

Vol. 25 No. 3 May/June 2002 The Journal of the American Homebrewers Association

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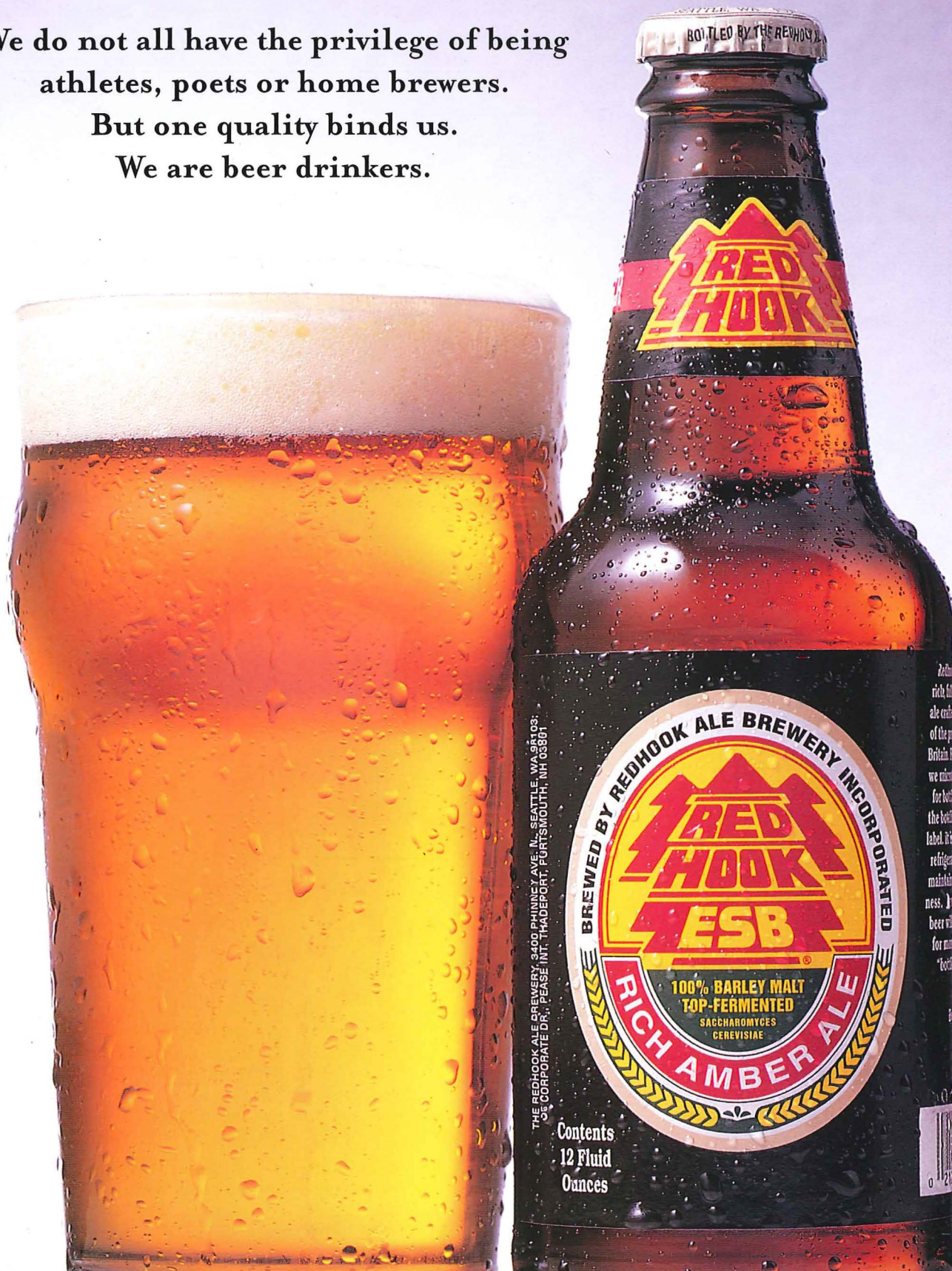


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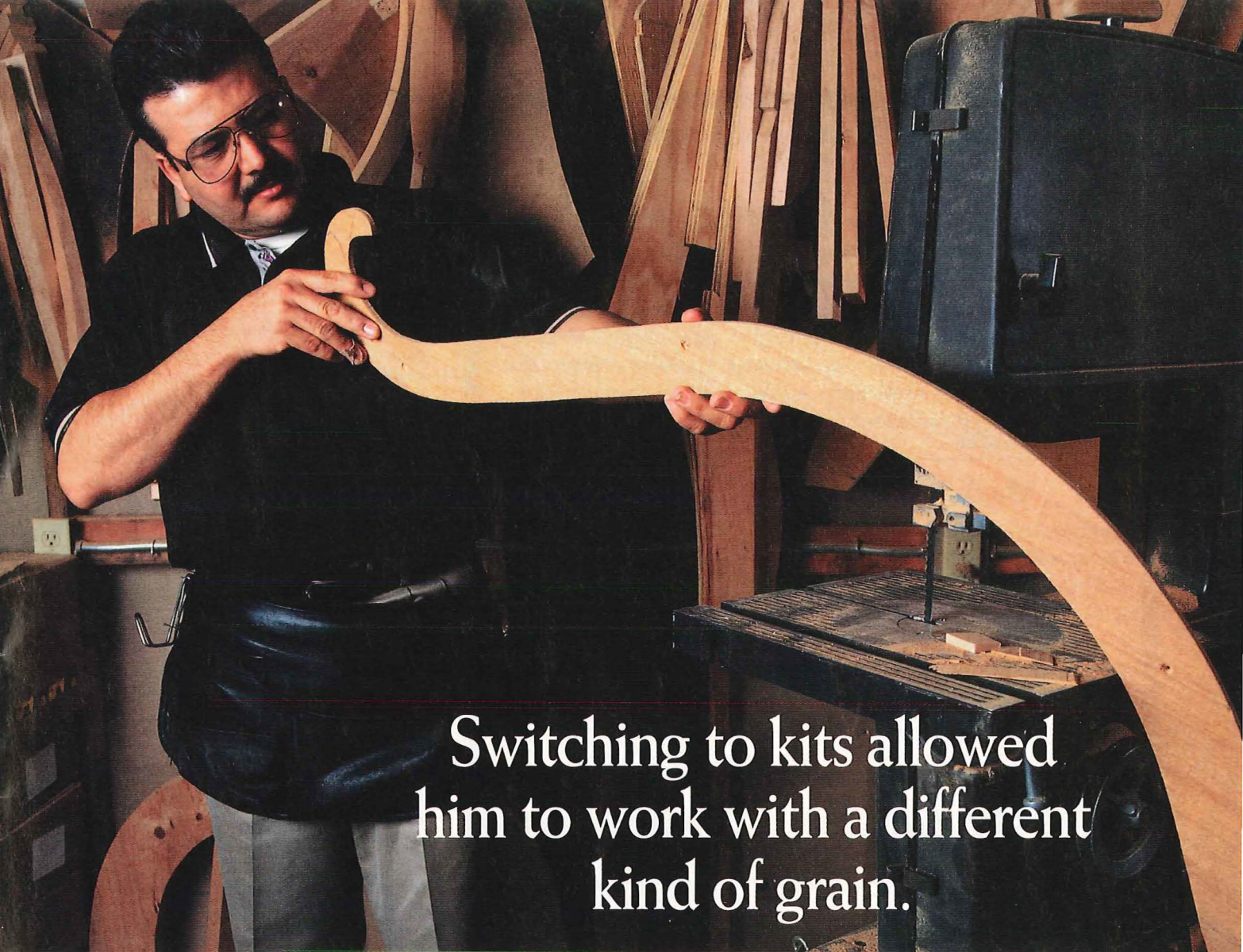
In Memorium:
George Fix, Ph.D.

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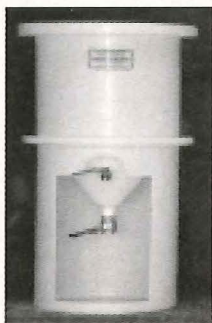
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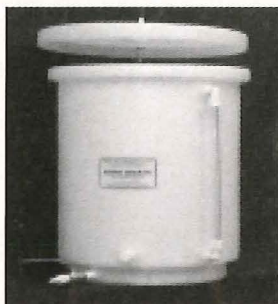


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MAY/JUNE 2002, VOL. 25, NO. 3

ZYMURGY®

Zymurgy \zī'mər jē\ n: the art and science of fermentation, as in brewing.

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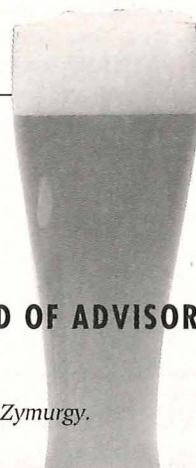
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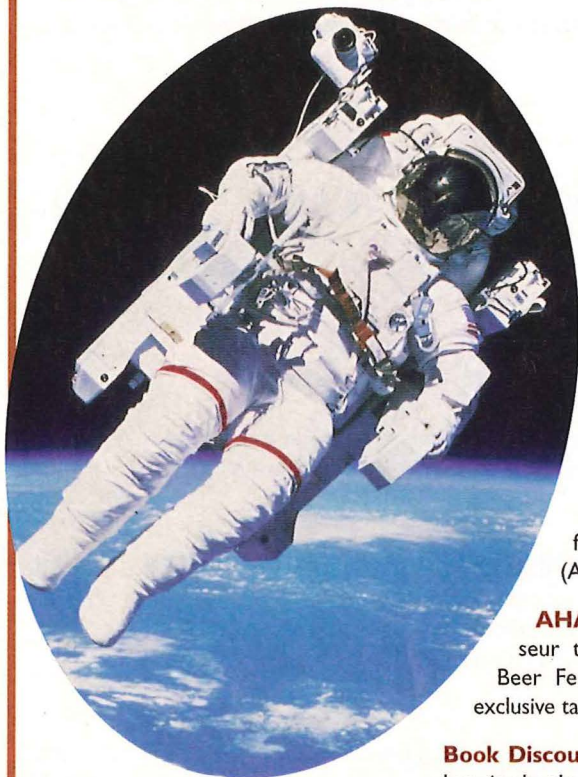
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HOMEBREWING. —



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BY PAUL GATZA

AHA People and Plans

My February mailback is the beverage I have selected to help me through another article. Ah yes, that's better. It is spring again and what that means here at the AHA is long hours fueled by late night homebrew samples. Our evolution of 23 1/2 years of being the AHA has resulted in spring being our craziest, event-heavy time of the year. Just as we have gotten a handle on balancing the National Homebrew Competition, the Big Brew and the planning for the National Homebrewers Conference at the summer solstice, we have added two new membership projects—membership restructuring and developing the AHA liaison program. The result is that we really need to remember to relax, not worry and have a homebrew, then put the noses back to the grindstone and relax not worry and have some more homebrew.

David and Nora Keller, AHA members from Asheville, N. C., dropped in at the office the other day. David mentioned that it really helped him get a better picture of what the AHA staff does by seeing how we functioned in the office. Each year at this time I give the big roundup of the current events, programs and projects, so I thought I would give the information from the viewpoint of how we put it together here in the office in conjunction with AHA member volunteers around the country and the AHA board of advisors.

The Association of Brewers office is a two-story building on the west side of Boulder, Colo. There are 23 staff members who work together on a daily basis. We are situated into divisions and departments based on the nature of our work. The marketing, membership services, information technology and graphics departments share the downstairs, and our small conference room is set between these departments. The divisional and administrative personnel share



The Association of Brewers staff in Boulder, Colorado. Sitting (l to r): Scott Farling, Bob Pease, Charlie Papazian, Paul Gatz, Erin Fay, Cindy Jones. Standing (l to r): Kate Porter, Matt Lovrinic, Matt Dudgeon, Deborah Miller, Mark Snyder, Gary Glass, Linda Starck, Kendall Smith, Stephanie Johnson, Julie Korowotny, Nancy Johnson, Monica Tall, Jessica Gottlob, Dave Harford and Tom Clark. Not pictured: Ray Daniels and George Myler.

the upstairs spaces. The four staff dedicated to AHA and IBS share an office upstairs across the hall from Charlie Papazian, just a few steps from our party and meeting deck. Ray Daniels works out his home office in Chicago.

Membership Restructuring

It has been six years since our last membership price increase. In the meantime, our printing costs, shipping costs, rent, web, database maintenance, utilities, wages and other costs have kept up with inflation, but our membership price has not. I know no one likes to pay more, but the reality of the situation is that AHA needs to receive current value for the magazine and other services that we provide. I am asking you to think beyond your own wallet and think about the promotion and defense of the hobby nationwide. In addition, we are in the process of bringing new benefits on line that more than make up for the additional cost in savings at brewpubs and in free items and

discounts at your local homebrew supply shop, as well as an improved www.beertown.org website that will serve as a better portal to the beer world. Around the time you receive this issue of *Zymurgy*, you will also receive a letter describing the new membership classes in detail, with an opportunity to add three years onto your current membership at the lower price. If delaying the price increase three years is not sufficient, you may consider a lifetime membership.

The process of membership restructuring started in November 2001 with discussion during our biweekly AHA staff and support staff meeting. We came up with a list of membership classes that reflect some of the desires of our constituencies. I presented the staff recommendations to the board and the board reviewed the materials and suggested changes. Now we have embarked on the process of getting notifications and the "renew at old prices" offer in the mail.

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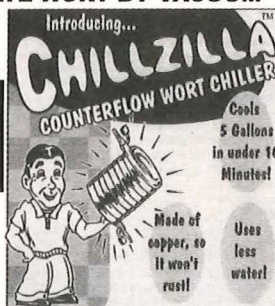
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particular, the family membership (\$43) is one that we have received numerous requests for, as many households have multiple brewers who can share the same copy of *Zymurgy*. Other new or reworked classes are individual memberships (\$38), sponsors (three levels—\$60/110/250), brewery members (\$50), a joint membership with the Institute for Brewing Studies (\$170) and a merging of the Canadian and International memberships (\$44).

Again, no one likes a price increase, but the reality is that we live in an inflationary society and we need to keep up. I appreciate your willingness to continue your participation. Remember you do have the chance to delay the price increase by renewing now at the old prices. The new price structure takes effect May 16, 2000.

AHA Liaison Program

The AHA liaison program is something we have been trying to find the resources to organize for some time now. Last summer we changed job responsibilities of AHA and IBS

staff to dedicate Erin Fay to membership development. Erin and Gary Glass worked with marketing staff to develop the program and invite people that we look to as leaders of their homebrewing communities to formally represent AHA at beer festivals and club meeting and to develop AHA membership in their regions. As I write this, Erin has confirmed 62 liaisons. In addition Charlie Papazian has tapped old friend Ken Grossman of Sierra Nevada to be a sponsor. FlavorActiV has also come on board and developed a sensory evaluation kit for homebrew clubs. Liaisons have been provided with a sampler kit to try with local clubs. For those who want to go further and learn how to identify the different flavors and causes of these flavors in homebrew, full kits are available for \$150 through us. The kits are meant for 12 people to use in three sessions (three monthly club meetings, for example), so it works out to \$12.50 per person. FlavorActiV develops products that cost four and five figures for the professional industry, but they have created this product at a significant discount to show

their commercial customers that they support the homebrewer and to start the process of redefining how the public talks about beer flavor. We have partnered with FlavorActiV on this educational project since the product fits our mission very well.

National Homebrew Competition

As you read this, first-round judging has just taken place or is taking place at regional sites this coming weekend. This project goes on year round for AHA Project Coordinator Gary Glass. The fall starts the cycle with confirming sites and site directors, sponsor communications and the annual review of the rules and regulations with the board of advisors. Gary spent much of his winter ordering materials for the sites, coordinating with the site directors and compiling materials for the website. Once the competition kicks off in the spring, Gary and AHA Administrator Kate Porter (no, her name did not hurt in getting the job) dive into the administrative side of contacting second-round advancers, sending out scoresheets and certificates to entrants, fulfilling sponsor commitments, coordinating the second round in June and dealing with myriad expected and unexpected issues that anyone who has organized competitions knows will arise. Even after the second round is over and the winners announced, there is still the administrative follow-up including sending out awards. This project is huge. Thanks go out to all of our category sponsors, site sponsors, volunteers and Ninkasi Award sponsor Boston Beer Co., who continued to push the craft beer envelope this year with the release of "Utopias," a 21 percent abv brew that is mindblowing.

AHA Big Brew and National Homebrew Day

National Homebrew Day preparation festivities start here with planning the rooftop gathering on the party deck for the Friday evening before National Homebrew Day. We invite the local homebrewing and craft brewing community by for a late afternoon of beer, mead, snacks and socializing. To prepare, the AOB staff breaks into brew teams in the spring to concoct the beverages for the hospitality. If you can make it to Boulder on May 3rd this year, come on by. It's a great time. On (continued on page 63)

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BY RAY DANIELS

George Fix: Homebrew Hero

1939–2002

George Fix led a life that was busier than most—and he would have been excused if he had allowed homebrew to be squeezed out of it or indeed never to have entered it at all. But “busy” was a word that didn’t seem to exist for George. He had boundless energy and a mind that moved at about twice the speed of mere mortals. Combine that with a true generosity of spirit and a love for the art and science of brewing and you had George Fix, a man who was without a doubt the leading light of homebrew science during its apogee in the 1990s.

George contributed a large and important body of work to the brewing literature. With his wife Laurie, he wrote four books on brewing, including the Vienna, Marzen Oktoberfest edition of the Classic Style Series, *Principles of Brewing Science* (First and Second editions) and *Analysis of Brewing Techniques*. In addition, he wrote 29 articles in brewing journals—including some important early contributions to the brewing journal, *Brewing Techniques*. More importantly, he offered himself in other venues as well, speaking regularly at brewing events around the country and contributing often to forums such as the Homebrew Digest.

But writing and speaking didn’t consume all of the time that George gave to brewing. He continued to homebrew and was a regular entrant in homebrew competitions far and wide. He routinely won awards at homebrew competitions all around the country and often came away with best-of-show honors as well.

I heard once (it seems from George himself, although on this point I can no longer be certain) that he relied on the comments he got from homebrew competition judges to help him evaluate the efficacy of different brewing techniques and the appropriateness of various recipe choices. So that was why, despite years of successful brewing and the accolades



In memorium: George Fix died March 10, 2002 from complications of cancer. As a result of his contributions, there is a little bit of George in every beer we brew.

that accompany a long history of publication, George still competed regularly—not because he had anything to prove to anyone, but because homebrew competitions were a part of his laboratory of brewing science. Nonetheless, George’s entries were so often seen that some folks measured their success by whether they bested George in a competition—and I’m sure that didn’t bother him one bit.

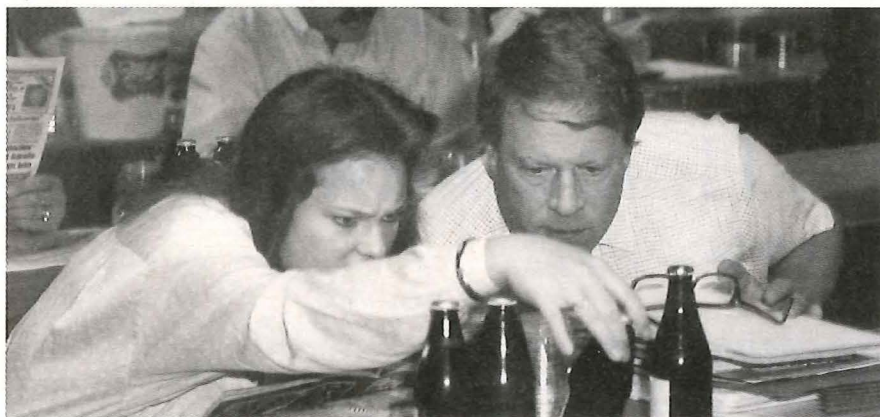
When George spoke to an audience, he had the relaxed appearance necessary among college professors (his real-life occupation), but the content he delivered was anything but casual. When George talked, listeners were to be prepared for a machine gun delivery of data as he zoomed from the narrow facts of his topic to a broad view of the brewing literature and then back to the details again for another particular datum that supported his point. His talks were not a stroll through the park but rather a sprint through busy traffic. He nimbly covered whatever intellectual terrain was nec-

essary to follow his topic wherever it went. At the end of his lectures, you knew you had just seen and heard all of the important research related to the topic at hand.

Despite the fact that homebrew audiences often harbor contrarians, I never saw anyone challenge George, much less argue with him. The best anyone could muster was a lucid question: How did the data he cited today reconcile with this particular data point over here? No matter how obscure the reference, George had an answer—and nine times out of 10 he had read the study being cited and remembered more about it than the questioner did.

Despite George’s formidable intellect, he was not a scholarly snob. He took all but the most patent of fools seriously and he accorded everyone respect for their efforts. George and I both spoke at the same programs a number of times through the years and I found that he listened carefully to what every speaker and questioner had to say. More importantly when his understanding outstripped that of another (which was often), he found ways to share his knowledge while still preserving the dignity of his fellow brewers. In this there are lessons for all who command knowledge, no matter how modest or great it may be.

George’s generosity was evidenced in other ways as well. One thing I have enjoyed doing for the past six or seven years is judging at the Great American Beer Festival®, and it was George who made that happen. Sometime in the mid-1990s, I saw George at one of the public sessions of the Great American Beer Festival and he asked me why I hadn’t been involved in the judging. When I explained that I wasn’t on the roster of accepted judges, he immediately declared that I should be and volunteered the necessary first step: a letter of endorsement. A year later I began serving as a judge for the festi-



George Fix and his wife Laurie prepare to judge some homebrewed beers at the 1987 AHA National Homebrewers Conference.

val. I must say that George and I didn't know each other particularly well in terms of time spent in personal conversations—we knew each other better from our respective talks and writings. But still he took the initiative to extend a helping hand when nothing required him to do so. That is the sort of thoughtfulness and generosity that stood behind the intellectual powerhouse for which George was so well known.

Greed can afflict those who accumulate intellectual capital the same way that it does those who hoard money. But when leading lights such as George practice generosity, not for effect but because it is a true and genuine part of their character, that generosity multiplies among their peers and their students and it becomes a part of the culture in a particular field. And so it is with George and homebrewing. He freely donated his skills to

homebrewing; he generously offered his knowledge to all comers. As a result of these substantial contributions, many in brewing possess a greater understanding of the art and science of beer. But the way he contributed also made a mark. His generosity, his openness to all participants in the homebrew scene was in itself a contribution of inestimable value. Through his comportment and his example, he helped to create for homebrewing an environment of open discussion and enquiry, an atmosphere of exploration and the acceptance of repeated discovery by the constantly arriving new generations of homebrewers. As a result, a big part of what is great about homebrewing in this era can be attributed to George. Clearly we owe him a debt that will never be repaid.

In closing, I raise a glass of beer to George Fix. Not just to toast him—which is an honor he greatly deserves—but to acknowledge that as a result of his influence on so many brewers there is almost certainly a little bit of George in every beer we drink.

Ray Daniels is the editor-in-chief of Zymurgy.



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Compelling Issues

Dear *Zymurgy*,

I have been receiving *Zymurgy* for more years than I would like to remember and Vol. 25, No. 1, Jan/Feb 2002, is one of the best to date. With good articles covering the spectrum from mild ales and stouts, to old ales and "Solera Ale," there was surely inspiration for novice and veteran brewer alike. This is the first time I have felt compelled to congratulate you on a job well done!

Sincerely,
W.C. Embrey
Bellvue, CO

Dear W.C.,

Thanks! That issue was so popular that we'd like to run the same stories again in every issue. Unfortunately, someone decided that we have to have NEW content every issue so we'll have to see if we can hit the mark again with different writers and different subjects. Keep reading and let us know how we are doing.

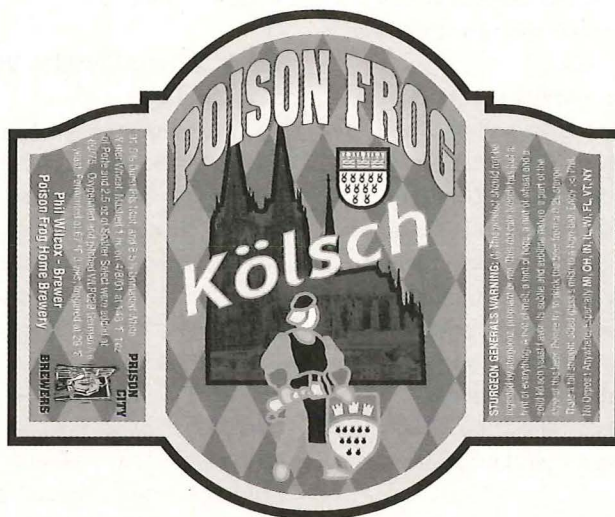
—Editor

No Bones About It

Dear *Zymurgy*,

Jan/Feb 2002's *Zymurgy* theme (dark beer from England) has gotten me wondering about something that I heard throughout college. One of my friends who is a vegetarian won't drink Guinness because she heard that animal bones are somehow involved in their brewing process. This sounds kind of bogus to me, but you never know. So I thought maybe one of you might be able to shed some light on this for me. THANKS!!

Julie Korowotny
Boulder, CO



The latest label from Phil Wilcox of the Prison City Brewers in that ancient walled city of Jackson, MI. To receive the electronic version of the Prison City Brewers Sentencing Guide, send Phil an email at piwilcox@cms.energy.com.

Dear Julie,

We've never heard of brewers using bones per se, but it is very possible that animal products of some kind may be used in brewing Guinness and other beers. Gelatin and isinglass are two animal-derived products that are commonly used to clarify beer. This stuff doesn't end up in the beer—it's merely a "process aid" and should either fall out of solution after it has done its job or be filtered out. This is especially true with a mass-produced beer such as Guinness—for the purposes of giving their product a very long shelf life, most big brewers sterile filter their beers these days, so any yeast, bacteria, or process aid gets completely stripped out. So, while animal products may be used in the modern production of Guinness and other beers, they are not going to be present in the final product anyway. Hope that helps to clarify things for you.

—Editor

In Search of a Better Boddy

Dear *Zymurgy*,

I loved the Jan/Feb issue with the information on beers from the British Isles. As I

grew up in sunny Manchester, I was particularly interested in the Boddingtons clone recipe and the article on mild ales. As a kid of 14 or 15 I started on Boddies (OK, I know that is young, but I always thought that puberty meant I could go in pubs!) and I remember it as a tangy, dry, bitter brew with a complex hop flavor. Over the years the link with Whitbread and other takeovers have given impetus to the marketing gurus and the level of bitterness and hop flavor has dropped considerably, much to the detriment of this fine brew. Now the focus is on the creamy head, which while interesting, is hardly a reason to drink the stuff. The "pub ale" is definitely more similar to the pale mild ale found throughout the Northwest of England. This is particularly ironic in the light of the supposed demise of mild ale, which is presumably much more popular than assumed in this different guise. This is also a trend with Guinness, Bass Ale, and other British exports to the US (but not Sam Smiths) where "drinkability" is a defining factor, and complexity and taste come second. Those aforementioned beers

are different in the British Isles, yet even over there they have become milder. Visitors to the UK, particularly to the Manchester area, should try some of the many different beers available from quite large breweries, such as Hydes (a superb light mild), Robinsons in the south and east of Manchester, Lees and Holts in the north of the city, Greenalls in the west, and Thwaites up in Lancashire.

I have been attempting a Boddies clone for years and here are some hints. Do not use crystal malt, add a dash of torrifed wheat, mash at a low temperature (<148° F or 64° C), hop well with Fuggles and Goldings and ferment at 65° F (18° C) or cooler with a good flocculating yeast. Boddingtons allows fermentation to last a week so the temperature must be fairly low. Prime with a minimum of sugar and drink it within a couple of weeks, as it quickly loses its freshness. Cheers, and thanks again for the great magazine.

Geoff Ashworth

(Who has 12-gallon casks of traditional ale and a pair of hand-pulled beer engines)

Dear Geoff,

Thanks for the inside scoop on Boddington's! I'm sure clone fans will appreciate the tips!

—Editor

(Who has a 12-gallon thirst and a mouth-watering desire for a hand-pulled beer after reading that letter.)

Credit Where Credit is Due

Dear *Zymurgy*,

As a member of the American Homebrewers Association, I receive your journal on a regular basis and I find it interesting to read, although the number of pages seem to have decreased drastically in recent times. I was very disappointed by your account on "UNC chemists figure out details of 'skunky beer' reaction," which appeared in the section "Brew News" on page 55 of *Zymurgy*, Vol. 25, No. 1, Jan/Feb 2002, as you reported only part of the real story. Indeed, the paper on "Mechanism for the lightstruck flavor of beer revealed by time-resolved electron paramagnetic resonance," which was pub-

lished in the highly rated *Chemistry-A European Journal*, 2001, Vol. 7, pp. 4553-4561, was co-authored by Colin Burns, Arne Heyerick, Denis De Keukeleire and Malcolm Forbes. Colin was a graduate student in Malcolm's research group, while Arne was a graduate student in my team. The project, which led to highly innovative results, was a collaborative effort between Malcolm Forbes (University of North Carolina at Chapel Hill) and myself (Ghent University, Belgium). Malcolm is an expert in the technique called time-resolved electron paramagnetic resonance, which allows detection of identify radicals. I myself have a long experience in hop chemistry and I am considered an authoritative person in the field (ca. 100 papers and three books on hop research). My contribution was the know-how on hop-derived beer bitter compounds (isohumulones). In fact, I delivered the hop-derived bitter compounds used in the study and I discussed essentially all the hop chemistry, as this field was new to Malcolm. Thus, only by joining complementary and interdisciplinary forces could the mechanism of the development of the 'skunky flavor' in beer be uncovered (for the first time ever!). I feel it, therefore, unfair that my name and my university was not mentioned in your review. The title should have been: "UNC and Belgian chemists figure out details of 'skunky beer' reaction"!

Yours,

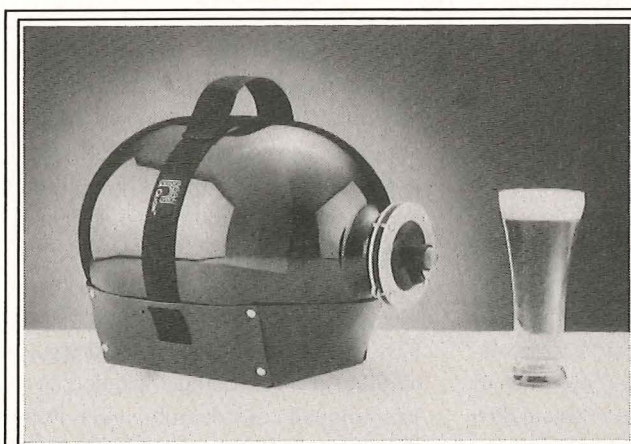
Prof. Dr. Denis De Keukeleire

Dear Prof. Dr. De Keukeleire,

Our most abject apologies for not giving the deserved credit to you and your University for the tireless research you have done on behalf of hop research and the brewing industry in general. We deserve to be boiled in humulone and flogged with freshly cut hop bines.

—Editor

Hey homebrewers! Do you make your own beer bottle labels? If so, send us a sample in color or black and white. Every issue, we run a few to make celebrities out of some of you. Provide us with your name, address and homebrew club name (if any) and we'll make sure to mention your name. Send labels to: Dave Harford, Magazine Art Director, Association of Brewers, 736 Pearl Street, Boulder, CO 80302. 



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BY GARY GLASS

As you sat back on your couch watching the Olympics this past winter, homebrew in hand, contemplating the insanity of aerial ski jumping or pondering the possibility of competing in curling while sober (don't be silly, of course it's not possible), perhaps your mind wandered a bit and you began to wonder what it would be like to homebrew in the land of Latter Day Saints. Not surprisingly, it is illegal to homebrew in the state of Utah, but don't let that fool you, there is plenty of good homebrew to be had there. If you don't believe me, check out the current standings in the Club-Only Competitions listed below, you'll see that the brewers of ZZ Hops of Salt Lake City are kicking some major butt.

So far, ZZ Hops, short for Zion Zymurgists Homebrew Operatives Society, has placed in three of the first four competitions of the current Club-Only Competition cycle. ZZ Hopper Mike Hahn took a first place in the California Common competition and a third place in the Belgian Wit competition, while fellow club members Mark Alston and Chris Wilkowske took first place in the Scottish Ales competition. Pretty impressive for a club that only has 10 to 15 regularly attending members!

Mark Alston who owns the Beer Nut homebrew supply shop in Salt Lake City says they do not do much to promote the club, preferring not to draw too much attention. Originally, the club held its meetings at a local brewpub, but the State Liquor Board took exception to the practice, forcing the club to hold its meetings at members' houses. Mark reports that just about all of the members bring samples of their own brews to each of the monthly meetings, and that there are several very good brewers in the club. Mike Hahn regularly sends his beers to competitions. Club members have thought about hosting a competition for Utah brewers, and even con-

sidered holding it across the boarder in Nevada, but have decided not to risk attracting the notice of the Utah State Legislature.

According to Utah state law, it is illegal to produce homebrew without a license. Past attempts to change the law have failed, but ZZ Hops is considering taking a more stealthy approach by getting a sponsor for a bill that would change the law to simply make it illegal for anyone under 21 years of age to homebrew.

The legality issue does not seem to be a major hindrance to the hobby though. Mark told me that business at the Beer Nut has grown steadily in the eight years since he opened the shop. The current Beer Nut mail list has around 3,000 brewers, all of whom have bought brewing supplies from the shop at least once in the last year—nice numbers indeed! And it's not like there is no competition, there are two other homebrew supply shops in the Salt Lake area, Art's Brewing Supplies and Mountain Brew, both within a few miles of the Beer Nut. Mark cites the state's restrictive beer laws, which limit draft beer and all beer not sold in state liquor

stores to a maximum of 3.2 percent alcohol, as a major reason for the success of homebrewing in Utah. "Being in a 3.2 state," says Mark, "that motivates a lot of people."

The members of ZZ Hops tend to make dark, hoppy, strong beers. At the shop, Mark often has brewers purchasing 12 or more pounds of malt extract for a single five-gallon batch. Limitations on alcohol in commercial beers is not the only reason for choosing particular styles to brew in

Homebrew Club of the Year Standings

Points	Club
13	ZZ HOPS
6	CRAFT
6	Foam on the Range
3	Brew Rats
3	Long Beach Homebrewers
3	Niagara Association of Homebrewers
3	Prairie Homebrewing Companions
2	Iowa Brewers' Union (IBU)
1	Pint and Pummel

India Pale Ale AHA Club-Only Competition

The May AHA Club-Only Competition is India Pale Ale. The competition host is Jeff Smith and the South Gasconade Brewing Society of Owensville, MO.

The style for the competition is India Pale Ale, Category 7. One entry of two bottles is accepted per AHA registered homebrew club. Entries require a \$5 check made out to AHA and an entry/recipe form and bottle i.d. forms. More information on the Club-Only Competitions and forms are available at www.beertown.org/AHA/Clubs/club-comp.htm. Please send your entry to:

S.G.B.S.
c/o Steve Adams
1104 W. Highway 28
Owensville, MO 65066

Entries are due by May 1, 2002. Judging is slated for May 4, 2002. Email for questions is jsx04@hotmail.com.

Upcoming 2002 AHA Club-Only Competitions Styles

Month	Style or Name	Cat.#	Host
May	India Pale Ale	7	Gasconade Brewing Society
August	American Lager	1	Beer Unlimited Zany Zymurgists
Sept/Oct	Strong Belgian Ale	18	Minnesota Homebrewers Association
Nov/Dec	Fruits & Veggies	21, 22	Dukes of Ale

More information on the Club-Only Competitions, forms and the schedule are available at www.beertown.org/AHA/Clubs/clubcomp.htm.

Salt Lake City, the hard water lends itself to dark and hoppy beers over lighter more delicate beers.

The 3.2 law does not mean that there is no good commercial beer available. Utah breweries regularly take medals at the Great American Beer Festival. They seem to be particularly formidable in the German-Style Schwarzbier category where Squatter Pub in Salt Lake took the gold and Uinta Brewing Co., also in Salt Lake, took the bronze in last year's competition. In 2000, Utah brewers swept the category. Squatters and Wasatch Brewing Co. have recently earned national attention for beer promotions that poke fun at Utah's non-drinking Mormon majority. Wasatch has been promoting

their Polygamy Porter with slogans such as, "Don't forget to bring a six pack home for the wives," and "Why Have Just One?" Advertising for Squatter's German-Style Pilsner, St. Provo Girl (think St. Pauli Girl), features a buxom blond, spokes model Alise Ingrid Liepnicks, in traditional German garb hocking the beer with the line, "I may be from Provo, but I'm no Saint."

With all of the hype around the Olympics in Salt Lake City, the members of ZZ Hops decided to lay low while the games were in session. They skipped the usual February meeting to allow members to catch some of the action or just stay as far away from the tourists as possible. Having the Olympics in town caused a major drop in

business for the Beer Nut as the out-of-towners weren't exactly thinking about homebrew and the locals were just trying not to get run over by the mobs of tourists. The slowdown in business gave Mark the opportunity to visit some of Salt Lake City's better restaurants and pubs, which were also dead as most visitors never had to leave the Olympic village.

So if you ever find yourself in Salt Lake City and are in need of some tasty homebrew, stop by the Beer Nut on South State Street, I'm sure Mark could help you out. Be sure to tell him Gary sent you!

Kilts & Schillings Scottish Ales Competition

The AHA thanks Greg Lorton and the Quality Ales & Fermentation Fraternity (QUAFF) of San Diego for hosting the Kilts & Schillings Scottish Ales Club-Only Competition held Feb. 2, 2002. This was the fourth of six competitions in the August to May 2001-2002 cycle, with points going toward the Homebrew Club of the Year trophy. Points are awarded on a six-three-one basis for the Club-Only Competitions and the first- and second-rounds of the AHA National Homebrew Competition. The club whose members have amassed the most points during the year is crowned the Homebrew Club of the Year.

Thanks to all of the club representative brewers who entered. There were 35 entries in the competition. Congratulations to the following winners:

1st Place:

Mark Alston and Chris Wilkowske of Salt Lake City, UT, Representing Zion Zymurgist Homebrew Operatives Society (ZZ Hops) with a Scottish Export.

2nd Place:

Jeff Brown of Long Beach, CA, Representing Long Beach Homebrewers with a Scottish Heavy.

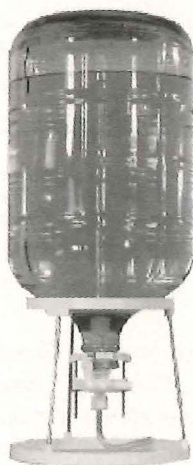
3rd Place:

Eric Armstrong of Ames, IA, Representing Iowa Brewers' Union (IBU) with a Scottish Export.

Gary Glass is the Project Coordinator for the American Homebrewers Association. 

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All AHA sponsorships include AHA membership and all of the benefits you currently enjoy, including your subscription to *Zymurgy*. We will also recognize your contribution on this page of *Zymurgy* and send you a certificate of appreciation for your brewhouse wall.

To become an AHA sponsor simply fill out the form and fax it back to 303.447.2825 or call membership services at 303.447.0816 or visit www.beertown.org. Thank you for considering sponsorship of the American Homebrewers Association.

Yours Brewly,

Paul Gatza

Director, American Homebrewers Association

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Charles B Green Klamath Falls, OR	Stuart Sutton Virginia Beach, VA
Carl Habekost Waterville, OH	Dan Tveite Elk River, MN
	What Ales You? La Crescenta, CA

Lifetime Members

Here is a list of new Lifetime Members and Lifetime members we omitted on previous lists:

Mark Emiley
Clearfield, UT

Kerry Skelton
Santa Rosa, CA

John Tallarovic
Des Plaines, IL

APRIL

18-20 Bluff City Brewers Homebrew Extravaganza, Memphis, TN, **AHA SCP**. 14th Annual Competition sponsored by the Bluff City Brewers. Deadline: 4/6-4/12. Fee: \$5. Awards Ceremony: 4/20. Contact: Jay Grabowski. Phone: 662-449-0493, 662-562-5015. Email: jgrabowski@aol.com. URL: <http://memphisbrews.com>.

19-28 AHA National Homebrew Competition, 8 Regional Sites in U.S. & Canada, **AHA SCP**. Do you have what it takes to be crowned AHA Homebrewer of the Year? The 1st round entry deadline is April 3-12, 2002. Judging takes place April 19-28. First, Second, and Third place winners in each category advance to the Second Round in June at the National Homebrewers Conference in Irving, TX. Deadline: 4/3-4/12. Contact: Gary Glass, 303-447-0816 x 121, 888-U-CAN-BREW, gary@aob.org, www.beertown.org.

20 Best of Philly & Suburbs 2002, Drexel University, Philadelphia, PA. Contact: Joe Uknalis. Phone: 215-233-6439. Email: birman@netaxs.com. URL: www.netaxs.com/~shady/hops/.

20 D.E.A. Challenge, Greenville, NC, **AHA SCP**. Sponsored by the Down East Alers, this homebrew competition is accepting all styles. Qualifying event for NCBOY (North Carolina Brewer of the Year). The 2nd Annual event is open to the public. Deadline: 4/17. Fee: \$6 for 1st, \$4 for additional. Contact: Brian Mentzer, 252-931-0960 - 252-321-6911, stinkeee@yahoo.com.

Apr 22-May 1 Upper Mississippi Mash-Out, Minneapolis/St. Paul, MN, **AHA SCP**. Sponsored by the Minnesota Home Brewers Association & the St. Paul Home Brewers, judging will be held on April 22-24 and April 29 - May 1. Deadline: 4/13-4/21. Fee: \$7. Awards Ceremony: 5/5 at the Summit brewery Ratskeller. Contact: Steve Fletty. Phone: 612-625-1048, 651-646-4384. Email: sfletty@umn.edu. URL: www.mnbrewers.com/mashout.

27 2002 Maltose Falcons Mayfaire, Los Angeles, CA. Deadline: 4/1-4/11. Fee: \$6. Contact: Drew Beechum. Phone: 818-766-0317, 818-544-2706. Email: drewbage1847@yahoo.com. URL: www.maltosefalcons.com/.

27 U.S. Open, Charlotte, NC. Deadline: 4/21. Contact: Marlond Meadows. Phone: 704-609-8549. Email: marlondmeadows@hotmail.com. URL: <http://hbd.org/cbm/usopen/index.html>.

Apr 29-May 4 Green Mountain Homebrew Competition, Burlington, VT, **AHA SCP**. The largest homebrew competition in Vermont and the third in the New England Homebrewer of the Year series. In addition to judging beer, mead, and cider styles we will award a best of show ribbon. Greg Noonan from the Vermont Pub & Brewery will choose a beer from the best of show round to brew at the pub. Deadline: 4/12-4/26. Fee: \$5. Awards Ceremony: 5/4. Contact: Anne D. Whyte. Phone: 802-655-2070. Email: mhc2002@hotmail.com. URL: <http://mashers.org/>.

MAY

3-20 Greater Montreal Homebrew Competition 2002, Montreal, Quebec, Canada, **AHA SCP**. Deadline: 4/15-4/30. Fee: \$5. Awards Ceremony: 5/20. Contact: Aaron Marchand. Phone: 514-274-3517. Email: aaron_marchand@hotmail.com.

4 AHA Big Brew, All Across The Planet. 5th Annual Celebrate National Homebrew Day with the American Homebrewers Association's 5th Annual Big Brew, a day of simultaneous brewing across the globe! Contact: Gary Glass. Phone: 888-U-CAN-BREW, 303-447-0816 x 121. Email: gary@aob.org. URL: www.beertown.org.

4 First Annual Central Massachusetts Brewoff and Swap Meet, West Boylston, MA. The West Boylston Homebrew Emporium will host the Brewoff and Swap Meet on May 4, 2002, at the Causeway Crossing Mall on Route 12, in West Boylston, MA. All brewers are invited to swap and sell their used wares and to make the Big Brew recipe for later judging. Participants may arrive at 8:30 a.m. for setup. Participation is free; however, donations will be accepted for a local charity. Contact: Bruce Lucier. Phone: 877-315-2739. Email: bruceluc@aol.com.

AMERICAN HOMEBREWERS ASSOCIATION

• KUDOS •

SANCTIONED COMPETITION PROGRAM
BEST OF SHOW

• JULY 2001 •

The Mountain Brewer Open, 90 entries - **Gordon Strong** of Beavercreek, OH.

• SEPTEMBER 2001 •

7th Annual Commander Saz's Interplanetary Homebrew Blastoff, 103 entries - **Steve Mitchell** of Grant, FL.
Pacific Brewer's Cup - **Drew Beechum** of Valley Village, CA.

• OCTOBER 2001 •

Tournament of Taste, 48 entries - **Ed Vandergrift** of Lee's Summit, MO.

• JANUARY 2002 •

Big Beers, Belgians & Barleywines, 37 entries - **John Landreman** of Colorado Springs, CO.
Meadlilenium V, 81 entries - **Preston Hoover** of Delton, FL.

• FEBRUARY 2002 •

Fur Rendezvous, 119 entries - **Pete Davis** of Anchorage, AK.
Coconut Cup 2002, 55 entries - **Denise & Scott Graham** of Miami, FL.
Kansas City Bier Meisters 19th Annual Regional Competition, 313 entries - **Mike Porter** of Lawrence, KS.
2001 High Plain Brewer of the Year - **Jeff Swearengin** of Tulsa, OK.

AHA SCP = American Homebrewers Association Sanctioned Competition Program

The Calendar of Events is updated weekly and is available from the Association of Brewers: info@aob.org or www.beertown.org on the web. To list events, send information to **Zymurgy** Calendar of Events. To be listed in the July/August Issue (Vol. 25, No. 4), information must be received by May 8, 2002. Competition organizers wishing to apply for AHA Sanctioning must do so at least two months prior to the event. Contact Kate Porter at kate@aob.org; (303) 447-0816 ext. 123; FAX (303) 447-2825; PO Box 1679, Boulder, CO 80306-1679.

4 India Pale Ale AHA Club-Only Competition, Owensville, MO, **AHA SCP**. Hosted by Jeff Smith and the South Gasconade Brewing Society of Owensville, MO. Open to all AHA registered club, one entry per club. Judging will be held May 4, 2002. The style is India Pale Ale Category 7. Deadline: 5/1. Fee: \$5. Contact: Jeff Smith. Phone: 888-822-6273. URL: www.beertown.org/AHA/Clubs/clubcomp.htm.

4 Titledown Open HB Competition #8, Green Bay, WI. Contact: Michael Conard. Phone: 715-758-2167, 920-388-2728. Email: mconard@itol.com. URL: www.rackers.org/.

5 National Homebrew Sake Competition, New York City, NY. Don't miss the first National Sake Competition at the Righa Royal Hotel in NYC. Entries should be sent to the Princeton Homebrew Supply store after 4/5. Contact: Bruce Hammell. Phone: 609-393-2946, 732-205-9303. Email: oudbruin@aol.com. URL: www.sakedigest@hbd.org.

11 Brewer's East End Revival's 6th Annual Brew-off, South Nesconset, Long Island, NY, **AHA SCP**. Long Island's largest homebrew club will be hosting the Brewer's East End Revival's 6th Annual Brew-off and Chili Cook-off Competition, AHABJCP sanctioned, 10a.m. to 6p.m. The public will be admitted for the BOS judging, gift raffle, and chili cook-off at 4p.m. The BOS winner will be able to brew their recipe at a local brewpub. Deadline: 4/22-5/4. Fee: \$6; 6th entry is free. Contact: Nicholas Edgington. Phone: 631-467-3677, 631-632-4716. Email: Saison1@mac.com. URL: <http://hbd.org/beer/>.

13-17 The 9th Annual Ales Homebrew Open, Regina, Saskatchewan, Canada, **AHA SCP**. Sponsored by the Ales Beer Club and open to all beer styles and mead. Deadline: 5/03-5/07. Fee: \$5. Awards Ceremony: 6/02. Contact: Barry Bremner. Phone: 306-924-0101, 306-721-5666. Email: bbremner@accesscomm.ca.

- 17-18 Amber Waves of Grain** - Western New York's 6th annual Homebrew Competition, Buffalo, NY. This Homebrew Competition has become the region's largest event of its kind - with more than 250 entries last year. All BJCP categories of beer, mead and cider will be judged. Judging will take place at Flying Bison Brewery, Buffalo, NY. The "Homebrewers Night Out" awards banquet will take place Saturday evening at the Pearl Street Grill and Brewery, Buffalo, NY. Fee: \$7. Deadline: 5/5. Contact: Becky Dyster. Phone: 716-877-8767. Email: ntbrew@localnet.com. URL: www.niagarabrewers.org.
- 17-19 Sunshine Challenge XIII**, Orlando, FL, **AHA SCP**. One of the top 3 Gulf Coast Circuit events and recently the largest Club HB comp. east of the Mississippi. This 3-day fun-filled event with activities like the FL Brewers Guild Reception, Poolside dinner w/ a band and pizza party, pub/room crawl, etc. Open to all BJCP categories. Awarded for 1st place: medallions, tap handles also a mounted trophy for BOS. Deadline: 4/22-5/06. Fee: \$6. Contact: Ron Bach. Phone: 407-696-2738. Email: bachian@juno.com. URL: <http://cfhb.org>.
- 18 20th Annual Oregon Homebrew Festival**, Corvallis, OR, **AHA SCP**. The oldest homebrewing festival in the Pacific Northwest, sponsored by Heart of the Valley Homebrewers. Friday we have a judge training seminar and Saturday after the judging expect a lunch, raffle and speaker. Ribbons for 1st, 2nd and 3rd in each category will be awarded, as well as BOS Award and a special award for a first time homebrewing festival entrant. Deadline: 4/20-5/11. Fee: \$6. Contact: Joel E. Rea. Phone: 541-758-1674, 541-752-4180. Email: brewbeer@callatg.com. URL: www.hotv.org.
- 18-19 Chico Silver Dollar Fair Homebrew Competition**, Chico, CA, **AHA SCP**. 6th Annual Homebrew Competition, sponsored by the Chico Homebrewers Club. Deadline: 4/15-5/4. Fee: \$5. Awards Ceremony: 5/22-5/27. Contact: Larry Rauen. Phone: 530-894-2624. Email: wetlands@prodigy.net. URL: www.saber.net/~jmaretti/chico_homebrew_club/.
- 18 Quad-States Brewers Challenge II**, St. Joseph, MO. Open to NE, IA, KS, and MO. Grand Prize winner will collaborate with the head brewer of the Belt Brewing Co. to produce their recipe as a seasonal special, mead and cider not eligible. All AHA styles judged. All bottles must comply with AHA guidelines and be received at Home Brew Supply or the Belt Brewing Co. Deadline: 4/22-5/15. Fee: \$7 for 1st, \$5 for add. Contact: Christopher Miller. Phone: 816-233-9688, 816-671-0101. Email: foamyexpress@yahoo.com. URL: www.geocities.com/foamyexpress.
- 18-19 Spirit of Free Beer (SoFB)**, Washington, DC. SoFB is an official qualifying MCAB event. Traditionally the total retail value of the three prizes for each of the 16 to 20 competition categories has been at least \$75.00, so there is a potential for a lot of loot. Anticipated grand prizes this year include brewing winning entries at local brewpubs, brewer-of-the-day at breweries, and more loot. Deadline: 4/27-5/11. Contact: Steve Marler. Phone: 202-693-4804. Email: marler-stephen@dol.gov. URL: www.burp.org.
- 19 Over The Mill**, Rochester, MI. Deadline: 5/1. Contact: Rex Halfpenny. Phone: 517-521-3600, 248-628-6584. Email: ibeerguy@aol.com.
- 24 10th Annual Haines Craftbeer & Homebrew Festival**, Haines, AK, **AHA SCP**. Homebrew Competition: 5/24. Beer Banquet - 5/24/02. Haines Craftbeer Festival - 5/25/02 beer tent & awards ceremony. Deadline: 5/1 - 5/22. Fee: \$10 for 3 entries, \$2 for each additional. Contact: Rachael Juzeler. Phone: 907-364-4684, 907-780-5868. Email: rjuzeler@hotmail.com; info@alaskan-beer.com.
- JUNE**
- 1 BUZZ OFF**, West Chester, PA. Deadline: 5/28. Contact: David Houseman. Phone: 610-648-4071, 610-458-0743. Email: housemanfam@earthlink.net. URL: <http://hbd.org/buzz/>.
- 2 13th Annual Big Batch Brew Bash**, Houston, TX. Homebrewers everywhere are called upon to take the challenge! Brew an American Barleywine to submit for judging by a panel of beer experts. This event is hosted by the Kuykendahl Gran Brewers and held at the Saint Arnold's Brewery in Houston. If your beer is chosen as best, Saint Arnold will offer you the opportunity to brew a really big batch of beer! There is no entry fee. 2 entry maximum. Contact: Czar Eric. Phone: 81-370-5915. Email: lochdanebrewer1@aol.com. URL: www.thekgb.org/4b2k2/.
- 8 N.E.W. Pale Ale Pour, Appleton, WI, AHA SCP**. The N.E.W. Pale Ale Pour is a homebrew contest open to pale ales. Judging will follow the current BJCP guidelines. Categories include English Pale Ale (4C), American Pale Ale (6A), and India Pale Ale (7). The contest coincides with the 3rd Annual Wisconsin Homebrew Bash on June 8, 2002. Deadline: 4/1-6/1. Fee: \$4. Awards Ceremony: 6/8. Contact: David Weaver. Phone: 920-739-1688. Email: dweavers@power-netonline.com.
- 8 The Dominion Cup**, Richmond, VA, **AHA SCP**. Ale and Lager (BJCP categories 1-24) competition sponsored by the James River Homebrewers. Deadline: 5/15-6/7. Fee: 6 1st, \$5 2nd, \$4 add. Awards Ceremony: 6/8. Contact: Mike Buddle. Phone: 804-272-5410. Email: brewman2@hotmail.com. URL: <http://JRhombrewers.org>.
- 9 Ninth Annual Marin County Fair Homebrew Competition**, San Rafael, CA, **AHA SCP**. Eleven Categories with a total of 36 subcategories. First prize for BOS includes \$50. Numerous prizes to be awarded including brewing supplies and equipment, dinners and lunches, gift certificates and beer! Deadline: 5/31-6/1. Fee: \$5. Contact: Jed Douglas. Phone: 415-898-1713, 415-509-5771. Email: jed@ucsbalum.com. URL: www.webperception.com/jdouglas/comp.html.
- 15 8 Seconds of Froth**, Cheyenne, WY, **AHA SCP**. Deadline: 6/7. Fee: \$5 for 1st, \$4 for add. Contact: Robert Brummond. Phone: 307-634-1924, 307-638-1148. Email: rcsjb@sisna.com. URL: www.vcn.com/~bbriggs/8seconds.html.
- 15 Bay Area Brew Off At Alameda County Fair**, Pleasanton, CA, **AHA SCP**. 15th Annual homebrew competition open to all homebrewers. For styles accepted visit the website. Deadline: 5/20. Fee: \$5. Awards Ceremony: 6/15. Contact: Bryan Gros. Phone: 510-336-3377. Email: babo@draughtboard.org. URL: www.draughtboard.org.
- 20-22 AHA National Homebrewers Conference - Big Texas Toast!** Irving, TX, **AHA SCP**. The Conference got so big we had to move it to Texas! The 2002 Conference will be held at the Wilson World hotel, home of the Bluebonnet competition, in the Dallas-Ft. Worth metro area. Contact: Gary Glass. Phone: 303-447-0816 x 121, 888-U-CAN-BREW. Email: gary@aob.org. URL: www.beertown.org.
- JULY**
- 12-13 8th Annual Commander SAAZ Interplanetary Homebrew Blastoff**, Melbourne, FL, **AHA SCP**. You don't have to be a rocket scientist to brew great beer, but it helps! The Spacecoast Associates for the Advancement of Zymurgy (SAAZ) invite all homebrewers to enter this year's competition. All BJCP categories and subcategories will be judged. Deadline: 6/24-7/9. Fee: \$6. Awards Ceremony: 7/13. Contact: Steve Mitchell. Phone: 321-724-1363, 321-984-1671 x 252. Email: samitchell@cfl.rr.com. URL: <http://home.att.net/~the81union/vsb/index.html>.
- AUGUST**
- 3-4 Michigan State Fair Homebrew Competition**, Detroit, MI, **AHA SCP**. Michigan's largest competition exclusively for Michigan homebrewed beer. Sponsored by the Ann Arbor Brewer's Guild. Deadline: 7/15-7/29. Fee: \$12. Awards Ceremony: 8/24. Contact: Jim Suchy. Phone: 734-722-9238. Email: MSFHOME-BREW@Hotmail.com. URL: <http://hbd.org/michigan>.
- 25 Western Washington Fair Amateur Beer Competition**, Puyallup, WA, **AHA SCP**. Deadline: 8/17. Fee: \$4. Contact: Western Washington Fair. Phone: 253-841-5017. Email: pat@thefair.com. URL: www.thefair.com.

Dogfish Head Aprihop Ale

"Sam Calagione forced me to drink fruit beer at the Poor Henry's fest: Dogfish Head Aprihop. Imagine, a ringingly hopped IPA with dried apricot. Yeesh, I thought, then sipped. It was all I could do to keep from falling to my knees. The hops and apricot combine in ways unimaginable, and they're amazing! Find this beer and marry it: one of the best I've had..."

—Lew Bryson, Ale Street News

In the words of Dogfish brewer Scott Bannester, Aprihop is "easily quaffable, well balanced, clean, and believe it or not, refreshing. It has an alcohol level of around 6 percent abv, and plenty of malt backbone with a huge apricot/hop nose."

Known for their unorthodox approach to brewing, Delaware's Dogfish Head Brewing began back in 1995 as owner Sam Calagione's dream to bring original beer, food and music to the resort community of Rehoboth Beach. When Dogfish Head Brewing & Eats opened that June, it was Delaware's first brewpub, and the smallest commercial brewery in America. Calagione was brewing for the pub on a homebrew-sized 12-gallon three-keg brewing system. While this obviously proved to be a lot of work, it also allowed Calagione to try out many different recipes and experiment with a wide variety of styles.

Dogfish Head maintains its eclectic, experimental image with non-beer products as well, such as Dogfish Head Conditioning Soap, made with the brewery's first beer, Shelter Pale Ale, and an ice cream made from concentrated Raison D'Etre ale wort.


With a growing number of converts and Calagione's reputation outlandish and sumptuous brewhouse offerings like Immort Ale and World Wide Stout at 18 percent, Dogfish Head began to get plenty of attention. In January of 2000, *Malt Advocate* named Raison D'Etre, brewed with



beet sugar, Belgian yeast and green raisins to a strength of 8 percent by volume, its Domestic Beer of the Year for 1999. Distribution moved out of the pub to a separate microbrewery, and Dogfish beers became available in 17 states nationwide.

In addition to their regular beers, (though no one could possibly think of their Midas Touch Golden Elixir, a blend of mead, beer and white wine and spiced with saffron as "regular") the brewery also does seasonal beers once a year. Aprihop is one of these. It joins the fruity, perfumy flavors of real apricots with the familiar pungency of American hops. Dogfish Head was kind enough to share the recipe for this unusual beer, so it is less of a clone; however, the recipe has also changed a bit each time it was brewed, so last year's Aprihop might have been quite different from this year's. In fact, a previous recipe apparently used less fruit, and a slightly different hop lineup, with Northern Brewer substituted for some of the early additions. (Chatting with staff at the brewery, this particular version of the beer got very high marks.) So please brew this beer with the same experimental spirit with which it was conceived. As homebrewers, we have the luxury of making smaller batches, just like Sam Calagione did when he started Dogfish Head. That means we can put in two pounds of apricots or 10! We'd be interested to hear your own interpretation of this beer.

For the last two years Amahl Turczyn has been the associate editor of *Zymurgy*. He has

recently moved to a new post with the University of Colorado, but we hope that his contributions to *Zymurgy* will continue. 

Dogfish Head Aprihop Ale

For five gallons (19 L)

- 8 lb English pale malt (3.63 kg)
- 26 oz fresh apricots (737 g)
- 21 oz torried wheat (0.6 kg)
- 9 oz dextrin malt (255 g)
- 0.25 oz chocolate malt (7 g)
- 0.35 oz Cascade pellet hops, 5.8% alpha acid (10 g) (60 min)
- 0.05 oz Columbus pellet hops, 15% alpha acid (1.4 g) (60 min)
- 0.35 oz Cascade pellet hops, 5.8% alpha acid (10 g) (40 min)
- 0.05 oz Columbus pellet hops, 15% alpha acid (1.4 g) (40 min)
- 0.5 oz Willamette pellet hops, 4.8% alpha acid (14 g) (20 min)
- 0.05 oz Willamette whole hops (1.4 g) (steep)
- 0.09 oz Cascade whole hops (2.5 g) (steep)
- 0.19 oz Saaz whole hops (5.4 g) (dry)
- 0.19 oz Chinook whole hops (5.4 g) (dry)
- Liquid English ale yeast
- Forced CO₂ to carbonate

Mash grains at 151-154° F (66-68° F) for 60 minutes. Pit and puree apricots, then simmer for 2 hrs. Add cooked puree to secondary. After second fermentation, alcohol will be about 6 percent by volume.

- Boil time: 90 minutes
- O.G.: 1.055 (13.5° P)
- Pitching temperature: 65° F (18° C)
- Fermentation temperature: 65° F (18° C)
- IBUs: 27 at 75% efficiency

Extract Recipe

Substitute 6 lb (2.72 kg) light dry malt extract for the grain bill. Prepare and add apricots as outlined above.

Toad Spit Revisited Again and Again

Dear Professor,

I have been homebrewing since the late 1980s and enjoy it thoroughly. I've owned your book, *The New Complete Joy of Home Brewing*, for many years and consider it my ultimate information source on this great hobby. I frequent one of the brewing newsgroups, namely rec.crafts.brewing, which I've found very fun and useful. I've seen a recurring question in this newsgroup regarding your recipe for Toad Spit Stout (page 206 in the edition that I have). The recipe calls for eight teaspoons of gypsum. To most experienced homebrewers, this seems like a very high amount of gypsum. Most other recipes with gypsum may call for three teaspoons at the most. Is it possible that this is a typo? If not, what is the reason for such a high amount of gypsum to be used in this recipe? Thanks for your time.

Cheers,
Jim Tully

Hello Jim,

That scalawag Papazian tells me that if he were to write the recipe today, he'd cut back on the gypsum pretty dramatically. But he also tells me that his observation is that this is one of the—if not THE—most popular recipes in the book. So he thinks that there's good reason for it being so popular. In his naivety in the early days of brewing, he may have stumbled upon a procedure (adding too much gypsum) that indeed enhanced a recipe formulation. So he says to tell people that if they really wish to know if there is any real difference, split a batch into two 2.5 gallon vessels to which you add four teaspoons of gypsum to one of them and one teaspoon to the other. See if YOU notice any difference. Then the question is answered

for you personally for all time—forever! Meanwhile, we know it certainly doesn't hurt to put eight teaspoons of gypsum into the recipe and perhaps that's what makes it so good. It wouldn't hurt to use less.

*Spit at a toad today,
The Professor, Hb.D.*

Better Kit Beer the Easy Way

Dear Professor,

The last two batches of beer that I have brewed turn out to have a cidery flavor. Both batches were Brewers Best preboxed kits. One was a wheat and the other an Altbier. I followed all of the instructions, made sure all of my equipment was sterilized and took hydrometer readings—which turned out to be very close to what was expected. On each of the batches I did a primary and secondary fermentation. I did not taste the

product between the primary and secondary fermentation, but I did prior to bottling—at which time there was a cidery flavor. The cider taste seems to grow stronger the longer the beer sits. Any thoughts on what I might be doing wrong? This is two straight batches that have not turned out. Thanks.

Stephen C. Wade

Dear Stephen,

You probably have not done anything wrong, but one thing that may help tremendously would be to use a good liquid yeast culture to ferment those kits. For those satisfied with the results of their kits, I'd say don't change a thing. Often times the dried yeasts that are supplied with kits are of quality that satisfies the beginning homebrewer. But for those who love kits and want to improve, there's the option of buying ready-to-go liquid yeast cultures that can make a remarkable difference in the simplest of recipes.

I'm assuming that in your case that there is no sugar (except for bottling sugar) as an ingredient in the kit. If so, you could replace the sugar with dried malt extract. But try the liquid yeast trick first.

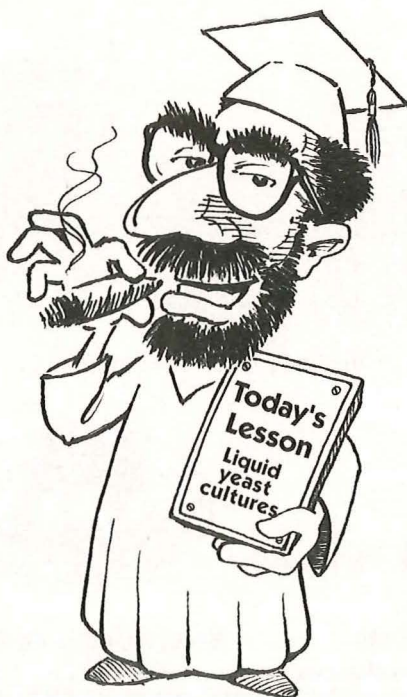
*You're on the way to better beer,
The Professor, Hb.D.*

Once again our good friend Michael Jackson has encountered brewing questions that he refers to the Professor. Here goes!

Brainless Barleywine

Mr. Beerhunter,

I'm at a bit of an impasse. I'm a home brewer and I'm planning on brewing a barleywine. I've got a good recipe and understand all the principles except one. How can one bottle condition (continued on page 62)



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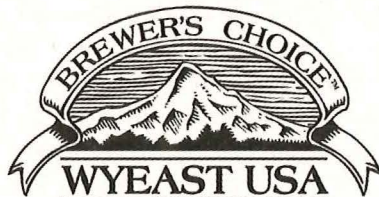
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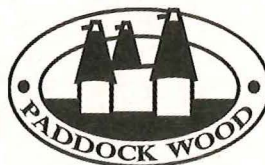


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BY FRANK TUTZAUER AND
THE SULTANS OF SWIG

Real Beer Brewed in Buffalo

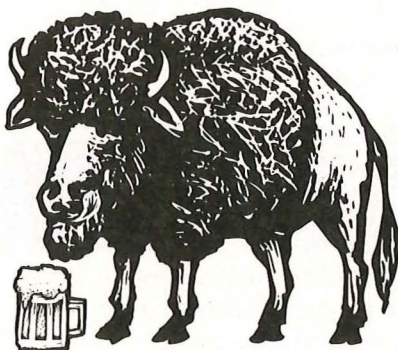
When *Zymurgy* began its Extract Experiments, the Sultans of Swig, of Buffalo, NY, were eager to participate. The club consists not only of seasoned, all-grain brewers, but also many members who brew award-winning beer using extracts and specialty grains. The experience of the six participating brewers ranges from occasional to 10 years, including competitions.

Although we knew we could produce great beer no matter what extract we were assigned, we nonetheless secretly hoped for the barest starting palette: unhopped, extra light spray malt so that we'd have no constraints whatsoever in formulating the brews. But when the actual extract arrived . . . it's canned syrup. Ok, no big deal. Syrup crimps us somewhat, but we can still brew good beer. Wait a minute the extract is hopped. And . . . o-o-h-h, it's Belgian. Looking at the ingredients we notice that . . . o-o-h-h, it's not even all-barley. And . . . o-o-h-h . . . it's spiced!

The extract used was Brewferm's newest offering, Gallia, a no-boil extract, which, when supplemented with 0.5 kg (1.1 lb) of sugar, is designed to make 12 liters (3.2 gallons) of a 1.055 amber Belgian ale. The ingredients of the kit are hopped barley and wheat malt extract, oat flakes and herbs—a far cry from the unhopped, light spray malt we had wished for, but one that would give us the chance to show off the Sultans' brewing skills by making a variety of tasty beers from a highly specialized extract.

From this kit, we brewed six different beers: a simple Belgian ale that altered the kit directions only modestly, a chocolate mild, Belgian and English pale ales, a Scotch ale and a dunkleweizen.

We evaluated the beers on two separate occasions. First, the brewers convened at Buffalo's only microbrewery, Flying Bison Brewing (www.flyingbisonbrewing.com), and evaluated the beers with Tim Herzog,



co-owner, head brewer, and certified BJCP judge. Second, we tasted the beers at a Sultans club meeting, whose members include a number of accomplished brewers and seasoned BJCP judges. Here's the run down on the beers we made.

Carol Tutzauer's Belgian Ale

(basic recipe)

Recipe for three gallons (11.4 L)

- 3.3 lb (1.5 kg) Brewferm® Gallia hopped extract syrup
- 0.5 lb (227 g) Belgian clear candy sugar
- 0.5 oz (14 g) German Hallertau pellets, 4.4% aa (45 min)
- 0.5 oz (14 g) Hallertau Mittelfruh pellets, 5.1% aa (1 min)
- Wyeast 3787 Belgian Trappist, yeast cake of a previous five gallons (19 L) batch
- 2.0 oz (57 g) corn sugar (priming)

Brewing Procedure

Dissolve extract and sugar in three gallons (11.4 L) hot water. Boil 50 minutes, adding hops as shown. Chill, collect 2.5 gallons (9.5 L) wort and top up to three gallons (11.4 L). Pitch onto yeast cake.

Fermentation

Primary eight days, in glass, at 69° F (21° C). Rack to secondary and ferment an addi-

tional eight days. Bottle with corn sugar boiled in one cup (237 mL) water.

- OG: 1.044 (11.0° P)
- FG: 1.013 (3.3° P)

Tasters' Comments

As advertised; appropriate to style. Very nice head. Clear, medium amber color, with distinct coriander nose and flavor. Fairly light body. Noticeable aroma from yeast, but not overwhelming. Specialty malts would add character and body.

Chris St. Mary's Chocolate Mild

Recipe for three gallons (11.4 L)

- 3.3 lb (1.5 kg) Brewferm® Gallia hopped extract syrup
- 1.0 lb (0.45 kg) Munton's chocolate malt
- 1 oz (28 g) East Kent Goldings pellets, 5.9% aa (60 min)
- White Labs WLP002 English ale yeast, no starter
- 4.0 oz (114 g) dried malt extract (priming)

Brewing Procedure

Steep chocolate malt in hot water, rinse and add runnings to kettle. Dissolve extract and top up to three (11.4 L) gallons. Boil 60 minutes. Chill, add to fermenter, and top up to three (11.4 L) gallons. Pitch yeast.

Fermentation

Primary eight days at 70° F (21° C) in glass. Rack and ferment an additional seven days in glass. Prime and bottle.

- OG: 1.045 (11.2° P)
- FG: 1.018 (4.6° P)

Tasters' Comments

Nice head, great retention. Opaque brown color. Body appropriate for style.

Spices do not interfere. Heavy, bitter, chocolate malt flavor. Two to three ounces of chocolate would have been plenty for a mild, but a tasty beer nonetheless.

Frank Tutzauer's Dunkelweizen

Recipe for three gallons (11.4 L)

- 3.3 lbs. (1.5 kg) Brewferm® Gallia hopped extract syrup
- 1.0 lb. (0.5 kg) Munton's wheat dry malt extract (55% wheat; 45% barley)

- 2.0 oz. (57 g) German caramel wheat malt (50-70° L)
- 0.5 oz. (14 g) German Hallertau pellets, 4.4% aa (45 min)
- 0.5 oz. (14 g) Hallertau Mittelfruh pellets, 5.1% aa (1 min)
- Wyeast 3068 Weihenstephan Weizen yeast in 17 oz. (500 mL) starter
- 2.0 oz. (57 g) corn sugar (priming)

Brewing Procedure

Crack the wheat malt and steep in 145-

165° F (63-74° C) water for 30 minutes. Rinse with hot water and add runnings to brew pot. Dissolve the extracts in the water and top up to 2.75 gallons (10.4 L). Boil for 45 minutes, adding hops as shown and collect just over two gallons (7.6 L) of wort. Chill, top up to three gallons (11.4 L) and pitch entire yeast starter.

Fermentation

Primary fermentation eight days in glass at 69° F (21° C). Rack to secondary and ferment an additional eight days. Bottle with corn sugar boiled in one cup (237 mL) water.

- OG: 1.053 (13.1° P)
- FG: 1.014 (3.6° P)

Tasters' Comments

Caramel, amber color. Could be deeper for style. Cloudy; appropriate for weizen. Rich head. Banana and bubblegum in nose, with hints of cloves and vanilla. Dry spiciness from coriander in the aftertaste dries out the finish. Medium body. Could be a touch sweeter for style.

Jim Johnson's English Pale Ale

Recipe for three gallons (11.4 L)

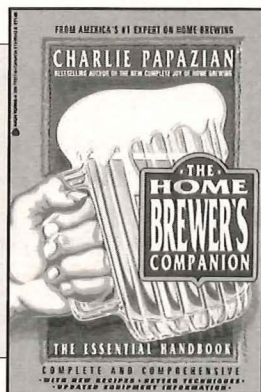
- 3.3 lb (1.5 kg) Brewferm® Gallia hopped extract syrup
- 3.0 lb (1.4 kg) U.S. Munich (8-12° L)
- 0.25 lb (113 g) English Crystal malt (50° L)
- 1 oz. (28 g) East Kent Goldings whole hops, 5% aa (60 min)
- 0.5 oz (14 g) East Kent Goldings whole hops, 5% aa (15 min)
- 0.25 oz (7 g) East Kent Goldings whole hops, 5% aa (2 min)
- Wyeast 1056 American Ale (4th generation repitch, 0.5 gallons (1.8 L) slurry)
- 4 PrimeTabs per 12-oz. bottle (priming)

Brewing Procedure

Mash grains at 150° F (66° C) until converted. Sparge, add runnings to kettle, boil 30 minutes. Shut off heat, dissolve extract in kettle, and top up to 4.5 gallons (17.0 L). Boil an additional 60 minutes, adding hops as shown. Chill, collect three gallons (11.4 L) in fermenter, and pitch yeast.

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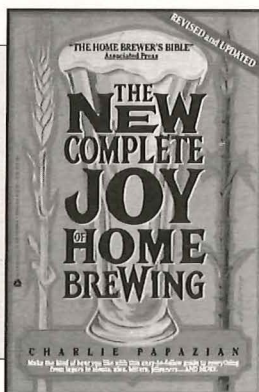


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Fermentation

Primary seven days in glass at 67-68° F (19-20° C). Rack, and ferment an additional five days in glass at 66° F (19° C). Bottle with PrimeTabs.

- OG: 1.056 (13.8° P)
- FG: 1.012 (3.1° P)

Tasters' Comments

Clear, deep amber color, with light tan head. Great retention. Nice crisp hop bitterness. Some pineapple in nose, probably from stressed yeast. Perhaps use Wyeast No. 1099 Whitbread, instead of 4th generation 1056. Some additional malt would be nice to increase finishing gravity.

Pete Gottfried's Belgian Pale Ale

Recipe for three gallons (11.4 L)

- 3.3 lb (1.5 kg) Brewferm® Gallia hopped extract syrup
- 1.5 lb (0.7 kg) Belgian pale ale malt
- 0.5 lb (227 g) U.S. Munich malt
- 0.5 lb (227 g) Belgian caramel malt
- 0.25 lb (113 g) Belgian biscuit malt
- 0.5 oz (14 g) Styrian Goldings pellets, 4% aa (30 min)
- 0.5 oz (14 g) Hallertau Mittelfruh pellets, 5.1% aa (15 min)
- Wyeast 1762 Belgian Abbey II in 17 oz. (500 mL) starter
- 4 oz (113 g) dried malt extract (priming)

Brewing Procedure

Mash grains at 152° F (67° C) in one gallon (3.8 L) water for 60 minutes. Sparge with hot water, collect runoff, top up to 3 gallons (11.4 L), and boil 60 minutes, adding hops as shown. Chill, add to fermenter, top up to 3 gallons (11.4 L) and pitch yeast.

Fermentation

Primary fermentation seven days at 68° F (20° C) in glass. Rack and ferment an additional seven days. Bottle with dried malt extract.

- OG: 1.054 (13.3° P)
- FG: 1.014 (3.6° P)

Tasters' Comments

Amber beer, good head retention. Cloudy. Sweet, caramel notes in the nose.

Thin body. Perhaps use Wyeast's Trappist yeast (3787) instead of 1762 (which likes a higher original gravity and leaves a thinner body and drier finish).

Paul Jackson's Scotch Ale

Recipe for three gallons (11.4 L)

- 3.3 lb (1.5 kg) Brewferm® Gallia hopped extract syrup
- 1.25 lb (0.6 kg) Munton's extra light dried malt extract
- 2 oz (57 g) Belgian wheat malt
- 3 oz (85 g) Baird's peat malt
- 3.0 oz (85 g) Baird's brown malt
- 1.0 oz (28 g) Munton's chocolate malt
- 5.0 oz (142 g) Munton's crystal malt (60L)
- 5.0 oz (142 g) Golden Promise
- 10.0 oz (283 g) Munton's mild ale malt
- 1.0 oz (28 g) Chinook whole hops, 12% aa (60 minutes)
- 0.5 tablespoons (7 mL) Irish moss (15 minutes)
- 3.6 gallons (13.6 l) natural spring water
- Wyeast 1728 Scottish Ale, pitchable tube, no starter
- 4.0 oz (114 g) Munton's extra light dried malt extract, boiled in 2 cups (473 mL) water (priming)

Brewing Procedure

Steep grains at 120-150° F (49-66° C) for 45 minutes in spring water. Rinse with 0.5 gallons (1.9 L) of 150° F (66° C) spring water. Add to kettle, dissolve extracts, and top up to 3.6 gallons (13.6 L). Boil 60 minutes, adding hops and Irish moss as shown. Chill, collect three gallons (11.4 L) and pitch yeast.

Fermentation

Primary six days in glass at 60° F (16° C). Rack, and ferment an additional seven days in glass at 60° F (16° C). Bottle with dried malt extract.

- OG: 1.066 (16.1° P)
- FG: 1.014 (3.6° P)

Tasters' Comments

Red-brown color with good head retention. Assertive American hop nose with noticeable, biscuity malt backup. Hops and malt come through in flavor, too. Smoke character from the peat malt. Brown malt

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and Chinook hops in finish. Hopheads rejoice; others cut back!

Conclusion

The extract held up nicely across the various styles of beer brewed in this Extract Experiment. The brewers, judges and club members all felt this to be a high quality extract. Some characteristics of the extract include a distinct spiciness, particularly of coriander, which went very nicely with some styles, was not immediately noticeable in other styles, nonetheless contributed to a dryness in the finish. All of the beers had excellent head retention, which we believe to be a characteristic of the wheat component of the extract. We also felt that Brewferm's Gallia hopped extract contributed distinct hop bitterness to the brews, more so than other hopped extracts would have. Final verdict: Thumbs up to Brewferm for their new Gallia extract. Can we do this again?

Frank Tutzauer is an associate professor of communication at the University of Buffalo. He has been homebrewing since 1991, and belongs to the Buffalo based Sultans of Swig where he is Grand-Poobah-in-training. He is a hop head.

AHA BOARD OF ADVISORS ELECTION

Your AHA Board representatives have a very direct impact on the direction of your Association. Please cast your vote today!



Candidate Bios

(please see www.beertown.org for full candidate statements)

Scott AbeneEast Kingston, NH

I am a brewer. I am often outspoken. I am a teacher and I am a student. I want to keep brewing free on the web and help to assimilate and transfer knowledge to a new generation of homebrewers throughout the world. I would like to see the AHA become at least a little of what every homebrewer out there wants it to become. I would like to think that I may be able to achieve this success with the backing of other homebrewers once I am elected. It is my goal to be a voice and spokesperson for those who feel that they are not being heard in the current surroundings. Together we can all be a powerful force that can make laws against homebrewing change as well as teach each other how to learn.

Ed BuschHillsborough, NJ

I have been homebrewing since 1981 and making mead since around 1984. In 1985, I took first place in still mead at the National Homebrew Competition. In 1991, I got homebrewing legalized in New Jersey, an accomplishment for which I was honored with the 1992 AHA Recognition Award and a write up in the *New York Times*. I have served as president of the Mid-Atlantic Sudzers & Hoppers homebrew club. I served on the AHA Board of Advisors for 11 years, and served as Chair of the Board for two years.

Steve FordOverland Park, KS

I've been a homebrewer for more than nine years and am currently a National ranked judge in the BJCP program. I have been an active member of the Kansas City Bier Meisters for almost as long as I've been brewing. I've served as president, vice-president (current) and secretary of the Bier Meisters. I've edited the club's newsletter, served as the Bier Meisters competition chairman for three years and am usually involved in one of the club's standing committees. I currently serve as KCBM's webmeister. I also never hesitate to offer my advice and assistance to new faces in the local brewing community.

Steve JonesJohnson City, TN

My name is Steve Jones and I am a homebrewer. My beer experience began back in the early '70s when I was in the Navy. Never having really acquired a taste for American beers in high school, I developed a fondness for English ales and was spoiled forever. I didn't get started homebrewing until 1995, and after a year or so I became hopelessly immersed in the hobby, at least according to my wife of 26 years. I've brewed most of the official styles of beer, and some not so official, and have been quite happy with my success. I've been a member of our club for 6 years now, serving as president for three years and initiating some programs that still go on today, including monthly competitions, judge training, flavor recognition sessions, yeast banking, and others. I've been an AHA member for over five years, and I've been a site coordinator for Big Brew since its inception. I am also the AHA liaison for our area. I've helped to initiate action to orga-

nize and teach beginning homebrewing classes, thankful for the fact that I got good information when I started out, and hoping to pass that advantage on to others. I also developed and maintain our club's website for the purpose of disseminating information about our club and providing easy access to web based information about brewing. I was greatly honored to receive the AHA's Homebrewer of the Year award in 2001, and to have my winning recipe chosen for Big Brew this year.

David LogsdonOdell, OR

Homebrewing provides great opportunities for people with passion for beer. I have committed my professional career to the improvement of homebrewing, and remain an avid brewer exploring different styles and opportunities. I continue to help and educate brewers with questions or problems, volunteering time for speaking and participating in homebrewing activities. I hope to continue my 20 years of membership in the American Homebrewers Association, as your elected board advisor. I will donate my time to improve the AHA to the benefit of the members, and make your participation a valuable asset to your brewing. Take this opportunity to get more from the AHA - and vote!

Rob MolineAmes, IA

Registered Nurse, New South Wales, Australia, 1979, Homebrewer 1988. Member North Florida Brewers League 1989, Founder Savannah Brewers League, Savannah, GA., 1993, HB Shop Operator, Mill Bakery Eatery and Brewery, Savannah, GA., 1993, Assistant Brewer, Little Apple Brewing Company, Manhattan, KS, 1994, Member Little Apple Brew Crew, Manhattan, KS., 1994, Head Brewer, Little Apple Brewing Company, Manhattan, KS, 1995, Silver Medal, Inaugural World Beer Cup, Barleywine, 1996, Gold Medal, GABF, Barleywine, 1996, Gold Medal, World Beer Championships, Barleywine, 1997, Special Scholarship, Siebel, 1998, Recipe for Inaugural Big Brew, 1998, Assistant Brewer, Court Avenue Brewing Company, 1998, Founder, Ames Brewers League, Ames, Iowa, 1999, First Elected Member of the AHA BOA, 1999, Internet Technical Applications Consultant, Lallemand, 1999, Head Brewer, Court Avenue Brewing Company, 2001, Dreamer/Facilitator, Lallemand Scholarship, Secretary AHA BOA, Revisor of ByLaws, Member AHA, IBS, MBAA, Jethro Gump. Being a member of the Board has to be about giving something back....The More I Know About Beer, The More I Realize I Need To Know More About Beer!

Alberta RagerLenexa, KS

I have been and continue to be instrumental in the grassroots movement of the AHA as a current member of the Board of Advisors. A homebrewer since 1980, I am a founding member of the Kansas City Bier Meisters and a National BJCP Judge. My diverse involvement in the homebrewing community includes: AHA National Conference Coordinator, NHC Site Director, AHA Liaison, AHA Retailer, organizing

committee for the Bier Meisters' annual competition, initiating the Mid West Brewer of the Year, Co-Director of the BJCP, and an AHA National Conference presenter. As an elected member of the AHA Board of Advisors, my goals include: continuing democratization of the AHA, developing a relationship between the AHA and the IBS, improving our web presence, adding value to AHA membership, maintaining the "New" quality of "Zymurgy," and involving the membership in AHA programs. I am excited about homebrewing, the rewards and challenges it provides as an art and science, and the friendships developed within such a diverse group of individuals.

Jeff Renner Ann Arbor, MI

As an avid homebrewer for nearly 30 years, AHA member for 22 years, BJCP judge for 11 years, charter member of Ann Arbor Brewers Guild for 16 years, and an active participant in HomeBrew Digest and other lists, I am in touch with homebrewers and their interests and can represent them well on the BoA. I have spoken at several national and regional homebrewing conferences in the U.S. and Canada, and have written several brewing articles in *Zymurgy* and *Brewing Techniques*. I want to continue the board's efforts to make the AHA more relevant to homebrewers so that all homebrewers will want to join for its benefits. My background also makes me well suited to be an ambassador for homebrewing to the community at large.

Bob Rescinito Oklahoma City, OK

I've been homebrewing for about eight years. I am an active member of the High Plains Draughts in Oklahoma City. I am an instructor with the FAA Academy in OKC. Educating new brewers and bringing new members into the fold is my primary goal as an AHA Board member. Thank you for your vote!

Phil Sides, Jr. Silver Spring, MD

I have been homebrewing for approximately seven years and am very active in several homebrew clubs. My recent homebrewing involvement includes: President 2001, Brew Free or Die in New Hampshire; Active Member, Brewers United for Real Potables (BURP) in Washington, D.C., Boston Wort Processors, Seacoast Homebrews (NH) and others; BJCP National judge, exam grader, exam proctor, member - Continuing Education Committee; Feature Writer, for the *Brewing News*-owned *Mid-Atlantic Brewing News*; Online Publisher, of MABN's *Hop Tips* newsletter; Associate Editor and Feature Writer, *Yankee Brew News*; Best of Show winner, MCAB III, 2001, Belgian Witbier.

Election Guidelines:

Read the statements, see www.beertown.org/AHA/ for full candidate statements. Vote online at www.beertown.org/AHA/ or photocopy the ballot (that way you don't have to cut a piece out of *Zymurgy*). Vote for five (5) candidates by marking the box next to the candidates' names.

Fill in your name and membership number in the appropriate place. If you do not know your member number, or would like to become a member, call us at 888-822-6273 or email info@aob.org. Sign your ballot.

Mail completed ballots to: American Homebrewers Association, Attn: Gary Glass PO Box 1679, Boulder, CO 80306-1679; or fax to: 303-447-2825 or vote online at www.beertown.org/AHA/. Ballots must be postmarked no later than May 15, 2002. Only one ballot per member will be accepted.

Vote Now!

American Homebrewers Association 200 Board of Advisors Election OFFICIAL BALLOT

Select the five (5) candidates you feel are best qualified to serve on the AHA Board of Advisors.

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| <input type="checkbox"/> Ed Busch | <input type="checkbox"/> Alberta Rager |
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| <input type="checkbox"/> Steve Jones | <input type="checkbox"/> Bob Rescinito |
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**BALLOTS MUST BE
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Completed ballots will serve as additional entries in the drawing for the Lallemand Scholarship to the Siebel Institute. The drawing will take place on June 22, 2002 at the National Homebrewers Conference in Irving, TX.



Spain Bans Public Drinking in the Streets

The Spanish government will prohibit the consumption of alcohol on the street, Interior Minister Mariano Rajoy said Tuesday. Rajoy was speaking at the inauguration of a congress on young people and alcohol in Madrid. The government wants to tackle the social phenomenon known as the "botellon,"

from the word "botella" or bottle, which refers to large numbers of teenagers gathering to get drunk



on squares and in parks at night. Half a million young people are estimated to drink outside at weekends in the Madrid region. The phenomenon has spread all over the country, and studies indicate that 40 percent of Spaniards aged 15 and 29 drink alcohol every weekend. City residents have staged demonstrations against the youngsters who smash bottles against walls, cover buildings with graffiti, urinate on the street and generally raise a ruckus, preventing people from sleeping. The government would also seek to restrict the sale of alcohol to young people, who should not be able to buy it before their 18th birthday, Rajoy said.

Ohio Lawmaker Proposes Lifting State's Alcohol Limits

Ohio lawmaker Jim Trakas (R) has proposed raising the state's limit on the alcoholic strength of beer brewed and consumed there. Ohio currently limits beer to 6 percent alcohol by weight, and Trakas would boost that to 12 percent. Regulation of beer strength varies from state to state; for example, in Utah and Oklahoma, brewers are limited to making beer that is 3.2 percent alco-

hol by weight or less. Most states surrounding Ohio do not have any such restrictions, so breweries within that state often feel discriminated against. Craft brewery Great Lakes Brewing in Cleveland feels pressure from foreign breweries and neighboring state breweries alike. There is the worry by state officials that beer drinkers would abuse the freedom to enjoy stronger beers, but Great Lakes founder Patrick Conway thinks that the craft beer consumer who enjoys his brewery's products is more sophisticated than that. "People who would drink a more full-bodied, higher alcohol beer would be the kind thinking about the product, not abusing it," he was reported as saying. Opponents are already lining up to fight the measure. "People will focus on that beer to get a higher kick, but you also have the problem that other brewers may come to town and say 'Why can't our mainstream beers have the same high octane?' and that will multiply the problem," said State Rep. Ed Jerse, (D-Euclid). A vote is expected this month.

Miller, SAB and Scottish & Newcastle May Merge

Several reports have surfaced recently hinting that the world's fifth, sixth and seventh largest brewers, South African Breweries, Miller Brewing Co. and Britain's Scottish & Newcastle, respectively, may soon merge. The combined conglomerate would be the world's biggest brewer, larger even than Anheuser-Busch. As of this writing, the deal could be finalized as early as this spring according to the *Milwaukee Journal*. Interbrew has also been interested in a merger with SAB, but has not carried through with the deal. If the merger does take place, no one is currently speculating on the name, however Miller's headquarters will probably remain intact.

Auto Siphon Device Keeps You from Sucking

The Simple Siphon Plus is basically a one-way valve on the end of a six-foot length of half-inch internal diameter vinyl tubing. To get the flow started, you submerge the device in the fermented beverage to be siphoned, and shake it up and down. It takes a little while to develop the necessary dexterity to do this efficiently, but what you are doing is allowing liquid to pass upwards through what is essentially a one-way valve. When you get enough in the tubing, the siphon will start. The Simple Siphon is made of copper, with a glass marble inside to check the reverse flow, so it is perfectly safe to use with mild acids like beer, wine, sanitizers, etc. Flow rate is not as fast as it would seem with 0.5 inch tubing, since the valve slows down the flow somewhat . . . still, the manufacturer claims a rate of 3.5 gallons per minute. A tube clamp is also available to slow down transfer rates if necessary. The Simple Siphon can also be ordered with an attachable filter that is primarily designed for cleaning aquariums . . . but the filter may also hold some use for brewers of fruit and spice beers for separating clean fermented product from primary fermenter debris during transfer. visit www.simplesiphon.com or e-mail simplesiphonplus@earthlink.net.



Schoolteacher Gary Steinel Named 2002 Beerdrinker of the Year

In the finals of the national Beerdrinker of the Year competition at the Wynkoop brewpub in downtown Denver, a 49-year-old high school (continued on page 58)

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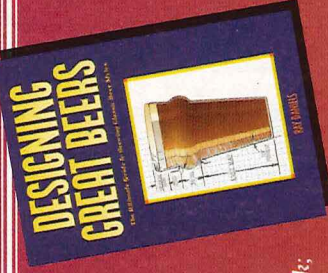
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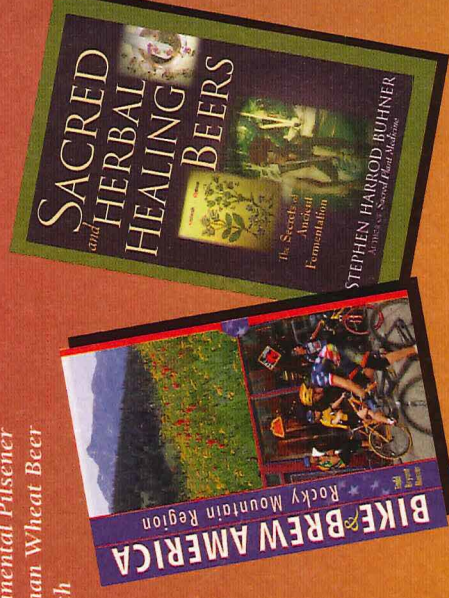


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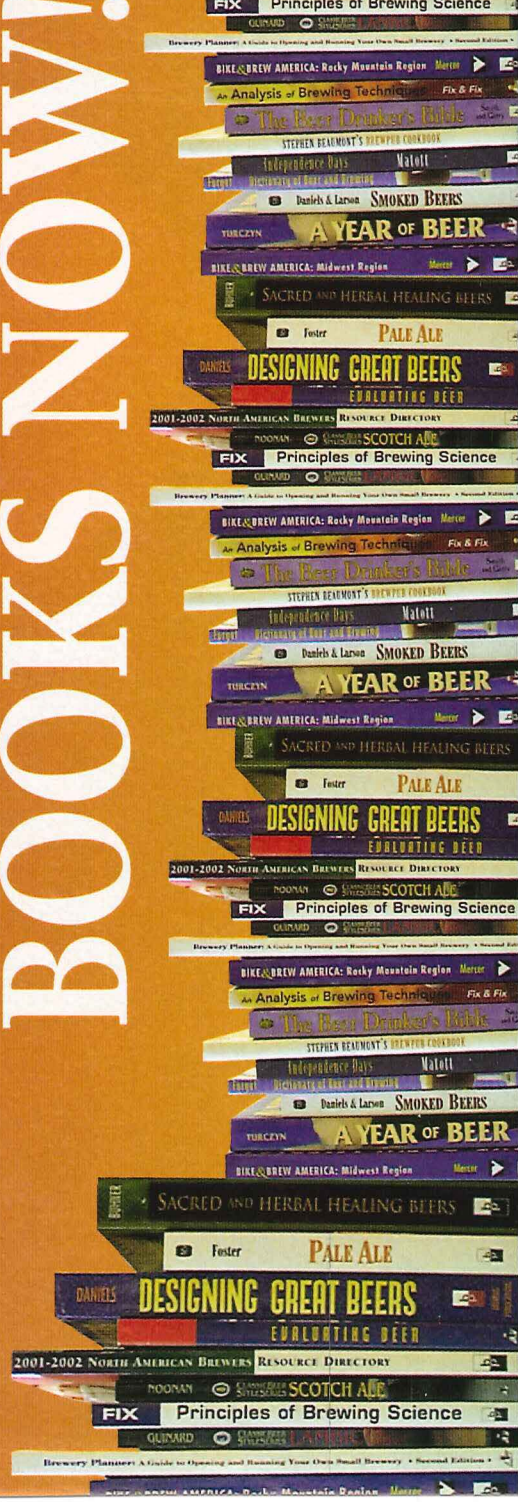
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gets its name—that flourished for
over six centuries before barely

Cloudy, With A Chance For Haze:

The History and Brewing Techniques Of Belgian Witbier

by Jeff Sparrow

avoiding extinction. The brewing process has a few wrinkles to pique the curiosity of the adventurous brewer but the truly traditional methods of producing a wit came about for a variety of reasons that might be a surprise to many people. To satisfy my appetite for wit, I made a pilgrimage to the city known for its wit beer.

The White City

The place, today, that is synonymous with witbier is the tiny village of Hoegaarden, (pronounced "who-garden"), primarily due to its modern contributions to the style. It is situated in Flemish Brabant, about an hour east of Brussels near the confluence of the Nermbeek and Grote Gete rivers. The first known brewery in this town dates to 1318. According to texts from the now famous Hoegaarden brewery (to be discussed later) the Begarden fathers settled in the region during the 15th century and, like many others, began to brew a turbid beer. Early records of towns in the Hansa league documented guilds for "red" and "white" beers and that they were important items of trade. Wit is often considered a remnant of a broader tradition of fresh, cloudy, low alcohol, sourish beers.

Like many towns in Belgium, brewing flourished in Hoegaarden and at the begin-

ning of the 18th century the village had 12 breweries—brewing commerce peaked during the 19th century when it boasted 35 breweries and 200 taverns compared to a population of only 2,000. In spite of this proliferation of breweries the success of the White and Peeterman beers of Louvain, a key university town north of Brussels, were greater than the White of Hoegaarden, which had a mostly local following. The success of Hoegaarden breweries continued greatly due to a tax-free status granted by the Prince-Bishops of Liege.

This began to change during the end of the 18th century when new taxes altered the methods of many Belgian brewers. A few years later, in 1822, a Dutch law was introduced (and subsequently kept by an independent Belgium) that fixed a duty upon the capacity of the mash tun. This led to each brewery installing as small a mash tun as possible to produce its wort and fill it as full of grist as possible or, as George Johnson (a British brewer who spent considerable time in Belgium) put it, "The Belgian brewing world concentrated on the problem of getting a quart into a pint pot." One reason, therefore, for the turbidity of the wort was that very little liquor could fit into the mash tun. This law did, however,

make a provision for raw grains not directly mashed with the malt in the mash tun. This apparent advantage to the use of raw grains helped lead to some unique Belgian brewing practices.

The two World Wars brought serious decline to the breweries of both towns and with the closing of the Tomsin brewery of Hoegaarden in 1957 the book was apparently closed on one of the unique beer styles of the world. This would have been true if not for a milkman named Pierre Celis who had once worked at Tomsin. In 1965 he obtained a copper kettle for boiling and a wine barrel, which he sawed in half to make a mash tun and a fermentation vessel, and constructed a small brewery in his stables. The next year he collaborated with Louis Tomsin and opened a real brewery where production was 350 hectoliters. The success of Celis' White beer allowed him to convert a lemonade factory into the De Kluis Brewery ("The Hermitage") in 1979, now known simply as the Hoegaarden brewery. Production peaked at 62,000 hectoliters until a fire destroyed the brewery in 1985. He was only able to continue with an influx of cash from brewing giant Interbrew. In 1990, Celis sold his remaining shares and went west, to Austin, TX.

American beer lovers quickly became familiar with the white beer being brewed in Texas. Once, when asked why he chose Austin, Celis commented on the suitability of the water for his White beer (he also claimed it was because they speak very slowly in Texas making it easier for him to understand them). Production soon exceeded 12,000 hectoliters and in 1994 began contract brewing his beer in Belgium at De Smedt in Opwijk. An investment by Miller Brewing was a short-term

boon with distribution soaring, but proved a fatal mistake to the brewery. Miller bought it outright and recently closed the Austin brewery in 2000. Nevertheless, Celis was responsible for the revival of a great beer style and still oversees production of his White beer in Opwijk.

Traditional Brewing Methods

According to various brewing texts, the traditional proportion of the grain bill for a Hoegaarden Wit was 50 percent malted

barley, 40-45 percent unmalted wheat and 5-10 percent oats. Michael Jackson notes that malt used for white beers was traditionally dried on the roof in eastern Brabant and would have produced paler beers. Overbeck describes the Louvain White beer as having an original gravity of 1.025-1.030 (6-7.5° P). Sixty to 75 percent of the malt was "air dried" with the remainder being unmalted oats. Raw wheat replaced the oats in the Peeterman. Author Christian Deglass cites a source that credits the success of the Louvain beers to the smaller proportion of oats to that of the beers of Hoegaarden. The proportions of the Hoegaarden beers, therefore, may reflect a modern interpretation.

Unlike many of the beers produced today in Belgium, a beer of 1.050 (12.5° P) starting gravity was large in the 18th and 19th centuries. It was impractical to produce high-gravity beers in light of the laws of the day. Brewers strove to compensate by producing beers of low attenuation and full body. Johnson explains, "The fact is that if you want to produce full beers with raw grain, you must so arrange your brewing that it is on your raw grain that you depend for the great bulk of dextrin, while it is on your malt that you depend for the great bulk of maltose."

Deglass theorizes, "Although in the past, most beers must have had an obvious tendency toward opalescence, white beer was the result of a technological application." Johnson detailed the "turbid method" for production of a low alcohol beer in Belgium to his British colleagues. In brief, liquor (hot water) was added to the grist to achieve a temperature of 100-110° F (38-43° C) and left to rest for 30-45 minutes. More liquor was then added to raise the temperature to 125° F (52° C), after which the liquid was run off into the "turbid-wort copper" which used a "chain-stirrer" for circulation.

In mashes of raw grain, this process was repeated once or twice in order to capture the bulk of the ungelatinized starch in the copper. Liquor was then added back to the tun to raise the mash to 158° F (70° C) and left standing for 45-60 minutes before being pumped into the "bright-wort copper." During this time the turbid wort



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had stood at 165-175° F (74-80° C) for 20 minutes, raised to a boil, simmered and then added back to the dry grist in the mash tun. This mixture is left to sit for 60 minutes at 167° F (75° C) before the now clarified wort is pumped into the "bright-wort copper." The brewer continued to "remash" and sparge until the mash was exhausted.

This process produced a very dextrinous wort. While skilled brewers endeavored to leave much of the proteins and starch behind in the mash tun, a percentage inevitably made its way to the finished wort. Johnson once commented to his British colleagues, "It is not an easy matter for brewers who spend their lives at endeavouring to brew bright beer, to realise how very difficult it is to make a beer that will remain very thick." He recommends a bushel or so of flour to add "free starch and sludge" to the beer. The cloudiness in witbier was due in part to a starch haze.

The use of hops did not become prevalent until the 15th century. wit is a perfect example of a historic style using spices to balance the sweetness of the wort. The addition of spices (coriander, bitter orange peel, etc.) to the boil provided balance as well as flavor and aroma to the beer. Perrier-Robert and Fontaine documented 80 g (2.8 oz) of hops and 50 g (1.75 oz) each of coriander and orange peel per hectoliter in the beers of Louvain. The hops were a small addition and as old as possible. This use of hops is similar to that in the making of lambic beers with hops serving as a preservative.

The boils at Hoegaarden often lasted four to five hours, presumably to reduce the volume of liquid in the kettle and break down at least some of the starch and proteins in solution and darken the pale color produced by the "air-dried" malt.

Perrier-Robert and Fontaine commented on fermentation. Wort left in a cooling vessel overnight hopefully underwent fermentation. If not, the vessel was heated to near 122° F (40° C). "The yeasts activated then a froth, more or less white and loaded

with impurities, emerged from the bung." Overbeck takes this one step further. He describes the Louvain beers as being very impure. "It smelt strongly of butyric and ether (ethyl butyrate), ie., like pineapples." "So strong was this fermentation that the hydrogen gas would even sometimes flash with a blue light if a match were brought into contact with the gas escaping from it."

Fermentation was due to a combination of yeast and *Lactobacillus*, all from open fermentation. Jackson states in *The Great Beers of Belgium*, "The original white beers were produced from spontaneous fermentation."

And later, "Old people remember them as being very sour—and needing to be sweetened." There is no mention of *Brettanomyces* or other friendly organisms that help to produce lambic beers but the relatively close proximity of Hoegaarden and Louvain to Brussels makes this possible, at least in small quantities.

According to Deglass, "When they were fresh, the Hoegaarden beers, like most of the Louvain beers, were very blue in color, due to starch, but this disappeared in time" (probably on account of a microbiological fauna capable of utilizing the starch as a

Jeff's Tarwebier

Yer basic wit

Recipe for 5 U.S gallons (19 L)

Mash:

- 4.25 lb Weyermann Pilsner malt (1.92 kg)
- 3.5 lb raw wheat (1.6 kg)
- 1 lb raw oats (0.45 kg)
- 0.25 lb Weyermann acid/sour malt (113 g)
- 0.25 lb rice hulls (to aid lautering) (113 g)
- 1.5 oz Saaz hops, 2.9% alpha acid (43 gm) (75 min)
- A "handful" of wheat flour (15 min)
- 0.5 oz Curacao orange peel (14 gm) (10 min)
- 0.5 oz coriander (14 gm) (2 min)
- Any appropriate Witbier yeast

Brewer's specifics:

Mash grains for 20 minutes at 126° F (52° C) and 90 min at 154° F (68° C). Leave the spices in the kettle as the wort is cooled. Primary fermentation at 68° F (20° C). Secondary fermentation 14 days at 50° F (10° C). Prime with 125 g corn sugar and fresh yeast culture.

- Boiling time: 90 min.
- Original gravity: 1.048 (12(P)
- Terminal gravity: 1.012 (3(P)
- IBUs: 18

Randy's "Rock Bottom" Wit

Brewed by Randy Mosher
with Rock Bottom Brewery - Chicago

Recipe for 5 U.S gallons (19 L)

- 5.5 lb wheat malt (2.5 kg)
- 2.5 lb German Pilsner malt (1.1 kg)
- 1 lb flaked oats (0.45 kg)
- 3 oz Weyermann acid/sour malt (82 g)
- 0.5 lb rice hulls (0.23 kg)
- 1 handful wheat flour, added to kettle
- Liberty hops, to 22 IBU, in two additions
- 0.75 oz (21 g) coriander (10 min)
- 0.25 oz (7 g) whole chamomile (10 min)
- 1 Seville orange peel, removed from orange (10 min)
- WLP400 - Belgian Wit Ale Yeast

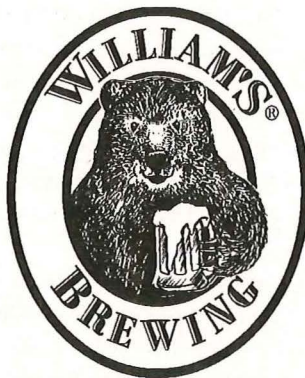
Brewer's specifics:

Mash grains for 60 min at 154° F (68° C). Primary fermentation at 63° F (18° C). This recipe has a larger quantity of wheat than classic recipes and uses malted wheat due to the brewer's single infusion mash system. It is designed to produce the rich, protein-laden mouthfeel and opalescence a smaller amount of unmalted wheat would produce in a procedure that thoroughly mashes and boils the wheat.

- Boiling time: 90 min.
- Original gravity: 1.043 (12(P)
- IBUs: 22

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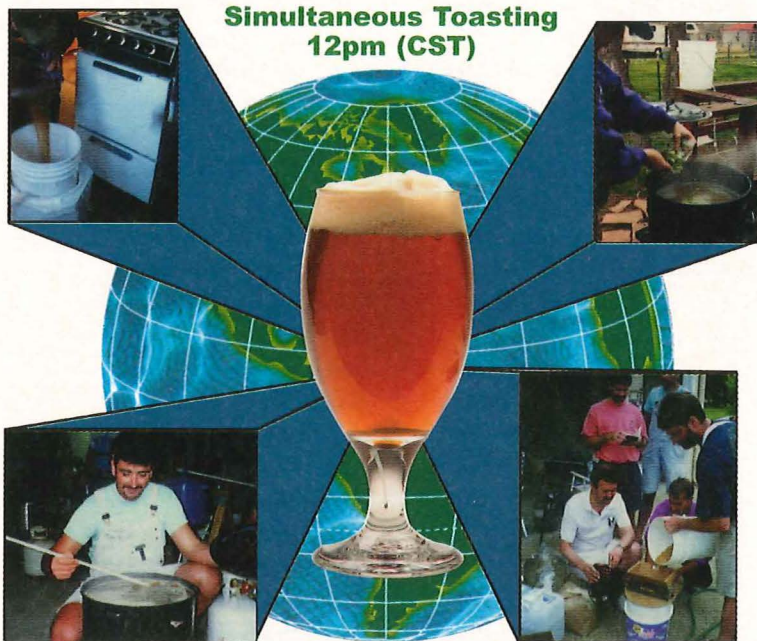
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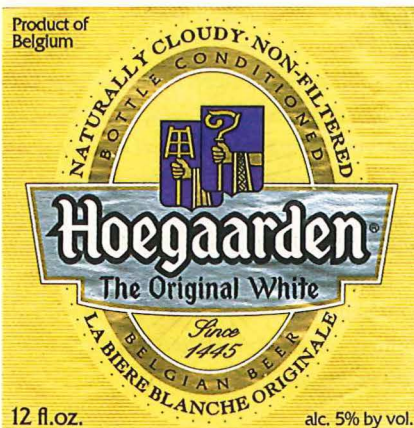
source of carbohydrates). "The wort was placed in casks without the addition of yeast and the beer was consumed while it was still in the middle of the fermentation process." This gives yet another insight into the cloudiness of wit as being due, in part, to yeast in suspension. When served, white beer was traditionally racked into earthenware jugs and combined with a quantity of sugar based on acidity.

Modern Brewing Methods

Today's wit is a shadow of the turbid beers of yesteryear, easier to produce and probably tastes better. According to the Hoegaarden brewery, the grain bill is typically 55 percent malted barley and 45 percent unmalted wheat. I have found imported Pilsner malts to be appropriate as the base malt. Writer Martin Lodahl states, "Pale malts...are both too low in diastatic power and have too much caramel flavor for the style." Oats are no longer widely used. Jackson says in his *Beer Companion* that the oats were eventually considered unnecessary. He laments the loss saying, "I believe the oats imparted a smoothness that has since diminished."

About 20 IBUs of hops are required. To my surprise, the Hoegaarden brewery uses both Australian and American hops. While hops are a secondary ingredient in a wit beer this choice is likely driven by economics. I still use a noble hop like Saaz for a cleaner bitterness. The volumes of spices currently used in the classic wit are 20 g/hl (0.7 oz/hl or 0.13 oz/5 gallons.) of coriander and 25 g/hl (0.9 oz/hl or 0.17 oz/5 gallons) of bitter Curaçao orange peel. The coriander must be ground or crushed if whole. Fresh orange peel may be zested—the skin removed from the rind—or added as whole peels. They should be added within the final 10-15 minutes of the boil.

Author and homebrew spicemaster Randy Mosher recommends the use of the Indian variety of coriander, as it is softer, more citrusy and much less celery/vegetal than the ordinary kind. Look for it at Indian groceries. I have found the dried orange peel sold to homebrewers contributes an unpleasant (and unwanted) bitterness to the beer. The Curaçao orange is actually an unripe Seville orange. Mosher says the clos-



Celis' first re-creation of Wit was called Hoegaarden—a beer still brewed in Belgium today.

est grocery store substitute is a Mineola tangelo, which is a cross between a Seville orange and a tangerine. Seville oranges, also known as “sour” or “bitter” oranges, may be found at Caribbean markets. (Hey, that’s why he’s the spicemaster!)

Some breweries use a larger proportion of additional spices. Jackson speaks of a third spice, possibly cumin, that Hoegaarden conceals. If they do use cumin, they definitely do not speak of it. Many breweries are coy about a secret spice so why not be creative? While brewing a wit at a local brewpub author and homebrew spicemaster Randy used chamomile to contribute a soft fruitiness while I have experimented with a dash of lavender for a soft floral quality. Not too much as the idea is to blend, not to overpower. Create your own unique proportions.

Modern brewing practices make mashing a wit beer a much easier task. Several warnings, though, about grinding unmalted wheat. The grain is smaller before it is malted and will fall through many conventional mills. It is also much harder so manually grinding can be an arduous task. A mill with a sturdy motor and adjustable rollers is an excellent advantage. The Hoegaarden brewery mashes in at 122° F (40° C) to aid in the conversion of protein before a standard



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Author and homebrew spicemaster Randy Mosher recommends the use of the Indian variety of coriander, as it is softer, more citrusy and much less celery/vegetal than the ordinary kind.

sacrificion rest. Flaked wheat may be a better choice than the unmalted variety if your system cannot handle a multiple temperature mash. Brewers can also add a percentage of rice hulls to make the sparge water flow more freely in the presence of the sticky, unmalted wheat.

More manageable 1.5-2 hour boils are also acceptable. Don't forget the handful of flour! Not all old practices need be eliminated. The resulting beer is 1.048 (12° P).

Brewers now use certain top-fermenting yeast strains known to produce the appropriate character of white beers. The

absence of *Lactobacillus*, however, leaves us without the desired tartness and proper low pH. Author Pierre Rajotte says a good finished-beer pH value to aim for is 3.9 but has found those of pH 3.5 “pleasant and refreshing.” Mashing in at temperatures lower than 122° F (40° C) will help to acidify the wort. The addition of acidulated malt to the mash is also a possibility. Use less than 10 percent of the grist and probably less than five percent unless you know your taste for acidity. I have never been a proponent of a “sour mash”—allowing bacteria to multiply on whole grain at moderate temperatures. This method is very haphazard and can lead to as many or more bad characteristics as good. One method used by commercial breweries is to add lactic acid. For homebrewers, Lodahl recommends about 10 mL of food-grade 88 percent lactic acid solution (available at homebrew shops) in a five-gallon batch. Anything more tends to contribute an uncomplex sourness.

Primary fermentation at Hoegaarden is carried out between 64-77° F (18° C-25° C) with secondary fermentation at 64° F (18° C). The yeast is then centrifuged out and the beer flash-pasteurized before fresh yeast


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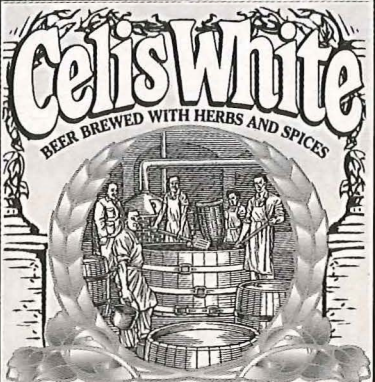
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AUTHENTIC BELGIAN STYLE WHEAT BREW



Celis White, the American incarnation of Belgian-style Wit beer produced by Peter Celis (inset) is the best known example of the style for many beer drinkers.

and sugar is added to bottles or kegs for the refermentation at 54-59° F (12-15° C). Homebrewers will need to use at least two weeks secondary fermentation at a reasonably cool temperature to let yeast cells drop out of solution before priming and re-yeasting in bottles or kegs. Autolyzed yeast cells will provide, among other things, an unpleasant bitterness and harshness to the finished beer. Today, the haze in wit can come from a combination of starch, protein and yeast.

Spin Control and Jam Jars

A proper wit beer has a distinct appearance. Perrier-Robert and Fontaine eloquently state, "The beer was only fit to be drunk when the head was abundant and the presence of carbon dioxide expressed itself in a sparkle." The Hoegaarden brewery naturally believes serving wit beer is an art. Clean and rinse the glass thoroughly and hold it at an angle. Slowly pour the beer so the bottle does not touch the glass. When the glass is half full, give the bottle a sharp spin to rouse the sediment in the bottle.

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Continue pouring until the head tops the glass. The unique Hoegaarden Wit beer glass has an octagonal shape to accentuate the cloudiness of the beer and is affectionately called a "jam jar". Other less memorable glasses also exist as every beer in Belgium has its own glass. A wit is often served with a wedge of orange or lemon. I prefer mine with a wedge of lime.

My Wits About Me

A proper wit is cloudy, yellowish-white and opaque. The well-known Hoegaarden White (5.0% abv) has a citrusy, peppery aroma with a refreshing fruity taste complimented by an almost imperceptible bitterness. Hoegaarden Speciale is brewed for Christmas and is stronger (5.6% abv) with a predominant orange aroma and more warming than the regular with a smooth bitterness in the finish. I was fortunate to try Pierre Celis' contract version at a festival in Belgium. The fruitiness was somewhat concealed by a more pronounced tartness generally no longer found in the style.

Other Belgian examples exist but many American brewers are also making good examples of the style. Among those I have recently enjoyed are the strong Double Wit from the Southampton Publick House, Blanche de Brooklyn from the Brooklyn Brewery, Le Chien Blanc from the Flossmoor Station Brewery and Lakefront Wit from Milwaukee, WI. As far away as Japan I have tried an extremely mellow and enjoyable wit called Nest Beer (now available in America) from the Hitachino Brewery—a true leap in creativity for the Japanese brewing industry.

Belgian brewers toiled for centuries using methods forced upon them by law and economics. Today, we brew wit by whatever method will produce the tastiest result. Belgian brewing is all about ingenuity and experimentation, just like homebrewing. With a little patience and little more imagination you, too, can make a truly enjoyable wit.

Witbier Yeasts

Yeast is important to Belgian ales like few others. There are a number of readily available yeast strains from which to choose. Several have similar origins from the Hoegaarden brewery. Your choice depends on what character you want the yeast to contribute. Forbidden Fruit is a stronger beer produced by the Hoegaarden brewery. This yeast might be appropriate for a strong version of a wit.

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Jeff Sparrow has been a homebrewer for over 10 years, is a past president of the Chicago Beer Society and a BJCP master judge. His favorite beer styles to brew and drink are Belgian-style ales—the more sour the better! He has traveled extensively to try local beers and meet the people who brew them. When not drinking beer he is usually on his bicycle trying to work it off.



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Ein Weissbier, bitte!

History and Culture of Bavarian Weizen

by Horst D. Dornbusch

There is no doubt: weissbier (white beer) or weizen (wheat) is the essence of summer quaffing. Weissbiers are now available in several varieties: Hefeweizen (yeast wheat) or just weisse (white) is a pale, unfiltered, turbid wheat beer. A clear, filtered version of hefeweizen is called kristallweizen (crystal wheat). A darker version of the hefeweizen is called dunkelweizen (dark wheat). A strong version of the hefeweizen that may be pale or dark is called weizenbock (wheat bock beer). And a really strong wheat beer is called a weizendoppelbock (*doppel* means double). There is even a very tart and spritzy, low-alcohol Berliner weisse, which is a Prussian wheat beer that is served with a shot of raspberry or woodruff-flavored syrup in a stemmed, bowl-shaped glass.

A Beer Style As Old As the Stone Age

Wheat beer has a long and venerable history dating back to the Sumerians. These mid-eastern Stone Age people are credited with the invention of both barley and wheat beers around eight to ten thousand years ago. Of course we now associate weissbier firmly with Bavaria in southern Germany, but the first modern wheat beer was probably made not in Bavaria, but in neighboring Bohemia, which is now part of the Czech Republic and known primarily for its fine golden-blond lagers. Bohemia started out as an ale-brewing center and, by the middle ages, brewing *nach böhmischer Art* (the Bohemian way) simply meant brewing top-fermenting beers from wheat or barley.

Enter Duke Hans VI —
Early Weissbier Entrepreneur

We surmise from the records that, in the early sixteenth century, a German knight, a certain Duke Hans VI von Degenberg, was probably the first to bring the Bohemian wheat ale to Bavaria. Duke Hans lived in the Bavarian Forest, just to the west of the Bohemian Forest.

Hans started a brewery shortly after 1506 (we don't know the exact date) at his ancestral Schloss Weissenstein (Castle White

Stone) in Schwarzach, a few miles north of the River Danube. There he made his weissbier entirely from malted wheat, without the addition of malted barley, as has been the custom since the eighteenth century. (Nowadays most weissbiers contain about 40 percent malted barley). The first official records of Hans' weissbier, which date from 1520, refer to it as a *Behemisch Wiss Pir* (Bohemian white beer). The term weissbier, incidentally, has nothing to do with the name of Hans' castle, Weissenstein. Rather, the word

weiss (or *wiss* in old German) means "white," which is an allusion to the snow-white foam that rises above the weissbier during the early stages of fermentation.

The good people of Bavaria apparently loved the new Bohemian-style brew and considered it much more healthful and refreshing than the standard beer brewed the Bavarian way. In fact, the state of Bavarian-style brewing must have been downright awful then. We have reports that barley beers were often sour, rotten, and prone to causing diarrhea, especially in the summer. And when the beer stinks in Bavaria, it becomes a matter of the highest political importance, an affair of state!

"Duking" It Out For the
Weissbier Market

For all his success, Hans faced a formidable competitor, no less than the Bavarian ruler himself, the mighty Duke Wilhelm IV, head of the Wittelsbach dynasty, which had run Bavaria since 1180. The Wittelsbachs had a fiscal and regulatory interest in brewing and decided to do something about the upstart brewer from the hinterland.

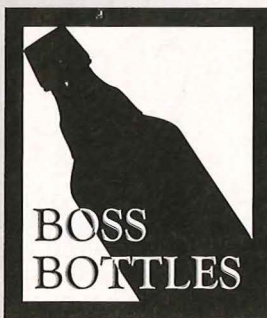
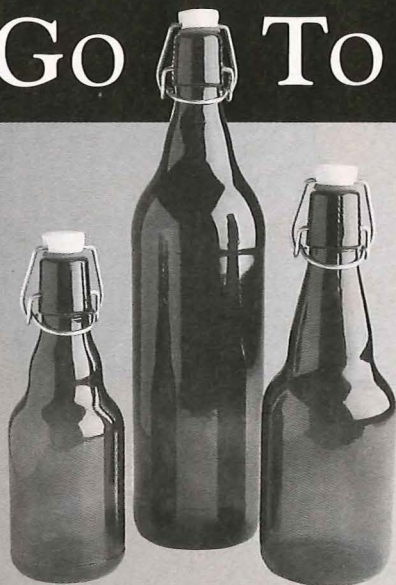
Wilhelm's first act was to regulate the ingredients that could be used for brewing. He proclaimed the now-famous Beer Purity Law of 1516, the *Reinheitsgebot*, which restricted the ingredients of beer to malted barley, hops and water (the existence of yeast was unknown at the time). This also meant that our Hans' *Behemisch Wiss Pir* ran afoul of the law as soon as it was introduced. Ironically, therefore, weissbier was treated initially as an illegal substance in the very land that would ultimately so proudly embrace it!

The Wittelsbachs further proclaimed that "wheat beer is a useless drink that neither nourishes nor provides strength and power, but only encourages drunkenness." But the real issue was money. The Wittelsbachs took in much of their revenues from taxing and licensing brewers. And at this juncture they needed lots of money!

These were turbulent times for Catholic Bavaria. After Luther's reticent stand at the Diet of Worms, in 1521, the Protestant Reformation was spreading like wild fire through the states of central and northern Germany. And from the south, the Turks, under Sultan

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Suleiman the Magnificent, were poised to invade Bavaria and threaten to impose their Islamic faith upon the Wittelsbach's Catholic subjects. To raise cash for the defense budget, Wilhelm IV came up with a lucrative solution: He imposed the first statewide beer tax in Bavaria, in 1543. But the Turks made peace in 1606 without ever having attacked Bavaria, and the Reformation erupted into the Thirty Years War only three quarter-centuries later (1618-1648), long after Wilhelm IV's death in 1550. His army was never raised, but his beer tax stayed.

"Weiss-War" Escalation

Now that Wilhelm could tax Hans' weissbier, he decided to grant him the exclusive privilege to brew it, in 1545, but only up in the Bavarian Forest, not in Munich, the revenue-rich capital, which was conveniently located far south of the Danube. On top of that, in 1548, Wilhelm slapped a *compositio* (penance), payable in regular intervals, on Hans' brewing operations as a penalty for violating the barley-only provisions of the Reinheitsgebot. Basically, Wilhelm, the supreme law-maker confirmed that Hans was allowed to break the law and

sell weissbier in the regions "north of the Danube" as long as he let the crown in on the profits from that lawlessness.

In Munich, however, beer continued to be bad in the summer, a fact that forced Wilhelm's successor, Albrecht V, to invoke the ultimate regulatory weapon, in 1553: He simply prohibited any and all kinds of brewing between April 23 and September 29 in all of Bavaria. In the summer, therefore, weissbier now violated both the Reinheitsgebot and the summer brewing prohibition.

If Albrecht intended to reduce the sale of weissbier, his regulation clearly backfired. Because summer shortages of regular beer from barley malt now became ever more common, he inadvertently increased rather than squash the summer demand for fresh, clandestine weissbier. So what was good old Albrecht to do, if he wanted to stem the flow of revenues to the Degenbergs? In 1567, he escalated the "weiss-war" by issuing a new ordinance that outlawed the sale of weissbier, in Munich, year-round. He then raised the "penance" on Degenberg beer year after year until, by 1572, the Degenberg *compositio* on weissbier amounted to four times the tax on wine.

If You Can't Lick 'Em, Join 'Em


And worse was yet to come: The next duke, another Wilhelm, number five, came to the throne upon Albrecht's death in 1579. He went broke building churches and monasteries, which earned him the nickname "the Pious." And once again beer had to rescue the state treasury: Pious Willie built himself a little court brewery in Munich, in 1589, the now-famous Hofbräuhaus, and got into the beer business with gusto. Initially, he served only one brew, the standard brown lager of the day, which is now known as the Bavarian dunkel. He then decreed that any innkeeper in the city of Munich must purchase beer from the Hofbräuhaus or risk being shut down. By 1597, Pious Willie retired to a monastery and handed the reigns of government to his 25-year-old son, Maximilian I, a ruler who turned out to be a genius at raising cash.

Maximilian I, not unlike like the US Congress in 1933, realized that prohibition is simply unenforceable. He further reasoned that he could collect more revenues by skimming cash directly off the weissbier rather than funneling the proceeds first through the Degenbergs. So, in his Hof- (continued on page 60)

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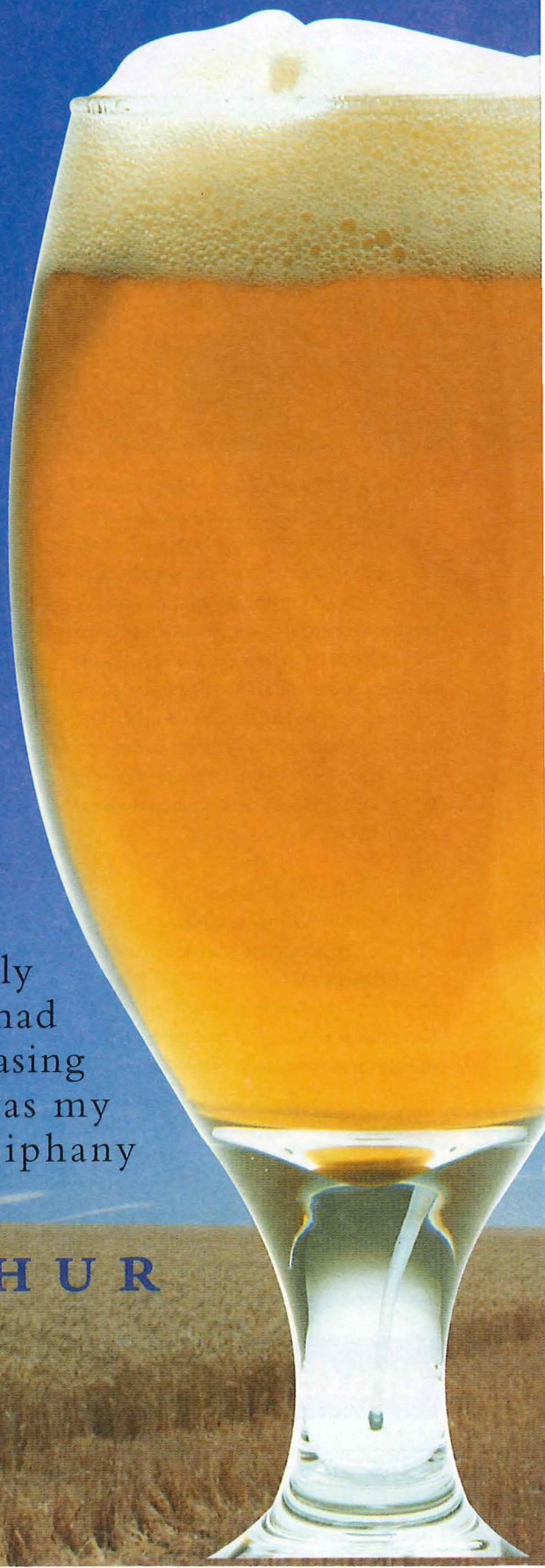
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Like most kids, I had to mow the lawn as one of my weekly chores. Seems my old man had determined that after many years of chasing our old clunker around the yard, it was my turn to do the same. I suppose his epiphany

BY TOMME ARTHUR





marked the first chapter in my right-of-passage beer drinking experience. To this day, I remember when I was only knee high to those grasshoppers how he would lug the rusty old beast from the garage, give it a few good kicks and pray for it to start. It would hiccup, sputter and sometimes run for a few moments before it died. Then some of the most interesting and colorful words would erupt from the old man. Mom said it was French and to this day, it's still the only French he speaks.

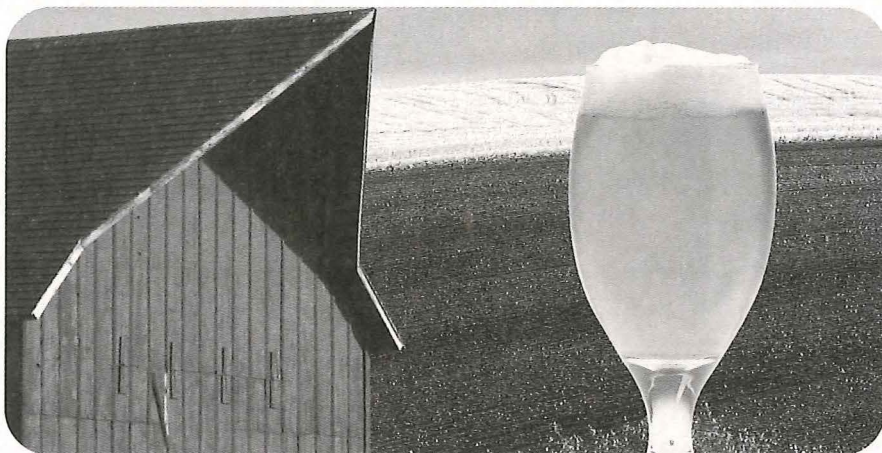
Like most men, I also learned about beer from my father and especially the purpose of the lawn mower beer. Seems that men have developed the notion that the only way to fully appreciate a well manicured lawn is with a crisp beer in one hand and a garden hose in the other. For my father, a fresh cut lawn and a crisp cold Weinhard's on a hot summer day made all the sweat worth it.

I'm a little more grown up now and my idea of a lawn mower beer has certainly changed. Now when it comes time to mow that lawn, I've learned that the clippings flying from the mower should not be more aromatic than the beer I've rightly earned. Hell, I've even learned some real French of my own. (Later on, I'll share some of these less colorful

but important words with you.) The one thing I never figured out was how lawn mowing and beer drinking came to be linked so closely together.

Today, it is now commonplace for most brewers to call what we consider to be summer beers (most notably American lager) "lawn mower beers." As one of these brewers, I think of these mass produced beers as introverted school-boys. You remember that shy, rather dull and uninteresting kid who for the most part didn't really do much to stick out? But not all lawn mower beers act this way and this is certainly not the case when referring to the more extroverted farmhouse ales of the region extending from Southern Belgium to Northern France, known as Wallonia. It is here where the original lawn mower beer was developed and is still being produced today.





In a land full of specialty beers, these are certainly some of the most colorfully complex. It is my impression that were a farmhouse ale to find itself cast in the school play, it would no doubt seek to play the role set upon an Elizabethan stage manifesting itself in a Falstafflike rogueness combined with a Hamlet-driven mysteriousness, guided in the end by a sexy Portialike judgment of the spirit of the law versus the letter of the law.

Farmhouse ales cannot be produced by a Shylocklike adherence to the letter of the law or with a modern German rigidity with regard to beer styles. They are not bound by stylistic guidelines and as such, they are set free by the spirit and the story of their persistence. In a world of specialized mechanization and sit-down mowers, these are the beers of a slower time, brewed with a sense of passion and a reverence for their history. These beers will never be shiny and new like a John Deere tractor; they will always be rougher, almost squeakier in their *Leave it to Beaver* simplicity. Yet like the original push style mowers, these beers continue to persevere.

Today, there are at least three types of beers that are loosely classified as farmhouse ales. Saison is mostly produced in Southern Belgium, along with Bière de Garde and Bière de Mars that are mostly produced in Northern France. Of the three, Saison is by far the most common with Bière de Mars being the most obscure. The difficulty in describing these beers is in making clear distinctions between each type of beer. The only sure thing, as it relates to farmhouse ales, is that all of these beers owe more to their regional origins than their styl-

istic similarities and differences. It is in this way that farmhouse ales share a connection with Trappist and Lambic ales, except that no appellation currently protects the production of these Wallonian treasures. In the end, we are thereby reduced to making generalizations about these beers based upon the history of their production.

The region of Wallonia has traditionally been a rich, agrarian region with farming as a major source of activity. Farming is also a seasonal activity with natural lulls. During these periods of inactivity, farmers undertook brewing as a means of remaining productive through the off seasons. It is also quite possible that the breweries also used these beers as a method of payment for work or as rewards during the busier harvest months. But perhaps the most interesting aspect of brewing is that it takes a perishable product (barley) and transforms it into a less perishable product (beer).

Today, there are numerous breweries producing beer on old farming sites including the Brasserie Dupont that dates back to 1850. Many of the breweries making these beers are very small (less than 1,000 barrels per year). As many of these beers were not originally designated to reach distant markets, the beers were quite variable. Because many of the beers were not made for consumers, farmhouse ale breweries exercised the highest levels of creativity and progressive thinking. Much of their continued commercial success lies in the Belgian preoccupation of brewing without style guidelines.

As these beers tend to be highly idiosyncratic, we must look at their production methods from an historical point of view to

develop a real sense of how these beers have matured over the years. These beers were produced from a highly dextrinous wort to a modest strength of alcohol typically between five to eight percent by volume. This level of alcohol enabled the beers to be strong enough to survive the aging period but not be so strong as to render the workers useless. After a short primary fermentation the beers underwent a period of aging (*Garde* in French) during which a secondary or tertiary fermentation would take place in the bottle. Some of these beers might have experienced bacterial or wild yeast fermentations as part of their development as well.

In particular, *Lactobacillus* and *Brettanomyces* are often present in farmhouse ales being produced today. To many drinkers, their addition to the flavor of these beers is referred to as *Le Gout de Terrior* ("taste of the land" in French). In addition to being bottle conditioned and slightly wilder in character, these beers were also produced to celebrate the *Saison* (season in French). Loosely then, these are the traditional starting points for farmhouse ales:

- Produced for the Season: Bière de Mars is brewed to celebrate the particularly quirky month of March, which is half winter and half spring.
- Period of Aging: Bière de Garde and Saison are both brewed to be consumed during a different season.
- Texture: Most farmhouse ales have a house texture that many have labeled as *Le Gout de Terrior*.

Farmhouse ales were traditionally produced in the early spring and laid down before being consumed in the summer months when the harvest took priority. Many of these breweries also predated refrigeration and therefore were forced to be inactive during the summer months when it was too hot for brewing. As these beers were meant to be consumed during the hottest months, they were often paler in color with high levels of carbonation. Due to their farmhouse origins, it is likely that these beers would have been made with only pale malt and sugar.

I suspect that these beers were pale yellow in color for several reasons. First, lighter,

Biere de Arthur

Recipe for 5 gallons (19 Liters)

- 64.5% Belgian pale ale malt
- 20.0% Belgian Munich malt
- 5.0% Gambrinus Honey malt
- 5.0% Belgian dark caramel malt
- 3.0% Belgian aromatic malt
- 2.0% Belgian roasted wheat
- 0.05% Belgian chocolate malt
- 10 IBUs Challenger hops (90 min)
- 10 IBUs First Gold hops (90 min)
- 5 IBUs Liberty hops (30 min)
- 1 IBU Styrian Golding hops (steep)
- lager yeast
- O.G. 1.066
- T.G. 1.012
- 7.0% Alcohol by volume
- IBUs 25-30

Mash at 150° F (66° C) for 90 minutes or until conversion is complete. Ferment with lager yeast at 60° F (16° C) until fermentation is complete. Rack to secondary and store close to 32° F (0° C) for 1 month. Package beer when aging is completed.

Notes: Toasted malt is made by spreading two row malted barley on a cookie sheet and baking at 160-180° F for 20 minutes. Cranberry honey can be found by searching www.honeylocator.com.

Saison de Craisin

Recipe for 5 gallons (19 Liters)

- 64.5% Gambrinus ESB malt
- 16.5% Briess wheat malt
- 9.5% Belgian Munich malt
- 6.5% toasted malt (see notes below)
- 2.5% 135-165° L crystal malt
- 0.5% roasted barley
- 20 IBUs Amarillo hops (90 min)
- 5 IBUs East Kent Goldings (15 min)
- 0.5 oz sweet orange peel
- 4-6 oz of dried cranberries (craisins)
- 0.5 oz coriander
- 16 oz cranberry honey
- 0.5 oz ground cinnamon
- O.G. 1.081 (with honey)
- T.G. 1.007
- 9.8% alcohol by volume
- IBUs 22-25

Mash at 149° F (65° C) for 90 minutes or until conversion is complete. *Add all adjuncts and spices at end of boil.* Ferment with Saison yeast at 75° F (24° C) until fermentation is complete. Condition at 40° F (4° C) for four weeks and bottle. Store bottles at 50-60° F (10-16° C) for at least three months before drinking.

tart and more highly carbonated beers tend to be more quaffable in their nature. I believe that many were also pale in color as each farm might have malted its own grain. Pale malts require less equipment than do caramel and roasted malts after the initial malting of the grain. It is possible that some farmhouse ales would have been slightly amber in color and these examples might have gained some of this color through oxidation, kettle caramelization or through the use of botanicals, herbs or even dried fruit.

It is certain that the use of herbs and spices predated the use of hops in brewing.

Today, this practice of using herbs and spices still flourishes in Belgium especially in the production of farmhouse ales. These spices include coriander, cardamom, chicory, ginger, sweet and Curaçao orange peels, grains of paradise, anise, black pepper and many others. Some of these beers even feature unique and odd fermentables including spelt, fig and fruit juices.

Farmhouse ales were most likely initially bittered only with herbs and spices because they were cheaper and more readily available than hops that are harvested only in the fall. Accordingly, many of the beers would have been seasonally produced

with herbs and spices from each of the four seasons. This method of seasonal Saison production is being practiced in Belgium today at the Brasserie Fantome in Soy that produces a new Saison for each new season.

Perhaps the most common link between all these beers is *Le Gout de Terrior*. Certainly, much of this taste and texture comes from wild yeast and bacterial fermentations. At least one farmhouse brewery (De Ranke) has in the past used mixed brewing cultures supplied by Rodenbach. This wild essence that pervades many of these great beers has its roots in the winemaking world. In particular, the Benedictines and Cistercians in the 11th century worked and studied the soil in France and Germany. Their pious concentration convinced many in the region that they could taste the soil in their wines.

Like characters on the stage, farmhouse ales manifest themselves in their own unique way. Therefore, it can be difficult to isolate *Le Gout de Terrior* as a generalization but in some *Bière de Gardes*, the *Terrior* presents itself as a distinctly clean mustiness that is most pleasing in the finished product. In some *Saisons*, especially those from the Brasserie A Vapeur, the taste arrives in a lactic acidity with a snappy sour finish.

One of the difficulties in trying to make farmhouse ales is reproducing or creating this taste of the land. Many farmhouse ales seek to recreate these flavors through a proprietary blend of herbs and spices. This is especially true of domestically produced farmhouse ales that more often than not feature higher more discernable levels of spicing than their Wallonian counterparts.

Today, these beers are now made year round and many brewers are rediscovering the original lawnmower beers. But most importantly, these beers are now being explored in new and fascinating ways by breweries new and old that continue to reinvent and revive these beers in both historical and modern adaptations.

Farmhouse ales can be made anywhere and typically they are made from pale malt or Pilsner Malt with some Munich, wheat or light crystal malt as well. Generally speaking, Saison style beers tend to be lighter in color, alcohol and are somewhat drier in the finish with higher levels of spicing to them. Of (continued on page 61)

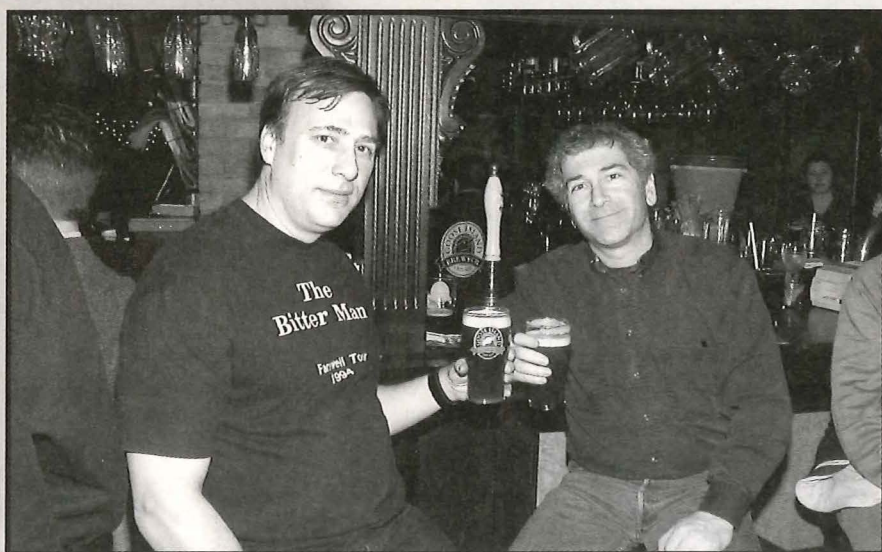
Still Bitter



By Tony Babinec and Steve Hamburg

After All These Years

*The two Bitter Men
take an updated look at
their favorite beer style*



It wasn't that long ago that a trip to the UK was the only way to experience bitter. Since the mid-1990s, the bitter style has become much better understood and been embraced by both commercial brewers and homebrewers in North America. What once was unthinkable is now true: cask-conditioned bitter (often imported from Britain) now routinely flows through beer engines at brewpubs and beer bars on this side of the pond. Real ale festivals have become regular events in Chicago, New England and San Diego, successfully attracting commercial entrants and a thirsty public. In the Washington DC area, the BURP homebrew club holds an annual real ale competition, with all entries served exclusively via hand pumps owned by club members. Times couldn't be better for a couple of bitter men, could they?

The news from the style's homeland is more mixed, however. Sales of cask ales in Great Britain have been falling by 4 percent a year, and now account for less than a quarter of all draft beer sold (compared to over 50 percent for standard lager). The nation's biggest breweries have essentially ceded the cask ale market to indepen-

dent regionals and microbreweries, which now control 75 percent of sales in this sector. There are signs that Britain's traditional ales are fast becoming specialty or niche products, just as craft beer is over here.

On the other hand, you can still find over 2,500 different brands of cask ale in British pubs, and most of these are bitters. Newer trends in brewing and pub operations have also yielded an expanding crop of interesting beers, served under more optimal conditions than ever before. Even better, Americans can revel in the improved position of the dollar versus the pound, safe in the knowledge that we pay less in the UK than we would for a comparable serving at a typical brewpub at home. An imperial pint will rarely exceed three dollars, even in high-priced London.

Whether borne out by sales figures or not, bitter remains the quintessential beer of Britain. Yet in surviving, and in some cases even flourishing, the style has not stood still. In the seven years since we first analyzed bitter in these pages ("Confessions of Two Bitter Men," *Zymurgy*, Summer, 1995), we've continued to be frequent visitors to Britain. In our travels, we've noted a number of developments in the production and serving of cask-conditioned bitter, which we present here. By and large, these changes are subtle, but they are



Bitters come to America.
Bitter man Steve Hamburg prepares beer engines for dispensing bitters and other real ales for the first Real Ale Festival in Chicago held in 1996.

meaningful enough for us to adjust our expectations as homebrewers, beer judges or appreciative consumers.

Our earlier work relied heavily on the data provided in Roger Protz's essential book, *The Real Ale Drinker's Almanac* (3rd Edition, 1993). What we discovered helped significantly in modifying the AHA (now BJCP) brewing and judging guidelines to their current form. A subsequent study using the latest figures (*The Real Ale Almanac*, 5th edition, 1997) revealed no major differences from the first, but we suspect that things may change slightly as more contemporary data emerges. Thankfully, that chance should come very soon, because a long-awaited new edition of the *Almanac* is due in 2002, with updates to follow.

In lieu of hard data, we have relied on our recent non-scientific observations on bitter and the British beer scene, which were then passed along to prolific beer writers Roger Protz and Jeff Evans (also the current and past editors of the *CAMRA Good Beer Guide*) for critical review. We extend special thanks to Roger and Jeff for their detailed and thoughtful comments. Their knowledge and passion are a great inspiration to us. Cheers, gentlemen.

Bitter Constants

Bitter remains one of the best "session" beers. With its relatively low alcohol content, it is a popular drink at lunchtime or after work. You can drink a few and still keep your wits about you.

Most, if not all, UK breweries produce bitters at a variety of strengths, with the bitter (alternatively called an *ordinary* or *standard bitter*) weighing in at an original gravity of up to 1.038 (between 3.0 and 3.8 percent alcohol by volume) and a *best bitter* at 1.039 to 1.045 (3.7 to 4.8 percent abv). In addition, you will also encounter the occasional *strong bitter* with an O.G. of 1.046 and above (4.4 to 6.2 percent abv).

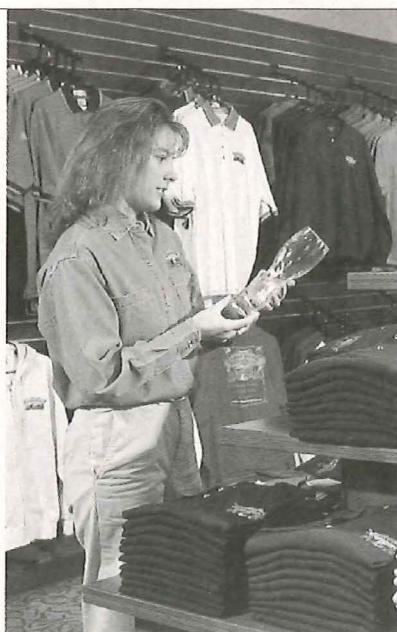
The grain bill may be an all-malt one, but normally will employ some adjuncts (torried wheat, maize) or brewing sugar to produce a lighter mouthfeel, a highly desirable quality in what is primarily a draft product. Brewers obtain color up to the amber to copper range through the use of crystal malt, amber malt and other color malts, as well as



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sugar syrups of different colors, or sometimes caramel coloring.

The flavor profile of bitter, regardless of subcategory, should still have medium to high bitterness, with an accent on the primary bittering hop addition. Hop flavor typically increases as you step up in category. Balance is often decidedly bitter, particularly at lower gravities, but the goal is rarely to overwhelm any malt flavors with hop flavor and bitterness. Hop aroma is welcome, but is almost never at the high levels found in aggressively hopped American ales. For the most part, British bitter is a much more subtle, subdued, even elegant drink.

Regarding hops, older recipe books can give the mistaken impression that bitter brewers work exclusively with Fuggles and Goldings. While both remain popular, UK brewers often favor higher alpha hops. Many recipes feature varieties such as Challenger, Northdown, Target, Progress and, on rare occasions, Bramling Cross. Styrian Goldings is another popular hop, especially in late additions. Yorkshire brewer Timothy Taylor has long featured this distinctive hop in its bitters, most notably in the often-honored Landlord Pale Ale.

While many US commercial brewers and homebrewers seem enamored of the clean, neutral aroma and flavor properties of popular American ale yeasts, it is our view that bitter still ought to have some of the fruity, estery aromas associated with British strains. For one thing, in our experience the fruity aromas and flavors of these yeasts are a memorable part of the sensory experience of bitters as found in the local pub. What's more, lack of availability is no excuse, for there's a good selection of these yeasts available from several suppliers.

In "An Analysis of Brewing Techniques," George and Laurie Fix emphasize this point. Their *Group 1* ale yeasts are clean and neutral ale strains that tend to leave diacetyl and fusel alcohol levels well below threshold, while perhaps featuring selected esters at or slightly above threshold. On the other hand, *Group 2* ale yeasts have esters and sometimes diacetyl levels slightly above threshold. We recommend yeasts from this second group. Of course, we think such idiosyncratic strains as those used in Belgian



A True Bitter—Casks of Fuller's Chiswick bitter in stillage.

ales and weizens should be avoided in bitters but remember, there are no hard and fast rules. It's your beer, after all.

Correct serving temperature is very important for the optimal aroma and flavor expression of bitter. Cask-conditioned bitter should be served at a cellar temperature of 52 to 55° F (11 to 13° C). This is not anywhere near "room temperature," and instead is noticeably cool on the palate and quite quenching. A series of hot summers in

the mid-1990s exposed the poor cooling of pub cellars, and demonstrated quite convincingly that no proper British bitter should ever be served warm.

A final essential element of proper bitter is appropriate carbonation, namely, about one atmosphere of CO₂. This relative lack of fizziness allows the beer's flavors to achieve full expression, and also allows for easy drinkability and—let's say it—less fullness and belching.

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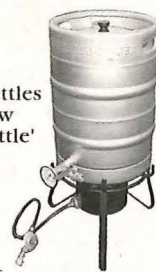
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Bitter Evolves: The Rise of Golden "Summer" Bitter

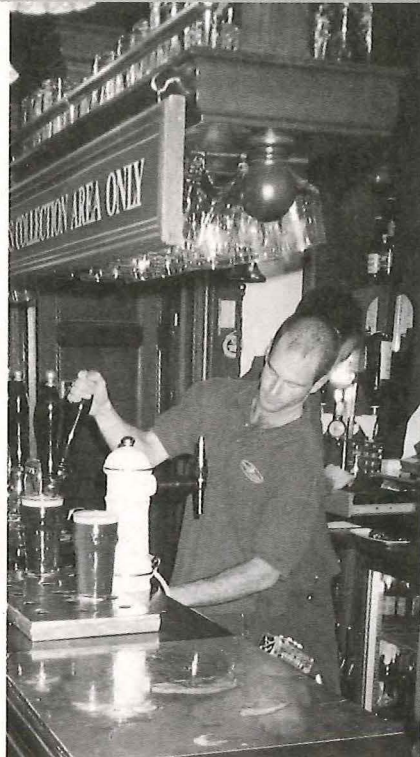
Perhaps the hottest trend in British brewing over the last few years has been the emergence of very pale bitter, typically meant for summer drinking but increasingly brewed year round. These beers are made with pale ale malt as either the exclusive or predominant constituent of the grain bill, which might only include a small amount of wheat malt and, in rare instances, even honey. The color of these "summer bitters" is very similar to standard golden lagers, with typical SRM figures at the lowest end of the BJCP guidelines or below (6 SRM, 14 EBC).

In a contemporary setting in which young twenty-something pub-goers demonstrate a preference for lagers and spirit-laced drinks, the reasoning behind a lighter bitter is not difficult to fathom. Surely the straw or golden hue is an attempt by the brewer to produce a visually enticing beer of the same color, and more of the refreshing character, as popular lagers.

Of course, straw-colored bitter is not a new phenomenon, as witnessed by such standards as Boddington's or Theakston's Best. However, there are an increasing number of new paler, golden bitters, following in the footsteps of such successful pale bitters as Hop Back Summer Lightning and Exmoor Gold. Both are 100 percent pale malt beers of fairly strong gravity (5 percent and 4.5 percent, respectively) that have been consistent CAMRA award winners since their introduction in the early 1990s.

While some breweries have followed with similar strong bitters, pale examples have also emerged in the standard and best bitter categories. Oakham JHB (Jeffrey Hudson Bitter, 3.8 percent abv) was the Supreme Champion Beer of Britain at the 2001 Great British Beer Festival; RCH Pitchfork (4.3 percent abv, 100 percent pale malt) and Harviestoun Bitter & Twisted (3.8 percent abv) are other 2001 CAMRA winners in the same mold. Interestingly, you don't have to travel to the UK to sample these last three beers, as B. United International now import a limited supply of casks to the US.

The success of and growing demand for pale bitters has also led to a gradual lowering of their cellaring and serving temperatures. It's now quite common to find many of them



Pulling a Pint—Cool pints of bitter being pulled from a beer engine at London's White Horse Inn.

served at 48° F (9° C), well below CAMRA's recommended 52-55° F (11-13° C) range. Fuller's pubs in Greater London will typically serve their seasonal Summer Ale (3.9 percent abv, 22 IBU, 5.3 SRM) at this lower temperature. They've even extended this practice, albeit experimentally, to their leading brand, London Pride. On hot summer days, "Traditional" and "Chilled" versions of Pride have been seen at selected pubs in the Fuller's estate. Brakspear of Henley also offers a colder version of its traditional bitter (the identical beer, re-labeled as Chill Cask Bitter) for warm weather consumption.

Just because these new bitters are paler doesn't necessarily mean they are less bitter. For example, Oakham JHB has a solid 35 IBU and Bitter & Twisted is an even more intense 39 IBU. The favored hop varieties are, for the most part, very much the same as those used in their slightly darker cousins. There has definitely been some experimentation with non-UK and newer hop varieties, but this is a trend that's not unique to summer bitters, as shall be seen below.

To recap, the golden/summer bitter is broadly similar to normal bitters in each sub-category except for a lighter color and a cool-

er serving temperature. As such, they can be quite refreshing and appeal to a broader audience. These beers will still exhibit the lower levels of carbonation expected in cask bitter, as well as the aroma and flavor notes typical of British yeast strains. They fall within the current BJCP style guidelines in most areas, even if their pale color places them at the lower stylistic border.

Hops: New Choices and Practices

The BJCP style descriptions maintain that the use of English hops is an essential component of the bitter style, but that distinction is growing increasingly fuzzy. "Hop awareness is one of the biggest developments" in UK brewing, says Roger Protz. "American and European hops are widely used as brewers have sought to interest drinkers in new aromas and flavours." Cascade, Willamette, Centennial and other Pacific Northwest hops now figure more prominently, lending their citrusy, grapefruit flavor notes to more and more British bitters. In addition, continental hops normally associated with lagers, such as Saaz and Hallertauer Hersbrücker, are no longer uncommon. These varieties introduce spicy flavors and aromas that are especially popular in pale summer bitters.

Thanks to the efforts of the National Hops Association of England and their sponsorship of the annual "Beauty of Hops" competitions, UK drinkers are also learning to appreciate the unique attributes of specific hop varieties via new single varietal beers. First Gold, a new "dwarf" variety with a Goldings-like aroma but higher alpha acid content, has been a very popular choice. A number of single varietals have been CAMRA major award winners, including Hop Back Summer Lightning and Hogs Back TEA (Goldings), Coniston Bluebird and York Brewery's Yorkshire Terrier (Challenger). To our minds, there can be no better way to learn about hops than to experiment with similar beers in your own brewhouse.

It's not just the hop varieties, but also the hopping procedures that are changing. "If British micros encouraged the first American micros," says Protz, "it can be said without contradiction that American micros have now encouraged British micros and regionals to be bolder and less reticent with hops." Anyone who has sampled beers

brewed by Sean Franklin at the Rooster's Brewery in Yorkshire would agree.

In our view, the use of these non-traditional hops is appropriate and lends variety and interest to the bitter style. The BJCP guidelines state that "some British brewers have been using American hops (e.g., Cascade), but beers made like this fit better into the American pale ale guideline." We don't agree, because the American ale categories leave no allowances for lower gravity bitters, effectively cutting out any beers under 4.5 percent abv. And what should beer judges make of Garrett Oliver's five percent Brooklyn Best, an "American style" bitter produced at J.W. Lees in Manchester as the latter brewery's March-April seasonal?

Bitter For All Seasons

Seasonal ales are now quite standard in the UK brewing industry, particularly with many of the better-known independent regionals. These beers may not be bitters at all, perhaps a mild, winter warmer, and even a fruit or wheat beer. However, many of them definitely are bitters, formulated with different recipes than their standard brands. Pale summer bitters are the most common, as we've already seen, but there are specialty bitters being produced for every season. Brewers from Brakspear to Hardys to J.W. Lees to Shepherd Neame are all making them. Hydes of Manchester has gone even further, offering a new single varietal ale every two months in 2002. Whenever and wherever you travel in Britain, there will be a variety of specialty bitters to try.

The Marque of Quality

Last but not least, one of the most significant developments on the real ale scene in the UK has been the introduction of the Cask Marque program. This is an independent accreditation scheme to reward pub licensees for the proper cellaring and serving of cask beers. Regional brewers and pub operating companies initiated Cask Marque to combat the fading popularity of real ale due to overall poor quality. Independent assessors perform regular unannounced inspections, checking for serving temperature, appearance, aroma and taste.

At present, some 20 breweries, four pub companies and one independent beer

wholesaler are members of the Cask Marque initiative. They include the country's leading cask beer chain (J.D. Wetherspoon) and most of the larger independent regional breweries (Adnams, Badger, Black Sheep, S.A. Brain, Brakspear, Cains, Caledonian, Fuller's, Gale's, Greene King, Hardys & Hansons, Harvey's, Hydes, Jennings, McMullen, Ringwood, St. Austell, Wadsworth, Charles Wells).

The program has proven to be a boon for consumers, who now receive a 100 percent satisfaction guarantee in any pub that has earned the right to display the Cask Marque shield. In a new twist, certified pubs are now offering a "taste before you buy" promotion, a simple idea that should be required in any pub, brewpub, or bar that really cares about its beer and customers. Bitter men and women should definitely seek out these pubs while in the UK.

A Continuing Challenge

In the UK, the bitter style has evolved—for better, we think—to attract a new gener-

ation of consumers who will seek out the beer and keep the style alive. In the US, bitter has emerged as a popular choice at brewpubs and bars. We want homebrewers to continue to learn and experiment with the style. While we love barley wines and strong Belgian ales as much as anyone, we think it's more challenging to brew a four percent abv beer that is interesting, full of character, and has your friends asking for more. We have encountered some wonderful bitters in our travels over the years, which leaves us—after all this time—still Bitter Men.

Steve Hamburg is the co-founder and cellar master of the annual Chicago Real Ale Festival. He has been to Britain so many times, he actually understands the rules of cricket.

Tony Babinec has a day job that has nothing to do with beer but it has taken him to Britain on many occasions. He has been on the Chicago Real Ale Festival staff since it began in 1996, although he hasn't worked as hard as Steve. He has been a homebrewer since 1989.

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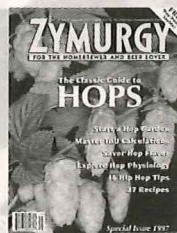
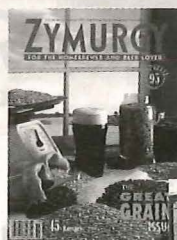
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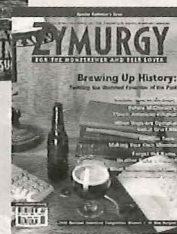
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Full Conference Registration (includes all conference events)	\$185	\$220
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Club Night - Thursday	\$20	\$25
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Texas Brewers Guild Fest - Friday	\$30	\$36
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Conference and Awards Banquet - Saturday Only	\$90	\$107
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AHA Membership	\$33	\$33
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TOTAL

Prices increase after May 14, 2002

Reproduce this form for additional registrants. Each member may register one guest at the member rate. Send completed form to: AHA, Attn: Conference Registration, PO Box 1679, Boulder, CO 80306-1679 or FAX to 303-447-2825. Call 1-800-U-CAN-BREW with questions regarding registration. For hotel reservations at the Wilson World Hotel and Suites call 972-513-0800 and reference AHA Conference for special room rate of \$59 per night if booked before May 23, 2002. For more information on the conference visit www.beertown.org

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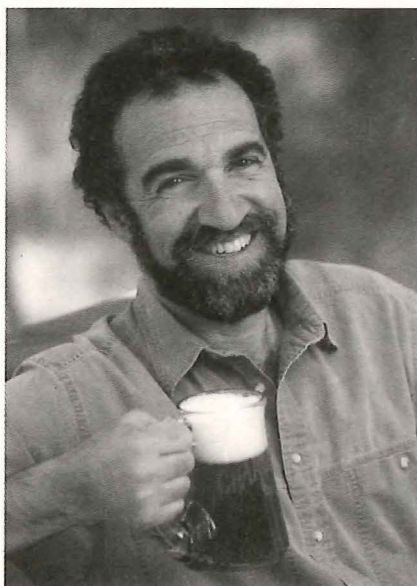


The Colonel's Altbier

For many who have been members of the American Homebrewers Association for over 20 years (and there are quite a few) we would never forget the cover of our Summer 1981 issue of *Zymurgy*. It was unbelievably controversial for some folks in the homebrew community, but for most it was a great chuckle to see one of the American Homebrewers Association's original volunteers, John Canaday on the cover. Posing in a bathtub full of bubbles, top hat, white gloves and certainly relaxing, not worrying and having a homebrew. To this day I encounter dozens of homebrewers throughout the world who not only remember that cover, but remember John. We called him Colonel John, and in the 1980s virtually any brewer or winemaker who either lived in the Boulder-Denver, Colorado, area or had made the pilgrimage to the Boulder area remembers visiting the home and "shop" and cellars of Colonel John and his wife Lois Canaday.

Access to homebrew supplies in the Boulder area was very grim in the 1980s. Though homebrewing was flourishing, there was no convenient homebrew shop to buy supplies from. This is when Colonel John stepped into the void and sold supplies out of his home. The Colonel was retired, but that didn't reflect the support of homebrewing and the character of his supply outlet. Homebrewers would come from far and wide to visit his store of supplies and taste his homebrews, wines and other concoctions. Colonel John was also one of *Zymurgy's* first regular columnists and in every issue during the early years of the magazine his "Country Wines" column was well received and helped inspire the use of available fruits in wine (and later beers).

To be sure, without John and Lois's support during that period homebrewing would not have flourished as it did here in the town where the American Homebrewers



Association has grown into a multidivisional Association of Brewers.

John and Lois haven't sold supplies for nearly 10 years now as other quality homebrew suppliers have filled the void. Both of them still reside in a quiet residential area of old town Boulder and are enjoying spending time with their grandchildren.

To answer the numerous inquiries I get every year: yes, I do remember the Colonel and Lois. We see each other not often enough, but I remember often the support, volunteerism and strength they gave the American Homebrewers Association during its important formative years. If there was a hall of foam for American Homebrewers Association members, surely they would be honored in the reception area as one of the all time great American Homebrewers Association members.

To them I dedicate this wonderfully smooth German-style deep amber ale, Ardent Alt. It would be interesting to note that 20 years ago it was a lot more difficult to brew this classic traditional ale as a

homebrewer. The hops, yeast and malts specific for this style were not available. But so many things have changed for the better. And now the quality of your life can improve that much more with a batch of Ardent Alt.

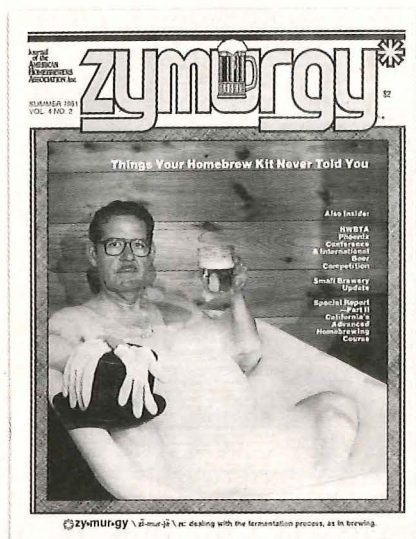
With a smooth mellow malt and hop flavor, the fruitiness of several other classic ales is absent in this style. Using lower alpha hops, the bitterness is not so aggressive, but provides adequate balance and memory. No dry hopping this classic German ale. And the roasted malt has been dehusked before roasting; thereby reducing the burnt bitterness associated with other black malts and roasted barleys. Fermentation once evident should proceed on the cooler side of ale fermentations and then either cellared at 50-55° F (10-13° C) or even lagered at 40° F (4.5° C) for a few weeks.

There are several classic commercially produced Altbiers in Germany. This one is deep amber and not aggressively bitter. It is also not so high in alcohol, thus giving it a lot of great drinkability during any season. So let's cut the shuck and jive and get on with the recipes

Ardent Altbier—Extract Recipe

Ingredients and malt extract recipe for 5 U.S. gallons (19 L)

- 2 3.3 lb cans (3 kg) amber malt extract syrup
- 1.5 oz (42 g) German Caraaffe or Belgian debittered black malt
- 1.75 oz (50 g) German Hallertauer (or formulate equivalent of Crystal, Mt. Hood, Santiam, Tettnanger or Saaz) (7 HBU/200 MBU) whole hops - 60 minute boiling
- 1.2 oz (32 g) hops (same as above) (5 HBU/112 MBU) whole hops or pellets - 20 minute boiling
- 0.25 tsp powdered Irish moss



The Summer 1981 Issue of Zymurgy

- 0.75 cup (180 mL measure) corn sugar (priming bottles) or 0.33 cups (80 mL) corn sugar for kegging quality liquid Altbier yeast for German style ales
- Target original gravity 1.048 (12° B)
 - Approximate final gravity 1.010 (2.5° B)
 - IBUs - about 28
 - Approximate color: 15 SRM (30 EBC)
 - Alcohol: 5.2% by volume
 - Apparent yeast attenuation: about 81%

Add the crushed black malt to one and a half gallons (5.4 L) of 160° F (71° C) water. Let steep for 30 minutes. Afterward strain out the spent grains, sparge with hot water and collect the liquid extract. Add 1 gallon (4 L) additional water, the malt extract syrup, 60 minute hops. Bring to a boil and continue to boil for 40 minutes. Then add remaining hops. When 10 minutes remain add Irish moss. After a total wort boil of 60 minutes turn off the heat. Then strain out and sparge hops and direct the hot wort into a sanitized fermenter to which 1.5 gallons (6 L) of cold water have been added. If necessary add additional cold water to achieve a five gallon (19 L) batch size.

Add a starter culture of yeast when temperature of wort is about 70° F (21° C).

When evidence of fermentation is seen ferment at about 65° F (18° C) range for about seven days or until fermentation is complete and appears to clear and darken. At this point rack (transfer) the beer into a secondary fermenter and "cellar" at about 55° F (13° C) for one week then if you wish to add additional smoothness, lager between 35 and 40° F (2 to 4.5° C) for 2 to 3 weeks. Bottle or keg with corn sugar. Age and carbonate/condition at temperatures between 70° F (21° C).

Ardent Altbier—All-Grain Recipe

Ingredients for an all grain recipe for 5.5 gallons (21 L)

- 6.5 lb (3.6 kg) Pilsener pale malt (grain)
- 2 lb (910 g) Munich malt
- 2 oz (56 g) German caraffe or Belgian debittered black malt
- 1.5 oz (42 g) German Hallertauer (or formulate equivalent of Crystal, Mt. Hood, Santiam, Tettnanger or Saaz) (6 HBU/172 MBU) whole hops - 60 minute boiling
- 1 oz (28 g) hops (same as above) (4 HBU/112 MBU) whole hops or pellets - 20 minute boiling
- 0.25 tsp powdered Irish moss
- 0.75 cup (180 mL measure) corn sugar (priming bottles) or 0.33 cups (80 mL) corn sugar for kegging quality liquid Altbier yeast for

HOME BREW BITTERING UNITS (HBUs) are a measure of the total amount of bitterness in a given volume of beer. Homebrew Bittering Units can easily be calculated by multiplying the percent of alpha acid in the hops by the number of ounces. For example, if 2 ounces of Northern Brewer hops (9 percent alpha acid) and 3 ounces of Cascade hops (5 percent alpha acid) were used in a 10-gallon batch, the total amount of bittering units would be 33: (2 x 9) + (3 x 5) = 18 + 15. Bittering units per gallon would be 3.3 in a 10-gallon batch or 6.6 in a five-gallon batch, so it is important to note volumes whenever expressing bittering units.

INTERNATIONAL BITTERNESS UNITS (IBUs) are a measure of the bitterness of a beer in parts per million (ppm), or milligrams per liter (mg/L) of alpha acids. You can estimate the IBUs in your beer by using the following formula:

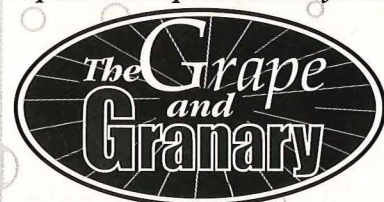
$$\text{IBU} = \frac{(\text{ounces of hops} \times \% \text{ alpha acid of hop} \times \text{utilization})}{\text{gallons of wort} \times 1.34}$$

Percent utilization varies because of wort gravity, boiling time, wort volume and other factors. Homebrewers get about 25 percent utilization for a full one-hour boil, about 15 percent for a 30-minute boil and about 5 percent for a 15-minute boil. As an example, 1 ounce of 6 percent alpha acid hops in five gallons of wort boiled for one hour would produce a beer with 22 IBUs:

$$\text{IBU} = \frac{1 \times 6 \times 25}{5 \times 1.34} = 22 \text{ IBUs.}$$

METRIC BITTERNESS UNITS (MBUs) are equal to the number of grams of hops multiplied by the percent alpha acid.

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German style ales

- Target original gravity 1.048 (12 B)
- Approximate final gravity 1.010 (2.5 B)
- IBUs - about 28
- Approximate color: 15 SRM

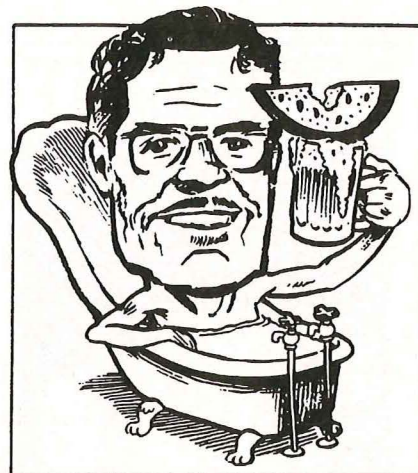
(30 EBC)

- Alcohol: 5.2% by volume
- Apparent yeast attenuation:
about 81%

A step infusion mash is employed to mash the grains. Add nine quarts (8.5 L) of 143° F (61.5° C) water to the crushed grain, stir, stabilize and hold the temperature at 132° F (53° C) for 30 minutes. Add 4.5 quarts (4.5 L) of boiling water and add heat to bring temperature up to 157° F (69.5° C)

and hold for about 30 minutes. Then raise temperature to 167° F (75° C), laut and sparge with four gallons (15 L) of 170° F (77° C) water. Collect about six gallons (23 L) of runoff and add "60 minute" hops and bring to a full and vigorous boil.


The total boil time will be 60 minutes or long enough to end up with 5.5 gallons (21 L) of wort. When 20 minutes remain add remaining one-ounce hops. When 10 minutes remain add Irish moss. After a total wort boil of at least 60 minutes (5.5 gallons



Posing in a bathtub full of bubbles, top hat, white gloves and certainly relaxing, not worrying and having a homebrew .

should remain) turn off the heat and cool all of the wort. Use an immersion cold-water bath or heat exchanging coils. Then strain and sparge into a sanitized fermenter.

Add a starter culture of yeast when temperature of wort is about 70° F (21° C). When evidence of fermentation is seen ferment at about 65° F (18° C) range for about seven days or until fermentation is complete and appears to clear and darken. At this point rack (transfer) the beer into a secondary fermenter and "cellar" at about 55° F (13° C) for one week then if you wish to add additional smoothness, lager between 35 and 40° F (2 and 4.5° C) for two to three weeks. Bottle or keg with corn sugar. Age and carbonate/condition at temperatures between 70° F (21° C).

World traveler Charlie Papazian is the founding president of the Association of Brewers and the author of numerous best-selling books on homebrewing. His most recent books are *Homebrewers Gold* (Avon, 1997), a collection of prize-winning recipes from the 1996 World Beer Cup Competition, and *The Best of Zymurgy* (Avon, 1998) a collection of the best articles and advice from 20 years of *Zymurgy*. 



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Three of the beers in this installment of Winners Circle are made with varying amounts of wheat, in keeping with this issue's "Summer Beers" theme. For Noel Blake's sinfully powerful yet piously complex Belgian strong ale, flaked wheat is used to add to the silky body and mouthfeel of the brew, and to enhance the classic Belgian head of foam that drags delicate curtains of lace down the goblet as you quaff it. As discussed elsewhere in these pages, raw wheat was once used in other ancient Belgian styles, notably lambic and witbier. We have excellent award-winning examples of these favorites brewed by perennial medalist Douglas Faynor and Scott Douglas, respectively. While Douglas' technique may differ slightly from other methods, you can't argue with a medal-winning beer, and the judges comments on his "Diamond White" speak for themselves. Veteran brewers Mick & Vi Walker, who have graced these pages with top honors many times before, are back with another winner. They take the simple approach to that old American classic, APA, and with the help of a veritable truckload of Cascade hops, manage to snag another medal. No need for wheat here! Finally, Bert Belote makes fellow Maryland mead makers proud with his version of a traditional still mead. With a few straightforward ingredients, he gets the balance right and impresses the NHC's tough-to-impress mead judges with his brew, aptly entitled, "Schweet!" More brewing at its best!

Belgian Dark Strong Ale



SILVER MEDAL

AHA 2001 NATIONAL HOMEBREW COMPETITION

Noel Blake, Portland, OR

"Ettonante"

Belgian Dark Strong Ale

Ingredients for 5 U.S. gal (19 L)

- 10 lb DWC pale malt (4.5 kg)
- 2.5 lb DWC Munich malt (1.1 kg)
- 1 lb flaked wheat (0.45 kg)
- 0.625 lb Special B malt (0.28 kg)
- 0.5 lb 60° L caramel malt (0.23 kg)
- 0.375 lb 30° L caramel malt (0.17 kg)
- 1 lb sucrose (0.45 kg) (secondary)
- 1.5 oz Northern Brewer whole hops, 7.1% alpha acid (43 g) (75 min)
- Wyeast No. 3787 Belgian Trappist ale yeast
- 3.7 oz corn sugar (105 g) (to prime)

- Original specific gravity: 1.087
- Final specific gravity: 1.020
- Boiling time: 1 hr. 15 min.
- Primary fermentation: three days at 65° F (18° C) in glass
- Secondary fermentation: 19 days at 66° F (19° C) in glass
- Tertiary fermentation: 14 days at 65° F (18° C) in glass

Brewer's Specifics

Mash pale and Munich malts and flaked wheat at 153° F (67° C) for one hour. Steep remaining grains at 145° F (63° C) for one hour. Add sugar to secondary.

Judges' Comments

"Very nice beer. Good example of style. Big fruity palate, notes of prunes. Alcoholic warming is there. This is a gorgeous brew."

Belgian Sour Ale



SILVER MEDAL

AHA 2001 NATIONAL HOMEBREW COMPETITION

Douglas Faynor, Woodburn, OR

"Framboysen Poison"

Fruit Lambic (Framboise)

Ingredients for 5 U.S. gal (19 L)

- 6 lb Pilsner malt (2.7 kg)
- 1 lb dextrin wheat (0.45 kg)
- 4 lb flaked wheat (1.8 kg)
- 8 lb red raspberries (3.6 kg)
- 5 lb boysenberries (2.7 kg)
- 4 oz Goldings whole aged hops (113 g) (2.3 hrs)
- Wyeast No. 3278 Belgian Lambic Blend
- 13 Tbsp dextrose (to prime)

- Original specific gravity: 1.054
- Final specific gravity: 1.002
- Boiling time: 2 hrs 20 min
- Primary fermentation: 2 years at 70° F (21° C) in oak
- Secondary fermentation: 8 months at 70° F (21° C) in glass

Brewer's Specifics

Mash grains at 150° (66° C) for 75 minutes. Macerate fruit and add to secondary.

Judges' Comments

"Sweet fruit is immediately overtaken by acid. Hard lambic. Big Brett. Finish clean. Fruit hangs on for dear life until the end. Well balanced. Good job!"
 "Nice brew with grand acid kick. Slight fruit astringency in aftertaste."

Belgian and French Ale



SILVER MEDAL

AHA 2001 NATIONAL HOMEBREW COMPETITION

Scott W. Douglas, Black Diamond, WA

"Diamond White"

Witbier

Ingredients for 5 U.S. gal (19 L)

- 10 lb Maris Otter pale malt (4.5 kg)
- 10 lb Briess wheat malt (4.5 kg)
- 0.5 oz bitter orange peel (14 g) (5 min)
- 1.5 oz coriander seeds (43 g) (5 min)
- 2 oz Saaz whole hops, 4.6% alpha acid (57 g) (60 min)
- 1 oz Tettnanger whole hops, 6.2% alpha acid (28 g) (5 min)
- White Labs WLP 570 Belgian Golden ale yeast
- 0.75 cup cane sugar (177 mL) (to prime)

- Original specific gravity: 1.048
- Final specific gravity: 1.008
- Boiling time: 1 hr. 45 min
- Primary fermentation: 14 days at 68° F (20° C) in glass
- Secondary fermentation: 18 days at 66° F (19° C) in glass

Brewer's Specifics

Mash pale and wheat malts at 169° F (76° C) for 200 minutes. Add spices five minutes before the end of the boil.

Judges' Comments

"Excellent example; balance of spices and the sweet and sour finish are very much on style. Great job."

"Well-balanced and refreshing. As good as some commercial examples I've tasted. Well done."

American Pale Ale



BRONZE MEDAL

AHA 2001 NATIONAL HOMEBREW COMPETITION

Mick & Vi Walker, Fargo, ND

"North Fargo Pale Ale"

American Pale Ale

Ingredients for 11 U.S. gal (41.6 L)

- 20 lb pale ale malt (9.1 kg)
- 1 lb 30° L crystal malt (0.45 kg)
- 1 lb 60° L crystal malt (0.45 kg)
- 1 oz Centennial whole hops, 10.5% alpha acid (28 g) (75 min)
- 1.25 oz Cascade pellet hops, 5.35% alpha acid (35 g) (60 min)
- 1 oz Cascade whole hops, 5.35% alpha acid (35 g) (15 min)
- oz Cascade whole hops, 5.35% alpha acid (35 g) (10 min)
- 1 oz Cascade pellet hops, 5.35% alpha acid (35 g) (5 min)
- 1 oz Cascade pellet hops, 5.35% alpha acid (35 g) (2 min)
- 2 oz Cascade whole hops, 5.35% alpha acid (35 g) (dry)
- Wyeast No. 1056 American ale yeast
- Forced CO₂ to carbonate

- Original specific gravity: 1.054
- Final specific gravity: 1.012
- Boiling time: 90 min.
- Primary fermentation: 12 days at 66° F (19° C) in glass
- Secondary fermentation: 22 days at 66° F (19° C) in glass
- Tertiary fermentation: 28 days at 50° F (10° C) in steel

Brewer's Specifics

Mash grains at 150° F (66° C) for 60 minutes.

Judges' Comments

"Nice hop notes; fresh & clean aromas. Very nice overall."

"Very enjoyable APA. Good hop flavor and bitterness with enough malt to add complexity. Good job!"

Traditional Mead



BRONZE MEDAL

AHA 2001 NATIONAL HOMEBREW COMPETITION

Bert Belote, Colora, MD

"Schweeet!"

Sweet, Still Traditional Mead

Ingredients for 3 U.S. gal (11.4 L)

- 13 lb wildflower honey
- 1 tsp Fermaid yeast nutrient (5 mL)
- 5 g Red Star Champagne yeast
- Original specific gravity: 1.120
- Final specific gravity: 1.040
- Boiling time: 10 min.
- Primary fermentation: "A long time" in plastic
- Secondary fermentation: "A long time" in glass


Brewer's Specifics

Boil must for 10 minutes.

Judges' Comments

"Good sweet mead. Nice balance. Sweet without being cloying, although this is definitely a sipping mead. Nice job."

"Good mouthfeel. Flavors well-balanced. Some complexity. Well done. Thanks for the opportunity to judge your mead."

For the last two years Amahl Turczyn has been the Associate Editor of *Zymurgy*. He has recently moved to a new post with the University of Colorado, but we hope that his contributions to *Zymurgy* will continue. 

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Brew News (from page 24)

math teacher from White Plains, New York, won the coveted title. Steinel's victory over two other finalists came after two hours of beery queries from an elite panel of beer experts that tested the finalists' knowledge of beer, how it is made, and its legend and lore. Steinel demonstrated the range and depth of his beerosity by singing beer jingles from the past and—when

asked to compare himself to a style of beer—said he most resembles a Belgian lambic.


"A little bit odd, a little bit eccentric, maybe not for everyone. But the people who like it really like it. And it ages well."

And in response to a judge's request that he "prove to us that despite your beer obsession you are not nuts," Steinel stated that "beer must be good for you

because I've taken only two days off from school in the last 27 years—and both were taken so I could come to the Beerdrinker of the Year competition."

The other two finalists were John Mari-
oni, 38, a man who makes his own beer using hops he grows in his backyard in a suburb of Seattle; and Tom Ciccateri, 45, whose travels for Honeywell have taken him from his home in Kansas City to 52 breweries and 275 brewpubs in 24 countries.

The trio of finalists in this nationwide search was selected from a panel of judges—primarily editors of national beer publications—on the basis of their three-page resumes. They were flown to Denver by the Wynkoop Brewing Company for the national finals (aka the Bar Exam). To reflect the seriousness of the proceedings, the judges dressed in their traditional black robes and white wigs.

For the last two years Amahl Turczyn has been the associate editor of *Zymurgy*. He has recently moved to a new post with the University of Colorado, but we hope that his contributions to *Zymurgy* will continue. 



Beer Drinker of the Year Competition. Pictured clockwise from top left are: Dick Kreck, Chris Black, Nancy Johnson, Anne Arnold, Paul Gatz, Patti Calhoun, Winner Gary Steinel, Penny Parker, John Hickenlooper and Stan Hieronymus

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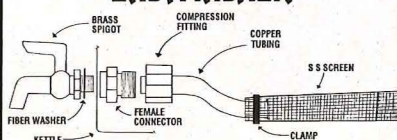
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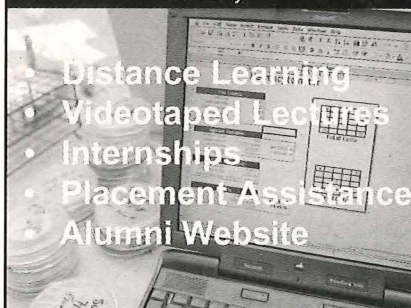


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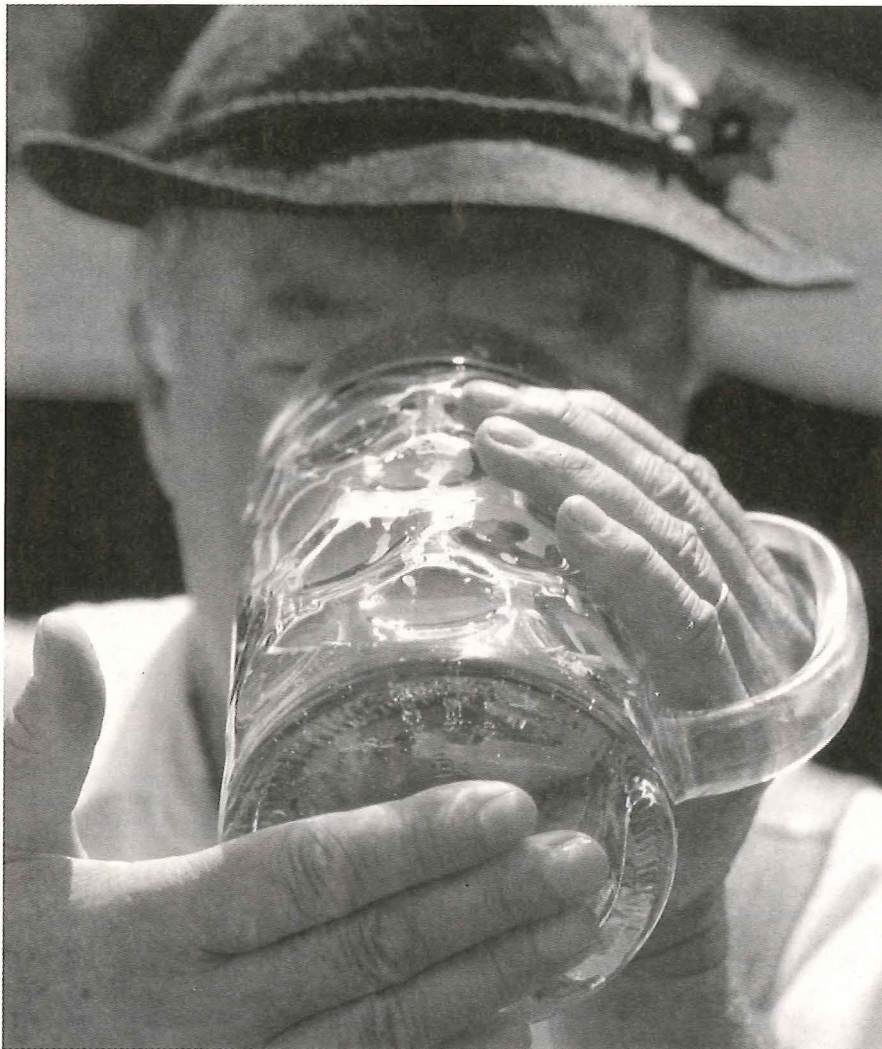


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Bavarian (from page 37)

bräuhaus, in 1601, he made a few test batches of Wittelsbach weissbier in spite of the fact that his great-grandfather had granted the exclusive production privilege for weissbier to the Degenberg clan in perpetuity. A further escalation of the "weiss-war" seemed inevitable when clever Max got a lucky break. The current Degenberg, Hans Sigmund, had obviously been too preoccupied with his quarrels with the Wittelsbachs to make babies. So when he died in 1602, he left no heir. By the rules of the time, this meant that all the privileges the Wittelsbachs had ever granted the Degenbergs would instantly revert back to the crown. The House of Wittelsbach had won the "weiss-war" by default.

Weissbier Becomes A Wittelsbach Brew

Maximilian wasted no time reversing the official Bavarian beer policy. Weissbier

brewing was still *verboten*, but not if a Wittelsbach did it. He thus granted to his own family the only exception from the barley-only provisions of the Reinheitsgebot. But when you are a feudal monarch, the maxim "Do as I say, not as I do" is quite all right. After all, who is going to argue with you?

Duke Maximilian quickly built a second court brewhouse, which he placed right next to the brown lager brewery started by his pious father Wilhelm, and he brought the Degenberg's brewmaster from Schwarzach to Munich to run it. Now every innkeeper in Munich now had to serve the erstwhile "useless drink." Over the years, Maximilian added more and more wheat beer breweries to his new conglomerate, including one smack in the dead Degenberg's back yard. Through his new monopoly, he did well by doing good: He not only kept the weissbier flowing in the land, he also kept the state

coffers swelling in the realm.

The weissbier monopoly remained with the Wittelsbachs until the end of the eighteenth century, when the brown lager of Bavaria made a comeback. Weissbier revenues declined and weissbier breweries run by state bureaucrats became largely unprofitable. The crown began to lease its weissbier brewhouses to burgher brewers, and, in 1798 the Wittelsbachs abandoned the monopoly entirely, but they kept the Hofbräuhaus. In 1803, they even issued a weissbier quality ordinance, in which they specified that the brew should "be bubbly and foamy, contain the bitterness of the hops, leave a cooling and refreshing sensation on the palate, and impart its prickly flavor to its bouquet as well."

But the old weissbier glory could not be salvaged. By 1808, the brown beer Hofbräuhaus assimilated the adjacent wheat beer Hofbräuhaus, and by the mid-1800s, weissbiers had become just a curiosity from the past. In 1872, Georg Schneider, founder of the Georg Schneider & Sohn brewing company, offered to purchase the last remaining weissbier brew right held by the crown, in the Hofbräuhaus, and the Wittelsbachs acquiesced. Today, a sixth-generation Schneider, Georg VI, runs that same company, which is now the largest weissbier brewery in Germany. Thus ended two-and-a-half centuries of roller-coaster involvement in weissbier by the Bavarian ruling dynasty—or did it?

Weissbier's Death and Resurrection

Let's take a closer look at the current heir to the Wittelsbach throne, HRH Prince-Regent Luitpold Rupprecht of Bavaria. Born in 1951, Luitpold decided to follow in the beery footsteps of his illustrious ancestors... to become a trained brewmaster and to start a brewery! He now owns a commercial packaging brewery in Fürstenfeldbrück outside Munich, a castle brewery and beer garden, called König Ludwig Schlossbrauerei Kaltenberg, two dozen miles west of Munich, and a brewpub, called Kaltenberg Castle Royal Bavarian Brewhouse, located a few thousand miles west of Munich, in Vail, Colorado, USA. Among the beers produced by HRH Luitpold under the Kaltenberg label are a Pils, a Helles, a Light Lager, the

famous König Ludwig Dunkel that is reminiscent of the original Bavarian dark lager of the sixteenth century, and—you guessed it—a hefeweizen called Prinzregent Luitpold Weissbier!

Today, dozens of breweries and brewpubs turn out about a thousand different wheat ales in all shades of color and alcoholic strength, both in Germany and in North America. Weissbier now comprises some 10 percent of beer consumption in Germany overall and some 30 percent in Bavaria.

The Weissbier Pouring Ritual

In Bavaria, weissbier is consumed at any time of the day, from morning until midnight. It is an everyday quaffing beer that is an excellent palate cleanser. It refreshes on its own on a hot summer day, and it stands up well as an accompaniment to hot, spicy, or rich food.

Always pour a weissbier in a glass that is first rinsed in cold water. There must be no foam-inhibiting soap residues in the glass. Never over-chill a weissbier. It is best served at a temperature of 50 to 54°F (10 to 12°C) to release its unique, slightly sour, refreshing flavor and its champagne-like effervescence. Except for filtered kristallweizen, all weissbiers are cloudy in the glass, because they are bottle-conditioned. This means that some live yeast reach the bottle during filling, and a tad of unfermented beer, called "speise," is added just at that point. Once capped, the bottle gradually builds up pressure as the yeast ferments the speise and converts it into additional alcohol and carbon dioxide gas. Because the gas cannot escape, it remains in suspension in the beer, giving it that famous hefeweizen effervescence. So do not agitate the bottle before opening it. Uncap it carefully and pour the beer quickly into the glass. Make sure you have a very tall glass with sufficient headspace for the crown of foam that is bound to rise above the beer.

Aficionados also treasure the yeastiness of the beer. Unfortunately, much of the yeast settles out at the bottom of the bottle on its journey from the brewery to your table. So keep just a little bit of liquid in the bottle after you poured your glass. Then lay the bottle flat on its side and roll it vigorously back and forth to let the

sloshing liquid loosen the yeast sediment. Then hold the bottle about five inches above your glass and let the milky yeast broth cascade into your brew. This is the pro way to do it!

Bavarians tend not to serve a weissbier with a slice of lemon. They argue that lemon impedes the true clove-phenolic flavor of the weissbier and destroys the creamy-white head. Yet, others believe that a touch of lemon is a splendid way to enhance the weissbier's refreshing quality. There is no need to be dogmatic about this point. Just drink it the way it suits you!

In modern Bavaria, weissbier is still firmly ensconced in the people's consciousness. It confers a sense of cultural identity upon the ordinary Bavarian. If you are searching for a great place to have a weissbier and observe a happy weissbier crowd, just visit a Bavarian beer garden on a warm summer Sunday morning, right after Sunday mass and before Sunday noon dinner. As the happy parishioners flock in, their souls nourished by the ritual of their faith, they clamor for more earthly nourishment, and a different ritual begins: "Ein weissbier, bitte!"

Horst Dornbusch is the author of several books on beer and brewing, including *Prost! The Story of German Beer, Altbier and Bavarian Helles*.

Farmhouse Ales (from page 41)

course, there are dark brown to opaque non-spiced examples as well. Bière de Garde and Bière de Mars tend to be slightly more alcoholic and sweeter in their finish. Often, they contain higher levels of Munich malt and may even be made with lager yeast fermented at warmer temperatures that manifests itself in a pleasant fruity character.

I was asked to include a couple of recipes for these beers. They feature traditional and non-traditional brewing ingredients. There is no recipe included for a traditional Saison as it was previously published in the July/August 2001 issue of *Zymurgy* on page 56. Please use these as starting points. To merely recreate the recipes would serve only to stifle the creative genius that can be farmhouse brewing. When I wrote these recipes, I tried to evoke certain essences reminiscent of a fall day and post-Thanksgiving day treats.

The *Bière de Arthur* is a *Bière de Garde* recipe that features lots of malt components that will be balanced by the fruitiness of the yeast. The hops will play a supporting role in this beer and a slight astringency will also be present in the use of Belgian chocolate malt. It is dark amber in color and highly aromatic of malt, toasted wheat and fruit. An extended period of cold conditioning (continued on page 62)

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Dear Professor (from page 17)

a nine to 11 percent brew without the bottles rupturing or the beer turning out flat? Most ale yeast is resistant to alcohol this high, and if I use champagne yeast, I'm afraid the residual sugars would get fermented and boooooom! Thanks for your help.

Eddie Greenwood
New York, NY

Hello Ed,

Michael Jackson passed on your question to me to answer. First of all you should relax. I've brewed a 10.5 percent barleywine several times without carbonation problems. It certainly helps to prime and bottle condition with the right amount of measured corn sugar (about 3/4 cup for five gallons) and avoid using malt sugars. Why not malt sugar? Because malt sugars have more of

an oxygen requirement for fermentation. Corn sugar does not require the same oxygen intake to ferment, in other words, it is more readily fermentable. And if you have aged the barley wine in a carboy/fermenter for more than, say, two months, recharge the aged barley wine with a fresh dose of yeast at the same time you add corn sugar for bottling. That'll surely do the trick. If you are a real worry wort, you can add some champagne yeast at the very end, just as you add corn sugar for bottling, but I don't. The beer may take a bit longer to carbonate. Be sure to condition it at temperatures near 70° F for about two weeks before you cellar it away for storage. Other than that it's a no brainer—especially after a few barleywines!

Without a brain?
The Professor, Hb.D.

Last Drop (from page 64)

of Tom and his NYPD unit marching into ground zero the afternoon of Sept. 11.

Thought the event was small in scope, it was large in spirit. It provided an embodiment of what, in this writer's opinion, are the core values of homebrewing and homebrewers: independence, creativity, camaraderie and compassion.

Hank Stewart's fanciful contributions to *Zymurgy* have raised eyebrows, but this report from the real world can only prompt us to raise our glasses.

CORRECTION

Due to a printer error, the phone number for ProMash was incorrect in the March/April issue of *Zymurgy*. The correct number is 805-252-3816.

Farmhouse Ales (from page 61)

will make this beer much crisper and livelier in the bottle.

The Saison de Craisin recipe is that of a Winter Saison. It features some fruit (dried cranberries), spices and malt that if blended together will evoke the essence of a cranberry pie. The toasted malt provides much of the warm biscuit flavors of freshly baked pie while the spices and cranberries provide the lush fruit flavors. It is a very strong ale at over 9.5% abv and will most definitely benefit from a period of extended "guarding."

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Tomme Arthur is the brewer of Cuvee de Tomme, a Belgian-style red ale that *Malt Advocate* magazine named "Domestic Beer of the Year" for 2001. He brews at the Pizza Port Solana Beach near San Diego.

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*Cover 2 is the inside front cover. Cover 3 is the inside back cover. Cover 4 is the outside back cover.

Beer Talk (from page 6)

National Homebrew Day, we get together at a staff Big Brew site to enjoy the camaraderie of brewing and brewers. This year's recipes include a Maibock contributed by the late George Fix. He was devoted to homebrewing to the very end. The second recipe is the old ale brewed by Steve Jones to win the 2001 AHA Homebrewer of the Year. Big Brew is again sponsored by Wyeast Laboratories.

AHA National Homebrewers Conference

The key to this year's National Homebrewers Conference is Texas homebrewer Dave Dixon. Dave, who many of you know from previous conference or the Gulf Coast Circuit, is the local committee chair this year. Dave, Gary and I have been hammering out the large number of details needed to bring the conference together. Some of the tasks include developing a speakers list (Ray Daniels, Bill Slack, Fred Eckhardt, Charlie Gottenkienny to name a few—see www.beertown.org for a full list), inviting speakers, planning menus, coordinating the hospitality suite and all of the nighttime events, putting together the conference program and developing sponsors. Beer, Beer and More Beer is sponsoring Club Night. Rogue Ales is again the Grand Banquet Sponsor. The conference is set for June 20-22 in Irving, Texas. It is always the highlight of my homebrew year and I can't wait to see old friends and make new ones in Texas. There is a registration ad in this issue of *Zymurgy*, and I guarantee a great time.

AHA Board of Advisors Election

This issue of *Zymurgy* also includes the ballot for the AHA Board of Advisors election. There are five seats up for election. The rules and candidate bios are here, and candidates have been invited to put statements and other material on the board of advisors section of www.beertown.org. With this election, every member of the board of advisors will have gotten there by member election, and it is a different AHA than we once had. If you look at AHA today and how our members and board lead so much of the activity,

Extract Recipes for Big Brew 2002*

George Fix's Maibock—Extract

Recipe for 5 Gallons

- 8.5 lbs extra light dry malt extract
- 0.5 lbs CaraVienna malt
- 2.00 oz Hallertauer Mittelfruh hop pellets, 4.5% AA, 60 min
- 0.75 oz Hallertau Hersbrucker hop pellets, 4.75% AA, 30 min
- 0.75 oz Hallertauer Mittelfruh hop pellets, 4.5% AA, 15 min
- Wyeast 2633 (if you can't find 2633, 2124 Bohemian lager is a good second choice)
- Original Gravity: 1.070-1.074
- Final Gravity: 1.016-1.018
- 25 IBU
- Add grains to 2.5 gallons of water. Heat to 170° F, then remove grains. Stir in malt extract and bring to a boil. Add boiling hops and boil for 30 minutes.
- Add second hop addition, boil fifteen minutes then add final hop addition.
- Transfer to fermenter with enough cold water to make 5 gallons. When sufficiently cooled, aerate well and pitch a large yeast starter (George recommended using a starter twice the size as for a normal lager) or rack onto a yeast cake from a previous batch. Ferment at 50° F until gravity drops to 1.020, around 12 to 14 days. Lager six weeks to six months.

Hunter's Moon Old Ale—Extract

Recipe for 5.5 Gallons:

- 13.5 lbs light dry malt extract
- 1.0 lb english crystal 55L
- 4.00 oz East Kent Goldings whole Hops, 6.60% AA, 90 min.
- 1.00 oz East Kent Goldings whole Hops, 6.60% AA, 30 min.
- 1.00 oz East Kent Goldings whole hops, 6.60% AA, 0 min.
- Wyeast 1084 Irish ale yeast
- Original Gravity: 1.118
- Final Gravity: 1.035
- 50 IBU
- Add grains to 2.5 gallons of water. Heat to 170° F, then remove grains. Stir in malt extract and bring to a boil.
- Add boiling hops and boil for an hour. Add second hop addition, boil another 30 minutes then add finishing hops.
- Transfer to fermenter with enough cold water to make 5.5 gallons. Aerate well and pitch a large starter of yeast or rack onto a yeast cake from a previous batch. You may need to add additional yeast to secondary fermenter to finish this beer out. The brewer recommends slurry or a large starter of Wyeast 1728 Scottish Ale Yeast for finishing.

Additional information and all-grain recipes can be found at www.beertown.org/AHA/BIGBREW/.

you can see that we are very much a grassroots group that has improved from the heart added to our events and programs. With your vote in the election you will automatically receive an entry into the AHA-Lallemand scholarship contest for the short course at the Siebel Institute of Technology. This contest is open to all AHA members (except staff, hey wait a minute!). You may enter through www.beertown.org and get an additional entry just by voting. My thanks go out to Rob Moline and Lallemand for generously making this offer to AHA members.

AHA Mission Statement

The Association of Brewers has replaced the bulky mission statement that has appeared in our masthead for years with a simpler one that directly addresses our educational mission. The mission has been simplified: "To make quality beer and brewing knowledge accessible to all."

Well it is time for another maibock, so I'll sign off to go pour another and save some space for the technical content. Thanks everyone.

Paul Gatz is the director of the American Homebrewers Association.

Brewing For A Reason

Three times during the fall of 2001, the Ramapo Valley Brewpub in Suffern, New York was packed with people who would have rather been anywhere else. The brewpub owners would have been equally happy not to have had their business. People had ventured to the brewpub those afternoons because of its close proximity to the Church of the Sacred Heart, site of three funerals for New York City firefighters killed at the World Trade Center on September 11.

But geography wasn't the only reason uniformed firefighters from across the country stood shoulder to shoulder with townspeople at the Ramapo Valley bar. They were seeking a sense of community, an affirmation that they were all grieving together, and that was how they would survive their grief and move on—by banding together. Local bars have always provided fertile ground for the seeds of solidarity.

That spirit of unity was felt again in the Ramapo Valley Brewpub on a Saturday afternoon in early December. The occasion was the Ramapo Ruffians Homebrew Club's Beer Festival For New York, a homebrew tasting created to raise money for a group of September 11 survivors.

Club members brought in over two dozen examples of the brewer's art to share with members of the public, who paid \$10 for a pint glass, then moved from table to table, enjoying a wide range of top-notch homebrews. There were also a few commercial offerings donated by nearby microbrewery, High Point Wheat Beer Company, whose owner and brewmeister Greg Zaccardi (a former homebrewer himself) had cancelled a 9 a.m. appointment at Windows on the World on September 11 because his daughter had an earache.

Throughout the snowy afternoon, beers were tasted, friends basked in conversation,



Entering Ground Zero on September 11. There's a homebrewer in this picture.



Club member Tom presents Ramapo Valley Brewpub owners Danny Scott and Egon Linzenberg with a photograph of his NYPD unit entering Ground Zero the afternoon of September 11.

and by early evening, over \$700 had been raised for Survivors of the Shield, an organization comprised of the widows of New York City Police officers killed in the line of duty. This organization, which helps other NYPD survivors get their lives back together after personal tragedy, has been around years, but it has never before seen the level of somber activity it has in 2001.

Survivors of the Shield had been suggested as a worthy beneficiary of the event by club member Tom, an NYPD detective who has been on the force for over ten

years (the undercover nature of his work prohibits the disclosure of his full name), and seen some of the good works the Survivors of the Shield has done in that time. The organization helps families of the victims with navigating city benefits bureaucracy, arranging for free financial planning, even providing babysitting service when necessary. As Tom says, "They try to give the families as much of a normal life as is possible."

Like many club members, Tom lost a friend on September 11, a rookie cop he had helped break in years ago, who later switched over to become a New York City firefighter. Like all club members, Tom felt great gratitude toward the Ramapo Valley Brewpub owners, Danny Scott, Egon Linzenberg and Robert Garbus. "Look at this" Tom said, sweeping his hand around the dining room, "they [the owners] let all these people come in here and pay to drink beer that's not theirs. That's pretty special." As if to strengthen Tom's point, the owners also chipped in one free pint of their beer to all attendees (many of whom, this reporter included, selected brewer Neill Acer's amazing Belgian-style trippel, Demon Fuel).

As the afternoon wound down, votes were tallied, and a Best of Show was selected, a Belgian Ale brewed by club member Chris Baas, who had brought six five-gallon kegs of his homebrew to share. Club president Dave Cinquana pronounced the event a success, and said the club would do it again sometime in 2002, at which time, he would hope to draw an even larger crowd. "We could have done better publicizing the event," Cinquana said, "but we're brewers, not marketers."

At the end of the event, Tom and the rest of the Ramapo Ruffians presented owners Scott and Linzenberg with a dramatic photograph (continued on page 62)

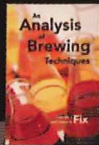
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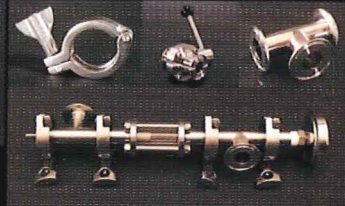
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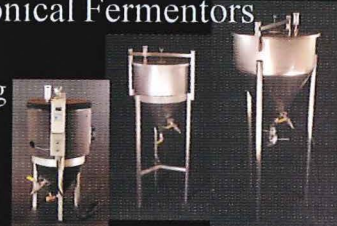
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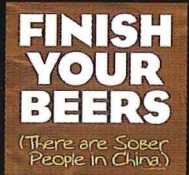
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