehensive -- too comprehensive, in fact, for a brewer's purposes. Assuming that the water is not contaminated with pesticides or other man-made pollutants, you need only look at about 8 or 10 lines on the sheet: alkalinity (also called total alkalinity), calcium, chloride, iron, magnesium, pH, sodium, sulfate, and total dissolved solids. These are the parameters that will affect the brewing reactions and the flavor of the finished beer.

Reference 1 provides a brief explanation of each; the water chemistry sections of references 2 and 3 provide more detailed treatments of the subject. Looking at the water analysis sheet you sent me, I notice that the numbers vary somewhat from one date to another. This is normal and need not concern you, because the variation is not great. The figures in the "Average" column are all you need to concern yourself with. I can also see that you have very soft water; that is, you water has a low mineral content and low alkalinity. I dislike the terms hard and soft because they are not precise and because all hard waters cannot be treated the same. You have to know exactly what makes them hard. Soft water such as yours, however, is defined by an absence of minerals, and the treatment required is pretty simple. **For pale lagers and ales, raise the calcium content into the range of 50-100 parts per million by adding a calcium salt -- either calcium chloride, which will give the flavor a soft, sweet edge, or calcium sulfate, which gives a dry edge that accentuates hop bitterness. Most brewers prefer chloride for lagers and German and American ales, and sulfate for British-style pale ales.**

These salts are available in several forms, with or without water or hydration, so if you want to get precise you need to know the exact chemical composition of your calcium additive, then get out your periodic table and do some computations. Then you have to get ahold of a good lab scale and weigh out the addition. If you don't want to get that picky about it, though, you can just start with 1 tsp/5 gal. of mash water. After mashing in, check your pH to see if it's in the proper range (5.0-5.7). Chances are it will be.

**For dark beers, add calcium carbonate to the mash (not the water, because it won't dissolve). It will raise the pH into the proper range (5.0-5.7).** Follow the same method as above. You will probably find that 1 tsp is enough, but you may need 2 tsp/5 gal. In my experience, 2 tsp is the most you will need.

Your water should be fine for sparging as is. It is always a good idea, however, to check the pH of your last runnings at the end of the sparge. If their pH is >5.7, you can treat your sparge water with a small amount of phosphoric acid or lactic acid to lower its pH to 5.7. But I doubt this will prove necessary with your water supply.

Finally, I need to say that this water treatment recommendation is for grain brewing using the infusion mash method. If you are using malt extract, you shouldn't need to add any treatment salts to your wort. If you are using decoction mashing, you will find that the mashing process lowers the pH of the mash significantly, and you will probably not need to add calcium chloride or calcium sulfate for making pale beers. For dark beers, you will certainly need to use calcium carbonate.

**Q:** Is there anything wrong with using RO water?

**A:** Using a reverse-osmosis filter to remove all minerals from your brewing water might be a mistake. Yeast requires trace amounts of many different minerals to grow and flourish. A very large brewery had fermentation problems that were traced to a copper deficiency in the wort. Zinc deficiencies can cause the same trouble, and so can the lack of other minerals. These problems cannot be corrected by adding regular brewers' salts (gypsum, Epsom salts, and so forth) to the wort, because the salts do not contain the right minerals. Unless your water supply has iron in it, you

# cuz we ol' dogs wanna know more!!!

probably don't need to demineralize it for brewing purposes. I suggest boiling your brewing water as an alternative to reverse-osmosis filtration. This will remove chlorine and excess alkalinity but leave the trace minerals.

Q: How important is pH in brewing, really? A local brewer I've spoken with says he doesn't do anything to the mash or the sparge water for any of his beers. He says the natural chemistry of the malt takes care of the pH.

A: In some places, it may be possible to get away with this. Most water supplies, however, are better suited to one type of beer than another. For example, here in Middle Tennessee our surface water is moderately alkaline -- about 60 ppm total alkalinity. You can brew just about any kind of beer using this water, and even with very light beers the mash pH will not be so far off that you don't get conversion. For maximum extract, however, adding calcium chloride to the mash (which lowers the pH) definitely helps. Also, the beer will be smoother if you adjust the sparge water pH with acid. I have been to brewpubs that make no attempt to control pH, and in almost every case I found that some of their beers -- usually the darker ones -- were better than others. My experience coincides with what George Fix pointed out in a talk at the 1995 IBS National Microbrewers and Pubbrewers Conference in Austin, Texas. He said that what he often finds is that beers with a high pH (the most common deviation) are not undrinkable, but they are not as good as they could be. pH measurement and adjustment are time-consuming, especially for the first few batches. Nevertheless, I think all-grain home brewers who take the time and trouble will find it worthwhile. A batch of all-grain beer takes at least 6 or 7 hours to make. An extra 15 minutes is not that big a deal. As far as cost goes, a bargain-basement pH meter or even a box of Merck pH strips is accurate enough if used carefully. Again, compared to the value of your time and the cost of your whole brewing kit, it's not that big a deal, and you may find it worth the effort.

Q: When should we check pH (mash, boil, fermentation, bottling?), and what values should we aim for?

A: The most critical stage for measuring pH is the mash, especially during starch conversion. The malt enzymes alpha- and beta-amylase require a slightly acid pH to do their work. Values in the 5.0-5.7 range are alright, although values toward the lower end (5.1-5.3) are usually considered optimum. It is important to measure pH at room temperature; a phenomenon called displacement will cause pH to read lower at mash temperatures than at room temperature. Cool the mash liquid sample before reading. The pH of wort in the kettle is also important for a good break reaction and is worth checking. The best range is the same as that for the mash. Wort pH and mash pH are usually similar, but if your sparge water is alkaline the wort pH may be higher. The best way to correct this difference is to adjust the pH of the sparge water with acid before sparging. I prefer phosphoric acid for pH adjustments. It is safer than other mineral acids (such as hydrochloric acids) and more stable than organic acids (such as lactic acid).

Q: California is intending to start fluoridation of our water supply. What effect will this have on my brewing? Will any commercial filters remove the fluoride?

A: I am surprised that California is just now, in 1996, getting around to fluoridating (or more correctly, mandating that local water companies fluoridate) the state's drinking water supplies. Fluoridation is a well-tested technique that has been proved to greatly reduce the incidence of tooth decay in children. The standard dosage is one part per million. At this level, fluoride is tasteless and harmless to yeast. There is no reason to remove it from brewing water. If you do wish to remove it, however, you will need to use either a reverse-osmosis filter, a resin ion-exchange filter, or distillation. All these are drastic techniques and expensive to implement. All will remove not only fluoride but essentially all ions from the water. If you use one of them, you will need to reintroduce calcium and perhaps other ions into your mash water. In my judgment, if fluoride is your worst water problem, you are a very lucky brewer.

Q: In grain brewing, how important is it to watch the pH of your sparge water? I get pros and cons on this.

DM: Are you sure you mean sparge water? I have never heard anyone suggest that this needs to be monitored. After all, the pH of the water in your hot liquor tank (or wherever you keep it) is not going to change during

the sparge operation. What will change, and needs to be monitored, is the pH of the runoff. As the sugar is rinsed from the grain bed, the pH of the runoff will rise, and tannins are more soluble at high pH; hence the need to monitor the runoff so that you can prevent the leaching of too much tannin into the wort. An alternative is to adjust the pH of the sparge water before the operation begins. At the Saint Louis Brewery, we adjust sparge water pH to 5.7 using phosphoric acid. This holds the runoff down in the proper range throughout the sparge.

## NOTES:

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## CALENDAR OF EVENTS:

*Dates listed are the judging date. dates you submit beers are usually earlier, check internet for more info • (?) = location unknown*

- **HOPs Bus Trip (annual trip, permanent date) ..... Jan. (last Sat.)**
- March Mashness (?) ..... March
- Iowa Brewers Union Open, IA ..... March (2nd Sat.)
- Drunk Monk Challenge, Aurora, IL ..... March (2nd Sat.)
- AHA National Homebrew Competition (?) ..... March (3rd wkend.)
- **Jay-Cees Beerfest, Peoria ..... April (Fri. & Sat. 3rd wkend.))**
- Knickerbocker Battle of the Brews (?) ..... April
- Bay Area Mashers World Cup of Beer (?) ..... April
- Great Taste of the Mid-West, St. Louis ..... May (2nd Sat.)
- Upper Mississippi Mash Out, Minneapolis, MN ..... May (3rd Sat.)
- BUZZ, Champaign, IL ..... June (first Sat.)
- **HOPs Summer Picnic ..... June (last Sun.)**
- American Beer month ..... (all month)
- Taste of the Midwest, Madison, WI ..... Aug. (2nd Sat.)
- Sprecher's Fest, Milwaukee, WI ..... Labor Day weekend
- Autumn Brew Review, Minneapolis, MN ..... Sept. (1st Sat.)
- Brew HA-HA, Davenport, IA ..... Sept. (last wkend)
- Iowa City Brewfest, IA ..... Sept.
- Bloomington Brewfest, IL ..... Sept. (last wkend)
- **HOPs Fall Picnic ..... Oct. (1st Sun.)**
- Quivey Grove Beer Festival, Madison, WI ..... Oct. (1st Sat.)
- Thirsty Homebrew Classic, Amana, IA ..... Nov. (1st Sat.)
- Land of the Muddy Waters, QC, IL ..... Nov. (3rd Sat.)
- **HOPs Holiday party ..... Dec. (date TBD)**
- Happy Holiday HomeBrew, St. Louis ..... Dec. (2nd Sat.)
- Foam of the Range (?) ..... (date unknown)

## Up-Coming Clubs Events & Meetings

This is your newsletter...want to contribute??? Please email me anytime at:  
melaniehg@yahoo.com • fax: 309 249-4109 • ph: 309 249-4409

### HOPs Beer Club meeting dates:

**2nd Tuesday** of each month • 6:30pm

Chef John's • 1719 W. Woodside Dr. (*next to Wheels of Time Museum • 2 mi. N of Rte. 6*) • Dunlap  
<http://hop.bradley.edu/>

### BEERHOPPERS

**Monthly Dinner & Beer Social - Bring your family/friends**

**4th Tuesday** of each month • 6:30pm

An email will be sent out for this month's location or consult the HOPs email

### HOPs Beer Club Annual Picnics/Parties/etc.

**Annual Picnics** - last Sunday in June and first Sunday in October

**Holiday Party** - December (flexible date)

**Winter Bus Trip** - last Saturday in January

### Other local Homebrew Club meetings:

**ABNORMAL HOME BREWERS**

2nd Mon. of each month • 7:30-9:30pm

Fat Jacks • 511 N. Main • Bloomington

(309) 829-2805

### GALESBURG HOMEBREWERS ASSOCIATION

2nd Sat. of each month • 3:00-5:00pm

Somthings Brewin' • 401 E. Main St. • Galesburg

(309) 241-4118

## Join "HOPs" Beer Club

(Homebrewers of Peoria)

Interested in joining a club of beer-making fools? Find yourself obsessing about beer and don't have anybody to talk to? Want to learn how to make beer in your own but don't know how to start? Or do you just want to get together once a month to drink and talk beer?

Dues are an obsessively cheap \$18 a year...with the first year FREE. Dues include this newsletter, a monthly place where you can do one or all of the above mentioned desires PLUS various parties, picnics, socials and a beer tasting field trip thrown in.

Fill-out this form and bring to any of our meetings, every 2nd Tuesday of the month.  
Guests are more than welcome to visit and check us out.

**Yes! I want to join HOPs!**

Name: \_\_\_\_\_

Street/Apt: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Home Phone #: \_\_\_\_\_

Email: \_\_\_\_\_