

FLOPS



Newsletter of the Fayetteville Lovers of Pure Suds

625 W. Dickson Street
Fayetteville, Arkansas 72701

Volume 1, Number 4

Oktoberfest Special Edition

Fall 1994

**BLOW-
OFF!**



FROM OUR PRIMARY
FERMENTER ,

JOHN R. GRIFFITHS

Iechyd Da! Good Health! Cheers! I've survived a very refreshing month in Wales, Scotland and England, imbibing the occasional ale on my travels. The British beer scene seems to get better every year. At least half the pubs have some real ale--conditioned in wooden barrels--on tap. In downtown Stockport (an old cotton milling town), I found an amazing selection at the Crown Inn, including half-litres of Weizenbocks. When questioned, the owner said he "just liked good beer," so stocked as much as he could! At a small liquor store "out in the sticks" (the British equivalent of one-eighth mile from the next house), I discovered a wealth of weizenbocks, including Erlinger Pinkantus--at 8% ABV a wonderful brew. My travels took me to Edinburgh (many fine Scotch ales-

-thick malty brews) and the Orkney Islands which are two hours by ferry north of the Scottish mainland. A local brewery there produces some excellent ales and dark beers, and I visited a 5000-year old village site--alas, don't know if they brewed back then! A very pleasant week was spent in my home country (Cymru, or Wales for the non-Welsh speakers amongst you) with my folks. I sipped an ale or two in strange-sounding places like Amlwch, Benllech, Moelfre and Llanfairpwllgwyngyllgogerwchwyndrobylllantysiliogogoch (if you can pronounce that one I will buy you a pitcher!). I sampled many fine British bitter ales and IPAs and never once was tempted to order a pint or bottle of the insidious Budweiser which pervades almost every British bar (I did drink a couple of the real Czech Budvars). It feels like eons ago, but I really enjoyed the trip!

OK. Let's get back to Fayetteville and FLOPS. On my return, I was delighted to see Ozark Brewing Company open and busy. Our first club meetings at OBC have been a great success, and my thanks go to John Gilliam for providing FLOPS with a "home." John's beers are excellent--let it be on record that anyone caught drinking the "other" stuff at a FLOPS meeting will be excommunicated, hung, drawn & quartered, or all of the above!! John, on behalf of all FLOPS members, let me thank you for hosting our meetings, and we look forward to a long and happy relationship.



Perhaps I may reflect a little on FLOPS. We are now 15 months old, and have grown from 6 to 35+ members--truly phenomenal. I know there are more homebrewers "out there," so please encourage them to join us. I would also like to re-state Article

III(1) of our By-laws: "offering assistance to members and prospective members in the techniques and practice of home-brewing." I personally feel this is an important aspect of our activities. Most of us are probably becoming beer alchemists by just doing it, but if anyone would like help in brewing a batch, or perhaps using a new technique, please contact fellow-members and ask for help. Also, bring your beers to club meetings, and ask for opinions from other members. Let's all share the learning experience, and get better as we (and our brews) age!

On the organizational side of club activities, we've made a couple of changes. Michael Plott, assisted by a committee, has agreed to edit the newsletter, and Mitch Hill has assumed the duties of Competition Director. My warmest thanks to Liz Justice for pioneering our newsletter through its first three issues and Dave Justice for setting up the very successful style of our club competitions. I want to encourage all members to support our activities, including the newsletter and our bi-monthly competitions.



Dana & Michael Plott

Our competitions are a great way to get an evaluation of your beer, and the first-place winners will get a free entry to a regional or national competition. Let's put FLOPS on the map! I hope within a year we can host an AHA-sanctioned competition and invite outside entries. Great (and winning) beers can be made from all-extract to all-grain. The main thing is to enter in the right category. It may sound easy--just brew a recipe for that beer--but sometimes the yeasties do their own thing, and you end up with something more appropriate to another style! No matter, if it tastes good, bring it to a meeting and the collective wisdom and taste-buds of club members can help determine the appropriate style.

If you're hopelessly hooked on brewing and want to learn more about styles, I'd recommend Michael Jackson's Beer Companion (Running Press, 1993) as an excellent read. Also, the Brewer's Publications series on individual styles make fascinating reading, and they include recipes. I'm carrying a good selection of brewing books at Campus Book Store on Dickson St, so please come and browse. You might also consider joining the American Homebrewers Association. Their

magazine, Zymurgy (5 issues/year), is great reading. I subscribe to National Geographic--surely one of the finest magazines in the world--but rarely get past the pictures [there's the straight line, you provide the joke!--ed]. I read Zymurgy cover to cover!

Well, that's it! FLOPS' first year has been a great success--better than we ever imagined a short year ago sitting on Liz and Dave's patio. Our permanent home at Ozark Brewing Company is a great step forward. Encourage your fellow brewers (or would-be brewers) to join us on the first Thursday of each month. Finally, in the last newsletter, it was reported that I must have fallen asleep during the SEC Kentucky game--well, I don't know if I did, but in the end who cares--we beat the best of them in the NCAA Final Four!!

Happy
Brewing,

John R. Griffiths

A LETTER FROM THE EDITOR

I would like to begin by offering my heartiest congratulations and humblest thanks to our founding editor: Liz Justice. From what I have seen of newsletters from other homebrew clubs, Liz has set a new standard of quality that will require my most diligent efforts to maintain. I must also acknowledge Mr. T. C. Reimer, whose technical and aesthetic expertise is vital to the composition and presentation of this oracle on potable substances. I also bow to our esteemed Secretary, Mr. Stephen Rudko; his steady influence and cat-o-nine-tails ensures the newsletter will appear semi-regularly and semi-literately. While in the laudatory mode, I would like to offer our

MOST SINCERE APPRECIATION
to
MR. JOHN GILLIAM
of the
OZARK BREWING COMPANY

For his generosity and patience in hosting our monthly meetings. Let us all raise a glass in his honor!

Before discussing my "vision of the future," I want to emphasize that everyone involved with producing this newsletter wants to give you--the members of FLOPS--what you want. To this end, we encourage you to offer us your suggestions about how we can best meet your home brewing needs. I would like to spend the remainder of this column offering my ideas for the newsletter. In doing so, I wish to solicit your comments and--most

importantly--your contributions of articles, reviews, or beer news. We, the members of the newsletter committee, do not envision a periodical crafted by a group of elite writers sequestered deep in cave, enveloped by cigar smoke and wallowing in spilt beer. Rather we want this to be a newsletter of the brewers, by the brewers, for the brewers.

In addition to the regular articles submitted by club officials, our current plan is to organize the newsletter in sections devoted to a specific group of topics. Following is an explanation of these sections, including the types of contributions we request for each (although you should always feel free to submit anything, even if it doesn't "fit" into any of these categories).

COMPETITION CORNER

This section covers news of previous competitions. It offers congratulations to winners, publication of the winning recipes in FLOPS competitions, and announcements of upcoming events. If you win any brewing awards, please let us know so that we may publicly venerate you as a role-model for all to follow. Also, we would like to announce anyone planning on entering contests, so that those interested in submitting entries can coordinate to send their entries together and save on shipping. We will also print notices for upcoming regional and national competitions, so if you have any information on one you think would be of general interest, submit it to the newsletter!



Cinco de Mayo at Mitch's

LIBATION VACATIONS

Been to any good pubs lately? Let us know! We encourage all club members to submit their impressions of notable brew spots they encounter. If you find a brewpub with excellent beers, a bar with an extensive range of quality brews, or even a liquor store with a great selection of imports and micro-brews, take a minute to note its location and what makes it so special. Tasting notes of brewpub beers would be particularly useful (at least try to get the names/styles of their offerings). When you return home, write up your opinions (while they are still

fresh in your mind) and submit them to the newsletter. Just like that, you can become a published author! We also welcome information on area beer festivals, classes, beer camps, or any other beer related activities. Although it is best to limit reviews to those establishments easily accessible from Northwest Arkansas, exceptions can be made for truly notable resources around the world.



FLOPS at Weidman's Old Fort Brew Pub

Wort Happenings

This is where we share news and notes from the wide world of suds. Heard any interesting information about beer and brewing in local or national media? Write it down and submit it! Read an interesting article or "blurb" in a magazine or newspaper? If so, share it with other club members: clip it out and submit it to Wort Happenings! This is also the section to alert members to new brews available in local liquor stores or taverns. If you spot new brews or brew news around, let us know!

TIPS & TECHNIQUES

Do you have a little trick that makes your brewing easier? Know of a special ingredient that adds that award winning touch to your beers? How about a new or classic book you have read that has really enhanced your understanding of beer or brewing? Have any outstanding beers you want to recommend to other club members, or have you developed firm impressions of some of the new beers available locally? If so, let us know! Submit any and all ideas to TIPS & TECHNIQUES where we can help each other brew easier, brew better, and drink better brew! Reviews from club members would be particularly appreciated. There are an increasing number of beer & brewing books being released, as well as an influx of quality beers in area liquor stores. Help other members separate the wort from the trub by submitting your impressions of these new resources to the newsletter.

BREWING BY THE NUMBERS

This is a new column that I have taken it upon myself to write. In each issue I will explain a formula that helps me improve the consistency and/or quality of my beers. I welcome suggestions for future topics on the technical aspects of brewing.



A silver medal will do wonders for your love life.

ASK DR. SUDS

The good doctor couldn't take a hint, so he remains on staff to answer your questions and to pontificate on the finer points of brewing. As always, he welcomes your questions, comments,

and article suggestions. Just don't bother him during a sparge--that's when he sleeps!

In closing, I would like to reiterate our desire for comments from members. Let us know what you want! More importantly, share your knowledge and experience with other club members: contribute to the newsletter!

Na zravi!
Michael Plott

PS

Don't feel like you have to wait until the next submission deadline to contribute articles, suggestions, or information. I keep a file of all items of potential use in future newsletters. It is better to write articles (especially reviews) while the information is fresh in your mind. Just give your submissions to me (or any other club official) at any club function and it will be placed in the file for use in forthcoming newsletters.

THANKS!

A Review of Ozark Brewing Company

by Liz Justice with beer notes provided by Dave Justice, Keith Besonen, and Chris Abel.

On Memorial Day 1994 FLOPS' members prayers were finally answered when honorary member John Gilliam opened Ozark Brewing Company. Members had eagerly watched the careful construction of the facility, with many suders lovingly touring the brew-pub during various stages of its construction. To quench the curiosity of the staggering herd, John Gilliam magnanimously opened OBC to FLOPS monthly meetings beginning in May, where he awarded members their first official sneak preview of the brewing company.

It's a beautiful two-level pub. Wood beams and wrought iron figures decorate the interior. Decor and beer names follow a horse theme. The brew kettles, fermenters, and serving tanks gleam enticingly - enough to excite even the most stoic of home brewers. It was only natural that a large group of FLOPS members sampled several beers the first day Ozark Brewing Company opened. (Including the Ambassador of Culinary Armaments, Wallace Elliott, who was OBC's very first paying customer).

The varieties of beer offered at OBC include:

Long Rein Ale - An amber ale with a slight haze and a subtle citrusy hop aroma. A slight sweetness is detected early when tasting, followed quickly with a big citrus hop flavor and a serious bitter hop finish. This is a beer for the hopheads among us. One can only consider this beer an impressive American-style pale ale with a unique hop formulation not available elsewhere. The hop emphasis is about as strong as you'll find anywhere.

IPA - A dark amber somewhat hazy ale with a light citrus hop aroma similar to the Long Rein Ale with a noticeably different hop profile and less emphasis on bitterness. It also has an overall cleaner and drier finish. This is an excellent ale for general drinking purposes, especially for aspiring hopheads.

Coach Light Ale - A deep golden, somewhat clear ale with a pleasant, slightly fruity and sweet, faintly hoppy aroma. What you smell is what you get in flavor, namely a clean, smooth sweetness followed by a subdued hop bitterness and a slight pleasant, tartness in the finish. This is a nicely balanced light ale, especially appropriate for those transitioning from mass-produced commercial beer to a finely crafted local product.

Six in Hand Stout - This is an opaque, almost black beer with an aroma of chocolate and/or black grain. The flavor is dry with bitter and chocolate flavors from dark malts quickly dominated by tart hop flavors and bitterness. This is a satisfying dry stout with a surprisingly pleasant hop emphasis.

Horseshoe Hefe-Weizen - A straw-colored, slightly hazy beer with a big frothy head and definite banana and slight clove aroma. Cloves come through stronger upon tasting with banana flavors more subdued in the mouthfeel, which is full-bodied and satisfying. Overall, it is an excellent example of the style and among the best one will find.

Freckleberry Bitter - A light brown, caramel colored ale with a distinctly dominant hop aroma. An unexpected malt sweetness initiates the flavor profile, but is quickly followed by an expected bitter hop finish. Overall, a very pleasant and unique interpretation of the style, somewhat sweeter than most continental interpretations, with a unique hop profile. This is a sudser favorite and most are hoping for its inclusion in the regular rotation.

The food an OBC is varied and elegant. The second floor dining area features an upscale menu that is culinarily sophisticated and is an excellent place to dine on a special evening out. The menu varies with the chef's imagination and the season. Try the beef tenderloin with portabello mushrooms, snow peas, and scalloped potatoes. The pork tenderloin with jicama,peppers, jalapeno cornbread and goat cheese is also a good choice.

More economical and relaxed dining can be found downstairs where an innovative menu is evolving into downright excellent pub fare. Don't miss the sausage sampler - served with bratwurst, knackwurst, and andouille sausage alongside the best flavored sauerkraut this side of Bavaria. Also recommended are any of the OBC pizzas and the hot wings. Ozark Brewing Company was worth the wait.



FROM THE DESK OF
THE AMBASSADOR,



KEITH P. BESONEN

Humans, by nature, are lonely. Since the beginning, they have sought companionship. People always have been drawn to those with similar interests, similar backgrounds, similar beliefs. Using these criteria, they formed tribes, then fiefdoms, then nations. They developed religions. They formed homebrew clubs.

But even with these ties that bind us, we are still not satisfied. We remain lonely. "Is this all there is?", we ask. Perhaps this is why we continue to seek out companionship, in this world and beyond.

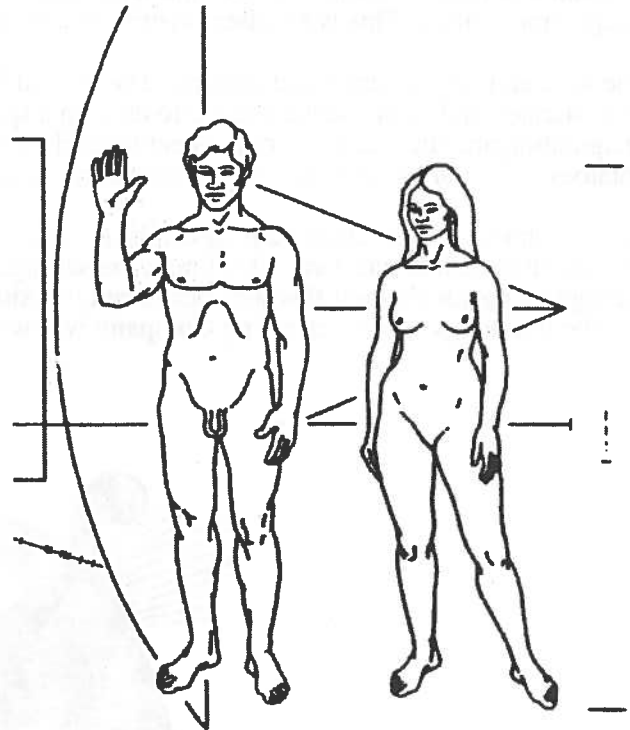
When NASA launched the space probe Pioneer 10 in the early 1970s, it carried a message for any alien race that might intercept it. A plaque with illustrations of a naked man and a naked woman was attached to the spacecraft. The naked man's hand is raised in greeting.

The government has spent millions monitoring outer space for radio transmissions from intelligent life. Thus far, nothing but random noise has been heard.

FLOPS, too, has been sending out probes and monitoring the airwaves, seeking to make contact with intelligent life. For months, all we received was random noise. But then, in the spring of this year, contact was made!

We received a message from Ft Smith, from the Hell On the Border Brewers. FLOPS was not alone in the Universe!

Soon after communication was established, a delegation, headed by President Tim Chilcott, journeyed from Ft Smith to Fayetteville so that our two like-minded groups might clasp hands warmly in friendship. Two months later, a delegation from Fayetteville, consisting of President John R. Griffiths, Ambassador Keith P. Besonen, Minister of Culinary Armaments Wallace D. Elliott, Secretary-Treasurer Stephen C. Rudko, and untitled FLOPS members Matt C. Bondi and the irrepressible T. C. Reimer, journeyed to Ft Smith. The purpose of our visit was simply this: to raise our hands in greeting.



Greetings from NASA...

...and greetings from FLOPS.

THE COMPETITION CONNECTION



First, let us proclaim a mighty "Huzzah!" to congratulate our members who fared well in this years AHA National Homebrew Competition. Michael Plott's Pale Ale and Kevin Santos' Pilsner both made it to the Second Round. Don R. Griffiths (the evil twin of our esteemed Primary Fermenter) posted an outstanding Second Place over-all in the English & Scottish Strong Ale category.

As for the continuing saga of the FLOPS competitions, Dave Justice continued his impressive winning streak by prevailing in the June Wheat Beer battle with his Equinox Dunkelweizen. In the August Pale Ale competition, the Championship Chalice was sullied with new fingerprints as Andy Sparks overwhelmed perennial front-runners Dan Vega and Dave Justice with his YDPA 2. The Winning recipes are provided below for your brewing & imbibing pleasure. El Capitan de la Competition Mitch Hill encourages all FLOPS members to participate in club competitions and will be happy to provide more information to new members.

Dave Justice's winning Weizen recipe:



Equinox Dunkelweizen

4 lbs	Wheat Malt
2 lbs	6-row Pale Malt
1.5 lbs	2-row Pale Malt
1.5 lbs	Cara-Vienne Malt
1 lb	Wheat Flakes
.5 lb	Belgian Munich Malt
.5 lb	Cara-Munich Malt
.125 lb	Special B Malt



All grains mashed
45 minute protein rest at 126°
1 hour starch conversion rest at 154°
5 minute mash out at 170°
90 minute boil

.5 oz US Saaz pellets @ 4.3% AAU boiled for 60 minutes
.5 oz Fuggle pellets boiled for 60 minutes
.5 oz US Saaz pellets @ 4.3% AAU boiled for 30 minutes
.5 oz Czech Saaz pellets @ 3.8% AAU boiled 15 minutes
.5 oz Styrian Goldings plugs steeped for aroma

Wyeast # 3068 (Bavarian Wheat) in starter
Primed with 1.75 quarts gyle

Primary Ferment: 2 weeks @ 68° in glass
Secondary Ferment: 3 weeks @ 68° in glass
Original Gravity: 1.048 Terminal Gravity: 1.011

Andy Sparks' winning Pale Ale recipe:



Duct Tape!

YDPA 2

- | | |
|---------------|---|
| 2 3.3 lb bags | Yellow Dog liquid malt extract |
| 1 cup | whole crystal malt |
| 3/4 oz | Chinnok pellets (boiled 60 minutes) |
| 3/4 oz | Kent Golding pellets (boiled 5 minutes) |
| 3/4 oz | Willamette pellets (steeped) |

Chilled wort to approximately 75° before pitching with Wyeast Irish Ale yeast.



UPCOMING AHA SANCTIONED COMPETITIONS IN SURROUNDING AREAS:

Individual shipping costs are reduced if several members mail in their entries together. If you're interested in entering any of these competitions, ask other members if they would like to submit an entry as well.

9/18 ENTRY DEADLINE

The Greater Topeka Hall of Foamers' Heartland Homebrew Competition, Topeka KS. Contact Bernadine Lloyd @ 913-286-1775

10/6

FLOPS Belgian Ale Competition (two bottles and \$2 per entry). FLOPS will sponsor the winning entry form this competition in the Spirit of Belgium competition described below.

10/31 ENTRY DEADLINE

Brewers United for Real Potables (BURP) announces the Spirit of Belgium conference and homebrew contest, the first US event ever to focus on Belgian beer and brewing. The conference will be held on November 11 and 12, 1994, with the contest on November 12. Contest entries for the AHA sanctioned competition will be accepted in the following categories:

Belgian ale, Belgian strong ale, White beer, Double, Triple, Oud bruin (Flanders brown), Oud bruin with fruit, pLambic and Gueuze, pLambic and Gueuze with fruit Every effort is being made to assure that your valuable Belgian-style beers will get the best judging and feedback possible. Ribbons will be awarded to all winners. If you'd like a packet containing contest entry materials and conference registration forms, send your address via e-mail to p00644@psilink.com (Phil Seitz). For further information, contact Mr. Seitz or: Spirit of Belgium Conference and Homebrew Competition Falls Church, Virginia Charlie Gow: Phone (703)319-9142, e-mail cgow@mailstorm.dot.gov Tim Artz: Phone (703)339-8028, Fax (703)339-8028, e-mail tartz@btg.btg.com

10/14-16 COMPETITION DATES (NO ENTRY DEADLINE AVAILABLE)

The Houston Foam Rangers announce the 11th annual Dixie Cup Homebrew Competition to be held October 14 and 15 in Houston, Texas. For more information, or to have your name put on the list for the mailing, call the good folks at DeFalco's Home Wine and Beer Stuff Place, 1-800-216-BREW.

It is hoped (feared?) that this year's Dixie Cup will garner 800 entries. Anyone interested in assisting in the judging of these beers is encouraged to call the number above. Starting some of the first round judging on the evening of Thursday, 13 October is being considered. A "Beds for Brewers" set-up is possible if enough qualified judges will commit to arriving on Thursday.

Any questions about the 1994 Dixie Cup can either be addressed to Sean Lamb via e-mail @ /R=SISO01/R=AM/U=slamb/FFN=SLAMB/@MRSED.JSC.NASA.GOV, Steve Moore @ 713-923-2412, or DeFalco's at the number given above.

11/1 ENTRY DEADLINE

Tennessee Valley Homebrew Competition, Knoxville TN. Contact Jeff Colfer @ 615-539-6614.

11/10 ENTRY DEADLINE

The Honorable Iowa River Society of Talented Yeastmasters (THIRSTY) announce the 1994 THIRSTY Homebrew Competition. The competition is AHA sanctioned, and entries will be taken in all AHA beer and mead categories. The competition will take place on November 19th in Iowa City, Iowa. Entries are due by November 10th, 1994. All homebrewers are welcome to enter, and we invite any interested judges.

Entry and/or judging information and forms can be requested from:

Ed Wolfe Competition Organizer
e-mail: wolfe@act-12-po.act.org
phone: (319) 643-7354

11/29 ENTRY DEADLINE

The St Louis Brews announce the return of the Happy Holidays Homebrew Competition! This is an AHA sanctioned event, using the standards and categories provided by the AHA, with the exception of one special beer style: Christmas Brau. This is a winter warmer/kitchen sink type beer.

We welcome all entries, and urge everyone interested to come judge with us! Please pass this information along to other brewers who may be interested. Entries are due by 5pm 29 Nov. Judging will be held on the afternoon of 10 December, with a banquet and award ceremony following.

For additional information, contact Ginger Wotring atwotring@sluvca.slu.edu or 314/773-7867.

12/1

FLOPS Stout Competition (two bottles and \$2 per entry).



LIBATION VACATIONS

MARIKKA'S

If you are ever around Lexington KY, stop by Marikka's at 411 Southland Drive (ph 275-1925). Not only do they have Dortmund Union (light and dark), DAB Alt, and Warsteiner on tap, they have over three hundred varieties of bottled beer!!! In addition to the usual suspects, they have beers from Bulgaria, Cyprus, El Salvador, India, Kenya, Korea, Trinidad, and Venezuela. Some of the highlights for the beer connoisseur: 3 varieties of Edelweiss wheat beers, Corsendonk Monks Brown and Pale Ales (the latter available in a 3 litre bottle for \$50), Liefmans Lambics, John Courage, Theakston's Old Peculiar, Thomas Hardy's (2 sizes), Young's Special London Ale & Oatmeal Stout, Bitburger Pils, full line of EKV products (including "28", once the strongest beer in the world), Hofbrau, Paulaner, Tucher (8 varieties), Caledonian. Their list of US micros is weak, but with that imported line-up, who am I to quibble. On the down side, the food is reported to be weak (but who needs to eat with all those beers to drink!).

BREWING COURSES FOR THE ADVANCED HOMEBREWER

The American Brewer's Guild Education and Training Academy will be offering two one-day courses for advanced homebrewers in Dallas, TX on October 1-2. The first day of this series, "Brewing Science for the Advanced Homebrewer," includes raw materials, wort production, fermentation practice, storage and finishing, and brewing calculations. A sophisticated set of slides and demonstrations will accompany this program including raw materials, beer transfer, and yeast handling and propagation. The second day, "Special Topics for Advanced Homebrewers," includes systems for fermentation, wort production, packaging and dispensing, troubleshooting problems and refining the product. Slides will include homemade and purchased homebrewing systems. A structured tasting of beer will illustrate a variety of sensory attributes useful to the troubleshooting homebrewer. The courses are coordinated by Dr. Michael J. Lewis, professor of brewing science, University of

California, Davis. Dr. Lewis has been a researcher, consultant and mentor to the brewing industry for 30 years. He has designed curriculum for academic courses, professional brewers short courses as well as a number of courses for homebrewers spanning the last 20 years. Cost is \$95 day one, \$125 day two, \$200 both days. This same course, as well as courses in Brewpubs & Microbreweries, and Craftbrewer's Apprenticeship, will be held on different weekends at different locations throughout the country. For more information, call The American Brewer's Guild Education and Training Academy at 916- 753-0497.

**WORT HAPPENINGS
(OR WORT'S HAPPENING)
THERE'S SOME NEW BEER IN TOWN**



Kevin, Stephen, and Mitch

Hurry on down to your local retailer to check out the new brews making their way to "our fair city." In addition to beers from such notable brewing regions as Russia and Africa, some highly touted brews are now locally available, including: Eldridge Pope products Royal Oak (a "burton ale") and the classic of classics Thomas Hardy's [buy it now, but don't drink it until the year 2000. Trust me.--ed]. Corsendonk Monk's Pale Ale is here, as are two varieties of Edelweiss wheat beers (Hefetrub & Dunkel). Pike's Place Ale, a micro-brewed beer of some repute is also available. Samuel Adams' Honey Porter also has been spotted in local liquor stores.

Although many of these brews are a bit "pricey" to those of us on a budget (and what is it with this "gotta buy a six-pack" law anyway?), but the only way to ensure an expanding, consistent, and fresh selection of imported and micro-brewed beers is to buy them when they are available. We encourage you to purchase these "exotics" as often as your budget and significant other allows. Challenge your fellow beer lovers to do the same. Remember, many imports have probably been abused in transport, allowing them to sit for weeks on store shelves will further decay their once "classic" flavors, as well as discouraging the retailer from ordering them again. We encourage all FLOPS members to ensure we get what we want--**MORE FRESH GOOD BEER!!! COORS' NEW WEIZENBIER**

Also among the newcomers at your local beer source is Coors' "summer" beer which they describe as a "Belgian-style wheat beer with a rich golden color . . . carefully handcrafted with three Western High Plains, custom-roasted grains: pale and caramel barley malts and malted spring wheat." Marketing hyperbole aside, this is not a bad beer (given its origins). It is a bit thin, but is smooth with a hint of spice in the flavor. A good summer brew for those hot days that--thankfully--have been scarce this year. As you can predict, neither Belgian Wit beers, nor Bavarian Weizens, nor even your own efforts at a wheat beer are qualitatively threatened by the new Coors product. If you see it on sale for < \$5.00, however, pick up a six-pack, sit under a shade tree with some friends, and dream about what the "mega-brewers" could do if they wanted to.

EDELWEISS WINS BEST WEIZEN

Up against 9 German HefeWeizens, Edelweiss--from Austria-- walked away a winner. Edelweiss scored 93 out of 100 points in an evaluation sponsored by The Malt Advocate. (two Edelweiss beers are now available in Fayetteville).

GREAT AMERICAN BEER WEEK

The Association of Brewers announced Great American Beer Week, October 23-29, 1994, to recognize brewing excellence and growth in the US brewing industry. This celebration is being held in conjunction with the Great American Beer Festival. Start planning your activities now!

ANHEUSER-BUSCH IS ON THE MOVE

Sources indicate that A-B is introducing Elk Mountain Amber Ale in selected West and Northeast Markets. The beer is named for A-B's Elk Mountain Farm hop fields. Also, The Redhook Ale Brewery (often praised by ale lovers) signed a letter of intent with A-B in which the latter is scheduled to distribute Redhook nationally. The impact of this agreement on A-B's Elk Mountain Ale project is unknown at this time.

SAM ADAMS HAS BEEN BUSY

Temporarily stymied by Texas beer regulations, which demand that the appellation "stout" be used as an indicator of beer strength rather than beer style, the Boston Beer Company devised a way to distribute their Samuel Adams Cream Stout--which does not meet Texas criteria for a "stout"--in the big state down south. Known as Samuel Adams Cream Stealth, the roasty brew should now be available to Cowboys & Cowgirls everywhere.

Those folks in Boston have also been rumored to be up to some smelly shenanigans. August and September issues of Newsweek, Rolling Stone and Sports Illustrated will include beer ads with a scent. A pioneering Scratch and Sniff advertising campaign from the maker of Samuel Adams products, will be launched. Full-page ads will give readers the scents of German Noble Hops. [I wonder if this has anything to do with the August 22 issue of Newsweek never reaching my mailbox! Perhaps some local postal employee has a weakness for eau de Hallertauer.--ed]

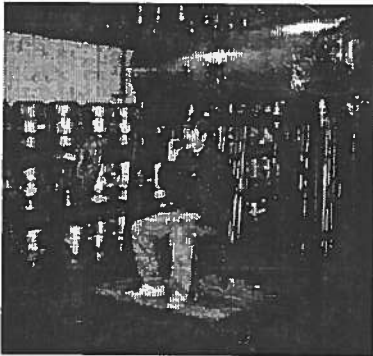
Think your brews are great? Well, you might want to be careful how you tell folks about it. Boston Beer Company has registered the phrase "Best Beer in America" as a trademark. [Perhaps my Pappy was right when he said: "Those that can, brew. Those that can't, register a trademark alledging they can."]

WHEE MUST WORT OFFERS 10% DISCOUNT

The pleasures of brewing and sharing home-crafted beer and wine are greatly appreciated at Whee Must Wort. To that end, our goal is to help provide the homebrewer with the highest quality ingredients at the most reasonable prices. We will gladly special order anything we do not presently have in stock and can offer reduced prices on larger volumes. To further encourage your homebrewing endeavors, we offer 10% off regular prices for all FLOPS members. No matter how you fulfill you needs, we hope that homebrewing is part of your celebration of life.

Dan and Khalisa

THE POTABLE GOURMET by the MINISTER OF CULINARY ARMAMENTS

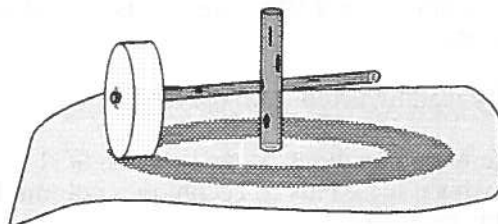


WALLACE ELLIOT

Editor's Note--Having suffered psychosomatic-paralysis in the aftermath of his chilling experience during Ozark Brewing Company's first day of business, Minister Elliott is unable to fulfill his obligation to the newsletter. In lieu of his usual contribution, we have included the harrowing tale of his adventures that fateful day.

Minister of Culinary Armaments, Wallace Elliott, deserves high praise and public adulation for his stunning exploits which elevate him to the pantheon of Northwest Arkansas beer lovers. Within minutes of Ozark Brewing Company's official opening, Minister Elliott displayed the brutal behavior that has led to his infamy in such distant and exotic locales as West Fork and Prairie Grove. Determined to be the first customer to plunk his nickels on the bar, Minister Elliott ruthlessly elbowed his way through the cream of Fayetteville society hovering in the pub, then forced his filthy lucre upon the awed and trembling barkeep. Not content with merely being the first paying customer of OBC, the Minister's

savage cunning resulted in a far greater achievement. In a fit of devious genius, he demanded that the sacred First Dollar not be forced to consort with the other tattered bills locked away in the cash register. Instead, he insisted that the First Dollar be enshrined in a place of holiness and honor, far away from the crumpled tens and twenties--as well as the rabble of loose coins--in the cash box. Thus, the spiteful--yet somehow scintillating--Mr. Elliott ensured that when a beady-eyed accountant compared receipts to cash-on-hand, he would note that--on its first official day of business--Ozark Brewing Company suffered a \$1 loss.



BREWING BY THE NUMBERS

with
MICHAEL PLOTT



PREDICTING ORIGINAL GRAVITY

I must admit that I sometimes succumb to the mystery of Original Gravity. You know what I mean. Standing transfixed by the hypnotic bubbling of boiling wort, you wonder how close the gravity reading of your finished brew will be to that of your recipe. Part of you wants to make certain that you hit that target gravity exactly. Of course, there is another part of you that is totally disinterested in the gravity issue. This part, caught up in the art and romance of brewing, simply seeks to produce a sublime potable substance, no matter the technical details. If you are like me, this latter part often dominates. In such instances, you care so little for things like specific gravity that you do not even take a reading after completion of the boil. This is perfectly acceptable practice, and I have brewed some mighty fine beers applying as few technical principles as possible. This column (and those to follow), however, is for that other side of your brewing persona. The one that wants to quantify, measure, and understand every last detail of the brewing process. My intent is to provide you with some practical information that can help you more accurately predict the final outcome of

brewing procedures, with the ultimate goal of improving the consistency and quality of your beers.

For this issue's column, I would like to focus on original gravity (OG). The original gravity of your brew is the hydrometer reading of the wort at the time you pitch your yeast. One of the most significant uses of this measure is in classifying a beer as a certain style. Among the criteria used by the AHA for categorizing beers is the OG of the wort. That is, each beer style has a range of OGs typical for that style. Thus, if you are concerned about brewing "true to style" (say, for a competition), it is important to make certain that your wort is within the appropriate range.

Now, your first thoughts may be that tracking your OG is a relatively simple procedure: just take a reading of your wort while it is in the brew kettle, then make adjustments based on that reading. Unfortunately, this is not necessarily the case. As the wort boils, part of it evaporates which concentrates the remaining wort, resulting in an increase in the OG. This means that the gravity of your wort will be higher at the end of the boil than it was at the beginning. The issue is further complicated for those extract brewers who boil a concentrated wort. If you boil only 2-3 gallons of wort which you then dilute with additional cold water in the fermenter (the process advocated by Papazian), a reading taken from the brew kettle will be much higher than the OG in the fermenter because of the dilution effect of the added water. So, how can we predict the OG of our wort in the fermenter before it actually gets there and do so in time to make any necessary adjustments? Believe it or not, math comes to the rescue.

There is a very simple equation one can use to predict the OG of wort due to either concentration from a long boil or dilution from the addition of cold water to the fermenter. The formula is:

$$SG2points = (V1 / V2) * SG1points$$

where

SG2points = the target original gravity in points. Points are merely the numbers to the right of the decimal point in a specific gravity reading. Thus, a gravity of 1.045 = 45 points, a reading of 1.125 = 125 points, etc.

SG1points = the gravity reading taken from the boiling wort.

V1 = the volume of the wort, in gallons, at the time the SG1 reading was taken (see this issue's Tips & Techniques column for a method of obtaining this measure).

V2 = the final volume of wort, in gallons (usually 5).

OK, lets put these numbers to work for us in an example that will help illustrate the equation. Let's say we are brewing a Belgian Strong Ale from extracts. We are doing a concentrated boil (that is, less than the entire five gallons of wort). Assume we are boiling 3 gallons of wort and we want to know the original gravity of the wort once we add water to make 5 gallons. We take a gravity reading from the wort in the kettle and it reads 1.095 (95 points). Now, we just plug our known values into the equation:

$$SG2points = (V1 / V2) * SG1points$$

SG2points = unknown, it is the value we are solving for.

V1 = 3 (the number of gallons of wort at the time the gravity reading was taken).

V2 = 5 (the final volume of wort in gallons)

SG1points = 95 (the gravity reading of the wort in the kettle)

To solve the equation, we just divide 3 by 5, then multiply the result by 75:

$$57 = (3/5) * 95$$

Thus, our OG after the dilution water is added in the fermenter will be 57 points or 1.057!

Now, the ability to predict original gravity may seem like a pretty neat parlor trick, but let me show you how to really put these numbers to work. Using the example above, let's say we are brewing this Belgian Strong Ale for the FLOPS competition in September. We refer to the AHA specifications for a Belgian Strong Ale and see the OG range for this style is 1.063-1.095. Uh oh, the 1.057 prediction for our brew is 6 points off! Fortunately, if we take a reading early enough, there is still time to overcome this problem. For those doing concentrated boils, there are two main ways to boost the gravity of the wort: add more malt extract or reduce the amount of water added to the fermenter. The formulae for determining how much more extract to add to reach the target gravity will have to wait for a future column, so now I would like to show how to increase the OG of wort by reducing the final volume produced. To do this, we merely need to rearrange the formula we used above.

Assume we want the OG of the dilute wort to be safely within the Belgian Strong Ale range at 1.067. To get this number from our 3 gallons of boiling wort at 1.095, we must have less than 5 gallons after dilution (remember, our gravity prediction of 5 gallons of wort from 3 gallons at 1.095 was only 1.057, so we need less than 5 gallons--which will be more concentrated--of wort to reach our target OG of 1.067). But how much less? To find out, let's return to our formula. Our known values now are:

SG2points = 67 (we want our dilute wort gravity to be 1.067).

SG1points = 95 (the gravity of the boiling wort).

V1 = 3 (gallons of wort at the time of the reading for SG1).

V2 = unknown (this is the final volume of wort needed to reach SG2points (67)).

We now need to rearrange the original equation to account for the new unknown value:

$$V2 = (SG1points / SG2points) * V1$$

Plugging in our known values and solving the equation gives us:

$$4.25 = (95 / 67) * 3$$

That is, dividing 95 by 67 then multiplying the result by 3 yields 4.25. Thus, our final wort volume must be 4.25 gallons to reach a gravity reading of 67 points (1.067). 4.25 gallons is .75 less than 5 gallons. Since .25 gallon = 1 quart, we should add 3 quarts ($75/25 = 3$) less water than originally planned to reach our target of 4.25 gallons of wort at 1.067. If you usually just "add water until the carboy is full" rather than adding a measured amount of water to the fermenter, you might want to make markings on the outside of the fermenter calibrating it for volumes less than 5 gallons. To reach the appropriate OG in this example, you would then just fill the fermenter to the "4.25 gallons" marking. It's as easy as that!

Those who do full wort boils (5+ gallons in the brew kettle) can use the same calculations. These brewers may also add extract to increase gravity if necessary, but since there is no dilution water typically added after the boil, they must use a different method to reduce the final volume of the wort. After determining the appropriate final wort volume as discussed above, the full-wort boiler can then adjust the length of the boil to compensate for a low predicted gravity. To reduce the final volume of wort, simply boil it longer. The typical evaporation rate for boiling wort is 1 gallon per hour, but you should check to see exactly what the rate is for your equipment and procedures. As an example, let's assume we need a final wort volume of 4.25 gallons and also assume an evaporation rate of 1 gallon/hour. Since, when planning the brew, we originally calculated our boil time to yield 5 gallons, we need to determine how much longer we must boil to end up with only 4.25 gallons. To do this, simply multiply the number of minutes it takes for 1 gallon to evaporate (60 [1 hour] in this example) by how many gallons of wort we want to lose through evaporation. In this example, we want to lose .75 gallons. This is determined by subtracting the new target wort volume (4.25 gallons) from the original target wort volume (5 gallons). So, to find out how much longer we need to boil, just multiply 60 times .75 which yields 45 minutes. Thus, boiling an additional 45 minutes will leave us with 4.25 gallons of wort at the appropriate OG. Note that it is important to do these calculations early in the boil so you can adjust your flavor/aroma hop additions to compensate for the increased boil time.

Well, this column has mutated into a much longer monograph than anticipated, so I will take but a moment to mention that you can also re-arrange the basic equation to determine how much more wort volume you need if your boil gravity is too high rather than too low as in the examples above. It is more difficult, however, to compensate for this since it often requires a final wort volume greater than 5 gallons which can be a real headache for those who use water carboys for primary fermentation.

I hope you have found the discussion of these formulae helpful. They can really assist you in trying to hit your target gravity. The next time you gaze lovingly at a kettle full of what you predict will be an award-winning brew, then wonder if it will be within the appropriate gravity range, realize that now you can find out and make any necessary adjustments before it's too late.

IMPORTANT NOTE: When taking gravity readings, always make sure the wort being measured is at the reference temperature for your hydrometer (usually 60°) or that you apply the appropriate corrections for temperatures higher or lower than the reference.

ASK DR SUDS



Hi there! In this column I would like to give a brief rundown on mashing techniques--ie how to make your wort from grain malts. We will go from the simple to the more complex (and time-consuming). I am not aiming to discuss the specificities of the techniques, which are well discussed in many books available, but rather to outline the various ways of mashing and offer a few tips from my own experience.

First, as discussed in my last column, I strongly recommend planning your brew ahead of time. Write out a detailed recipe--include all ingredients and figure out the times at which to carry out each procedure. If you use a pencil for the times, you can easily adjust for actual times as you go. Problems do arise, such as getting a little too relaxed (and perhaps falling asleep!) or getting a stuck sparge, but with a pre-planned brewing schedule you will find any kind of mashing much smoother.

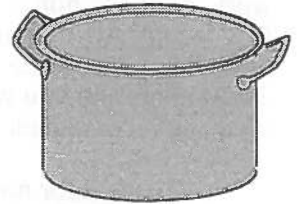
Mashing, then, is the process of making a wort from malted cereal grains, which you then boil and hop as dictated by your recipe. Let me stress that there is no need to do the longer procedures to make better beer. Brewing is whatever you're comfortable doing. Rather, there may be overtones of masochism in the longer procedures! I have, however, found the challenge of the more elaborate all-grain procedures to be a lot of fun too, even if I've had to arrange for fellow-brewers to check if I'm awake at 5 a.m. Brewing is a great hobby, as we all know, and I encourage all of you to try these new techniques. I'll conclude with a brief bibliography of books which specialize in the different methods. If you'd like additional help, please ask around at any club meeting. I know John Griffiths is not brewing over the summer and would be happy to help plan and assist with a brew session (as long as you have air conditioning!)

Now, on to the mashing techniques:

1. INFUSION

This is the simplest mashing procedure and is the traditional method for Bitters and Pale Ales, which use well-modified malts. Without getting too complicated, modification refers to the degree in which the complex starches in raw barely have been converted to simpler compounds during the malting process. Most British and US pale malts are well-modified; German malts tend to be under-modified and require the step-infusion method discussed below.

For the infusion process, you mash-in (that's "mix" to the layperson) hot water and malt in a 4-5 gallon pot. Use 1 to 1 1/3 quarts of water per pound of grain. You want the temperature of the mixture (now known as the mash) to be at the starch conversion (aka saccharification) temperature specified in your recipe. This temperature is usually between 145°-158°. Lower temperatures are for "thinner"--but more alcoholic--beers and take 1.5 to 2 hours. Higher temperatures are for more body and sweeter--but less alcoholic--beers and take 1 to 1.5 hours. 151°-153° is a good compromise.



The temperature of the combined water and grains is typically 13°-16° lower than the temperature of the hot water, so heat the water appropriately. Stir the mash well and add a little heat or cold water if necessary to bring the mash to the starch conversion temperature. You needn't worry if the temperature is not "spot on." Although differences as little as 2° will make a difference in the finished beer, such differences are not critical to the quality of the beer as long as the mash temperature is between about 145°-158°.

For your first few mashes, you should check that the mash pH is between 5.0-5.6 (make sure the sample used for the measurement is at room temperature). A typical mash with Fayetteville city water and pale malts will fall within this range naturally (dark grains tend to lower mash pH). If, however, the pH is outside the appropriate range, you can add gypsum to lower the pH or calcium carbonate to raise it. Start with about 1/2 teaspoon, stirring thoroughly into the mash. Re-check the pH and adjust again if necessary.

After ensuring that the porridge-like mash is within the appropriate temperature and pH ranges, allow it to sit for 1-2 hours. This is when the enzymes activated by the warm water convert starches in the malt into fermentable sugars. It is a good idea to place the mash in a warm oven, wrap it in a sleeping bag, or otherwise try and reduce the heat loss from the pot while it sits. After starch conversion, place the pot back on the stove and raise the temperature of the mash to 168°-175°, this is called the mash-out. Allow to rest 5-10 minutes before sparging with about 5 gallons of water at 165°-170°. Sparging is the process in which hot water is run through the mash in order to "rinse" the sugars from the grains. This produces the wort which you then boil and hop as you would if making an extract brew.

2. STEP-INFUSION

The step-infusion (aka temperature-controlled) mash is very similar to the infusion mash. Instead of directly mashing in at the starch conversion temperature, however, you mash in at 122°-125° and allow a thirty minute protein rest. This protein rest promotes the development of yeast nutrients, increases stability, and reduces haze problems that can be associated with infusion mashes using under-modified malts.

After the protein rest, boost the temperature of the mash to starch conversion temperature, then proceed as with the infusion mash described above. The total time for brewing by step-infusion is about 4-5 hours which includes a 2 hour boil and 30 minutes for wort chilling.

3. DECOCTION

This is one of the most complex and time consuming methods. It is traditionally used in German lager brewing and is particularly recommended for bocks and wheat beers. The basic technique of decoction mashing consists of removing portions of the mash, boiling the removed portion, then returning it to the main mash to increase the temperature of the entire mixture. For a typical Weizenbock, I mash 13 pounds of grain (65% wheat, 35% barley) at about 120°, pull a thick one-third of the mash and boil it in a smaller pot. I add this back to the main mash after a while, then pull another third and repeat the process. The target temperature after recombining the final decoction (the part of the mash that is boiled) with the main mash is around 160°. After letting the mash sit for a while to allow starch conversion, pull another one-third of the mash (mainly the liquid portion), boil, then return. This should raise the mash to the mash-out temperature. After the mash-out, sparge and boil as usual.

The decoction mash is a fun technique and can result in outstanding beers, but you will really need a pre-planned mash schedule. Don't plan on other activities during the mash, either, as there is much more actual work involved than in the previous mashing techniques.

4. DOUBLE-MASHING

This method is used to produce "strong" Scotch Ales and Barleywines. Dave Miller suggests you can only make 2 gallons of such with all-grain mashing, but our Primary Fermenter has successfully produced 5 gallon batches of OG 1.120 (Scotch Ale) and 1.125 (Imperial Stout) with double mashing. Essentially, the mash procedure is that of the infusion mash described above, except you do it twice!

After conducting a typical infusion mash, sparge only until you collect about 3 gallons of wort, then set that wort aside. Finish the sparge, then use this secondary liquid to mash a second batch of grain. Add the first 3 gallons of the second sparge to the 3 gallons reserved from the first mash; this gives you 6 gallons of "strong" wort. Boil and hop it as usual. Sparge out the remaining grains to collect 6 gallons of "weak" wort (Twopenny Ale in traditional Scottish terms), then boil and hop as usual. Voila! You now have 10 gallons of wort that will soon be delicious ale. This technique is NOT for the faint-hearted--your brew session may last 24-30 hours and you will definitely need friends to keep you awake! But it is the most challenging I have ever tried and recommended to those hopelessly hooked on all-grain brewing.

That's it for now! I hope this discussion of mashing techniques has inspired you enough to try it yourself. Even if you find the prospects of all-grain brewing daunting, you may want to consider partial mashing in which you mash only 3-5 pounds of grain and then add malt extracts as usual. It's a relatively "painless" introduction to the joys of grain mashing. Both Papazian and Miller (Brewing the World's Great Beers) provide more details and recipes for partial-mash brewing. For more information on any aspect of mashing, I encourage you to contact fellow club members who currently brew with these techniques. I guarantee they will be happy to answer any questions or even assist in planning or participating in a brew session. You may also consult some of the following books (which are available at a bookstore on Dickson St shamelessly plugged elsewhere in this issue):

INFUSION/STEP-INFUSION MASHING

Foster, Terry. Pale Ale. Brewer's Publications Classic Beer Styles Series no. 1. Association of Brewers, 1990. \$11.95

Miller, David. The Complete Handbook of Home Brewing. Storey Communications, 1988. \$9.95

Brewing the World's Great Beers. Storey Communications, 1992. \$12.95

Papazian, Charlie. The New Complete Joy of Home Brewing. Avon, 1991. \$11.00

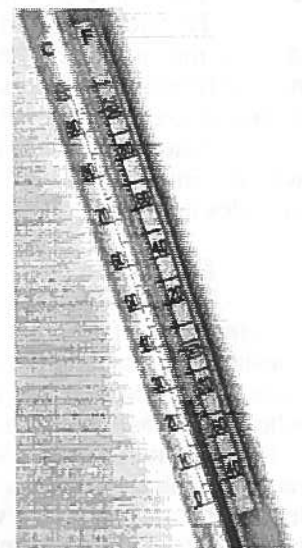
DECOCTION MASHING

Noonan, Greg. Brewing Lager Beer. Brewers Publications, 1988. \$14.95.

Warner, Eric. German Wheat Beers. Brewer's Publications Classic Beer Styles Series no. 7. Association of Brewers, 1992. \$11.95

DOUBLE MASHING

Noonan, Greg. Scotch Ale. Brewer's Publications Classic Beer Styles Series no. 8. Association of Brewers, 1993. \$11.95



TIPS & TECHNIQUES

TAKING A GRAVITY READING FROM BOILING WORT

It is often a good idea to take a gravity reading of your wort in the boiler. This allows you to calculate any adjustments you may have to make to reach a target gravity or alter your hop bitterness level. To get the hot wort cooled to the hydrometer reference temperature, dip about 1/2 cup of the wort out of the kettle, then place the sample in the fridge for about 5 minutes. Pour the wort into the hydrometer sample tube, then immerse this in a 1 quart "squeeze bottle" filled with ice water. This cools the sample to the 60° reference temperature in about 10 minutes. NOTE: Pouring hot wort into a thin-walled plastic sample tube will render is a useless glob (that's why I put the hot wort sample in the fridge first). Also, if using glass, be sure it is pre-heated before immersing in boiling wort or pre-chilled before immersing in ice-water to prevent breakage.

MEASURING WORT VOLUME IN THE BOILER

An easy way to measure the volume of wort in the brew kettle is to make a "dip-stick" from a stainless steel ruler. Calibrate the dip-stick by filling your kettle with a gallon of water at a time, then read the depth on the ruler and make a note of the distance. To determine how much bubbling wort is in your pot, merely dip in the ruler, read the depth, then refer to your notes. NOTE: Kettles rarely have a truly level bottom, so you should make sure to place the dip-stick in the same spot of the boiler for your readings to make sure they are consistent.

TRASH CAN: TOOL OF A DOZEN OR SO USES

A 32 gallon plastic trash container can be one of the most useful items in your home brewery. If you have amassed a collection of really grungy bottles, you can fill the trash can with a solution of B-Brite or Chlorinated TSP, let the bottles soak a couple of days and the crud and labels almost float off. The trash container can also make bottling easier. Rather than filling the bathtub with sanitizing solution in which to soak bottles (which often requires carrying the dripping bottles across the house to the kitchen for bottling), use the trash can instead. A 32 gallon container will hold enough sanitizing solution and bottles for 5 gallons of brew. You can then have your bottles near the kitchen sink for rinsing and easy access to a bottling area also in the kitchen. After bottling, you can soak your equipment in the solution in the container to facilitate cleaning. Finally, the trash can makes a great storage container for various brewing implements. All in all, it's a great help around the brewery, made even

better by the fact that you can often find them on sale for under \$10 at discount stores.

CLASSIFIEDS

WANTED:

Someone who loves to cook and clean. Good personal hygiene a plus. Must love good beer. Must be able to consume mass quantities of strong beers without collapsing into a gibberish-spewing heap. Knowledge of the brewing process essential. Must have sparging equipment and ability to operate it without falling asleep. Ability to use terms such as "kraeusen," "wort," and "mouth-feel" with confidence and panache is highly desirable. Send name, phone number and photo of sparging equipment to Dr. Suds. Weirdos, kooks, or extract-brewers need not apply.

BOOK REVIEW

Eckhardt, Fred.

The Essentials of Beer Style for Brewers & Beer Enthusiasts.

Fred Eckhardt Communications, 1989. 213 pp. \$14.95

This is one of the classic books for homebrewers and beer lovers. It offers the reader general information on beer and beer styles, profiles of specific beers, and techniques for judging beer. The book is organized into three major sections: "Cataloging the Beer by Style," "Style Definitions," and "Beer Tasting Just For the Fun of It."

Part One is aimed at educating beer enthusiasts and homebrewers to some of the lightly technical aspects of beer and brewing, and to aid in understanding the Catalog of Beer styles that is Part Two. To this end, Eckhardt discusses the general parameters of beer styles: color, strength, method of ferment, maturation, malt flavors, the contributions of unfermentable beer components, and hop bitterness/flavors.

Part Two, the Beer Catalog, is directed to the task of describing the great beer styles of the world and providing profiles of beers within those styles, to acquaint the reader with what brewers of today and those of yesterday were doing within the described parameters. This is the real heart of Eckhardt's work. The Beer Catalog is organized by color, with each general color category (Pale, Amber, Dark) further broken down into specific styles (Pale Ale, Vienna, Stout, etc). The basic parameters for each style are given, followed by profiles of specific commercial beers in that style. Each beer is listed with its original gravity, terminal

gravity, alcohol by weight & volume, hop bitterness level in IBU, and color (SRM). This is a great resource for finding the attributes of some of your favorite commercial brews. Also of note is that Eckhardt often provides data for historical beers as well. For example, he writes that a typical American Pale Ale of 1906 had an original gravity of 1.053, 5% ABV, and an incredible hopping rate of 60 IBU! His profiles also allow you to see the changes made in some commercial beers. 1981 Budweiser, for example, was hopped at 15 IBU, whereas by 1987 this level had dropped to 10.5 IBU.

Part Three discusses how to taste and judge beer. Eckhardt provides a glossary of terms to describe beer flavors and aromas. He also discusses some simple exercises one may use to calibrate their palate. Aspiring beer judges will find this section particularly useful.

Overall, almost anyone who cares about beer will find valuable information in this book. Beer lovers can find data on many favorite brews and also learn how to "listen" to their beer. Brewers can find information useful in brewing beers to style--an important consideration for competitions. It is also useful for getting data on uncommon styles. Although the price initially seems a bit excessive given the size of the volume (it will fit in a jacket pocket), I think the information provided justifies the expense. Review by Michael Plott A MAGAZINE FOR THE MORE TECHNICAL BREWER

If you are like many homebrewers who have

been practicing the craft more than a couple years, you may find that Zymurgy, the magazine of the American Homebrewers Association, no longer fills your need for more practical or technical information on brewing. If so, then you will probably enjoy Brewing Techniques (BT). BT is published bi-monthly and its articles are peer reviewed. The editorial board boasts an impressive array of homebrewing notables including: Byron Burch, Fred Eckhardt, George Fix, Terry Foster, Michael Jackson, Dr. Michael Lewis, Dave Miller, Greg Noonan, and Bill Siebel. Regular features include a column in which Dave Miller answers reader questions and a column entitled "Brewing in Styles" which features a different beer style each issue (IPA, Stouts, Witbier, and Steam Beer are among those that have been discussed). Examples of previous articles include: Dr. George Fix analyzing Belgian Malts from DWC, several articles on adapting computer spreadsheets for recipe design, producing cask-conditioned ales in the US, how to store hops, how to grow hops, a special report on women in brewing, methods to keep your wort cool in the summer, and articles on yeast culturing and maintenance. Overall it is a well-produced effort and recommended for brewers looking for more technical information about beer and brewing. Subscriptions are \$30 per year (6 issues). For more information contact BT at 1-800-427-2993 or e-mail at BT@IRC@AOL.COM



Some would return from the dead for more FLOPS homebrew!?
So from the desk of FLOPS, we bid you adieu!!