Brewprint

The Newsletter of The Boston Wort Processors

Volume IX, Number 11 November 1996

WORTS TO ELECT 1997 OFFICERS

SLATE OF CANDIDATES OFFER SERVICES

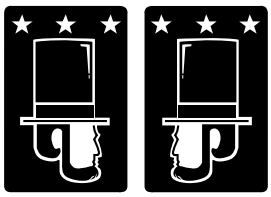
No, we're not going to elect 2000 Worts to office, we're going to elect the club officers for next year! At the November meeting any additional nominations will be taken then we will vote. Those elected will take office immediately! The ballot to the right lists the nominated candidates who have to date not expressed an unwillingness to serve if elected.

Anyone who cannot attend the meeting should mail a copy of their ballot to the Club PO Box. Put your name in the upper lefthand corner and the word BALLOT in the lower lefthand corner of the envelope.

The ballots will be collected from the mailbox next Friday and delivered unopened to the meeting. The ballot counters will simply open the envelopes and dump the ballots in with the rest without looking at them so your vote will be anonymous.

Everyone is encouraged to vote. If you are running short on time, you can FAX your ballot to Prez Pete at 508/785 2162. He promises to keep your vote confidential!





WORT PROCESSOR BALLOT - NOVEMBER 1996

PRESIDENT
- ❒ Chuck Cox
- ❒ Greg Kushmerek
- ❒ _____

VICE PRESIDENT
- ❒ Chuck Cox
- ❒ Jeff Flood
- ❒ Ken Jucks
- ❒ _____

TREASURER
- ❒ Chuck Cox
- ❒ Mike Fertsch
- ❒ Jay Hersh
- ❒ _____

LIBEERIAN
- ❒ Chuck Cox
- ❒ Ken Jucks
- ❒ Shekhar Nimkar
- ❒ _____

SECRETARY/SCRIBE
- ❒ Chuck Cox
- ❒ Mike Fertsch
- ❒ Ken Jucks
- ❒ Pete Langlois
- ❒ _____

DUES IS DUE!

by Bruno



Novembeer is here and it's time to start the next year of Wort Processor business. Elections will be held at the next meeting and your 1997 club dues are due as well. Dues remain the same as last year ($20/year for a full member, $12 for an associate, and $30 for a household) and are payable at the meeting. *Don't force us to sic Bruno on you!* His brass knuckles are polished and he is ready, so don't be no Deadbeat!

If you can't make the meeting, make negotiable instruments payable to:

THE BOSTON WORT PROCESSORS
PO BOX 397198
CAMBRIDGE, MA 02139-7198

MINUTES OF THE OCT 4TH WORT MEETING:

by Ken Jucks

Held at Boston Beer Company in JP.

Vice President Greg Kushmerek called the meeting to order in lieu of Prez Pete at 6:52 PM (after a call to fill tasting cups before the business began).

Prez Pete was absent because a death in his family required his presence elsewhere. Pete, everyone sends their regrets.

We all thanked our gracious hosts from the BBC for housing the meeting, and for liberally pouring samples of Sam Adams brews.

Three new people were present, but their names were lost amongst the background noise.

A representative from BBC told us that the Sam Adams Octoberfest is their best selling seasonal brew. He said that they are now using Monrovia 2-row as the base malt. It was the general consensus that last year's version had more body, and was closer to the O'fest style than the current version.

Bill Slack was thanked for editing last month's Brewprint. Bill took this as an opportunity to orate about all the positive aspects of being the Brewprint editor. (However, his oration failed to inspire someone new to jump out of her/his chair to volunteer to do this month's issue. Steve Stroud stepped up AGAIN to be editor about 1.5 weeks later.)

Next month's meeting is again at the Center for Astrophysics in Cambridge, on the 8th of November. Someone is looking into holding the December meeting at International Beverages. This is uncertain since IB was recently purchased.

Paul Correnty took some time to talk about the Cider Picnic (signing up, food, parking, etc.) and this year's cider blend. Paul said that wholesale cider apple prices are skyrocketing lately.

The Spam and Beer tasting is coming up soon and there is no host yet. Someone volunteered Steve Stroud's house for the occasion. Thanks Steve!!!

It was announced that the Dittman's are now with child and will be moving to Northern Virginia!! They're trying their best to get as far away from us as possible. Maybe SPAM has something to do with this!

Next year's officer nominations were opened. The nominees made during the meeting were

Secretary: Chuck Cox, Ken Jucks.
Libeerian: Chuck Cox, Shekar Nimkar
Treasurer: Chuck Cox, Mike Fertsch
Vice President: Chuck Cox, Jeff Flood
President: Chuck Cox, Greg Kushmerek

These nominations were supplied primarily by Mike Fertsch and Bill Slack. Nominations will remain open until the elections at the next meeting. Nominations can be made by contacting Prez Pete and/or by attending the next meeting.

Upcoming Competitions: Best of Fest club only competition will be held on Thursday the 10th of October at Jeff Flood's place. The Cape Cod competition was cancelled because the Mass ABCC shut them down stating something about homebrew competitions being illegal in Massachusetts. If this is actually true, then this will have an impact on the Worts' competition and the Sam Adams World Homebrew Competition. Stay tuned for further details...

Yeasts of the Month: Seth (aka The Yeast God) brought three ale yeasts: East Coast Ale (Narragansett), Youngs (obtained from Bob Gorman), and Boston Stout (Harpoon), as well as many about to expire RTPs and some experimentals.

Treasurer's report: Mike Fertsch reported that we have lots of $$$$ and are in good financial shape. Current dues expire at the end of October, so pay next year's dues to the once and/or future treasurer by the next meeting.

Libeerian's report: The Stout book is now in the libeery. Jeff Flood urged all who owe books back to libeery to return them ASAP. Seth announced that there are recent scientific brewing articles about ancient Egyptian beer (Science) and Lambics (Scientific America).

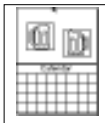
New Business:

Greg Kushmerek announced that CAMRA is holding a winter beer fest in Glasgow. Contact Greg for info.

Mike Biblyk was offering pamphlets for a book on Beer and Maine and also urged everyone to go see his band that evening at the Midway. (Note: we went and had a good time).

Bill Slack presented Mike Fertsch with a birthday present (40th!!!) and distributed party favors. We sang happy birthday, and mass bedlam prevailed.

As a result, the meeting was adjourned at 7:25!!



CLUB CALENDAR

NOVEMBER

02 Sat 2nd Annual Franklin County Hard & Sweet Cider Tour;
Self-guided tour to orchards and restaurants, maps available
at Chamber of Commerce office, 413-773-5463 for more details,
or fccc@valinet.com or www.co.franklin.ma.us

08 Fri Wort Processor Meeting; CfA, Cambridge, MA. Style of the month is Barleywines! Contact: Peter Langlois, pete@wort.org

09 Sat 3rd Annual Rhode Island International Beer Exposition
RI Convention Center, Providence, RI; 1-5pm & 7-11pm
Inquiries: 401-274-3234, ri_beerexpo@realbeer.com
http://www.realbeer.com/ri_beerexpo/

16 Sat 3rd Annual Spam and Beer Tasting, 4 pm, PeteLanglois' home, Dover.
Contact: Pete Langlois, pete@wort.org

16-17 9th Annual 24-hours of the Belgian Special Beers, Antwerpen, Belgium.
Sat 2pm-2am, Sun 10am-10pm. Info: Kulminator, +32-3-2324538

DECEMBEER

02 Mon Belgian Blockbuster Club-Only Competition. Entries due.
Tasting date/location TBD.
http://www.aob.org/aob/zymurgy/clubcomp.html#belgian

06 Fri Wort Processor Meeting; location TBD. Style of the month is All Things Belgian! Contact: Peter Langlois, pete@wort.org.

07 Sat Western NE Homebrew Competition; Deerfield, MA
Contact: Charlie Olchowski, 413-773-5920.

JANUARY

18 Sat Ninth Annual Southern New England Regional Homebrew Competition
Cobbs Mill Inn in Weston, CT
Contact: Gregg Glaser; Gregg@cis.compuserve.com

FEBREWARY

22? Sat 3rd Annual Boston Homebrew Competition; location TBD.

AGENDA FOR THE NOVEMBER 8TH MEETING

The next Wort Processor meeting will be held on Friday, November 8th at the Center for Astrophysics in Cambridge, MA. The meeting starts promptly at 8 pm, so be there on time or else!!

PLEASE NOTE: ALL ATTENDEES ARE EXPECTED TO BRING THEIR OWN TASTING GLASS!

1. Miscellaneous - Prez Pete
* Thanks to our hosts.
* Welcome to Members - Get your name tags!
* Vistor recognition
* Style of the Month Presentation - Barleywines
* This Month's Guest Brewprint Editor: Thanks to Steve Stroud for editing.
* Next Month's Brewprint Editor: Looking for a volunteer!
* Upcoming Meetings:
  December: International Beverages ???
  January (open)
* Upcoming Events:
  3rd Annual Spam and Beer Tasting - Nov. 16th

2. New Directions:
* 3rd Annual Boston Homebrew Competition - Appointments

3. Officer Nominations
  * Discussion of duties
  * Any Additional Nominations Taken
  * Elections will be held at the meeting

4. Competitions:

5. Social Committee - Report

6. Yeasts of the Month - Seth Cohen

7. Treasurer's Report - Mike Fert$ch - money monger

8. Libeerian Report - Jeff Flood

9. Paraphernalia Report- Ed O'Riordan
   T-SHIRTS are HERE!

10 .Election of Officers

11. New officers buy beer for old officers.

12. Brewprint call for Volunteers

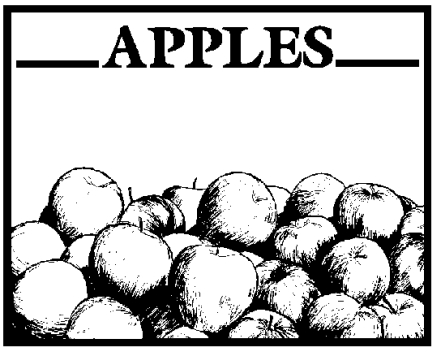
13. New Business - Anyone

POST MEETING FUN, GRAIN PURCHASES, ETC.

WORTS FIND NIRVANA IN THE WOODS!

by Ken Jucks

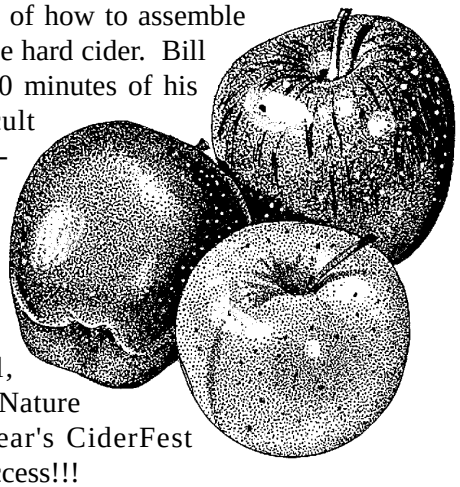
Picture this scene in your mind; bright blue skies, temperatures in the upper 60s, good food, good beer, good cider, apple trees in all directions, and many people gathered together taking in all of these splendors. To the average Joe this sounds like THE ideal atmosphere. To the average Wort and/or BFD member this has simply become a ritual.



This ritual, of course, is the annual CiderFest held on Anderson's Apple Farm in Westford Mass. For those of you who did not attend, we can only say either “shame on you” or “you should absolutely rue the fact that you could not attend.” Unlike the previous year, the weather was absolutely perfect. But like last year, the organization (thanks to Greg K. and Paul C.), the food (thanks to Paul C. and his cohorts), the keg of Spaten Octoberfest (thanks to the club treasury), and the ciders (thanks to everyone who brought their stash and shared it liberally) were fantastic.

Well over 100 people attended the festivities. This year's food included grilled swordfish, chicken cutlets, and sausages as well as scores of very tasty side dishes brought by the revelers. Hundreds of gallons of cider, using Paul's special blend of apples, were purchased in order for us to fortify our stash for next year. Also, the Honey Guy sold every ounce of honey out of the back of his truck.

Other highlights include Bill Slack's enthralling and laborious demonstration of how to assemble a New England Style hard cider. Bill devoted an entire 10 minutes of his time for this difficult task. The only low-light was the score of the Patriots game on radio (they lost).

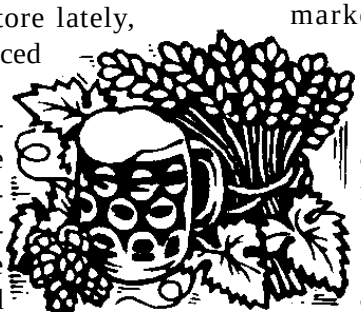


Again, we all are indebted to Paul, Greg, and Mother Nature for making this year's CiderFest such a smashing success!!!

My Beer Vacation (Part 3)

⁕ by Greg Kushmerek⁕

During my second week in England, I stayed with some friends who lived in Abingdon, a small town just outside of Oxford. Abingdon also just happens to be the home of Morland's, maker of Old Speckled Hen. If you've visited a better beer store lately, then you may have noticed this.



In fairly typical fashion, I showed up at the brewery gate unannounced and unexpected. My friend Joe and I somehow managed to convince an unimpressed guard at the gate that we were worthy of a visit to Reception. From there, we talked our way into an impromptu visit with Nigel Cross, head brewer and an all around nice guy.

Nigel was impressed to hear that Old Speckled Hen had made its way into the States, but not completely surprised as their marketing department has been trying to increase exports. Morland's is intent on growth, and it shows. They list their share price at the door (they're one of the oldest publicly traded British breweries), and they have invested significant money in a handsome new brewery. Currently their beer is also available in South Africa, Italy, and New Zealand -- this is partly the result of their having hired a new Export Manager last year. Within the UK, Old Speckled Hen now outsells Newcastle Brown Ale.

While not stated as such, I get the impression that brewers such as Morland and Redruth (see part 1) recognize that they need to get a bigger market internationally or face a buyout from the larger English brewers (or some continental brewer such as Interbrew). In the days when Bass is buying Carlsberg, and Scottish and Newcastle own Theakston's with Theakston's namesakes struggling independently in Yorkshire as "Black Sheep" brewers, the smaller brewers see that they have to get larger cash flows and markets to stay independent. Morland has decided to branch out into summer beers for the younger market looking for a new twist, but they are not sacrificing their quality brands. Instead, they are embracing them as flagship products.

Morland has a new brewery with a lauter and mash tun in a brand new tiled, high-ceilinged room that lets in plenty of outdoor light. It's really a showpiece from an aesthetic point of view. Morland also has invested significant money in process control. They have two IBM PCs on a LAN in a room next to the tuns. From there, you can determine everything you need to know in your brewery from ingredients in the grain bins through the fill levels in your fermenters.



Instead of a traditional kettle, Morland circulates their wort through a Kalandria. This steam powered device heats to boiling small quantities of wort that they circulate through it. Everything happens at ambient air temperature. In their old brewery, they kept some wort at 2 psi and heated it at that higher temperature. Nigel confessed that he did notice a color lightening in the wort when they switched to using ambient air temperature, but that they easily compensated for it.

Morland's uses both open and closed fermenters. They plan on putting more fermenters in as they're expanding production rapidly. The newer fermenters are closed, outdoor, glycol-jacketed cylinders. So far as Nigel is concerned, he doesn't see a bit of difference between taste between the beer from an open or closed fermenter. Morland's has also used the same yeast strain repeatedly for years. While it has mutated and they do keep an eye on it, Nigel expects it to change over time and that their customers' tastes change with it. By the way, if you're a fan of Marmite, the you'll be happy to know that Morland's sends their spent yeast cakes to Marmite. I'd always known Marmitewas yeast-based, but not that it was brewer's-yeast based!

While Morland's does make real ale (Old Speckled Hen has 1 million yeast cells per milliliter when it goes out as cask ale), they also keg and bottle the filtered version on site. Their new filling station spits out filled barrels at the rate of 400 per hour. Coopers, unfortunately, have gone by the wayside at Morland; in their employ are some of their old coopers who now work the steel cask line.

If you haven't tried Old Speckled Hen, I recommend it. You don't need to travel to England to get it fresh. Perhaps it's the new marketing drive, but Boston has it pretty fresh right now. It tastes more like a strong ale than an ESB, but it'snot quite as strong as Old Peculiar from Theakston's. If you do travel to England, though, Abingdon is just an hour from England by bus or train, and you can get a great pint of any of Morland's products at The Brewery Tap on Ock street.

I left Morland's content and short one more BFD pin. My next goal: the Great British Beer Festival, CAMRA's

annual event at Olympia Hall. If you've read Michael Jackson's books and wondered "How could I get to taste all of those great beers in such a short time?" then the answer is to attend the Great British Beer Festival.



I went twice, once alone and the second time with friends. This is not like local beer festivals. You pay to get in, and then, if you do not have a pint glass with you, you can lease a glass for your visit (2.50 pounds sterling for a CAMRA festival glass). Return it when you leave and get your money back; otherwise it's yours for keeps. The beer is not free; you pay as though you were at a pub (albeit a reasonably-priced one) per half or full pint.

The festival has four distinct areas to it. Right when you come in is the main real ale counter area. The big spenders set up fancy stalls with wooden bars manned by the brewery's employers. These brewers included Fuller's, Young's, Gale's, Adnam's, and Bateman's. This makes up one end of a long rectangle. The rest of the rectangle has a panoply of real ale from brewers all over the U.K., mostly bitters and milds (CAMRA volunteers serve you).

The second area was the real cider and parry bar, with over 50 ciders and parries. I had a hard time staying away from this area; in retrospect I could have spent a third day just at this section. While no one there actually knew much about cider making, they had a wide variety of excellent English ciders and parries.

Thirdly was the International section at the back. This includedbeers from the US, Belgium, Germany, and other assorted European countries. I intentionally stayed away from this area as I was visiting the Continent later, but I did finish off my second night with a pint of Cantillion faro, which had a distinct taste of grapefruit to it.

Fourthly and most expensively is the wide variety of independent vendors selling all kinds of beer trinkets, silly hats, and food. I bought a few pins and found out that these people were not interested in trades (unless it involved my Pentax).

CAMRA's Great British Beer Festival is fun, but you can spend a whole lot of money there in a hurry if you're not careful. While they close their door relatively early in the evening (8 PM on the last day), getting there early gives you plenty of time to taste the best in British beer.

Next segment:
VISITING THE CONTINENT!

SPAM-A-RAMA



ANOTHER CELEBRATION OF PROCESSED FOOD AND BEER



If you missed it last year, don't make the same mistake again! The Third Annual Spam (tm) and Beer Tasting is just around the corner, so sharpen up those culinary skills of yours and come prepared to impress your fellow Worts!

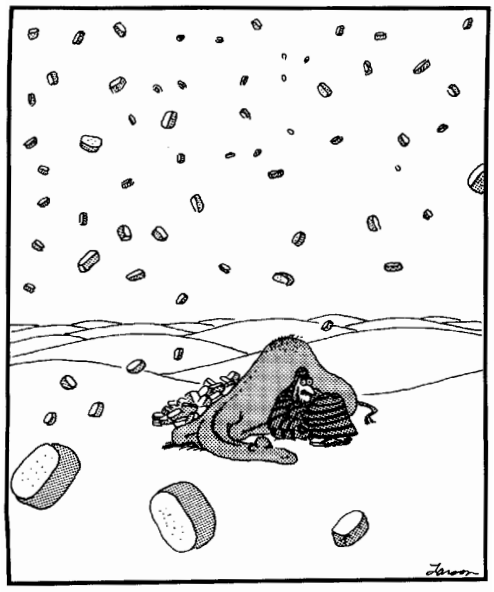
This year's tasting will be held at the home of **Pete Langlois** in Dover starting at about **4 pm on Saturday, November 16th**. His telephone number is 508-785-0413. An RSVP would be appreciated although sponteaneity in this regard is certainly allowed!

As for the details, you all know the drill: Be creative - bring a dish featuring your favorite Processed Food (or imitator like Treet (tm)) and appropriate brews to match Cups, plates, utensils, and chairs would all be welcome and will be put to use! Videos and music related to the theme of the occasion (nod, nod, wink, wink) would also be appreciated.

Directions to Pete's home are given on page 81.

If you need food ideas, here are two Surfin' sites that may give you ideas:

http://www.rsi.com/spam/
http://www.yeeeoww.com/yecch/spamentries.html



Fortunately, both Ali and his camel knew to take refuge during a desert Spam storm.

PRIMING BOTTLED BEER FOR CONSISTENCY AND REPRODUCIBILITY

⚹ by Dave Draper⚹

Brewers who dispense from kegs have the luxury of virtually complete control over the carbonation levels of their beers. For those of us who bottle condition beers, however, the results are usually less precise. This article describes a simple method for bottling homebrew, a method that can control homebrew levels much more accurately than most think possible.

Measuring by Weight, not Volume

Most brewing textbooks instruct brewers to prime their beers with an amount of priming sugar on volume per volume basis. The level most commonly cited is 3/4 of a cup per 5 (US) gallons. This can give rise to problems, however: not all sugars are manufactured in the same way, so that 3/4 of one type might in fact be a very different amount than 3/4 cup of another type. It is not clear whether it should be a packed cup, a loose cup, or what. It seems extremely obvious to me (and some others I've talked with) that a better way is to weigh the amount of sugar being used, and on the basis of weight sugar per volume beer--for example, grams per litre (g/L). This document is show how this can be done in practice, and why it is a superior method. I acknowledge help from the following net.brewers: Mark Hibberd, who really should be thought of as a "coauthor" of page--his document on priming available at The Brewery saved me a lot of legwork; John DeCarlo, whose question motivated the water-adsorption tests described below; and Dick Dunn, who provided additional evidence of how different sugars might compact (he reports seeing dextrose/glucose compact up to 30% with just a gentle tap!).

Now, it is of course true that if you proceed in the same way every time, you will eventually arrive at a set of ingredient amounts - and priming rates - that work. However, in order to reduce the trial-and-error aspect as much as possible, it would be desirable to start more or less from first principles so that we can have a better idea what we are doing, particularly when entering as-yet-uncharted territory. If you are a brewer who derives satisfaction from hitting stylistic targets squarely, or are looking for an added degree of authenticity, then this method is for you.

Carbonation in the Bottle

Carbonation is most usefully described in terms of volumes of carbon dioxide (CO_2). A beer carbonated to 2 volumes would have, 2 L of CO_2 in every liter of beer (see Dave Miller's books for a more complete discussion). Mark Hibberd's priming guide in Table I gives a handy guide to carbonation levels in a range of styles.

Table I: Typical Carbonation Levels of Common Beer Styles

Beer Style	Volumes CO_2
British-style ales	1.5-2.0
Porter, stout	1.7-2.3
Belgian ales	1.9-2.4
European lagers	2.2-2.7
American ales & lagers	2.2-2.7
Lambic	2.4-2.8
Fruit lambic	3.0- 4.5
German wheat beer	3.3-4.5

Carbon dioxide content before bottling: Beer that has just finished fermentation and is ready to bottle already contains a significant amount of dissolved CO_2. To achieve specific carbonation levels, you first need to know how much CO_2 is already present in your beer at that point. Then, when you prime the beer, you add only enough sugar to generate enough CO_2 achieve the desired level for the particular style you are bottling. Thus, our first task is to find out how much CO_2 is in the beer before we add any sugar at all.

Beer that has fermented out and is ready for bottling will be CO_2 saturated, having had CO_2 bubbling through it more or less continuously through out the fermentation (If the beer sits for weeks after the final fermentation its CO_2 content will drop as the dissolved gas slowly exolves. In reasonably well-sealed containers this drop is of minimal concern; for our purposes we assume that the beer is being bottled soon after fermentation is complete and that most of the dissolved CO_2 is still present).

The amount of CO_2 dissolved is a function of the temperature of the beer. At lower temperatures, the beer can dissolve more CO_2. Accordingly, we must take this into account and prime enough only to the appropriate number of volumes to that already present, thereby arriving at our desired value.

Table II lists the number of volumes of CO_2 present in beer at particular temperatures, before any priming sugar has been added.

Table II: Carbonation Levels at Various Temperatures before Priming

Temperature (°F)	Temperature (°C)	Carbonation (Volumes CO_2)
32	0	1.7
36	2	1.6
39	4	1.5
43	6	1.4
46	8	1.3
50	10	1.2
57	14	1.12
61	16	0.99
64	18	0.93
68	20	0.88
72	22	0.83

Bottle conditioning and carbonation: The reaction that produces CO_2 during carbonation is one in which one mole of glucose, $C_6H_{12}O_6$, goes to 2 moles of ethanol, CH_3CH_2OH, and 2 moles of CO_2. A little stoichiometric algebra shows that we will add 1 volume of CO_2 for every 0.49 oz/gal (3.7 g/L) glucose added to the beer. As an example, if we have 5 gal (19 L) of beer and we want to add 1 volume of CO_2 to it, we need 5 X 0.49 = 2.45 oz (19 X 3.7 = 70 g) of glucose.

A Simple, Precise Method for Predicting Carbonation

So now that we are armed with the temperature dependence data and the amounts from this reaction, we can produce a general predictive relationship to use in our brewery.

The plot in Figure 1 shows how many volumes of CO_2 will be produced in the finished beer by priming the level on the *x*- (horizontal) axis. Each line is labeled for the temperature of the beer being primed, and incorporates the amount of CO_2 present prior to priming. To use the graph, choose a desired carbonation level from the *y*- (vertical) axis, find the line that corresponds to the beer's temperature, and read off the appropriate priming rate beneath.

Example 1, carbonating a lager. We have a lager at 39°F (4°C) and want it carbonated at 2.75 volumes. We find 2.75 on the y-axis, then move over until we hit the 39°C line, then read down to get about 0.6 oz/gal. To get the same level of carbonation in a beer at 68°F, the graph tells us to prime it at about 0.93 oz/gal because of the lower amount of CO_2 present in the beer before priming at that higher temperature.

Example 2, carbonating a bitter. A bitter has just finished fermenting at 61°F and we want it carbonated at 2.0 volumes. Reading the graph, we find that we'll need to use about 0.49 oz/gal.

The lines on Figure 1 can be expressed as equations as well. To calculate the priming rate, first find the saturation level at the temperature of your beer at the end of fermentation -- let's call it V_o. Then choose the volumes of CO_2 that correspond to the desired carbonation level--let's call that *V*. Then

priming rate (oz/gal) =
$(V - V_o) \times 0.49$

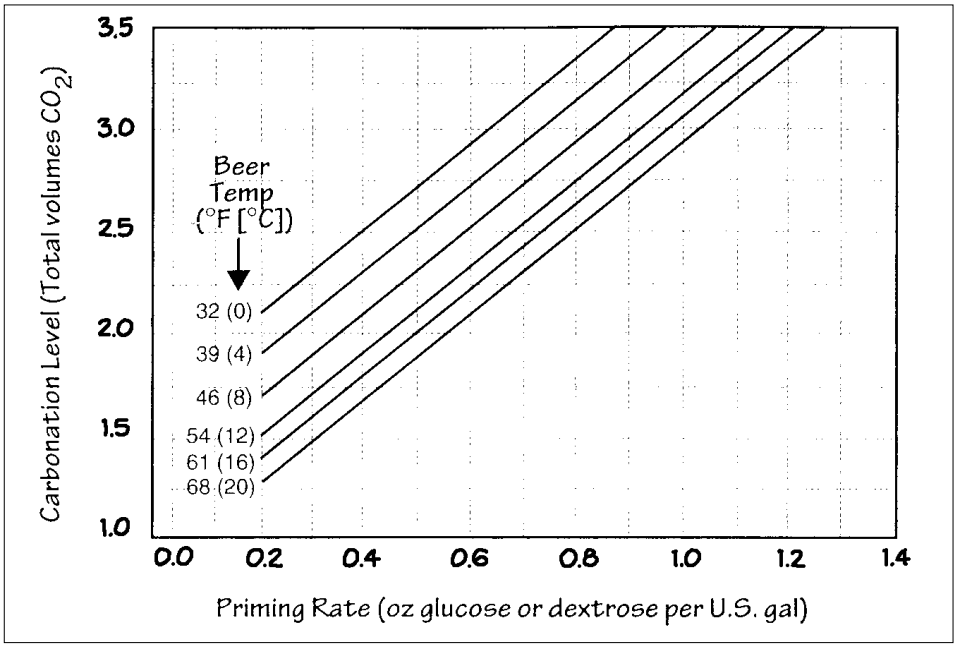


Figure 1: The graph shows how many volumes of carbon dioxide will be produced in finished beer when it is primed at the indicated rate for a given beer temperature.

You can confirm this using the two examples given above. In Example 1, V_o = 1.5 at 39°F and V = 2.75. Applying the equation tells us that (2.75 - 1.5) X 0.49 = 0.61 oz/gal, which matches the result from the graph. In Example 2, V_o = 0.99 at 68°F and V = 2.00; (2.00 - 0.99) X 0.49 = 0.49 oz/gal.

Priming with sucrose: Sucrose (table sugar or brown sugar) produces more carbon dioxide for every ounce per gallon of priming sugar compared with corn sugar. I will not reproduce the graph for this case--it's just like the one above except the lines are displaced. The corresponding equation to use if priming with sucrose is:

priming rate (oz/gal) =
$(V - V_o) \times 0.46$

Hitting the Target

Carbonation levels not only help to define styles but are also matters of personal preference. Our method enables brewers to achieve desired carbonation levels without resorting to guesswork. Because the effect of carbonation is so important to the overall impression of a beer, it makes little sense to take a chance on having the carbonation levels come out differently than desired. It is easy to predetermine how carbonated a beer will be when you measure your priming sugar by weight and add the precise amount for the style. We can now aim for - and achieve - those target levels of carbonation in our beers.

This article was posted on HBD and in The Brewery's Web site. For a more in detail article, see *Brewing Techniques*, Vol. 4, #4, July/August 1996, p. 16.

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Earth Sciences, Macquarie University, Sydney NSW Australia

REVIVING THE DEAD

✳ by Randy Mosher✳

One of the great pleasures of homebrewing is stripping away the vast accumulation of technological "improvements" that have nearly smothered beer in this country. The march of progress has made the accountants giddy and turned corporate brewers into respectable technocrats, but we homebrewers know that beer must have been better in earlier, simpler days. The past inspires us to brew porters, Burton ales, Munchener dunkels and other glorious beers of old. In my own search for historical gold, I have been scouring the dusty texts for glimpses of long-dead beers, hoping to breathe some new life into some of them. I have found many such references, some of them just tantalizing names with little else: Uytzet des Flandres, l'Orge d'Anvers, Kiszlnschtschi, Diest and Zoeg.

A few have been described in enough detail to mount a rescue mission, which is what, with your help, I will attempt here.

ROTBUSSER

This is a special type of German ale, a cousin to the grand family of white beers that includes Berliner weisse, witbier, and many now-dead styles. It was, at least in 1877, an outlaw beer because of the addition of oats, honey and molasses. The name literally means "red-kisser," but I am unsure what that means in the context of this beer. Both single (1032) and double (1054) versions were brewed. The recipe below is for 5 gallons of the double, which better suits our homebrew palates.

Rotbusser is a crisp, deep golden beer, moderately hopped, with just a hint of sugary complexity from the honey and molasses. Wheat and oats give it a monumental, near-permanent head, and contribute to the soft, almost creamy texture.

You could bump up the flavor level of the honey and molasses by adding them to the beer as a sort of kraeusen, after primary fermentation is complete.

All-grain:

6 lb. German or Belgian Pils malt
3.5 lb. wheat malt
13 oz. oatmeal
2 oz. light molasses
2 oz. honey

Traditional mash is triple decoction. Two-step would be adequate, combined with 2-hour boil. Protein rest at 122 degrees F for one hour, step up to 152 degrees F for 1 hour. Sparge to collect 6 to 7 gallons and boil down to just over 5.

Extract/adjuncts:

4 lb. pale malt extract syrup
3.5 lb. wheat malt extract syrup
1 lb. cara-pils malt
1/2 lb. pale crystal malt
13 oz. oatmeal
2 oz. light molasses
2 oz. honey

Crush crystal malts and steep them in hot (150 to 160 degrees F) water for half anhour or so, drain, rinse with more hot water, then add all the liquid to the kettle. Add malt extracts, molasses and honey, and boil for 2 hours.

Hops:
1 oz. Tettnang (2 hours)
0.5 oz. Tettnang (30 minutes)
1 oz. Tettnang (5 minutes)
0.5 oz. Saaz or Ultra (5 minutes)

Yeast and fermentation:

I recommend a European or German-style ale yeast. These are fruity without being spicy, and would likely have been the type used at the time. Primary at 62 to 67 degrees, secondary/lagering at 40 to 45 degrees F for three weeks or longer. Bottle normally, using 3/4 cup of corn sugar or dry malt extract for priming.

GRAETZER

This is a light, highly-hopped wheat beer, with an "apple-scented" aroma made from smoked wheat malt. Originating in the city of Gratz, Austria, it was, by the end of the last century, hugely popular in West Prussia, in the north of Germany. This odd beer reminds us of the incredible richness of beer's past and of the narrowness of our own view of beer today.

To brew an absolutely authentic 1884 version, you would make a 1057 wort from 93 percent pale, oak-smoked wheat malt, plus 7 percent of the same stuff which had been slow-roasted to a copper color. Hopping would be incredibly heavy, at an ounce per gallon of traditional German or Czech varieties. Ferment with lager yeast, and like most wheat beer, carbonate highly and package in thick crockery bottles. If this sounds a bit much for you, I have devised a more sensible recipe for a 5-gallon batch.

At about the turn of the century the tax laws were changed in Germany to favor production of Schenkbiers, or very low-gravity beers. After this time, Graetzer slipped into this category, at about 1032 original gravity. Graetzer is extinct in Germany, but a similar beer exists in Poland under the brand name, Grodzisk.

All-grain:

2.5 lb. malted wheat
4 lb. malted wheat, smoked according to instructions below
2.5 lb. US 6-row lager malt
0.75 lb. Belgian "aromatic" malt
1/2 lb. rice hulls (to aid sparging)

Smoke malt in kettle barbecue with four charcoal briquettes, with chunks of soaked red oak on top of coals, for 30 minutes, replacing wood as it burns. Keep malt in basket made of window-screen, as far away from heat as possible.

Mash all ingredients at 153 to 155

degrees F for one hour. If you can swing it, do a protein rest first, one hour at 122 degrees F. Sparge to collect 6 to 7 gallons, and boil down to a little over 5.

Extract /adjuncts:
6 lb. wheat extract syrup
1 lb. US 6-row lager malt
1 lb. malted wheat
1 lb. medium crystal (Belgian or German preferred)

Smoke all grains using method above, but smoke for a full hour. Crush all grains and combine with 165-degree water to mash at 150 to 155 degrees F for 1 hour. Drain, rinse with hot water, add all liquid to brew pot.

Hops:
1 oz. Hallertau, Spalt, Tettnang or Saaz (1 hour)
2 oz. any or all of the above (20 min)
3 oz. any or all of the above (5 min)

The time indicated is for whole hops boiled in the full volume of the wort. If pellets, use 20 percent less. If boiling 3 gallons, use an extra ounce of hops distributed in same proportions as those above.

Yeast and fermentation:
Use any German lager strain. Ferment at 50 to 60 degrees F for primary, then drop to 35 to 40 degrees F for four-week lagering. Prime with 1 cup of corn sugar or dry malt extract.

I hope that you enjoy these relics from the past, and I encourage you to create your own variations. And if you should happen upon anything interesting about Jopenbier, Krauterbier, or old Moscow brown, by all means, drop me a line.

Randy Mosher is a free-lance art and creative director, beer lecturer and author.

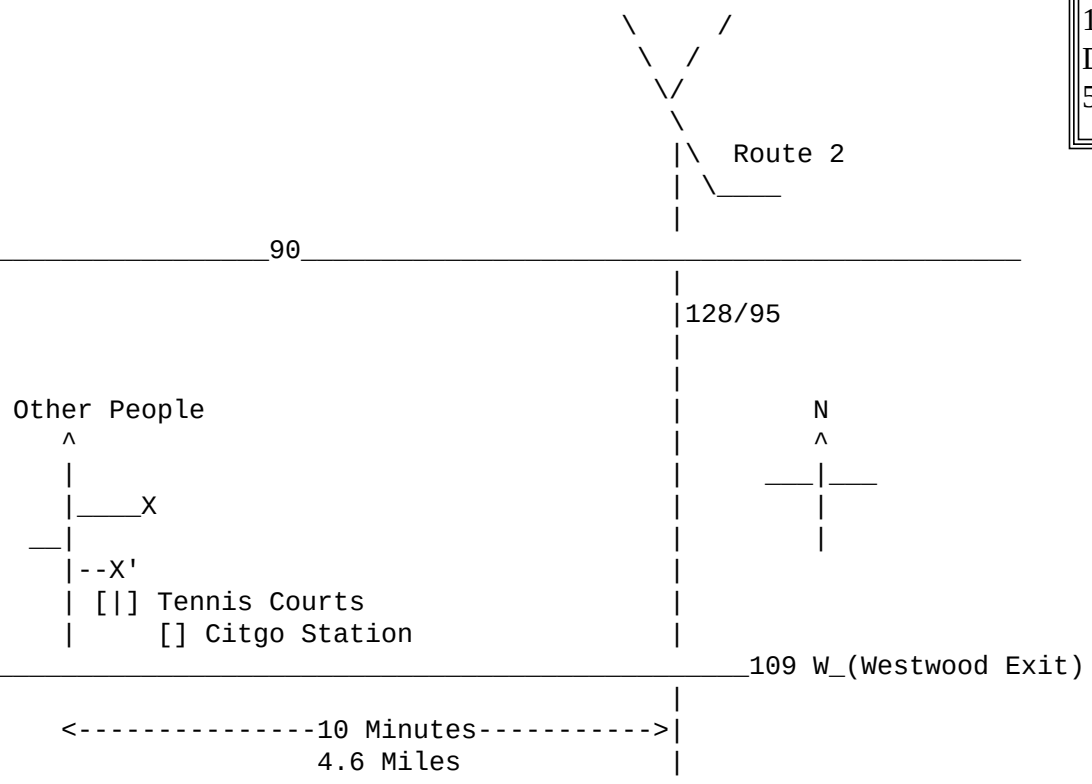
This article originally appeared in *All About Beer*.

DIRECTIONS TO THE SPAM-A-RAMA

4 pm
Nov. 16th, 1996.

Go south on 128 till you get to 109 (not the next exit after 90!). Take 109 West through Westwood. Look for the Citgo Station as it is the definitive landmark. Bang an immediate Right after Citgo to enter our complex. Go to the first right turn. This is guest parking (X'). The second right turn leads to our home which is the last unit on the left as you go between two buildings (X). Our number is 15.

15 Tisdale Drive
Dover, MA 02030
508-785-0413



Thanks to Will Anderson and Michael Biblyk for the following photo:



RUSHING THE GROWLER

Chicago 1891

Our friend here is out of the pages of a book entitled Street Types of Chicago - Character Studies. *He's shown rushing the growler — going to the neighborhood saloon to get his pail filled with beer. The bartender's probably going to try to give him more foam than beer. Wanna bet our friend lets him get away with it?*

RECIPE OF THE MONTH - ANTS CLIMB A TREE

by Bill Slack

Some folks asked for the recipe for the pot of Ants Climb a Tree that I brought to the picnic. The dish is many generations old and is a classic of Szechuan peasant cuisine, containing many of the flavors and spices common to that region. My sources show that nobody is completely sure of the origin of the name but most feel that the bits of ground meat represent the ants and the strands of noodles are the tree trunks or bark.

Four 2-oz pkgs cellophane noodles
6 scallions
2 Tbsp + 1/4 cup Soy Sauce
1 Tbsp sesame oil
1 pound ground meat (beef, pork or a combination)
6 garlic cloves
1/2" piece of ginger, peeled
2 Tbsp hot pepper paste (la jiou jiang) or hot bean paste (la dou ban jiang)**
2/3 cup water or stock
black pepper

Soak the cellophane noodles in hot water until they are soft. Cut into reasonable size strands and drain. Finely chop the whole scallions and reserve half. Put the rest in a bowl with 2 Tbsp soy sauce, sesame oil, and ground meat. Mix thoroughly. Mince the garlic and ginger. Put some oil in a wok, skillet or pot and stir fry the garlic, ginger and hot pepper paste. Add the meat mixture and stir fry until meat starts to brown. Stir in 1/4 cup soy sauce. Stir in the drained noodles. Add the water or stock and the rest of the scallions. Simmer covered for 3 or 4 minutes. Cover with freshly ground black pepper just before serving.

Serve this hot for a warming winter meal or at room temperature or cold for a summer dish. Drink with your favorite homemade fermented malt beverage.

** Hot pepper or chili pastes are available in many grocery stores. There are many varieties of hot pepper and bean pastes available in any Asian market.

JEFF FLOOD STEALS O'FEST COMPETITION

The O'fest competition was held at Jeff Flood's house on 10/10. The competition was stiff but Flood managed a 1st place* and has now managed to take a substaintial lead in the WPOTY standings. Several ringers including Paulaner Munchen, Negra Modelo, and a domestic New Amsterdam O'fest were tasted during the competion. Ellen Au was steward.

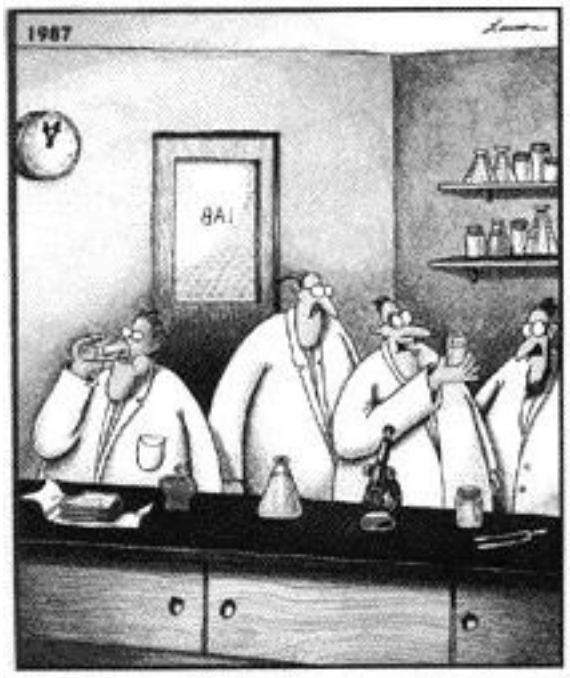
Flood said that he really wished there were more entries for this beer. "There are the Vienna, Marzen, and O'fest styles, and the color range and flavors are fairly wide in this category. It's a very complex beer with a lot of character. There are a lot of different grains that create subtle flavors. It's a really interesting beer to make and I wish more club members would try this style."

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*Members of the club should be aware that Jeff Flood's entry was the only one received for the O'fest Club only Competition.

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BEER 'TOON!



"What the? ... This is lambic! Where's my culture of amoebic dysentery?"

DIRECTIONS TO THE NEXT MEETING



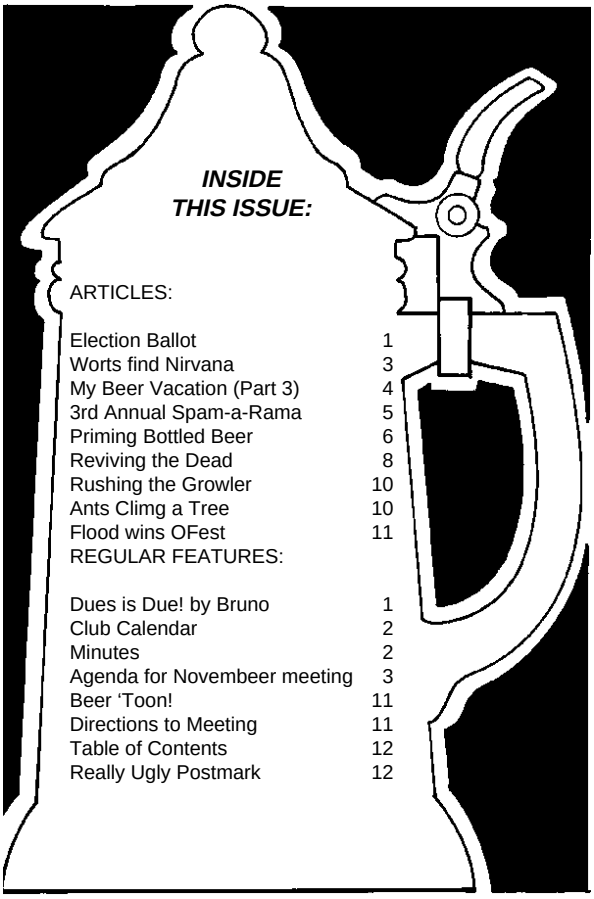
Friday, November 8th
Center for Astrophysics
Cambridge, MA
8 pm

From the west, north, or south one needs to choose the appropriate way to the Fresh Pond traffic circles. For most this will be 128 to Rte 2 (or Rte. 16 from Medford), through the Alewife mess, over the new RR tracks bridge near Aku Aku, and proceed past the Fresh Pond strip malls. Go 2/3s through the first traffic circle such that you remain on the Fresh Pond parkway. At the second (smaller) circle, go just over 1/2 through the circle (about 200 degrees) such that you are now on Concord Ave in the direction of Harvard Square. The hill on this road crests at a traffic light with Huron Ave. Go straight through this light. Make the first left off Concord onto Madison. St. The parking lot is on your right. This lot wraps around the buildings and heads down a hill toward some tennis courts. Park as close as possible to the courts since this is nearest the entrance needed for access. From here, you will see anentrance with "Perkins Laboratory for Astrophysics" above the doors. This door is locked at this time of day, I will ensure that a Wort is at the door to let other Worts enter. The meeting room is one flight of stairs below the entrance, with the stairs directly across from the main doors. There are seldom opened doors for the conference room which open to the outdoors (left of the main Perkins entrance and across some grass) that I will see if we can leave open for the meeting. This would permit much easier access.

From the east, take Storrow/Memorial Drive to the Fresh Pond parkway toward Alewife. Two lights past Mt. Auburn St is Huron. Make a right. This road crests at a light for the intersection with Concord Ave. Make a right and proceed with the direction above. If you miss Huron, just proceed up the first traffic circle, make a hard right onto Concord and use the directions above.

By the T, one can either use the Harvard or Porter stops on the Red line. From the Harvard stop, exit through the Church St. exit, proceed away from Harvard Square, and take a left on Garden St (keeping thatvery old cemetary on your left and Cambridge commons on your right. Walk past the Commander hotel to the split in the road (Concord Ave to left and Garden to the right) near the Harvard police station. Take the right split (Garden St.) and stay on the left side of that road. Walk up the hill to a traffic light which is at the lower entrance to the CfA parking lot, Take a left and follow directions above.

From the Porter stop, take a left out of the station onto Mass Ave toward Harvard Sq. Cross Mass Ave at your first convience and take a right at Linaean St. (Drug store at corner). Linaean St ends at Garden St. at the light for the entrance to the CfA parking lot.



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The Boston Wort Processors are a society dedicated to furthering the art of homebrewing and to the enjoyment of good beer. Membership, including a subscription to this newsletter, is $20.00 for one year for a full membership and $12.00 for an associate membership. Sample and back issues are $2.00 each.

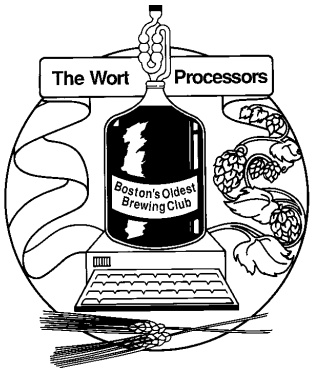
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