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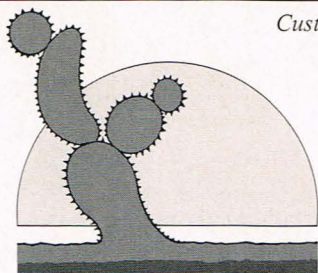
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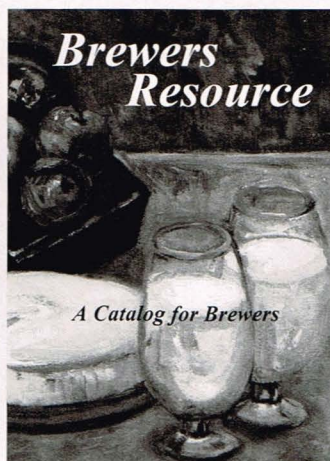
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BY PAUL GATZA

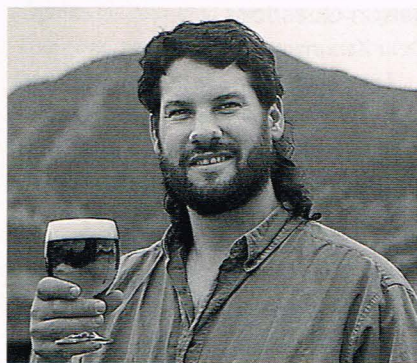
When we survey about what homebrewers want in *Zymurgy*, more recipes are always near the top of the list. This issue of *Zymurgy* has the gold medal-winning recipes for the 1999. You'll also be seeing more clone recipes of cult and commercial beers in the upcoming issues, as per your requests.

The AHA National Homebrew Competition is the program where we have been most successful over years at integrating the enthusiasm and energy of members in a volunteer capacity into the workings of the AHA. As we wind down the year, I'd like to take this opportunity to thank the many members who volunteered in exceptional ways to move the American Homebrewers Association into more of a grassroots association that is making a difference in homebrewing communities across this nation.

I must start with Alberta Rager. Alberta helps make a better AHA in so many ways. She chaired the organizing committee for the 1999 AHA National Homebrewers Conference, ran the first round site in Kansas City for the National Homebrew Competition and served as a key member of the AHA Board of Advisers. Alberta was an outstanding choice for the 1999 AHA Recognition Award.

There are many driving forces in the celebration, advancement and promotion of homebrewing. Let me start with the AHA Board of Advisers. The AHA Board is listed on page 2 and is directly involved with the direction of our association.

It is quite helpful for me to have a forum of 15 of the most experienced people in the homebrewing community for advice and creative ideas.



Several hundred members volunteer for the NHC, and I thank the site coordinators by name in Winners Circle.

The 1999 AHA National Conference was the next area that we turned over the majority of a program to the membership. The members of the Kansas City Bier Meisters took the conference and coordinated with other area clubs and AHA staff and threw one heck of a good time. Of particular note is the organizing committee of Dave Hartwig, George Huhtanen, Steve Ford, Jackie Rager, Darren Underwood, John Weerts and conference committee chair Alberta Rager.

We celebrated homebrewing in our own unique way and built an incredible spirit of community during the "Last Great Homebrew Party of the Twentieth Century." The strength of homebrew clubs was evident at the conference and throughout the year. Thanks to the many club members who participated in the Club-Only Competitions and Sanctioned Competition Program. Tom Cannon, Gordon Strong, Bob Kauffman, Ken Schramm, Doug Faynor and Ed D'Anna took leadership roles in this area.

I am getting at something with all of this recognition of involvement. I had a discussion with a couple of members of the Ann Arbor Brewers Guild after a planning meet-

ing for Michigan 2000, the site of next years National Homebrewers Conference. Jason Henning, AHA Board of Adviser member Ken Schramm and I were discussing the next step in the grassroots transition for the AHA. How can we best channel the energy and enthusiasm out there to promote homebrewing and build a better AHA was the question at hand. Ken suggested a more locally based approach, involving the AHA connecting people better with homebrew clubs. We could provide an area clubs list to new members who sign up as AHA members. These are people in your area like you.

Ken's other big suggestion was to expand beyond the 15-member Board of Advisers into a more formal structure of regional or even statewide AHA representatives who work on program committees and can help us build membership. This suggestion echoed one that came up during the members meeting at the conference by Dave Dixon of the NET Hoppers, who offered to serve a role like this in Texas. Most people become AHA members because someone they trust tells them that we are a worthwhile group promoting homebrewing, advancing education in homebrewing and holding events that are fun and celebrate the hobby.

Here is the next big step for the AHA—regional contacts who have an active role in the AHA. More strands in the network web of what makes up the AHA. I encourage anyone who wants to take on a larger volunteer role in this or other capacity to contact me. My e-mail is paul@aob.org. My phone is (303) 447-0816 ext. 122.

One Last Thing

Thank you.

Homebrewer and homebrewer shop owner
Paul Gatz is the director of the AHA.



PHOTO BY BOB GOLDMAN



Yule Spirits

Dear *Zymurgy*,

Enclosed is a photo of our beer coaster Christmas tree. The coasters came to us from our German foreign exchange student and were just too interesting to put away in a drawer. So we hunted around the house for some coasters from our microbrew tour of Montreal and here is the result.

If you squint at the top coaster you'll see it is the AHA's "Relax, Don't Worry, Have a Homebrew" coaster.

Would Martha Stewart be proud?

Yours,
Jennifer Newhart
Lake Placid, NY

Now this gives Santa something to aim for when he smokes down the chimney...Ed

Saison Questions

Dear *Zymurgy*,

I was pleased to see the article "Saison in Style" in the May/June *Zymurgy* 1999 (Vol. 22, No. 3). Ever since I had my first bottle of Saison Dupont about five years ago, saison has been my favorite Belgian style to both drink and homebrew.

I found the article an enjoyable read, but was disappointed that the author did not include any mashing or boiling parameters in the section on brewing your own saison. I'm always looking for new information to better the process! He also failed to mention Brew Tek CL-380 Saison yeast as being appropriate for brewing this style.

I have had the very same experience with the Dupont yeast culture as the author, but now an using the Brew Tek Saison yeast as its performance and flavor characteristics are very similar to the Dupont yeast and may be in fact the very same culture. As to these cultures slowing way down after the vigorous initial fermentation, I have been recently made aware that these cultures need to be fermented at 78 degrees F (26 degrees C) in order to attenuate at a normal rate. No off flavors or hot tasting higher alcohols will be produced at this temperature either! Just that host of different flavors that the author speaks of.

As far as priming goes, I have always primed my saisons with the equivalent of one cup of sugar/five gallons, and have had no problems with overcarbonation. Mashing at 158 degrees F (70 degrees C) for one hour, and starting with an original gravity of 1.060, I am always able to achieve a final gravity of 1.010-1.012 with an all grain mash (no sugar to lighten the body). These yeast cultures are very attenuative, even with a high dextrine wort!

And yes, the last time I had an Orval, I thought to myself, this tastes a lot like a saison.

How about a profile of one of the saison brewers, and more information on this elusive beer style in future issues of *Zymurgy*?

Sincerely,
Barry Johnson
Watertown, CT

P.S. The national competition needs to have a separate category for saison as it once did. I have entered my Saison in the Belgian Strong category in the past, and the judges don't seem to know what they're dealing with when tasting an aggressive saison!

Author Amahl Turczyn—who got married a few months ago—agrees heartily. No word yet on how the marriage is going to effect his brewing! Ed.

A Thank You to Charlie

Dear *Zymurgy*,

Many thanks for sending us Charlie Papazian's article. We read it avidly! Charlie must have a very good memory and/or made copious notes as we could hardly fault him on anything—well, except we only have three self-catering properties. Six or seven might be much more profitable but perhaps less attractive as the place might become overcrowded.

Having said that, since Charlie was here we have renovated three bedrooms—all ensuite of course—and we are doing bed & breakfast here in the castle. This is the third year and so far it is going quite well, better than last year, which was bad for tourism throughout the area. We are now becoming better known and getting lots of repeat bookings and personal recommendations. [This is a thinly disguised advertisement!]

Is Charlie planning to write anything else based on the notes he made at the time and the material I sent you afterwards?

Yes, thank you, we are both well—we need to be with the things we are doing!—and we hope Charlie is well too. Please keep in touch, and perhaps we may be able to welcome you here again some time in the future?

Marion joins me in sending you our very best wishes.

Reinold
Minard Castle
Minard, Scotland

Thank YOU...If Charlie returns, can he bring the rest of us? Ed.

I am an avid homebrewer with over 500 gallons under my belt.

I love *Zymurgy* magazine and look forward to each issue with anxious anticipation.

Keep up the good work.

Sincerely,
David R. Horton
Camarillo, CA

Thanks for your kind word, and it's good to know that we're helping change beer for the better. Ed

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Cool Plating

Dear *Zymurgy*,

Just thought I'd drop you a line and send in my entry into the "Brew Plates USA" search.

Because of the special plates I was only able to use five letters, but homebrewers here in "Joysee" know what I'm talking about.

Hey, besides, isn't yeast an animal?

Mark Scott
So. Plainfield, NJ

Actually, lions and tigers and bears are animals. Yeast is a great gift from the benevolent gods...Ed

Monster Mash

Dear *Zymurgy*,

The article on mash efficiency in the May/June *Zymurgy* (Vol. 22, No. 3) was fantastic.

I did not realize there was such a thing. By making a few simple adjustments in temperatures and mash procedures, I was able to bring my efficiency from between 40-50% on previous batches up to 61% on my most recent batch.



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RAY DANIELS

The "D" Word

Concept: A column about beer and brewing for those who make beer. And who better to turn to for such a column than Ray Daniels? Regular Zymurgy readers are already familiar with Ray through his work on real ale, through his books, through his speaking and through his articles. "All brewers are connected through the history and technology of brewing," says Daniels. "Homebrewing opens up a whole world of topics related to beer that mere drinkers of beer could never appreciate. I will explore the ground common to all brewers, with a jab here, a poke there and a few tantalizing factoids thrown in just to make my opinions seem legitimate." Here's the first "Homebrew and Beyond:"

Time for a pop quiz. Please answer the following question without referring to any brewing reference materials or beer commercials featuring frogs.

The term "drinkability," when applied to a beer, means:

- a) People who don't even like beer will drink it.
- b) A beer brewed light and lean so that it can be consumed in mass quantities.
- c) Contains mere hints of high quality ingredients so as not to offend anyone.
- d) Four words: "This will sell boatloads!"

The answer, of course is e) All of the above.

Drinkability is the watchword for our nation's largest brewers. And let's face it, when you crank out 90 million barrels of beer a year, you've got to make products with drinkability. Despite what we homebrewers may think, most of the drinking public does consume food in addition to beer as a part of their regular diet. They even drink other beverages like wine, soft drinks and Fuzzy Navels. So anyone who wants the average Joe or Jane to drink their beer in a hugely profitable way has to make a product that is something akin to water or perhaps alcoholic soda pop. In short, the kind of beer that a lumberjack could drink for breakfast.

Now, when I got into homebrewing the commercial beer world consisted of little more than highly drinkable beers. In the hey-day of "Tastes Great; Less Filling," a serious beer drinker had to make their own



brews if they wanted a beer that was both flavorful and fresh. Thankfully, some amongst us decided to offer their wares for sale, and the craft beer industry emerged.

For nearly 20 years now, the craft beer industry has nourished our beer-hungry palates with beers poured from the soul of a homebrewer. Craft brewers don't make beers with drinkability, they make beers with flavor. Beers with big, bold malt character, assertive hop spiciness and readily discernable yeast character. Beers with color and often a good shot of alcohol. In short, beers that could make a lumberjack swoon.

When craft beers are good, they represent what a homebrewer wishes his last batch had been. When they are bad, they may be even worse than the last discarded

homebrew. But good or bad, no one is likely to confuse a craft beer for one of those anemic mass market brands.

Until now.

I've long had this theory that Anheuser-Busch is really nothing more than Sierra Nevada after 100 years of success. Blasphemy, perhaps, but plausible nonetheless.

During the late 1800s, Anheuser-Busch made a range of beers that looked a lot like some modern craft beer offerings: a black beer, a "Burgundy" beer, and three or four amber to pale all-malt lagers. At the time, the very pale Budweiser beer was positioned as a women's beer and described in company literature as "a pale and innocuous beverage." Overall, this sounds to me a lot like the line-up at many a brewpub, complete with "starter" beer.

Now don't get me wrong about Sierra Nevada. I am a loyal customer and they make outstanding craft beers that bear no resemblance to most of the A-B products. At least not today.

But Sierra Nevada, like Samuel Adams, Red Hook, Shipyard, Goose Island and a host of other great brewers, is a *business*. And that is where the homebrewer's soul starts to get tattered.

Now no matter how much someone loves good beer, being a business means two things. First, they have to make a profit if they want to continue making beer. Second, they have to grow if they want to keep their employees, owners and customers happy.

If you question this second premise, just imagine doing your own job—exactly as you have done it for the past year—over and over again at the same scale, with the same projects, and same equipment for the next 20 or 30 years. It just doesn't happen. Even as the craft beer industry leaves behind the go-go days of 50% annual growth, everyone still wants personal growth and new toys to play

with. That means you need to see an annual up-tick in volume, revenues and profits. It's not just an economic law, it's human nature.

Growth is what leads to singing frog commercials and all that they represent. Because, let's face it, 50 IBU IPAs and 9% abv barley wines are just not going to get you to 90 million barrels per year.

Case in point, the Massachusetts Bay Brewing Company. They recently supplemented their line of Harpoon Ales (whose flagship is an IPA) with a new brand under

the "Pickwick" name. CEO Rich Doyle, interviewed in *American Brewer* magazine, described the Pickwick Ale as "modestly hopped" and aimed at "consumers looking for the right combination of drinkability and value."

I can hear the frogs croaking already.

When I contacted Doyle about Pickwick, he described the beer using the same terms. "I guess you would say, very drinkable, maybe exceedingly drinkable," he said of the new brand. Then, as soon as the word "drink-

ability" left his mouth, he started apologizing for it. "I hate the phrase," he said. "There is nothing undrinkable about other beers."

To his credit, Doyle didn't create the character of Pickwick Ale. The brand is a revival of an old one familiar to many Boston-area beer drinkers from the 1950s and 1960s. Thus it is a copy of a once-popular beer that died out in the mass-market beer wars.

Doyle also insists that the beer is not really that light. "When people here drink [Pickwick Ale], they think that it is really light. But when you compare it to a mass-market brand, it is a much bigger beer."

Still, the business rationale for adding a brand like this is obvious. Massachusetts Bay Brewing has a capacity of 70,000 barrels per year, but has yet to ship 60,000 in a single year. In 1998, volume slipped to 10% below 1997 levels according to figures published by the Institute for Brewing Studies.

"You don't get into this business to make light beer," says Doyle. "But running a brewery is a matter of survival and you have to do what you have to do."

Like the Anheuser-Busch of the 1800s, Mass Bay makes an interesting line-up of beers. The addition of Pickwick Ale—like A-B's initial development of Budweiser—seems innocuous now. But it is the first step in an evolutionary process that leads to more and more drinkable beers.

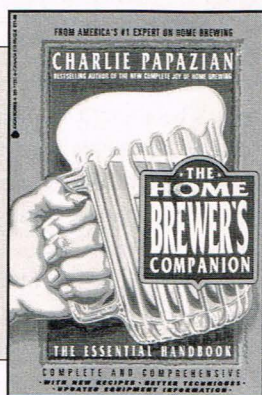
Doyle and his fellow craft brewers across the country still possess the basic soul of a homebrewer. But sooner or later, the devil will be along to collect those souls in exchange for commercial success.

In the meantime, enjoy their current wares and hone your brewing skills. Just think how satisfying it could be to produce an authentic version of the long forgotten Harpoon IPA when the 2040 World Series is sponsored by Mass Bay's "Pickwick Light."

Ray Daniels is an internationally known expert on beer and brewing. He has won more than 100 awards as a homebrewer, including several best of show and National Homebrew Competition awards and he has twice won Midwest Brewer of the Year honors. He is a graduate of the Siebel Institute's Diploma Course in Brewing and has written several books on brewing including *Designing Great Beers*, *101 Ideas for Homebrew Fun*, *Brown Ale* and *The Perfect Pint*.

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Case Reopened

Dear Professor Surfeit,

I live in New Orleans. LA, and I have been homebrewing for about five years. I have been a member of the AHA for a little over two years now, and my *Zymurgy* collection is becoming quite large. First, I would like to say that I really enjoy reading Charlie Papazian's articles. They really show his enthusiasm for brewing and writing. I get a lot of pleasure knowing that there are other brewers out there that enjoy the hobby as much as I do. I would also like to say that I especially enjoyed his article in the March/April issue of *Zymurgy* 1999 (Vol. 22, No. 2) titled "Oba! Dortmunder Style Light Lager." I feel that there is not enough emphasis put on balance. I realize that the different beer styles originated because they had a certain balance that pleased the drinkers; otherwise they would have never become so popular. However, I do feel that homebrewers really need to focus on their own tastes and fine tune the beer styles to their own liking. After all, that is why we are homebrewing in the first place.

Now for what I really wanted to write to you about. I was reading a back issue of *Zymurgy*—Fall 1997 (Vol. 20, No. 3)—and I was taken in by Charlie's story about Beelzebub Double Stout. I don't know if he received an answer about the water, but I have a little input for you from this neck of the woods. I sent away for an analysis on my brewing water here in New Orleans. The pH is around 7.6, Ca 43, HCO₃ 109, SO₄ 50 and Cl 30. This is very close to Charlie's water, with the only difference in the pH. I too have tried many methods to get that wonderful ring around the glass that all of us beer brewers know and love. I have never really had that much luck with it, however. Sure my beers will hold a head, but it is not the dense head that I was striving for. I have even brewed weizens that were over

50% wheat, and the head was not very impressive. The other day I brewed a Bohemian Pilsener. I wanted to reproduce the very soft water for the style so I mashed the grain with my tap water; that way the enzymes would have all the Ca and other nutrients that they needed.

The difference is that I sparged with distilled water that I had added a little lactic acid to. The head on this beer is incredible. It is so dense that you can literally float a dime on it. Yes, I have tried it! I am not a chemist but I have taken a few chemistry courses in school. The only thing that I can think of is the pH. I noticed Charlie's recipe for Beelzebub had roasted barley and black malt. I know that these roasted grains lower the pH of the wort. Charlie also added lactic acid to his water, which should have lowered the pH a little more. I think that maybe the lower pH allowed more of the proteins that are responsible for head retention to go into solution. That would explain why my brew

with the distilled water had such a remarkable head. The distilled water would have a lower pH than my tap water, and with the added lactic acid, I was probably in the low 5's for the pH. I do not know if this is the reason, but I thought it might help on Charlie's hunt for the perfect brew. I would like to find out the answer. In the mean time, I am going to try to brew another batch, but I am going to lower the pH even more. We'll see how it turns out.

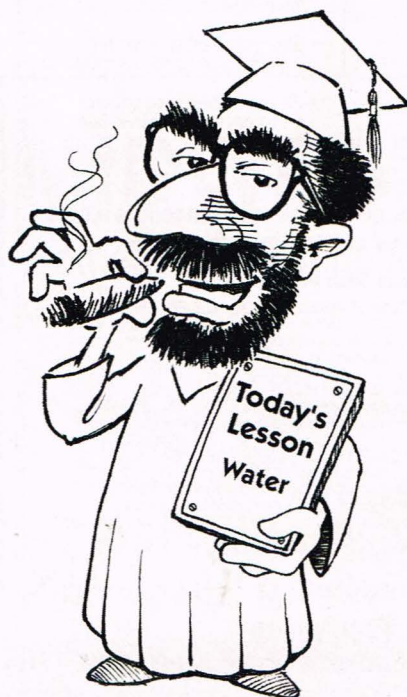
A very relaxed homebrewer,
David Kovacic
Metairie, LA

Dear David,

Funny thing you should ask whether Charlie Papazian has figured out why his well water consistently produces amazingly dense foam and head retention. He kept asking around and thinks you may be on part of the right track. The illustrious Papazian quizzed brewing chemist Laurel Maney about the water after her talk at the AHA National Conference this year in Kansas City, also asking numerous other professional brewmasters throughout the world when the occasion permitted. Nobody seems sure. One answer is pretty thought provoking, suggesting that minerals really effect yeast metabolism, and part of foam is the by-product of yeast metabolism. So different minerals may alter the metabolic output of yeast. Those mineral balances could be just about anything. After all, we're all human.

But Laurel suggested that perhaps it was not what was in the water that was producing such great head, but what was absent. This suggestion was preceded by someone's comment that when they switched to R/O (reverse osmosis) water (essentially mineral free water) and added a few essentials, they experienced a great increase in head retention and great foam quality.

I think you are onto something David. It may be some trace minerals or even chemical





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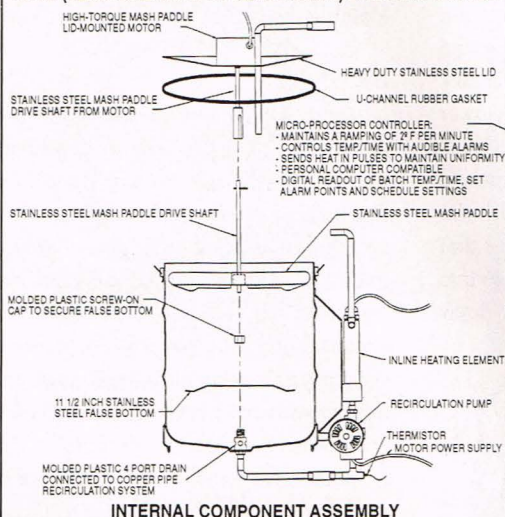
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compounds that screw a head. Let's keep this case open.

*The verdict is still out,
And I'm going out for a beer
The Professor, Hb.D.*

Not Paying Enough Attention

Dear Professor Surfeit,

Poor, poor Seth Auger. While reading your reply, entitled "A Not-So-Barley Wine" in the July/August issue of *Zymurgy* (Vol. 22, No. 4), I was appalled by your rather cavalier response. You really shouldn't have so many glasses of barley wine yourself when writing your column.

As I read Seth's question it became apparent, at least to a sober me, that he was "steeping a mini-mash" to add some character (and presumably not the Professor) to his beer. He was obviously doing a mash-extract batch, unless he was "steeping" about 24 pounds of grain for a five-gallon batch! I'm sure he added a bunch of liquid or dry malt extract to the boil get this gravity. Perhaps he was brewing in the bathtub. Rumor has it that the Professor brews in the tub sometimes. :-)

Since Seth's hydrometer was off the scale at 1.140, I'd first suggest that he invest \$12 in a new hydrometer. That aside, I took his process of diluting his finished wort with equal parts water and ending with a SG of 1.070 at face value. Since he stated that he "diluted my sample 50/50 with water," he did a 1:1 dilution. Indeed, his OG prior to dilution would be 1.140. Sounds like an 1140 Barley Wine to me! I hope he didn't dump it.

Only drinking after work and brewing the big beers in Boca,
Wayne Desmond
Boca Raton, FL

Dear Wayne,

I'm humbled. I bumbled. I may have been drinking too much of my own barley wine that evening. I think your letter speaks for itself. Thanks for paying attention when I don't.

*Perfection is to strive for—not to reach,
The Professor, Hb.D.*

Lagering Debate

Dear Professor Surfeit,

I couldn't make it to Charlie Papazian's presentation in (continued on page 62)

PAUL GATZA

The Last Great Homebrew Party of the Twentieth Century

What a great time we all had at the AHA National Homebrewers Conference thanks to all of the homebrew clubs who participated. By now everyone should know the whole conference was club driven, with the Kansas City Bier Meisters taking the leadership role in planning and organizing the event. Clubs set the whole positive tone to the conference with the Beers Without Borders club hospitality night. We set up ringing the outside of a ballroom with club tables filled with beers, meads, food, and club paraphernalia provided by each club. By just traveling the circuit once, I got into great conversations and met club members from across the U.S.

Clubs also took two-hour rotating shifts staffing the hospitality suite. It was quite nice to wander into the suite between session and every two hours would be a new selection of homebrewed beers and attendees staffing the bar. The hospitality suite definitely served as a focal point for daytime activity. Thanks also to the Field Advanced Research Team of the Downriver Brewers Guild for overseeing the activity in the hospitality suite. Every time I stopped in Colleen and Mike Bardallis made sure every beer was flowing properly. If I hadn't just seen those two in the planning meeting for Michigan 2000, I wouldn't have been surprised if they were still in that hospitality suite in Kansas. Thanks to all of the club members who brewed for the conference. My guess would be that there were about seventy-five different kegs of homebrew served.

Club-Only Competition News

The AHA would like to thank Ken Schramm and The Ann Arbor Brewers Guild for hosting the It's a Mead, Mead, Mead, Mead World AHA Club-Only Competition in August. This competition was the first one in the August to May cycle with points going toward the Homebrew Club of the Year tro-

phy on a six points for first, three for second and one for third basis. Other points for clubs are scored in the first and second round of the AHA National Homebrew Competition. Thanks to everyone who entered. There were 36 entries:

Congratulations to the following winners:

First Place

Mike Benner, representing Brew Angels with his Fruit and Vegetable Mead (Pymment, Still) called "Roll in the Hay Chardonnay."

Second Place

Art Blanchard, representing Brewers United for Real Potables with his Fruit and Vegetable Mead (Still) called "Blackberry Sunshine."

Third Place

Bill Pfeiffer, representing Ann Arbor Brewers Guild with his Herb and Spice Mead (Still) called "Ginger Mint Metheglin."

Club-Only Schedule for 2000

In an effort to balance the requests for new styles and other requests for keeping some of

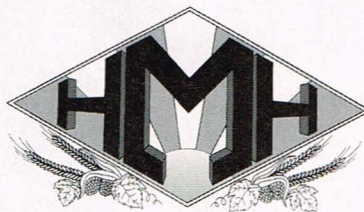
the traditional styles we have done for years, we have balanced the 2000 AHA Club-Only Competition styles with a mix of traditional and new styles. We need clubs to host competitions! Please contact Paul Gatz, (303) 447-0816 X 122, paul@aob.org, if your club is interested in hosting a Club-Only Competition.

early-February	Barley-Wine Style Ale
late-March	Belgian-Style Lambic
mid-May	Weiss is Nice
end of August	Best of Big Brew (pale ale)
mid-October	Best of Fest
early-December	Historical Beers

Each AHA-registered homebrew club may send one two-beer entry to each AHA Club-Only Competition. For each entry include a five dollar check made out to the AHA, any recipe/entry form and a bottle id form for each bottle. Full information on styles and shipping addresses will be available on the www.beertown.org website.

Homebrewer Paul Gatz is the softball coach for Hop Barley and the Alers, a Boulder, CO homebrew club.

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They don't speak English in Moravia, either. A Slavik language, Czech, which bears little resemblance to the King's English, is very popular there. This poses a communication problem for folks from Texas.

But imagine if you don't need to drive and in fact are chauffeured from barley farm to brewery to maltings. And imagine

your escorts speak English and Czech fluently, not to mention German, Dutch, Russian and French. And imagine your escorts are maltsters who produce malt for countless Czech breweries as well as Belgian and German breweries, not to mention Scottish and Japanese whiskey distillers. And imagine you could query these people at breakfast, lunch, dinner or while riding through the beautiful countryside of Bohemia and Moravia. And imagine you were given detailed tours by head brewers of several breweries founded in the middle of this millennium who freely answered every question about mashing, malt, hop additions, yeast, fermentation, lagering times and temperatures ...

This fantasy became a reality for Michael Jackson, my husband Don and I in early August. For nearly a week, we were escorted throughout the Czech

Republic, from Bohemia to Moravia and back again.

Our visit was timed to coincide with the barley harvest in the Moravian lowlands, particularly the renowned barley region along the river Morava known as Hana. Weather doesn't pay much attention even to Americans, and the beautiful sun-drenched weeks in late July pushed the harvest of most lowland barley to just days prior to our visit. But the entire country seemed to be a sea of golden barley, and we saw harvesters reaping an excellent crop (dry harvest conditions being ideal for high quality malt).

Chugging Contacts

Don and I flew in several days ahead of Michael and stayed at the malt company's 1930's villa overlooking Prague. After flying all night, we frequented several pubs in Prague including U Fleku, the 15th century brewpub that brews a black, unfiltered, yeasty lager. One of our hosts, Marek, used to stop off at this pub daily during his high school days. Perhaps it was the lack of sleep or the beer, but Don drank one of my contact lenses that evening—"It was an accident."

The following morning we drove to a small glass-blowing shop near Novy Bor, the Bohemian glass center about 100 km north of Prague, only to find the glass blower in an ambulance as a result of a explosion from the glass annealing oven.

The next day our hosts drove us to the castle in Ceske Krumlov, a beautiful village in southern Bohemia and, later the same day, to Budweiser Budvar in Ceske Budejovice. Marek the Driver, pretending to enjoy Budweiser alcohol-free, also pretended to enjoy our jokes even after Vladislav, Don and I were on 1/2 liter number five. This beer



Lynne and Michael at Vyskopf brewery, one of two remaining state-owned breweries. Budweiser Budvar is the other. From right: Josef Vesely, head brewer since 1968, Petr Cernoch, Tomas Nemasta, and Marek Schmiedt of maltings.

caused us to arrive at the airport an hour late for Michael's arrival. Fortunately, Michael was coming directly from the Great British Beer Festival and arrived even later.

In spite of the cultural differences, it's remarkable how similar the concerns for brewing are in both America and the Czech Republic. Beer prices are flat, while production costs continue to rise. Large breweries have been bought up by foreign corporations who bring with them executives whose salaries are exorbitant by Czech standards. Many regional breweries have closed, and the struggling small brewers have formed an association and successfully gained some tax relief.

As in the U.S., there are no barley or malt subsidies for Czech farmers and maltings. This has made it difficult for Czechs to compete on price with European Union countries such as Germany, Belgium and France, where malt subsidies are as high as 20%.

My most flattering moment was an interview for Moravian TV. I was asked about America's perception of Czech beer. It's not



Brewhouse at Hostan Pivovar Znojmo. Michael Jackson, Lynne O'Connor, Marek Schmiedt and Petr Cernoch of maltings, and Milan Pribil of Hostan.

often that I'm asked to serve as a spokesman for our nation. I can't remember precisely what I said, but in true American spirit, I hope I looked good saying it.

Lynne O'Connorova, second generation Texas Czech, owns St. Patrick's of Texas, sole

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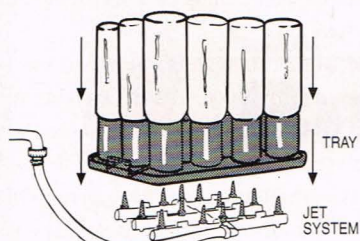
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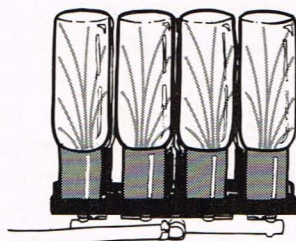
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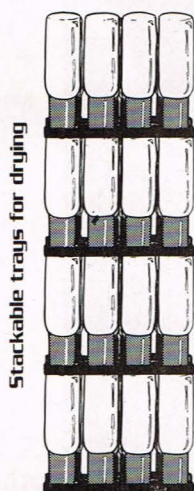
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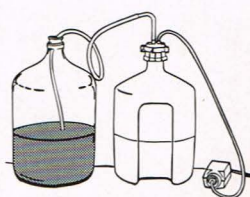
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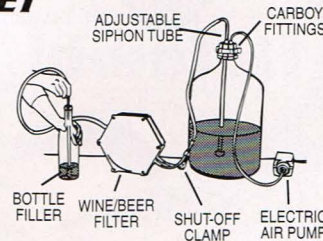
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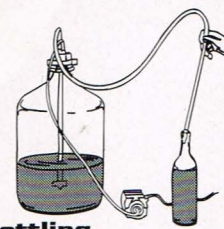
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Merlin's Dunkel, or a Heartbeat in Bavaria

It was short notice, but it was an offer I shouldn't refuse. The engineers at Anton Steinecker Maschinenfabrik in Freising, Germany—makers of brewhouse equipment for breweries large and small throughout the world—had invited me to Germany to see, experience and taste perhaps one of the most important technological breakthroughs of the century. My wife Sandra and I had only just returned from our 14-day, 31-stop tour of homebrew clubs, shops, micro and pub breweries and beer friendly restaurants of the northeast, thanks to our friends at Briess Malting, Ale Street News and Yankee Brew News. In another month we would be taking to the road again.

Could I? Would I squeeze a trip to Germany in between an already tight springtime itinerary? Am I stupid? Steinecker is located in Freising, home of the famed brewing school Weihenstephan. I thought for all of the time it

takes to enjoy one of my own Munich-style lagers. I packed a toothbrush, vitamin C, note-taking gear and a camera.

Meeting the Magician

From the moment I landed to the final hours before departure, longtime Steinecker friend Helge Lenze and Steinecker brewmaster (and Merlin developer) Klaus Wasmuht and the rest of the folks in Freising kept me going from 7 a.m. to midnight every single one of those very long three days and very short three nights.

The engineers at Steinecker had imagined, invented and configured a system of wort boiling that may revolutionize how brewers approach this part of the process. Called Merlin, the system is a configuration that is unique to the brewing world. Professional brewers interested in the system are attracted to the energy and time savings—instead of

boiling for 90 or more minutes to achieve desired wort quality, this new system, requires only a 35 minutes "boiling" cycle.

I didn't have time for jet lag. I was too busy tasting the beer and imagining applications for not only professional brewers, but also wondering if this could be a "cool" system for homebrewers. After all, we have so many of the same challenges professional brewers have. Could the tinkering homebrewer adapt some of this professional engineering design to a much smaller scale? Mind you, Steinecker started out with a neatly compact 3 hl (about 80 gallons) pilot brewing system. They soon commissioned a 100 hl (about 85 barrels, that's about 2,650 gallons) system for a small 50,000 hl/year regional brewery in Eichstätt.

I suffered Bavarian style, tasting and enjoying their Pils, Helles, dunkel, weissbier and a doppelbock called Alligator. The great quality was obvious to me; the brewery had succeeded in making the transition from a traditional wort boiling process to the Merlin system.

Because the system promised to cut energy use by 50%, Benno Emslander, owner of the Hofmühl Privat Brauerei, was able to secure major support from the German government in becoming the world's first installation for this promising new environmentally friendly brewhouse system.

Columbus Misses a Beer

The brewery was established in 1492. It was hard to imagine that while Christopher Columbus was sailing to the new world, Hofmühl Brauerei was making its first beer. In about 1874, the brewery was privatized and has always enjoyed the strong support of the Eichstätt community. Now with the support of the German government, the local community and the Steinecker brewing and engineering department, Hofmühl



Josef Königer managing director of Steinecker with Christian Beer celebrating Merlin's success.

Privat Brauerei was a showcase for the world. They had brewed over 250 batches of light, dark, strong lagers, pils and weissbiers since November 1998, and had proven that the system not only works, but produces excellent beer.

So what's so special about the system?

As already mentioned the Merlin is unique in that it takes 50% of the energy to boil the wort in half the time. Physically, it is a double vessel system. The whirlpool collecting/holding tank is currently configured below the area of wort heating. The wort is first collected from a separate lautering vessel. It is then pumped to the core of the system, the "Merlin" cooker, whose stainless steel heating surface is cone shaped, like the magician Merlin's hat. The wort is actually pumped to a point above the cone, then allowed to flow evenly down over the surface of the cone. During the brief time the wort cascades down over the surface of the cone it forms a thin film. Here the recirculating wort is heated to the boiling point in approximately 30 minutes. After boiling—and evaporation begins across the surface

of the cone—the flow continues for a period of about 35 minutes. During the time of heat up and surface evaporation the wort continues its recirculation by returning to the whirlpool tank through tangential outlets, thus creating a whirlpool effect. Amazingly, trub is formed in the middle of the whirlpool after only a 35 minute boil.

Wort Miracles

After this period the pumps are shut down and energy to the system is stopped while the whirlpooled wort rests for about 20 minutes. After the rest, the wort is pumped back over the cone. The cone is reheated and, as the wort passes over the cone, there is additional evaporation, during which time there is a good reduction of dms (and their precursors), aldehydes and other undesirable volatiles. There is no recirculation to the whirlpool. The stripped wort flows directly to the wort chiller and prepared for fermentation. Total wort volume reduction by evaporation is equal to about 4%; 2% achieved during initial boiling process and 2% achieved during volatile stripping.

The system works extraordinarily well, but the reasons why are still not completely understood. It is believed that the thin film of wort during the boiling stage produces a unique condition that promotes more efficient hot wort reactions.

The Merlin technology highlights the wisdom that necessary reactions during wort boiling take place at the required high temperatures and not because of the action of boiling. Though the wort actually passes over the cone surface briefly and boils only during this period, the wort reactions continue to take place in the whirlpool vessel while the wort is held at high temperatures. It is further believed that the Merlin's unique design and thin surface of wort during boiling expedites removing undesirable volatiles very quickly, a process that normally takes well over one hour of boiling time and 8% evaporation of the wort. The Merlin system seems to produce excellent beer with less than 4% evaporation, contrary to all existing professional standards. The savings of time and energy is a big plus. Also there is a great potential to control the

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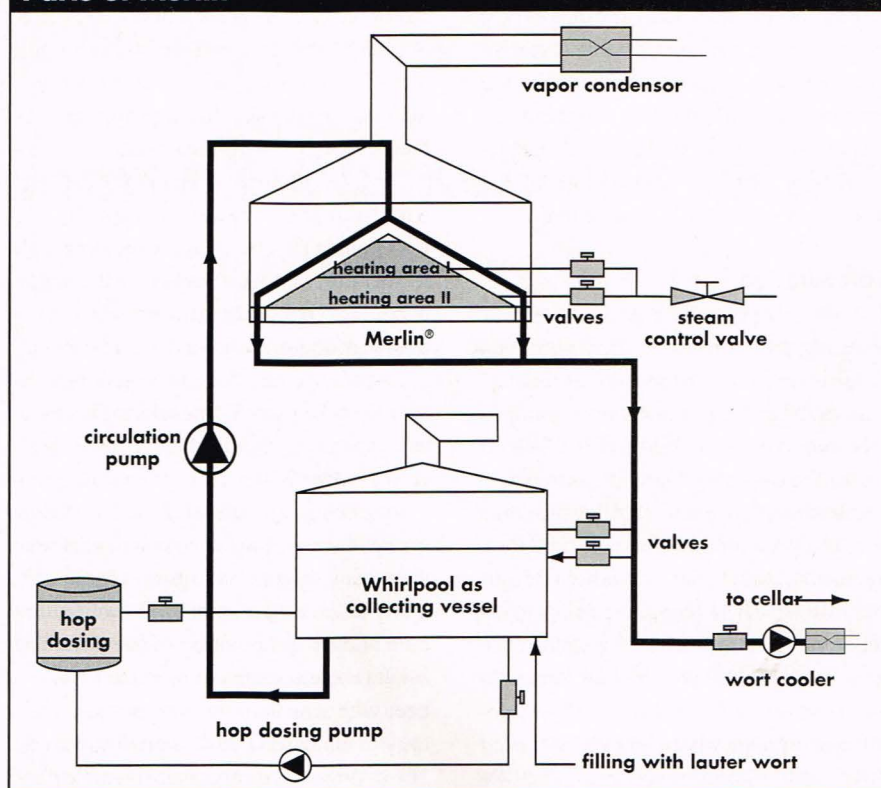
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Parts of Merlin®



level of and the formation of flavor compounds in the final product. Aldehydes, dms and their precursors as well as hot side aeration concerns are just some of the issues that have been closely and successfully monitored. Product stability as initially tested seems to be very excellent.

A Small Point

For small breweries there is a space savings issue as well. There is no holding system necessary because the boiling system itself is not a "traditional" kettle. It is just an insulated cone, whose underside is fitted with steam conduits for heating. For a 100

hl batch size the cone measures only about 11 feet (3.5 meters) in diameter. The 3 hl pilot brewery cone seemed to be only about 2 feet (0.6 meters) in diameter.

The advantages of this system could certainly be considered by small brewpubs and microbreweries, but what got me to thinking was that the vast pool of homebrew enthusiasm and inclination to experiment and develop might translate a few of these principles to build a better homebrewing system (We have RIMS - Recirculation Infusion Mash System. Maybe we'll have Merlinito.)

On the plane trip home was long. Jet lag began to catch up with me, but it was going the wrong way. I was going home to my own homebrewed beer, and upon further reflection I realized that I am happy with my brewpot on the stove. I love my charismatic long handled wooden spoon. The homebrewing process as it exists for me continues to help fulfill my passion for brewing. But then again I look around me and have to admit that I have adopted some neat gadgets and pieces of equipment that are pretty nifty. So with an abandonment to progress, technology, gadgeteering and innovation, I present the above experience and science in the hopes that it may make a big difference in someone else's homebrewing life. I may even enjoy the fruits of someone else's labor.

Special thanks to the people at Steinecker for being such great hosts.

Well, now how about a recipe for one of those German-style dunkels blending with each Bavarian evening. A soft caress of amber and chocolate malts coupled with a mild hop flavor helps define the simple yet relaxing quality of this premium style German dunkel, called Merlin's Dunkel.

So let's cut the shuck and jive and get on with the recipe.

Ingredients and recipe for 5.25 U.S. gal (20 L), final yield to secondary will be 5 U.S. gallons (19 L).

This is an advanced brewing partial mash and malt extract recipe

Malt

- 1.75 lb German Pils malt (grain) (0.8 kg)
- 1.75 lb Munich malt (0.8 kg)
- .5 lb Belgian Cara-Munich (30 lovibond) (225 g)

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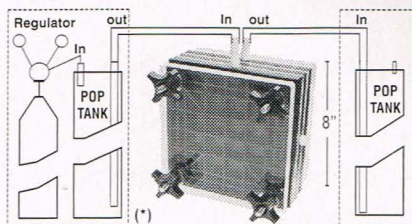
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HOME BREW BITTERING UNITS (HBUs)

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: $(2 \times 9) + (3 \times 5) = 18 + 15$. 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.

.25 lb German smoked malt (10 °L)
(114 g)

.33 lb chocolate malt (150 g)

3 lb extra light dried malt extract
(1.4 kg)

Hops

1.1 oz German Spalt (5.5 HBU/154 MBU) whole hops-60 min. boiling
(30 g)

1 oz Czech Saaz (4 HBU/112 MBU) whole hops-30 min. boiling (28 g)

1 oz German Hersbrucker-Hallertauer (4 HBU/112 MBU) whole hops-5 min. boiling (28 g)

Other ingredients

.25 tsp powdered Irish moss

.75 cup corn sugar/glucose (priming)
(180 mL measure)

Liquid German Lager yeasts

- Original gravity 1.046-1.050 (11.5-12.5 °B)
- Final gravity 1.014-1.018 (3.5-4.5 °B)
- IBUs—calculated to 27
- Approximate color: 16 SRM (32 EBC)
- Alcohol: 4.5% by volume, 3.6% by weight
- Apparent Yeast Attenuation: about 73%

HBUs = % alpha acid rating of hops multiplied by ounces = Homebrew Bittering Units
MBUs = % alpha acid rating of hops multiplied by grams = Metric Bittering Units

A step infusion mash is employed to mash the grains. Add 4.5 quarts (4.37 L) of 136-degree-F (56-degree-C) water to the crushed grain, stir, stabilize and hold the temperature at 132 degrees F (53 degrees C) for 30 minutes. Add 2.25 quarts (2.1 L) of boiling water and add heat to bring temperature up to 159 degrees F (70.5 degrees C) and hold for about 30 minutes.


After initial rest, raise temperature to 167 degrees F (75 degrees C), and sparge with 2.5 gallons (9.5 L) of 170 degree F (77 degree C) water. Collect about 3 (11.4 L) of

runoff and add the malt extract and German Spalt hops bring to a full and vigorous boil.

The total boil time will be 60 minutes. When 30 minutes remain add 1 ounces (28 g) of the Saaz hops. When 10 minutes remain add Irish moss. When 5 minutes remain add 1 ounce (28 g) Hallertauer hops. After a total wort boil of 60 minutes turn off the heat. Then strain and sparge into a sanitized fermenter to which you've added 1.5 gallons (5.7 L) of water. It helps to prechill (33 degrees F [1 degree C]) the water added to the fermenter rather than simply adding warmer tap water. Top off with additional water as necessary to yield 5.25 gallons (20 L).

Pitch a good dose of healthy active lager yeast and primary ferment at temperatures between 50-55 degrees F (10-12.5 degrees C) and lager between 35-40 degrees F (2-4.5 degrees C) for one month.

Prime with sugar and bottle when fermentation is complete.

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 book is *The Best of Zymurgy* (Avon, 1998) a collection of the best articles and advice from 20 years of *Zymurgy*. 

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Imperial stout is not only one of the strongest classic beer styles, but also one of the oldest. Its history dates back as far as the 1780s, when Britain exported beer to Baltic countries. This predates the famous and powerfully hopped pale ales that were brewed for export via trade ship to India.

Strong stouts were brewed with cold-weather drinkers in mind, so rather than the light, dry quenching beers that would follow, these brews were dark, heavy and warming. Their alcoholic strength helped them to travel well, so brewers would often load oak hogshead barrels of the beer onto ships to condition en route, where they would arrive at their destination ready for bottling and distribution. Recipients of the strong stouts included Finland, Germany, Poland, Prussia and perhaps Norway, but the most famous and appreciative market at that time would eventually lend its name to the style: Russia.

London breweries around the Thames were the first to brew imperial stout, though the “imperial” designation had yet to appear. This was still at the height of stout’s popularity, and very strong versions of the black beer were common. But it wasn’t until one of these breweries began exporting that its importance and popularity began to grow. The first Russian imperial stout was brewed at a brewery called Anchor, which was at the time owned by Barclay, Perkins & Co. They exported the beer using a shipping company called Le Coq, and this arrangement continued until well into the 20th century. The Scottish Courage group eventually gained ownership of the London brewery in 1955 and managed to keep Russian imperial stout alive until 1993, though its most recent place of origin was John Smith’s brewery in Tadcaster.

by amahl turczyn

The Belgian Connection

A. Le Coq, a Belgian, was responsible for making the stout, both Russian and imperial. He touted the strong ale as having fortifying, medicinal qualities, and it soon became a favorite of Russian Empress Catherine the Great. Later, Le Coq was known to have made several donations (to the tune of around 5,000 bottles) of the black tonic to Russian military hospitals. This generosity caught the attention of Empress Alexandra, who was closely involved with the hospitals, and she awarded the beer an "Imperial" warrant to supply the royal court. The imperial stout trade continued strongly, despite trade problems brought on by the Napoleonic wars and the occasional loss of merchant ships to foul weather. On one occasion in 1869, a stout-laden Prussian vessel, *Oliva*, went down in the cold Baltic seas, where it lay until 1974. Norwegian divers recovered some of the bottles, which still carried the insignia of A. Le Coq. (No mention was made of the quality of the beer inside. However, it is speculated that a good Russian imperial stout could be in great condition even after 25 years or so, but 100 might be pushing it).

Russian Homebrew

As the popularity of Imperial stout grew along with import duties, Le Coq decided it needed to set up its own stout brewery within Russia, so the company bought the Tivoli brewery in the town of Tartu, now in Estonia. Tivoli was a lager brewery and, while in many Baltic nations it is not unusual to find bottom-fermented examples of strong stout or porter, Le Coq still had its roots in the

A Guess at the Samuel Smith Imperial Stout Recipe:

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

- 10 lb pale malt (4.54 kg)
- 1 lb turbinado sugar (.45 kg)
- 1 lb 120 °L crystal malt (.45 kg)
- .5 lb roasted barley (.23 kg)
- 1.5 oz Golding hops, 6% alpha acid (43 g) (60 min.)
- 2 oz Fuggle hops, 4% alpha acid (28 g) (40 min.)
- White Labs English ale yeast
- .5 cup dextrose (118 mL) to prime

- Original specific gravity: 1.072
- Final specific gravity: 1.018
- Boiling time: 90 minutes

Specifics

Mash grains in a single infusion for 90 minutes at 151 degrees F (66 degrees C).

British and Belgian brewing traditions, so the brewery was modified to produce ales. Tivoli proved to be a tough little beer factory, surviving both world wars and the Russian revolution. It was nationalized after the revolution, a move that prompted a dispute by the owners not resolved until 1971.

To date, the last run of Courage Russian Imperial Stout was brewed in 1993 at John Smith's Tadcaster brewery. Scottish Courage unfortunately has no plans to brew another batch, though it is still possible to find bottles here and there. Pubs in and around London are the most likely places, though the beer is more in demand in countries like Belgium and Holland, which still have a loyal fan base of stout connoisseurs who enjoy beers of such extraordinary strength.

The modern version of the classic, should you be lucky enough to find it, is advertised as having an original specific gravity of 1.098. It is rumored the beer was often brewed to higher-than-advertised gravities, closer to 1.100, yielding a brew with 9.5-10.5% alcohol by volume. Lager, pale ale, amber and black malts made up the grain bill, with sugar added to increase alcohol and lighten the body somewhat. Only one variety of hop was used, namely Target, and this was added in one huge early addition. Around 24 pounds

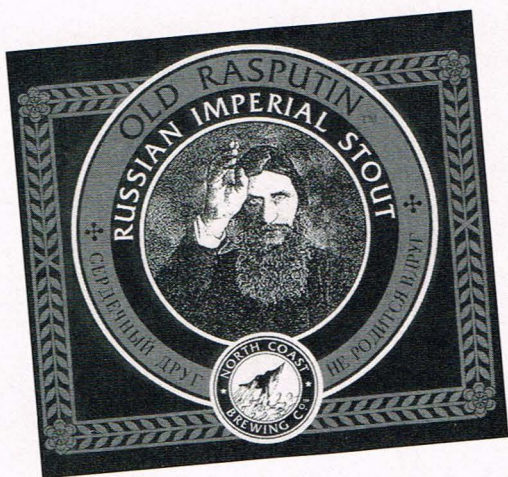
per barrel were used to offset the sweetness of the malt and render it travel-ready.

At John Smith's, the fermentation procedure for the immensely complex Russian Imperial Stout was really quite simple. It took place at fairly high ale temperatures of 73-75 degrees F (23-24 degrees C) for about a week, using the house ale yeast strain, then was left in the tank another two weeks at about 68 degrees F (20 degrees C) to condition. It was then transferred, fined and given up to two months cold conditioning at 30 degrees F (-1 degrees C). Finally, without any filtration, pasteurization, priming or forced carbonation, the beer was bottled. Brewers trusted residual sugars and the remaining yeast in suspension to create carbonation in the bottle. While brewed in London, the beer was once allowed to mature up to two years, either in oak casks prior to being bottled or after bottling; in Tadcaster, the stout was released immediately. This left the task of keeping the beer up to the buyer.

Other Imperial Stouts

Although the original Russian imperial stout is now all but extinct, one can still find imperial stouts made in the same style as the Courage version. Perhaps the most famous of these is also brewed in Tadcaster by Samuel Smith and called simply Imperial Stout. This is a lighter version of the style, brewed to an original gravity of 1.072, with around 50 bittering units and 7.7% alcohol by volume. Golding and Fuggle hops are used instead of Target, giving the beer a softer hop profile.

Like other Samuel Smith ales, there is a characteristic buttery aroma and flavor, but this is less noticeable with the Imperial Stout's other complexities. Alcohol is definitely present in the aroma, along with toffee, dried fruit (prunes?) and perhaps mocha. More chocolate comes through in the flavor, with an underlying tartness and a dry finish. Finally, there is a hint of warmth from the alcohol, which seems to linger with the dry, chocolate aftertaste. For a relatively light example of the style, this imperial stout takes the palate in so many directions at once it's difficult to pull them all apart. Although brewing an exact replica of any Samuel Smith recipe is all but impossible without the



Yorkshire slate fermenters the company uses, not to mention the specially adapted yeast strain, one can at least take a stab at a somewhat similar brew.

Imperial Brits

Another incredible example of the style is offered by Bass at Burton-Upon-Trent in the U.K. This imperial stout they simply call "P2." It can be sampled only at the Bass Museum Brewery Taphouse, unfortunately, but for the devoted beer traveler it is not a beer to miss. At 8% alcohol by volume, P2 has a distinctly rum-molasses aroma, with a bit of maple sweetness and some coffee. A tight, creamy beige head stays on the jet-black beer to the bottom of the glass. Flavors start sweet, with a slight tartness, and one of the richest, creamiest consistencies of any stout. Finish is bitter and roasty, but with a cloying chocolate aftertaste; not dry, but firm. The alcohol afterglow is wonderfully satisfying on a cold, rainy night—indubitably imperial.

American Varieties

In the U.S. several brewers make an imperial stout, oftentimes nothing more than doubled-up London stout recipes. Some, however, do begin to mimic the complexity of older British versions and are worth seeking out.

One of these is (Fort Bragg, CA) North Coast Brewing Company's Old Rasputin Russian Imperial Stout. The Russian designation refers to one Grigori Yefimovich Rasputin, who lived during the time when British-made imperial stout was just gaining popularity and was allegedly quite taken with it. The peasant mystic was quite influential in the court of Czar Nicholas II, impressing the royal family with his apparent ability to cure the czarevitch Alexis' hemophilia. He also created a major scandal in court through his frivolous appointments. Nonetheless, he virtually ruled Russia during World War I, thus most likely guaranteeing for himself a steady supply of his favorite beer.

"Our Lady of High Octane Imperial Stout"

*Deb and Frank Nelson, Apple Valley, MN
AHA 1999 National Homebrew Competition
Gold Medal Winner*

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

- 6.6 lb light malt extract (3 kg)
- 6.6 lb amber malt extract (3 kg)
- 1 lb roasted barley (.45 kg)
- 1 lb crystal malt (.45 kg)
- .5 lb chocolate malt (.23 kg)
- .5 lb black patent malt (.23 kg)
- 2 oz Perle hops, 8% alpha acid (57 g) (60 min.)
- 1 oz Perle hops, 8% alpha acid (28 g) (40 min.)
- .5 oz Perle hops, 8% alpha acid (14 g) (20 min.)
- 1 oz Liberty hops, 4.5% alpha acid (28 g) (2 min.)
- Wyeast No. 1056 American ale yeast
- 1.25 cup dry malt extract (to prime)
- Original specific gravity: 1.092
- Final specific gravity: 1.026
- Boiling time: 60 minutes
- Primary fermentation: 10 days at 70 degrees F (21 degrees C) in glass
- Secondary fermentation: 20 days at 70 degrees F (21 degrees C) in glass

Brewers' Specifics

Steep specialty grains for 30 minutes at 150 degrees F (66 degrees C). Remove and boil extract for 60 minutes.

A bit more rather whimsical history is included with the packaging of Old Rasputin, providing the details of his assassination in 1916. He was given poison by a group of conservative noblemen, but survived. He was later shot several times, but on that occasion ended up attacking his attackers. At last, the assassins were successful when they bound him and forced him through a hole in

the ice over the River Neva, whereupon he drowned. North Coast ends the brief synopsis with the suggestion that perhaps Rasputin's tenacity may have been the result of his love for Russian imperial stout.

Old Rasputin itself weighs in at 8.9% alcohol by volume, and has a more aggressive flavor profile than other examples. The aroma is fairly clean, with some hop aroma showing through the roasty malts. Bitterness and roast-to-burnt malt dominates the flavor, with some alcohol underneath, an acrid tartness, and a dry, almost chalky finish. This is definitely a stout for those who enjoy a mouthful of roast barley.

Brewing Your Own Imperial

The best way, obviously, to get the best balance of flavors in an imperial stout is to brew one yourself. Don't think of this style as a clean-out-the-closet, everything-but-the-kitchen-sink beer; it can be a very simple grain bill. And because of its immensity, the use of extract, at least partially, is a great idea for a homebrewed version. An alcohol presence is desirable, along with a dry finish, so the addition of sugar is perfectly acceptable.

You'll want a little sweetness to balance out the roast barley bitterness, so crystal malt is a good idea. Hopping rates for a 1.070-1.090 original gravity beer should stay around 50, and the best choice would be low-to-medium-alpha British varieties. Use a thoroughly attenuative British yeast strain if possible, for a little diacetyl is certainly not out of style, although a clean American strain works just fine. Be prepared for blowout: as most breweries know, such big, warm fermentations practically explode out of the fermenter. Messes are pretty much expected. That also means higher fermentation temperatures in and around high kraeusens, so monitor the early stages carefully. Many thanks (and congratulations) to Deb and Frank Nelson for their gold-medal-winning imperial stout recipe.

World traveler Amahl Turczyn is a regular contributor to Zymurgy.

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The Bitter Truth

BY GREG KITSOCK

"No marketing man would have created a category called 'bitter'," observes Michael Jackson wryly in his *Beer Companion*.

Our biology mitigates against it. We're hard-wired from birth to perceive many naturally occurring poisons as bitter, while edible substances strike us as sweet. Bitter beer is definitely an acquired taste, and some never do acquire it. Several years ago a large American brewer touted one of its budget brands with the slogan, "No bitter beer face."

Under the circumstances, it's remarkable that the term "bitter" should come to refer to a drink that's practically the national beer of England. Bitters tends to be hoppier and lighter in color than milds (to cite another quintessentially British style), but otherwise the definition is fuzzy around the edges. Some experts insist that bitter is merely the draft version of pale ale, while others consider it a style of its own.

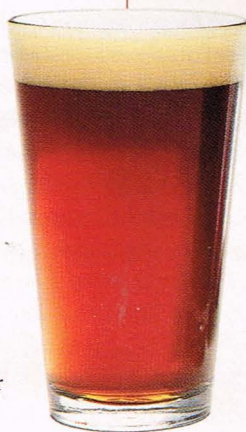
Even More Confusing

Adding to the confusion is that there are several subcategories of bitter. An "ordinary" bitter may clock in at barely over 3% alcohol by volume (original gravity in the 1.030 to 1.039 range), making it a perfect session beer for a pub culture that values sociability over drunkenness. A "best" bitter is slightly heavier and stronger, between 1.040 and 1.049 OG with an abv content of 4-4.9%. Still more potent and flavorful is a "special" or "strong"

bitter, ranging from 1.050 to 1.060 OG and measuring in excess of 5% abv. (Figures from the revised edition of Terry Forster's book *Pale Ale*).

Then, almost in a class by itself, there is Fuller's Extra Special Bitter—a brand that Jackson has called the strongest bitter in Great Britain and which has spawned a whole new stylistic category in the U. S.

Fuller's ESB is a product of the firm Fuller, Smith & Turner,





BEER PHOTO BY BOB GOLDMAN
ALL OTHERS COURTESY OF FULLER
SMITH & TURNER P.L.C.

which operates the Griffin Brewery in the southwestern London neighborhood of Chiswick (pronounced CHIZ'ik). Overlooking the River Thames, Fuller's sits along the highway that leads from Heathrow Airport to downtown London. "A leafy suburb" is how Julie Knight, assistant public relations director for the company, describes the surroundings. In bygone days, Chiswick offered a retreat from the grime and congestion of the inner city. The suburb had a reputation as an artists' colony in the 18th and 19th centuries. James Whistler, the American painter most famous for his portrait "Arrangement in Grey and Black, No. 1" (better known as Whistler's Mother), is buried in the cemetery of Saint Nicholas Church here.

The brewery is recognizable by the large wisteria vine growing over its facade. According to the company Website, the vine is 186 years old—the oldest such plant in Great Britain. People also tend to hang around for a long time. Reg Drury, the former brewing director, retired in June after 40 years of service.

Fuller's ESB is not the company's flagship; that honor belongs to Fuller's London Pride, a less potent, maltier ale that accounts for about two-thirds of Fuller's business. Nevertheless, it's the ESB that has won the lion's share of accolades. Knight reels off the list: CAMRA (Campaign for Real Ale) Beer of the Year in 1978, 1981 and 1985, Champion Strong Ale in 1981, 1983, 1985, 1987 and 1991.



The Chicago-based Beverage Testing Institute awarded the beer 95 out of a possible 100 points in a recent taste-off of bitters. "Deep golden red appearance," read the tasting notes. "...Rich roasted caramel malt aromas. Full rounded mouthfeel shows fluffy, silky qualities with plenty of dried floral hop flavors in support...Complex and lengthy hop-inspired finish dominated by persistent orange oil notes."

"Not for the Faint Hearted..."

British beer writer Roger Protz, in his book *The Taste of Beer*, is equally effusive in his praise: "...bursts on the nose with an explosion of malt, hops and marmalade fruit. There is an enormous attack of rich malt, hop resins and ripe fruit in the mouth, and a deep finish dominated by peppery Goldings and great wafts of orange, lemon and gooseberry fruit. This is not a beer for the faint-hearted."

Fuller's ESB is brewed with Alexis pale ale malt, crystal malt and flaked maize imported from France. Hopping (about 35 IBUs) consists of Target, Challenger and Northdown in the kettle, with Goldings used for dry-hopping.

The water supply, which is quite hard, comes from a local utility company and is Burtonized before brewing. "We do have some shallow wells on the site, but the quality of the water is poor," states Chris Gregson, Fuller's production manager.

The brewery uses a proprietary, top-fermenting yeast strain that imparts a characteristic "honey-flower" flavor (according to Jackson) and is apparently quite vigorous. Protz and Graham Wheeler, in their book *Brew Your Own British Ale*, mention that the brewery practices the odd custom of emptying a bucketful of yeast into the brew kettle about halfway through the boil.

Naturally, the heat breaks the cells down into their constituent chemicals, providing nourishment for the yeast that will be pitched in the fermenter. (I'm reminded of a similar technique practiced by Antarctic explorers, in which they chop up the lazier sled dogs midway through their journey and feed them to the stronger huskies.)

Protz and Wheeler speculate that Fuller's may simply be trying to get rid of excess product. At any rate, the company

Extra Special Bitter

Ben Schwalb

Glen Burnie, Md.

Ben Schwalb has been homebrewing for five years and is a member of five (!) clubs, including the Aleing Sailors, BURP (Brewers United for Real Potables), CRABS (Chesapeake Real Ale Brewers Society), the Cross Street Irregulars, Killer Ales, MALT (Maryland Ale and Lager Technicians, and PALS (People's Ale and Lager Society). He also writes a regular homebrewing column for the newspaper Mid-Atlantic Brewing News. "Classic English flavor from English yeast and hops," he comments of his recipe. "If you like English bitters, make this one."

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

- 6 lb Briess 2-row malt (2.7 kg)
- 4.5 lb Briess Munich malt (2 kg)
- 1.5 lb Munton and Fison carastan malt (.7 kg)
- 4 oz Fuggles (113 g)
- 1.5 oz B.C. Kent Goldings (43 g)
- Wyeast 1668
- 1 tsp Irish moss (4.9 mL)

- Original specific gravity: 1.058
- Final specific gravity: 1.017
- Boiling time: 60 min.
- Primary fermentation: 7 days
- Secondary fermentation: 4 days

Brewer's Specifics:

Add tsp of gypsum to water. Mash at 155 degrees F (68 degrees C) for 90 minutes. Sparge. Boil with bittering hops (1.5 oz [43 g] Goldings, 1 oz [28 g] Fuggles) for 60 min. Add 1.5 oz (43 g) of Fuggles for flavor 15 min. before the end of the boil. Add tsp of Irish moss at this time. Ferment at 68 degrees F (20 degrees C). When racking into the secondary, briefly boil aroma hops (1.5 oz [43 g] Fuggles) with 2 pints .95 L) of hot wort, cool and add.

does admit to using its superfluous yeast for making Marmite, a sandwich spread popular in the British isles.

Primary fermentation takes one week at a maximum temperature of 69 degrees F (20 degrees C). The beer is then matured one week at a temperature of 50 degrees F (10 degrees C).

The Fuller's Stable

There are two varieties of Fuller's ESB. The draft version has an original gravity of about 1.054, reaching an alcohol by volume content of 5.5%. The bottled product has an OG of about 1.060 and clocks in at 5.9%. One article from the 1980s, when the ESB was imported by Thames America, refers to the beer as being bottle-conditioned. The current product, which is now distributed in the U.S. by Paulaner North America, is filtered. Casks of Fuller's ESB are not imported into America on a regular basis, but they have surfaced at the Real Ale Festival in the Chicago area.

Paulaner North America also imports six other brands from Fuller's, including the aforementioned London Pride, Fuller's India Pale Ale, Fuller's London Porter, Fuller's Old Winter Ale, Fuller's Summer Ale (their newest product, an all-malt golden ale) and Fuller's 1845 Bottle-Conditioned Ale. Not imported, unfortunately, is Chiswick Bitter, a low gravity (1.034; 3.5% abv) example of the style that Michael Jackson praises for its flowery hop character.

One of Britain's largest independent breweries, Fuller's employs 355 people and turns out 39 million pints a year, which translates into about 200,000 U.S. barrels. The company also operates over 200 pubs, 70 gourmet wine shops and a variety of inns and hotels, including the aptly named Master Brewer Hotel in Uxbridge, Middlesex. Officially, Fuller's traces its beginnings to 1845 when John Bird Fuller, Henry Smith and John Turner entered into the current partnership. (Anthony Fuller, the company's current chairman, is the great-great-grandson of John.)



Reg Drury, the former brewing director, retired in June after 40 years of service.

However, brewery management believes that there has been some sort of brewing operation on the grounds for over 300 years, dating back to the 1670s. Fuller's claims the title of London's oldest brewery, although Knight admits that rival Young & Company also makes the same assertion. "It's a contentious thing," she notes.

The Long Boat Ride

Interestingly, the pale ales from which Fuller's ESB and all bitters are descended date from approximately that same era. Before the late 17th century malt was dried over wood fires, which tended to scorch the malt and lend it a somewhat sooty, smoky taste. Almost all beer was a murky brown in color, a condition romantically rendered as "the nut brown ale of old England."

By the time of the Stuart Restoration in 1660, England was being rapidly denuded of its forests. For their energy needs the inhabitants turned to coal, which—when heated to remove impurities—yields an almost pure carbon residue called coke. By mid-18th century the English were using coke-fueled blast furnaces to produce wrought iron. This iron, shaped into bridges,

railroad ties and girders, literally provided the framework for the Industrial Revolution.

More importantly for our purposes, coke revolutionized the malting process. It burned with a hotter, cleaner, more easily controlled flame, which enabled the maltster to produce a paler, purer malt.

The tax man played a role as well. In 1660, King Charles II levied a tax on malt liquors to raise revenue for the royal treasury. In 1697, the crown extended that excise to malt. During the early 18th century these duties were raised even higher to finance Britain's war with France. Hops were taxed too, but not as much, so British brewers began to skimp on the malt and add more hops to compensate. The book *One Hundred Years of Brewing* traces the introduction of pale ale to the reign of Queen Anne (1702-1714).

Pale ale didn't catch on at once. In an age before railroads, it was time-consuming and expensive to ship coal from the mining centers to the brewing centers. That cost was passed on to the consumer. It's probable that many of the earliest producers of pale ale were house breweries on the estates of the nobility. *(continued on page 57)*

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by
ray daniels

winter warmers

Although not an official style, winter and holiday beers have become quite popular with brewers. In the U.S. such beers have been a product of the microbrewery revolution. They have succeeded both because consumers like them and because it gives the breweries a distinctive way to market themselves during the holiday season.

Of course European brewers have been making special beers for the holiday season for hundreds of years. Perhaps the earliest of these was Salvator, the original doppelbock beer. The Franciscan monks who came to the Munich area from Paula, Italy, in the 17th century created a strong beer to sustain them during their Advent and Lenten fasts. Not surprisingly they named it "the Savior," both because of their daily focus on the true meaning of these seasons and because the hearty beer helped them to survive their fasts.

When this beer was made available to the general public in 1780, consumers who were already familiar with strong beers called bocks dubbed the new beer a "doppelbock" or double bock. Today, Salvator is still produced year-around by the secularized Paulaner brewery, but other breweries in Europe often produce bock for sale during December holidays.

Germans Join In

To join the party, Germany's weizen brewers created their own bock beer. This beer retained the wheat-dominated grist and distinctive clovey yeast of their traditional weizens, but it was made to a higher gravity so that it displayed an alcoholic strength that rivaled those of a bock. Today, weizenbocks are still sometimes brewed as a holiday treat.

Despite these traditions, most of the imported holiday beers that we find today in the U.S. come from Great Britain. Winter and holiday beers have become so popular in the U.K. in recent years that many beer festivals are organized around this theme. In 1997, for the first time, the British consumer organization CAMRA will hold a formal Winter Ale festival complete with a competition to select the Champion Winter Beer of Britain.

Many of these winter beers are dark with a distinct malt balance that may be supplemented by fruity, woody, roast or chocolate flavors. Some are quite sweet, even cloying and they are often classified as a "strong mild." Other winter beers, typically appearing under the flag of "Winter Warmer" are more like a strong bitter. They are amber in color and nicely balanced with hops. Often these beers convey a woody or nutty malt character that some consider to be the signature flavor of the style.

Spice Up the Holidays

In the U.S., holiday beers spiced with everything from cinnamon to cardamom or spiked with the likes of licorice, spruce, ginger or orange peel can be found. Even though the historical precedents for such additions can be traced to the pre-hop era of brewing in Europe, contemporary production of such beers appears limited to the American shores. Such spiced concoctions lend another dimension to the diverse winter beer landscape.

If all this talk about winter brews whets your appetite to brew, here are a few recipes for winter beers that you could whip up on a cold day.

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Wind-Whipped Weizenbock

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

All Grain Grist:

- 8 lb wheat malt (3.63 kg)
- 4 lb two-row/Pilsener or pale ale malt (1.81 kg)
- .5 lb crystal malt (40-80 °L)(.23 kg)

Brewer's Specifics

Main mash rest should be 153-155 degrees F (67-68 degrees C) for 45 minutes. As an option, you might begin with a protein rest at 122 degrees F (50 degrees C) for 30 minutes. Mash out at 168 degrees F (20 degrees C), as always.

Grain/Extract Grist:

- 2 lb wheat malt (.91 kg)
- 1 lb two-row/Pilsener or pale ale malt (.45 kg)
- .5 lb crystal malt (40-80 °L)(.23 kg)

Brewer's Specifics

Soak grains at about 155-160 degrees F (68-71 degrees C) for 30-45 minutes using a large grain bag. Remove grains and add a wheat/malt extract: six pounds of dry or eight pounds of syrup. Boil wort for 90 minutes.

Add six AAUs of Hallertau, Hersbrucker or Tettnang hops 45 minutes before the end of the boil to achieve 21-24 IBUs. (6 AAUs=1 ounce of 6% alpha acid content hops or 1.5 ounces of 4% alpha acid hops, etc.)

- Original specific gravity: 1.066
- Ferment with a weizen yeast and, if possible keep the fermentation temperature between 60 and 65 degrees F (16-18 degrees C).

Olde St. Nick's Tipple (A Strong Mild)

The average gravity for a commercial mild ale in England is rather low, about 1.034. As a result, a "strong" mild is what most American brewers consider to be a "normal" gravity beer weighing in at 1.048 or so. In addition, many of the English recipes use sugar and this gives them a rather thin body. I've included both "with sugar" and "without sugar" options here. Of course, extract can be substituted for the majority of the pale ale malt if you prefer a mash/extract recipe.

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

Without Sugar (American) Approach

- 8.5 lb pale ale malt (3.86 kg)
- .5 lb crystal malt (.23 kg)
- .5 lb black malt (.23 kg)

With Sugar (English) Approach

- 8 lb pale ale malt (3.63 kg)
- .5 lb crystal malt (.23 kg)
- .5 lb black malt (.23 kg)
- .5 lb brown sugar (in the boil)(.23 kg)

Brewer's Specifics

In both cases, the main mash can be conducted at 149-151 degrees F (65-66 degrees C). No other rests are required. Boil wort for 90 minutes. Add 6-7 AAUs of Fuggle, Goldings or Willamette hops 60 minutes before the end of the boil to achieve about 26-28 IBUs.

- Original specific gravity: 1.048
- Ferment with a fairly fruity type of English ale yeast such as Whitbread-type available in dry form or as Wyeast British Ale Yeast, #1098.

Glowing Ember Winter Warmer

Like other winter beers, hops move to the background in the typical winter warmer. Most are based on bitter or pale recipes with an increased gravity and perhaps a bit more color. As always, extract can be substituted for all but a pound or two of the pale ale malt.

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

Malt Bill

- 10 lb pale ale malt (4.54 kg)
- .5 lb crystal malt (20-60 °L) (.23 kg)
- .5 lb amber malt* (.23 kg)
- .25 lb chocolate malt (.11 kg)

**This amber malt can be any lightly toasted malt. Commercial examples include Special Roast, Biscuit, Aromatic or Victory malts. If these are not available, toast 10 pounds (4.54 kg) of pale malt on a cookie sheet at 350 degrees F (124 degrees C) for 20-30 minutes.*

Brewer's Specifics

Mash at 151-153 degrees F (66-67 degrees C). No protein rest should be required. Boil for 90 minutes. Add eight AAUs 60 minutes before the end of the boil, using Fuggle, Goldings or Willamette hops. For a touch of hop character, use one of these three varieties and add .5 oz of hops 10 minutes before the end of the boil.

- Original specific gravity: 1.058
- Ferment using a "woody" or "min-erally" English yeast strain such as Wyeast London Ale, W1028.

Of course, these recipes are just suggestions for things that might tickle your fancy during a cold evening. If none of them grab you right now, then think up your own winter beer creation such as a smoked porter or an orange-peel infused stout, a strong Belgian ale or a super-strength IPA. Winter brings a welcome chance to brew and a welcome opportunity to experiment and create. Have fun!

Ray Daniels is an internationally known expert on beer and brewing.

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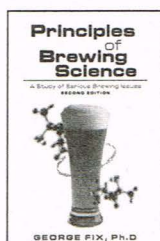
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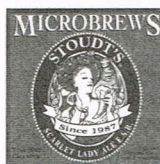
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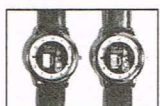


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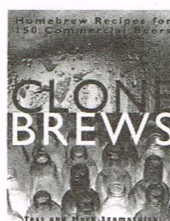
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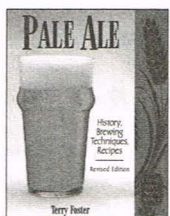
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WHAT MAKES BELGIAN
BREWERS A DIFFERENT LOT?
IT'S ALL IN THEIR HEADS.

MIND

Belgium is hot. Figuratively, that is. And brewing Belgian-style beers is way cool. But how does a non-Belgian get from here to there? And just where *is* there?

Replicating a tasty Belgian brew is certainly a great achievement, but it still doesn't get you there. You haven't arrived until you've probed the Belgian mind and examined the thought processes from which spring the most incredible, iconoclastic beers on earth. When you get there, you'll realize that the *true* Belgian way is to brew anything *but* an existing style.

Crossroads

Belgium is a crossroads of Europe, a meeting place of grape and grain, a juncture of Latin and Germanic cultures. The Belgian people exhibit a curious mix of conservatism and nonconformity.

There's no such thing as a typical Belgian. The country is divided into the Flemings, who speak a language closely related to Dutch, in the north, and the French-speaking Walloons in the south—plus a few pockets of German-speakers. Nothing is cut and dried in this country.

Belgian life reflects influences acquired during rule by the Burgundians, French, Austrians, Spanish and Dutch. Perhaps the most important attribute gained from these occupations is the tendency to reject authority. Stir this anarchic bent together with traditional values and you have a country that erects the futuristic Atomium in the midst of classic architecture. And you have Jean-Pierre Van Roy, whose Brasserie Cantillon in Brussels embraces classic techniques while pushing the envelope with experiments such as a first-ever, all-malt lambic—or did a Belgian farmer with a surfeit of barley produce a similar brew centuries ago?

Belgian brewers have harnessed science when it's helped them. It all comes back to doing what's necessary to get where the brewer wants to go. The Belgian brewing scientist Jean De Clerck isolated the yeast strains used to produce Duvel and did important work with Father Theodore at Abbaye de Notre-Dame de Scourmont, which produces the classic Chimay Trappist ales.

Above all, artisanal Belgian brewers don't effect change for its own sake. "They're so bullheaded," says Kinney Baughman, who played a season of professional basketball in Belgium. "They're not willing to give up what works. If it ain't broke, don't fix it."

Baughman observed the way the Belgian brewers adapted their brewing procedures to exploit what others might consider restrictions. He put their philosophy into action when brewing professionally at the Cottonwood Brewery in Boone, NC, in the mid-1990s.

BY JIM DORSCH



ILLUSTRATION BY TOM CLIFTON

Baughman discovered what he suspects is *pediococcus* in an almost-empty keg of homebrew. He made sour beers with this "Carolina culture" and blended the resulting sour beers with regular offerings. His Belgian Amber Framboise won a Bronze Medal at the 1995 Great American Beer Festival. "I'd have never done what I did with my beer," he says, "had I not tasted those beers in Belgium."

Belgian=Non-Belgian

The best Belgian brewers are artisans. And art doesn't always mix well with commerce.

THOUGHTS ON GETTING THERE

Jim Busch of Silver Spring, MD, brewed *Esprit de Boire*, a Belgian strong ale, as the commemorative ale for the 1995 National Homebrewers Conference in Baltimore. His observations:

☛ "Coriander and cumin tend to dry a beer out in a different way than hops." The Walloons tend to spice beers more aggressively than the Flemings.

☛ "Sugar lightens the body so you don't end up with barley wine." Compare Fuller's Golden Pride with Bush (Scald-is). At 12% alcohol by volume, Bush is nevertheless drier than the British barley wine. To ensure the yeast has enough nutrients, limit sugars to 20% or less of fermentables.

☛ Experiment with yeasts. Split a batch of wort into several parts and ferment each portion with a different yeast. Some yeasts perform best in open fermenters.

☛ Some Belgian brewers cool wort slowly in coolships. Such treatment oxygenates the wort and leaves it open to infections. In the topsy-turvy world of Belgian brewing, an infection might be just what the doctor ordered!

☛ Prime your brew with sugar and fresh yeast. Aim for about three volumes of CO₂, which is about the carbonation level of a German weizenbier. High carbonation levels result in a rocky, moussy head, and bring esters, phenols, higher alcohols and hops in the nose. Bottle conditioning prepares a beer well for cellaring.

"Belgium is all about inefficiency and quality of product," says Don Feinberg of Brewery Ommegang, a Belgian-inspired enterprise in Cooperstown, NY. "They are totally antiestablishment and totally iconoclastic. They don't believe in rules. They hate copying each other."

In a typically Belgian twist, the country's capital, Brussels, is the seat of the European Union, which embraces the economies of scale that threaten Belgium's artisanal breweries with extinction.

Compare the Belgian slant with America's drive for sameness and reproducibility. Is there room for quirky Belgian-style brews in our revved-up economic machine? Yes. The reason comes down to the one attribute Feinberg says we share: rejection of authority.

But just what is Belgian and what isn't? One could tick off words—balance, bottle conditioning, spice, yeast character—but the essence of Belgian brewing isn't in the bottle. It's in the mind.

Brewery Ommegang currently produces two products, Ommegang and Hennepin, which could be categorized roughly as a dubbel and a saison-farmhouse ale, respectively. Brewery Ommegang won't always occupy such a well-defined spot on the Belgian brewing map. "We know someday we'll come up with a beer that's outside the norms," Feinberg says. "We'll be accused of abandoning Belgian styles, but as far as I'm concerned, we'll be achieving it."

Tyranny of the Hop

In Bruges stands a 15th century structure called the Gruuthuse. Today it's a museum of objects common to the merchant class of old, but it once was the residence of the Lord of the Gruuthuse. Gruut, or gruit as it's commonly known today, predates the hop as the spice of beer. It generally contained sweet gale, sage, yarrow and pine resin. The hop almost universally displaced gruit, except in Belgium, of course. The retention of spices gives the Belgian brewer a broad palate of flavors and aromas that are unavailable to the more conventional brewer.

The use of spices gives the brewer considerable latitude. "When you move away from the hop as the predominant aromatizing agent, you free the product," says Feinberg. "You have much more dynamic range. Beer

ABBEY BEER

Charlie Gottenkieny, Plano, TX

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

- 6 lb light malt extract syrup (2.7 kg)
- 1 lb light dry malt extract (454 g)
- 1 lb Munich malt (454 g)
- .5 lb Cara-Munich malt (227 g)
- 1 oz chocolate malt (28 g)
- 1 lb clear candi sugar (454 g)
- 1 oz Perle hops, 8% alpha acid (1 hour) (28 g)
- .5 oz Goldings hops (15 min.) (14 g)
- .5 oz Saaz hops (3 min.) (14 g)
- 1 tsp Irish moss (15 min.) (4.9 mL)
- Wyeast No. 1214 Belgian Ale yeast OR yeast cultured from a bottle of Chimay
- 1.25 cup dry malt extract for priming (296 mL)

- Original specific gravity: 1.070
- Final specific gravity: 1.015
- Boiling time: 1 hour
- Primary fermentation: 1-2 weeks at 70-75 degrees F (21-24 degrees C) in glass
- Secondary fermentation: 2-4 weeks at 70-75 degrees F (21-24 degrees C) in glass

Brewer's Specifics

Put grains in cheesecloth bag and steep in 1 gallon (3.8 L) of water at 155 degrees F (68 degrees C) for 30 minutes. Remove grain bag and rinse well in 1.5 gallons (5.7 L) of 155-degree-F (68-degree-C) water in brew pot. Add water grains were steeped in, along with malt extracts, candi sugar and bittering hops. Boil 45 minutes before adding flavor hops and Irish moss. After 15 more minutes, add aroma hops for 3 minutes. Add to fermenter with cold water to make up 5 gallons. Cool to below 80 degrees F (27 degrees C) and pitch yeast. Ferment at 70-75 degrees F (21-24 degrees C), racking to secondary fermenter after 1-2 weeks. Prime with malt extract and bottle when fermentation is complete.

flavored [only] with hops is like wine that's only sweet and tannic, period."

A Question of Balance

Belgian brewing is all about balance and harmony. "Belgian beer is unexpected in its flavors, but the flavors are harmonious," says Feinberg.

"I was trained by five brewmasters," says Peter Camps, executive vice president of the Celis Brewery, Austin, TX. "One of the things that all five mentioned was that you want to have a very nice balance. When customers drink the beer, they start to wonder what's in it. They sense a little bit of coriander or Curaçao. It's like a blanket; it's still hidden."

The Belgian Way

Where to go from here?

- Examine your materials and surroundings. What can you control? What can't you control. What do you want to control?

- What conditions are best accepted rather than tamed? Let those restrictions become allies instead of enemies.

- Seek harmony, balance and complexity.

- To borrow from George Clinton, "free your mind and your ale will follow." It will be good.

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AN INSIDER'S VIEW

Charlie Gottenkiemy, a two-time Homebrewer of the Year from Plano, TX, has traveled frequently to Belgium and entertained Belgians while doing business. "One of the reasons why the beers are so individualistic," he says, "is that they have tended to be brewed in the local area for local consumption. They didn't distribute widely, so there was no reason for styles. [At one time] most beer was brewed in monasteries, which didn't have much commerce with the outside world. Farmers brewed, but had very limited production. It wasn't too long ago that beer was considered a portable food, which explains the tendency toward higher alcohol beers."



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Jim Dorsch is co-publisher of *Mid-Atlantic Brewing News*.

AMAHL TURCZYNS

Top 10 Belgians

It was difficult coming up with 10 favorite Belgian beers; it's a bit like an art student trying to decide on 10 favorite colors. But after disregarding the many styles, regional specialties, strengths and memories of locations and people with whom these beer are associated, and focusing purely on overall enjoyment of the beer, these are the ones I personally think are the best in Belgium.

1. Maerlant Damse Trippel



This strong ale hails from the tiny but beautiful town of Damme, just outside Brugge. It was not readily available elsewhere when we visited, which was unfortunate, considering the fact that it is without a doubt the best trippel in Belgium. Soft, bread yeast character blends with a full malt flavor, yet the subtle hop character keeps it very light and refreshing. You don't even notice the alcohol—until you try to get up from the table. This is the ideal all-weather beer, hearty enough to have on a wet winter morning, as we did, but light

and refreshing enough to sip in the heat of summer. If you ever find this beer, buy it.

2. Drie Fontainen Kriek, 1996



Krieks vary quite a bit from blender to blender, and I have had amazing bottles from Cantillon, Oud Beersel, Hanssen's and Boon, but this particular bottle, dated Dec. 6, 1996, topped them all. Almost exactly one year after being bottled, Jan De Bruyne, owner of the Brugs Beertje, brought it carefully up from the cellar, dusted it off and left us to enjoy this masterpiece. Fresh cherries stood out from the musty, oaky background with a brilliant tartness. It was a dark, almost burgundy color, the richness of color fulfilling its promise with the flavor equally intense. No cough-drop artificial cherry flavors here—it was like eating sour cherries with the dry, woody winelike character to complement, and finishing with a spritzy tartness. Had we been able to subdue our salivary glands, I'm sure the finish would have been quite dry. There was also a lingering cellar character, like a damp old stone-walled room, not unpleasant at all but intriguing. Krieks vary, batch to batch and year to year, but this particular one was astonishing.

3. Vapeur Rousse, 1993



From the tiny farmhouse brewery in Pipaix, Wallonia, came this treasure, and it was our undisputed favorite among the several offerings Jean-Louis Dits and his family shared with (continued on page 60)

OLD BRUIN

Charlie Gottenkieny, Plano, TX

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

- 7 lb pale ale malt (3.2 kg)
- .75 lb Vienna malt (340 g)
- .5 lb Cara-Vienne malt (227 g)
- 3 oz Chocolate malt (85 g)
- .25 lb acidulated malt (113 g)
- 1 lb flaked maize (454 g)
- .25 lb oat flour (113 g)
- .25 lb wheat flour (113 g)
- .75 oz Hallertauer hops, 4% alpha acid (2 hr) (21 g)
- .5 oz Saaz hops (last 30 min) (14 g)
- .5 oz Saaz hops (last 3 min) (14 g)
- .5 tsp Irish moss (last 15 min) (2.5 mL)
- Wyeast No. 3522 Belgian Ardennes yeast or Wyeast No. 1214 Belgian Ale yeast (primary fermentation)
- Wyeast No. 3278 Belgian Lambic Blend yeast (secondary fermentation)
- Oak chips (steamed 1 hour) (secondary)
- 1.25 cup dry malt extract for priming
- Original specific gravity: 1.054
- Final specific gravity: 1.013
- Boiling time: 2 hours or more
- Primary fermentation: 1 week at 70-75 degrees F (21-24 degrees C) in glass
- Secondary fermentation: up to a year at 70-75 degrees F (21-24 degrees C) in glass

Brewer's Specifics

Sift flours over grains, mix thoroughly and mash at 122 degrees F (50 degrees C) for 30 minutes and at 152 degrees F (67 degrees C) for one hour. Sparge and boil for a minimum of 2 hours or simmer overnight. (The deep red color comes from the long boil.)

Ferment for one week in primary, then rack to secondary and add Lambic Blend yeast. Ferment at 70-75 degrees F (21-24 degrees C). Monitor for lactic flavor; secondary fermentation will take from several months to a year. Prime and bottle when ready.

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1999 AHA NATIONAL HOMEBREW COMPETITION WINNERS

BY DAN RABIN

1999 HOMEBREWER OF THE YEAR



CHARLES GOTTENKIENY

If patience is indeed a virtue, then 1999 Homebrewer of the Year Charles Gottenkieny is a virtuous man. His lambic, which captured top honors in this year's AHA national competition, was aged a full three years, nearly a lifetime in homebrew terms. Charles obviously knows something about the proper aging of this unique beer style. This is the second time in three years that he has earned Homebrewer of the Year status with a three-year-old lambic.

To create the complex character of his award-winning beer, Charles used both pure yeast cultures and a variety of other yeasts collected from the dregs of bottles of commercial lambics. Though his award winner was a straight, unblended lambic, Charles has also experimented with traditional styles of fruit lambics including cherry and raspberry. Charles developed his passion for lambics, Trappist-style ales, and most other Belgian beers during travels in Belgium. A homebrewer for ten years, Charles also enjoys brewing classic English and German styles.

A resident of the Dallas suburb of Plano, Charles does most of his brewing from October through March, avoiding Texas' hot summer months. When it comes to brewing, Charles is more a traditionalist than an experimenter. He says his biggest successes have come after thoroughly researching a style before brewing. After identifying a beer's profile, he carefully designs his own recipe.

MEADMAKER OF THE YEAR



STEVE SCHMITT

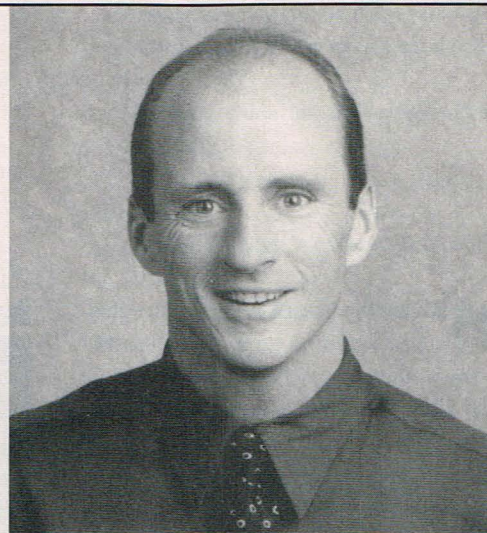
Steve Schmitt, of Anchorage, AK, loves to experiment. When the results of a brewing experiment are less than stellar, that doesn't make it a failure. Rather, it becomes a new project in the making, just waiting for the right opportunity to present itself. At least that's what Steve must have been thinking when he blended an oak-aged mead that was too oaky, a rhubarb-raspberry mead that was too tart, and a clover honey mead that was too sweet. The result was a superlative mead that earned him 1999 Meadmaker of the Year honors and proved beyond a doubt that the whole far exceeds the sum of the parts. (It may also prove that two wrongs don't make a right, but three do.) This isn't the first of Steve's experiments that became something beyond its original intent. A less-than-palatable chili mead he brewed a few years ago became the base of a marinade used to make an excellent batch of smoked salmon.

Such inventiveness may have something to do with living in Alaska, where the expense of some items may motivate people to make the most of their resources. For example, according to Steve, Alaskan honey is plentiful, but it is mostly targeted to tourists and commands exorbitant prices. As a result, Steve purchases his honey on frequent trips to Oregon and Washington.

NINKASI AWARD

At a time when many homebrewers are turning to increasingly complex and high-tech brewing systems, 1999 Ninkasi Award winner Thomas Plunkard would rather keep things simple. Thomas brews in his kitchen using a cooler to mash grains and boiling water infusions to raise mash temperatures. He even boils his wort on his stovetop most of the time. Thomas took gold medals in both American-Style Pilsener and Munich-Style Dunkel, two of his favorite styles.

A resident of Warren, MI, Thomas began brewing in 1990, but got more serious about homebrewing about four years ago. He started out brewing ales but today brews mostly lagers, partly because he enjoys the slower process of lager brewing, and partly because his wife doesn't like his ales. The second lager he ever brewed, a dunkel, won a bronze medal in the AHA national competition several years ago. He remembers this early success with a lager style as perhaps the most satisfying beer he's ever brewed. Though his favorite beers are the everyday-drinking German lagers, he is currently working on brewing the perfect bock. Thomas' uncomplicated approach to brewing is a welcome reminder that a simple system can make simply great beer.



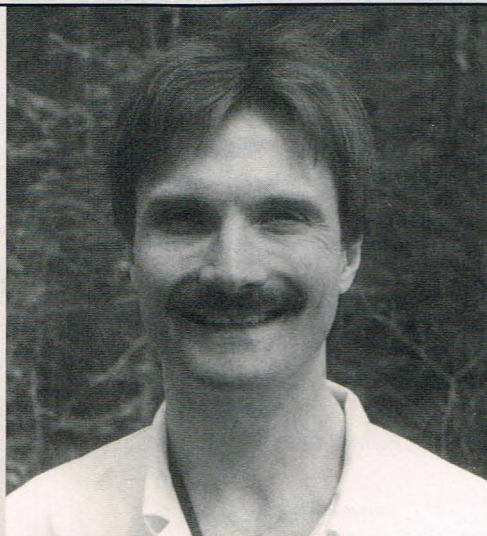
THOMAS PLUNKARD

CIDERMAKER OF THE YEAR


When you enter Maine along the turnpike from New Hampshire, you pass a sign that says, "The way life should be." It's obvious that the ciders and other brews of Maine resident Thomas O'Connor, the 1999 Cidermaker of the Year, are exactly the way they should be. Thomas hails from the quaint coastal town of Rockport, where he brews a variety of ciders, beers, and meads. His sweet, still traditional cider earned him this year's top cidermaking honors, a title he can add to his collection of 350-plus ribbons and medals acquired over a decade of brewing.

Thomas prefers fermenting ciders with lager yeast and starting fermentation as soon as possible after the apples are pressed. Thomas also believes that cidermaking requires attention to cider's four flavor components including sweetness, acidity, aromatics, and tannin bite. To create his top-rated cider, Thomas used several varieties of end-of-the-season organic Maine apples. He likes using late season apples because they are sweeter, having had more time to collect and concentrate sugars. Thomas believes that patience is also important. This year's winner was aged in a carboy for one-and-one-half years.

A BJCP master beer judge and homebrew competition organizer for the past six years, Thomas' impressive credentials also include New England Homebrewer of the Year for the past four years and New England Cidermaker of the Year for the past two years.



THOMAS J. O'CONNOR

Frequent *Zymurgy* contributor Dan Rabin lives in Boulder, CO. 

Here are the best of the best—the gold-medal-winning recipes of the AHA 1999 National Homebrew Competition. Of the 2806 entries in 28 categories—24 for beer, 3 for mead and 1 for cider, these are the best in each category. Give them a try next time you brew one of these styles.

We could not have pulled off the competition without the help of the many volunteer locations, sorters, stewards and judges. Special recognition goes to site directors Bruce Stevens, George Hummel, Nancy Rigberg, Michael Richardson, Rodric McBride, Alberta and Jackie Rager, Gary Gutowski, Annette Valenzuela, Ken Johnson, Brad Reeg and Richard Oluszak. Thanks also to the BJCP for judge support. Our sponsors keep the competition affordable for the entrants. Please support the businesses that support the AHA.

Congratulations to all of the winners.

—Paul Gatz

Barley Wine



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

BOB GROSSMAN, HADDONFIELD, NJ
"OLDE KORTHOLT"
ENGLISH-STYLE BARLEY WINE

Ingredients for 12 U.S. gal (45.4 L)

- 30 lb pale malt (13.6 kg)
- 12 lb Alexander's wheat malt extract (5.4 kg)
- 4 lb pale malt (1.8 kg), toasted at 350 degrees F (159 degrees C) for 10 min.
- 2 lb pale malt (1.36 kg), toasted at 350 degrees F (159 degrees C) for 60 min.
- 2 lb Munich malt (1.36 kg)
- 2 lb crystal malt (1.36 kg)
- 2 lb demerara sugar (1.36 kg)
- .5 lb chocolate malt (.23 kg)
- 1.5 oz Northern Brewer pellet hops, 8.8% alpha acid (43 g) (90 min.)
- 1 oz Columbus pellet hops, 12.4% alpha acid (28 g) (90 min.)
- 5 oz Willamette pellet hops, 4.3% alpha acid (142 g) (60 min.)
- 2 oz Columbus pellet hops, 12.4% alpha acid (57 g) (30 min.)
- 3 oz Willamette pellet hops, 4.3% alpha acid (85 g) (10 min.)
- 3 oz Willamette pellet hops, 4.3% alpha acid (85 g) (1 min.)
- 4 oz Kent Goldings whole hops, 5% alpha acid (113 g) (dry)
- Wyeast No. 1968 London ESB ale yeast

- 1 cup dextrose (237 mL) to prime
- .5 cup fresh yeast starter (118 mL) to prime

- Original specific gravity: 1.120
- Final specific gravity: 1.040
- Boiling time: 120 min.
- Primary fermentation: seven days at 68 degrees F (20 degrees C) in stainless steel
- Secondary fermentation: six months at 65-72 degrees F (18-22 degrees C) in stainless steel
- Tertiary fermentation: two months at 65 degrees F (18 degrees C) in stainless steel

Brewer's Specifics

Mash grains at 154 degrees F (68 degrees C) for 60 minutes. Add sugar and extract to boil. Dry hops should condition with fermented beer for two months.

Judges' Comments

"Balance is on the sweet side. Over all a very good example. Balance may improve with age."

"Fairly complex flavor. Malty, sweet with some alcoholic warming."

Runners-Up

Silver Medal: Jeff Swearengen, Tulsa, OK, "Big Boy Barleywine"

Bronze Medal: Andy and Bernie Moon, E. Syracuse, NY, "Barley Wine #3"

Belgian Ale



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by New Belgium
Brewing Company, Ft. Collins, CO

MEL THOMPSON, WEST PALM BEACH, FL
"CENTENNIAL BS"
BELGIAN-STYLE DARK STRONG ALE

Ingredients for 5.5 U.S. gal (20.8 L)

- 15 lb English pale malt (6.8 kg)
- 1 lb Belgian aromatic malt (.45 kg)
- .3 lb wheat malt (.15 kg)
- .5 lb Cara-Pils malt (.23 kg)
- .5 lb Cara-Hell malt (.23 kg)
- .3 lb 80 °L crystal malt (.15 kg)
- 1 lb candi sugar (.45 kg)
- 2 oz Hallertauer hops, 3.7% alpha acid (57 g) (60 min.)
- 2 oz Hallertauer hops, 3.7% alpha acid (57 g) (30 min.)
- Wyeast No. 1762 Belgian Abbey II ale yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.102
- Final specific gravity: 1.021
- Boiling time: 60 min.
- Primary fermentation: 14 days at 68 degrees F (20 degrees C) in glass
- Secondary fermentation: 60 days at 68 degrees F (20 degrees C) in glass

Brewer's Specifics

Mash grains for 90 minutes. Add candi sugar 30 minutes before the end of the boil.

Judges' Comments

"Malty, alcoholic; well-balanced. Great job of balancing sweetness with alcohol!"

"Great nose! Whew, a wonderfully made classic; multi-dimensional. Wish a younger version was available."

Runners-Up

Silver Medal: Tom Hamilton, Salt Lake City, UT, "Dim-Wit"

Bronze Medal: Curt Hausam, Salem, OR, "Just Spit On It"

Belgian-Style Lambic



GOLD MEDAL

AHA 1999
Homebrewer of the Year

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by New Belgium
Brewing Company, Ft. Collins, CO

CHARLES GOTTENKIENY, PLANO, TX
"LAMBIC 1130"
BELGIAN-STYLE LAMBIC

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

- 7 lb pale malt (3.18 kg)
- 3.5 lb flaked wheat (1.59 kg)
- .5 lb crystal malt (.23 kg)
- 2 oz aged Fuggles hops, 4% alpha acid (57 g) (120 min.)
- Wyeast No. 1056 American ale yeast
- GW Kent *Pediococcus cerevesiae*
- GW Kent *Brettanomyces lambicus*
- 1 cup corn sugar (237 g) (to prime)

- Original specific gravity: 1.058
- Final specific gravity: 1.007
- Boiling time: 120 min.
- Primary fermentation: 22 days at 70 degrees F (21 degrees C) in glass
- Secondary fermentation: one year at 70 degrees F (21 degrees C) in glass

Brewer's Specifics

Mash grains using a single-decoction mash schedule. Add bacterial cultures to secondary.

Judges' Comments

"Appropriate sour flavor, very complex. Good try at style: this beer makes my cheeks pucker!"

"Nice Brett. character. Fruity, reasonably tart. Nice beer."

Runners-Up

Silver Medal: Matt Weaver, Wilsonville, OR, [Untitled]

Bronze Medal: Charlie Gottenkieny, Plano, TX, "Big Pink"

Mild and Brown Ale



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Premier
Malt Products, Grosse Pointe, MI

JIM HOLIDAY, OLATHE, KS
"DOC'S IRISH RED"
IRISH-STYLE RED ALE

Ingredients for 10 U.S. gal (41.6 L)

- 20 lb pale malt (9 kg)
- 2 lb melanoidin malt (.91 kg)
- 1 lb 60 °L crystal malt (.45 kg)
- 2 oz roasted barley (.57 g)
- 1.5 oz Northern Brewer hops, 8.1% alpha acid (43 g) (60 min.)
- 1 oz Perle hops, 7.6% alpha acid (28 g) (30 min.)
- 1 oz Cascade hops, 6.6% alpha acid (28 g) (2 min.)
- Wyeast No. 1028 London ale yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.061
- Final specific gravity: 1.013
- Boiling time: 90 min.
- Primary fermentation: 7 days at 67 degrees F (19 degrees C) in glass
- Secondary fermentation: 10 days at 67 degrees F (16 degrees C) in glass

Brewer's Specifics

Mash grain at 152-154 degrees F (67-68 degrees C) for one hour.

Judges' Comments

"Intense, sweet caramel character, well-balanced by hop bitterness and flavor. Hits style marks well. A very well-balanced beer."

"Very malty, well-balanced. A beautiful beer."

Runners-Up

Silver Medal: John Allen, Alpharetta, GA, "Improbable Brown"

Bronze Medal: Jeff Carlson, Grand Rapids, MI, "Westside Brown"

English-Style Pale Ale



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Wynkoop Brewing Co., Denver, CO

JIM BUCKETT, CHAGRIN FALLS, OH
"BROWN BAGGER IPA"
INDIA PALE ALE

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

- 7 lb light dry malt extract (3.18 kg)
- 1 lb 40 °L crystal malt (.45 kg)
- .5 lb Munich malt (.23 kg)
- 3 oz N. Brewer pellet hops, 8.6% alpha acid (85 g) (51 min.)
- .87 oz Cascade pellet hops, 4.7% alpha acid (24 g) (14 min.)
- 1 oz Cascade whole hops, 5.5% alpha acid (28 g) (2 min.)
- Wyeast No. 1028 London ale yeast

- Original specific gravity: 1.060
- Final specific gravity: 1.011
- Boiling time: 50 min.
- Primary fermentation: 2 days at 62-64 degrees F (17-18 degrees C) in plastic

- Secondary fermentation: 20 days at 62-64 degrees F (17-18 degrees C) in glass

Brewer's Specifics

Steep specialty grains at 165 degrees F (74 degrees C) for 30 minutes. Strain and bring liquid to a boil. Add extract and return to a boil, then add hops at specified intervals.

Judges' Comments

"Could use a little more hop character, but a good beer."

"Tea-like hop flavor overlaid with citrus; some sweetness, but a lasting bitterness. Very nice British style IPA. Good job."

Runners-Up

Silver Medal: Joe Formanek, Bolingbrook, IL, "Nectar IPA"

Bronze Medal: Fred Hartwig, Independence, MO, "Independence Pale Ale"

American-Style Ale



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Northwestern Extract Co., Brookfield, WI

CHRIS LAVOIE, ALBANY, NY
"DONNER PARTY PALE AIL II"
AMERICAN-STYLE PALE ALE

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

- 7.5 lb pale malt extract (3.4 kg)
- 1 lb pale malt (.45 kg)
- .5 lb Cara-Pils malt (.23 kg)
- .5 lb crystal malt (.23 kg)
- .25 lb wheat malt (.11 kg)
- .5 oz Nugget hops, 13% alpha acid (14 g) (60 min.)
- .5 oz Perle hops, 7% alpha acid (14 g) (30 min.)
- .5 oz Cascade hops, 5% alpha acid (14 g) (30 min.)
- 3.5 oz Cascade hops, 5% alpha acid (99 g) (steep)

- 2 oz Cascade hops, 5% alpha acid (57 g) (dry)
- Wyeast No. 1056 American ale yeast
- .75 cup corn sugar (177 mL) (to prime)

- Original specific gravity: 1.054
- Final specific gravity: 1.010
- Boiling time: 60 min.
- Primary fermentation: 7-10 days at 68 degrees F (20 degrees C) in glass
- Secondary fermentation: 10-14 days at 68 degrees F (20 degrees C) in glass

Brewer's Specifics

Mash grains at 150 degrees F (66 degrees C) for 60 minutes in 1.5 gallons (5.68 L) brewing liquor. Add extract to boil. Add dry hops to secondary fermenter.

Judges' Comments

"A nice beer with a balanced hop presentation though the Cascade character is fairly high."

"Dry and hoppy. Well-crafted beer. Good job."

Runners-Up

Silver Medal: Rod Parsons, Eureka, CA, "Centennial Pale Ale"

Bronze Medal: Kury Zyla, Lebanon, NJ, "Tewksbury Gold"

English Bitter



**GOLD
MEDAL**

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Deschutes
Brewing Co., Bend, OR

AL ROSE, HOWELL, MI
"CHURCHILL'S PRIZE"
STRONG EXTRA SPECIAL BITTER

Ingredients for 6.3 U.S. gal (24 L)

- 8.8 lb pale malt (4 kg)
- 1 lb Cara-Pils malt (.45 kg)
- .35 lb 20 °L crystal malt (.16 kg)
- .5 lb 40 °L crystal malt (.23 kg)
- .35 lb 80 °L crystal malt (.16 kg)
- 2.7 oz Fuggle hops, 5.5% alpha acid (75 g) (60 min.)
- 1.35 oz Fuggle hops, 5.5% alpha acid (40 g) (10 min.)
- 1.8 oz Kent Goldings hops, 5% alpha acid (52 g) (0 min.)
- 1 oz Goldings whole hops, 5% alpha acid (28 g) (dry)
- Wyeast No. 1056 American ale yeast
- .75 cup dextrose (177 mL) to prime

- Original specific gravity: 1.050
- Final specific gravity: 1.012
- Boiling time: 60 min.
- Primary fermentation: 8 days at 62 degrees F (17 degrees C) in glass
- Secondary fermentation: 20 days at 62 degrees F (17 degrees C) in glass

Brewer's Specifics

Mash grains at 154 degrees F (68 degrees C) for 60 minutes.

Judges' Comments

"Very nice beer, love the hop profile, could be a little maltier for balance."

"This is a very good example, but it could be a little maltier to balance that wonderful hop character you have achieved."

Runners-Up

Silver Medal: Paul Shick, Cleveland Heights, OH, "Blue Streak Bitter"

Bronze Medal: Jeff Reilly, Houston, TX, "Boxing Cock Best Bitter"

Scottish Ale



**GOLD
MEDAL**

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Bert Grant's Ales

STEVE JONES, JOHNSON CITY, TN
"SAM'S SCOTTISH ALE"
SCOTTISH-STYLE EXPORT ALE

Ingredients for 8 U.S. gal (30.28 L)

- 15 lb pale malt (6.81 kg)
- 1 lb Victory malt (.45 kg)
- .5 lb 40 °L crystal malt (.23 kg)
- .5 lb 80 °L crystal malt (.23 kg)
- 6 oz chocolate malt (11 g)
- 3 oz peat malt (85 g)
- 1 oz Fuggles hops, 5% alpha acid (28 g) (90 min.)
- .5 oz E. Kent Goldings hops, 4.7% alpha acid (14 g) (90 min.)
- Wyeast No. 1728 Scottish ale yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.060
- Final specific gravity: 1.012
- Boiling time: 90 minutes
- Primary fermentation: 7 days at 64 degrees F (18 degrees C) in glass
- Secondary fermentation: 7 days at 70 degrees F (21 degrees C) in glass

Brewer's Specifics

Mash grains at 155 degrees F (68 degrees C) for 60 minutes.

Judges' Comments

"Good malty sweetness with a slight smokiness. Nice beer! You might want to subdue the bitterness a bit."

"Malt and hops appear to be correct. Good caramel. Lacks somewhat in the sweet side but otherwise has all the Scottish qualities."

Runners-Up

Silver Medal: Rick Georgette, West Bloomfield, MI, [Untitled]

Bronze Medal: John B. Avard, Chris A. Columbus, and Matthew W. Goody, Manchester, NH, "WAG Light Scottish"

Porter



**GOLD
MEDAL**

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

ROBERT M. BROTSCHOL,
WOODHAVEN, NY
"PORTER"
ROBUST PORTER

Ingredients for 5.5 U.S. gal (20.8 L)

- 6 lb light malt extract (2.7 kg)
- 1 lb dry wheat malt extract (.45 kg)
- .5 lb dry light malt extract (.23 kg)
- .5 lb Victory malt (.23 kg)
- .5 lb roasted barley (.23 kg)
- .5 lb black patent malt (.23 g)
- .25 lb Special B malt (.11 kg)
- 1 oz Perle hops, 8% alpha acid (28 g) (60 min.)
- 1 oz Fuggle hops, 4.5% alpha acid (28 g) (60 min.)
- 1 oz Fuggle hops, 4.5% alpha acid (28 g) (30 min.)
- 1 oz Saaz hops, 3% alpha acid (28 g) (steep)
- Wyeast No. 1056 American ale yeast
- 6 oz dextrose (170 g) to prime

- Original specific gravity: 1.062
- Final specific gravity: 1.020
- Boiling time: 60 min.

- Primary fermentation: 8 days at 68 degrees F (20 degrees C) in glass
- Secondary fermentation: 16 days at 66 degrees F (19 degrees C) in glass
- Tertiary fermentation: 14 days at 62 degrees F (17 degrees C) in glass

Brewer's Specifics

Mash grains at 152 degrees F (67 degrees C) for 60 minutes. Add extracts to boil.

Judges' Comments

"This beer has great flavor. Very drinkable. Nice job."

"Sweetness is strong enough to stand up to the finishing hop bitterness. Nice coffee notes in the finish. A very flavorful and complex beer."

Runners-Up

Silver Medal: Kevin Spealman, Glen Ellyn, IL, "Porter"

Bronze Medal: Jasper Davis and Chris Vermejan, Gray, TN, "Jay's Pride No. 54870"

English and Scottish Strong Ale



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Rogue Ales/
Oregon Brewing Co., Newport, OR

DOUGLAS B. JOHN, JR., FOREST, VA
"STRONG BLADE"
ENGLISH OLD ALE/STRONG ALE

Ingredients for 5 U.S. gal (37.85 L)

- 9.5 lb light dry malt extract (4.31 kg)
- 1 lb 20 °L crystal malt (.45 kg)
- 1 lb Cara-Pils malt (.45 kg)
- 2 oz Cara-Vienne malt (57 g)
- 2 oz Cara-Munich malt (57 g)

- 1 oz roasted barley (28 g)
- 3 oz flaked barley (85 g)
- 2 oz Kent Goldings hops (57 g) (55 min.)
Wyeast No. 1728 Scottish ale yeast forced CO₂ to carbonate
- Original specific gravity: 1.092
- Final specific gravity: 1.030
- Boiling time: 55 minutes
- Primary fermentation: 21 days at 53 degrees F (12 degrees C) in glass
- Secondary fermentation: 7 days at 38 degrees F (3 degrees C) in glass
- Tertiary fermentation: 2 months at 38 degrees F (3 degrees C) in glass

Brewer's Specifics

Mash grains at 105 degrees F (41 degrees C) for 30 minutes. Raise temperature to 122 degrees F (50 degrees C) and hold for 30 minutes. Raise temperature to 158 degrees F (70 degrees C) and hold for 30 minutes. Raise temperature to 168 degrees F (76 degrees C) and hold for 10 minutes.

Judges' Comments

"Appropriate balance for style but need more malt flavor. Very pleasant—technically good although age is showing."

"Malty; hops are low but evident. Good beer. I could drink lots more of it."

Runners-Up

Silver Medal: Brian Cole, Black Mt., NC, "Old Crowdad"

Bronze Medal: Curt Hausam, Salem, OR, "Sex and Candy"

Stout



GOLD MEDAL



AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Alternative
Garden Supply DBA Brew & Grow,
Streamwood, IL

DEB AND FRANK NELSON,
APPLE VALLEY, MN
"OUR LADY OF HIGH OCTANE
IMPERIAL STOUT"

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

- 6.6 lb light malt extract (3 kg)
- 6.6 lb amber malt extract (3 kg)
- 1 lb roasted barley (.45 kg)
- 1 lb crystal malt (.45 kg)
- .5 lb chocolate malt (.23 kg)
- .5 lb black patent malt (.23 kg)
- 2 oz Perle hops, 8% alpha acid (57 g) (60 min.)
- 1 oz Perle hops, 8% alpha acid (28 g) (40 min.)
- .5 oz Perle hops, 8% alpha acid (14 g) (20 min.)
- 1 oz Liberty hops, 4.5% alpha acid (28 g) (2 min.)
- Wyeast No. 1056 American ale yeast
- 1.25 cup dry malt extract (to prime)
- Original specific gravity: 1.092
- Final specific gravity: 1.026
- Boiling time: 60 minutes
- Primary fermentation: 10 days at 70 degrees F (21 degrees C) in glass
- Secondary fermentation: 20 days at 70 degrees F (21 degrees C) in glass

Brewers' Specifics

Steep specialty grains for 30 minutes at 150 degrees F (66 degrees C). Remove, and boil extract for 60 minutes.

Judges' Comments

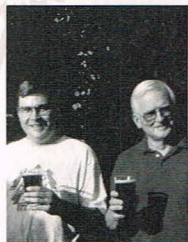
"Alcoholic, sweet, malty, bitter; excellent. Warming, creamy."

"Big, fully-flavored, rich ale. Balance from alcohol. Complex balance, lingering finish. Very well-constructed beer. The finish is like bitter-sweet chocolate rum balls. Great beer."

Runner-Up

Bronze Medal: Bob Adams, Owensville, MD, "Eclipse Extra Stout Ale"

Bock



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Washington Hop Commission, Yakima, WA

**LEO VITT AND BILL VAN VUGT,
ROCHESTER, MN
[UNTITLED]
DOPPELBOCK**

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

- 5 lb Pilsener malt (2.27 kg)
- 4 lb Munich malt (1.8 kg)
- 2 lb melanoidin malt (.91 kg)
- .5 lb aromatic malt (.23 kg)
- .5 lb Cara-Vienne malt (.23 kg)
- .5 lb Cara-Munich malt (.23 kg)
- 2 oz wheat malt (57 g)
- .5 oz Perle hops, 8.2% alpha acid (14 g) (60 min.)
- .25 oz Tettnanger hops, 3.4% alpha acid (7 g) (30 min.)
- .5 oz Hallertauer hops, 4.2% alpha acid (14 g) (30 min.)
- Wyeast No. 2206 Bavarian lager yeast
- 3.5 oz dextrose (99 g) to prime

- Original specific gravity: 1.082
- Final specific gravity: 1.032
- Boiling time: 60 minutes
- Primary fermentation: 27 days at 46 degrees F (8 degrees C) in glass

- Secondary fermentation: 69 days at 36 degrees F (2 degrees C) in glass

Brewers' Specifics

Mash grains using a triple decoction mash schedule.

Judges' Comments

"Good malty character. Hop bitterness present at proper levels. Seems a little small for style. Good job."

"A very nice doppelbock, but it is a little too sweet. Recipe is good, and a little tweaking will make this a winner."

Runners-Up

Silver Medal: Joseph Hughes, Jupiter, FL, "They're Bock"

Bronze Medal: Jerry Janis, West Palm Beach, FL, "Jer's Brew #2"

German Dark Lager



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

**THOMAS PLUNKARD, WARREN, MI
"FREUNDSCHAFT"
MUNICH-STYLE DUNKEL**

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

- 15 lb Munich malt (6.81 kg)
- 6 oz chocolate malt (170 g)
- 1.2 oz Saaz hops, 3.5% alpha acid (33 g) (60 min.)
- .5 oz Hallertauer Hersbrucker hops, 2.8% alpha acid (14 g) (30 min.)
- .4 oz Hallertauer Hersbrucker hops, 2.8% alpha acid (11 g) (5 min.)
- YCKC Bavarian lager yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.057
- Final specific gravity: 1.020
- Boiling time: 60 minutes
- Primary fermentation: 10 days at 46 degrees F (8 degrees C) in glass

- Secondary fermentation: 4 days at 54 degrees F (12 degrees C) in glass
- Tertiary fermentation: 3 months at 35 degrees F (2 degrees C) in stainless steel

Brewer's Specifics

Mash grains at 160 degrees F (71 degrees C) for 45 minutes. Raise temperature to 168 degrees F (76 degrees C) and hold for 10 minutes. (No sparge.)

Judges' Comments

"Sweet, soft and smooth. Very, very nice. Caramel notes. Very enjoyable brew—well done!"

"Excellent malt/hop balance in flavor. Very nice, clean-drinking brew. Good balance."

Runners-Up

Silver Medal: Wesley W. Wilson, Honolulu, HI, "German Schwarzbier"

Bronze Medal: Mike Riddle and Dan Hagtwiesche, Napa, CA, "May the Schwarz Be With You"

German Light Lager



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Briess Malting Co., Chilton, CO

**RICH GEORGETTE,
WEST BLOOMFIELD, MI
[UNTITLED]
DORTMUNDER-STYLE LAGER**

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

- 10.5 lb Czech Pils malt (5.67 kg)
- 2 lb Munich malt (.91 kg)
- .75 lb Cara-Foam malt (.34 kg)
- .25 lb sauer malt (.25 kg)
- .5 oz Tettnanger hops, 4.9% alpha acid (14 g) (60 min.)
- 1.5 oz Hallertauer Mittelfruh hops, 4.8% alpha acid (43 g) (30 min.)

- .5 oz Tettnanger hops, 4.9% alpha acid (14 g) (5 min.)
- .5 oz Hallertauer Mittelfruh hops, 4.8% alpha acid (14 g) (5 min.)
- Wyeast No. 2206 Bavarian lager yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.048
- Final specific gravity: 1.010
- Boiling time: 120 minutes
- Primary fermentation: 2 weeks at 49 degrees F (9 degrees C) in glass
- Secondary fermentation: 2 weeks at 41 degrees F (5 degrees C) in glass
- Tertiary fermentation: 6 weeks at 32 degrees F (0 degrees C) in glass

Brewer's Specifics

Mash grains using a single decoction mash schedule, from 126 degrees F to 140 degrees F (52 degrees C to 60 degrees C).

Judges' Comments

"Good clean beer. Balanced well. Lager characteristics, low DMS in nose. Well done."

"Very drinkable. Slight salt character. Bitter lingers slightly."

Runners-Up

Silver Medal: David Hartwig, Lone Jack, MO, "Excel"

Bronze Medal: Dean Fikar, Fort Worth, TX, "Munich Helles #1"

Classic Pilsener



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by California Concentrate

THOMAS PLUNKARD, WARREN, MI
"GOLDEN MEADOW"
AMERICAN-STYLE PILSENER

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

- 11 lb six-row pale malt (4.99 kg)
- 4 lb flaked maize (1.81 kg)
- 1 lb Munich malt (.45 kg)
- 1 oz Hallertauer Hersbrucker hops, 2.8% alpha acid (28 g) (first wort)
- 2 oz Saaz hops, 3.5% alpha acid (57 g) (60 min.)
- 1 oz Saaz hops, 3.5% alpha acid (28 g) (15 min.)
- 2 oz Hallertauer Hersbrucker hops, 2.8% alpha acid (57 g) (steep)
- YCKC German lager yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.060
- Final specific gravity: 1.020
- Boiling time: 75 minutes
- Primary fermentation: 16 days at 46 degrees F (8 degrees C) in glass
- Secondary fermentation: 2 days at 52 degrees F (11 degrees C) in glass
- Tertiary fermentation: 3.5 months at 35 degrees F (2 degrees C) in stainless steel

Brewer's Specifics

Mash grains at 154 degrees F (68 degrees C) for 60 minutes. Raise temperature to 162 degrees F (72 degrees C) and hold for 10 minutes. (No sparge.)

Judges' Comments

"Full bodied with crisp mouthfeel. Nicely brewed beer! Would like to have more of this."

Runners-Up

Silver Medal: Steven Gardner, Jacksonville, FL, "Sawgrass Pilsener"

Bronze Medal: David C. Koster, Phoenix, AZ, "Sun Devil Pilsener"

American Lager



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

RUSS BEE, ROCKWALL, TX
"FRANKIE'S PASTIME"
AMERICAN-STYLE LIGHT LAGER

Ingredients for 13 U.S. gal (49.2 L)

- 9 lb six-row pale malt (4.08 kg)
- 9 lb pale malt (4.08 kg)
- 4 lb rice extract (1.81 kg)
- 1.2 oz Cluster hops, 7.4% alpha acid (32 g) (50 min.)
- Wyeast No. 2112 California lager yeast
- 3 oz dextrose (35 g) per 5 gallons (18.93 L) to prime
- Original specific gravity: 1.035
- Final specific gravity: 1.007
- Boiling time: 60 minutes
- Primary fermentation: 19 days at 52 degrees F (11 degrees C) in glass
- Secondary fermentation: 8 days at 38 degrees F (3 degrees C) in glass

Brewer's Specifics

Mash grains at 149 degrees F (65 degrees C) for 75 minutes. Add extract to boil.

Judges' Comments

"Very light malt. Some DMS in flavor (ok). Clean beer, good lawnmower style. Good job."

"Very light, refreshing beer, excellent example of the style."

Runners-Up

Silver Medal: Bill Wright, Juneau, AK, "First All Grain"

Bronze Medal: Weston Sampson, Orlando, FL, [Untitled]

Vienna/Märzen/ Oktoberfest



**GOLD
MEDAL**

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

KEN SCHULZ, ROCKTON, IL "DON'T BOGART THE VIENNA" VIENNA-STYLE LAGER

Ingredients for 5.7 U.S. gal (20 L)

- 7 lb Pilsener malt (3.18 kg)
- 2 lb Munich malt (.91 kg)
- 1 lb Vienna malt (.45 kg)
- .5 lb wheat malt (.23 kg)
- .5 lb Victory malt (.23 kg)
- .75 lb Cara-Pils malt (.23 kg)
- .25 lb aromatic malt (.11 kg)
- .25 lb 60 °L crystal malt (.11 kg)
- 1 oz Tettnanger hops, 4% alpha acid (28 g) (60 min.)
- 1.25 oz Saaz hops, 4.2% alpha acid (35g) (50 min.)
- .5 oz Saaz hops, 4.2% alpha acid (14g) (5 min.)
- Wyeast No. 2206 Bavarian lager yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.055
- Final specific gravity: 1.016
- Boiling time: 60 minutes
- Primary fermentation: 13 days at 50 degrees F (10 degrees C) in plastic
- Secondary fermentation: 13 days at 48 degrees F (9 degrees C) in glass
- Tertiary fermentation: 3 weeks at 35 degrees F (2 degrees C) in glass

Brewer's Specifics

Mash grains using a single step infusion mash. Strike at 175 degrees F (79 degrees C) with a pH of 5.7. Dough in at 156 degrees F (69 degrees C). Hold for 90 minutes. Sparge at 170 degrees F (77 degrees C) with a pH of 5.5.

Judges' Comments

"Very nice beer! Cut back on hops and you are there."

Runners-Up

Silver Medal: Rod Parsons, Eureka, CA, "Märzen"

Bronze Medal: Mike Kilian, Fenton, MO, "Vienna"

German-Style Ale



**GOLD
MEDAL**

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

WESTON SAMPSON, ORLANDO, FL "KISSISSIMEE KÖLSCH" KÖLSCH

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

- 6.5 lb pale lager malt (2.95 kg)
- 1.5 lb Munich malt (.68 kg)
- 1 lb Cara-Pils malt (.45 kg)
- 1 oz Saaz plug hops, 3.5% alpha acid (28 g) (60 min.)
- 1 oz Tettnanger plug hops, 4.7% alpha acid (28 g) (20 min.)
- .5 oz Tettnanger plug hops, 4.7% alpha acid (14 g) (5 min.)
- Wyeast No. 2565 Kölsch yeast
- 1.25 cup dry malt extract (to prime)

- Original specific gravity: 1.048
- Final specific gravity: 1.0010
- Boiling time: 60 min.
- Primary fermentation: 4 days at 65 degrees F (18 degrees C) in glass
- Secondary fermentation: 6 days at 65 degrees F (18 degrees C) in glass

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Brewer's Specifics

Mash grains using a double decoction schedule.

Judges' Comments

"Very good beer. Clean, well-balanced."

"Good expression of hops, but a little more malt character would make this great. Otherwise good."

Runners-Up

Silver Medal: Mark Humphries, Grand Rapids, MI, "No Fault Alt"

Bronze Medal: Mike Riddle, Napa, CA, "98 Kölsch"

German-Style Wheat Beer



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

KEITH MACNEAL, WORCESTER, MA
"WEIZEN CHRISTMAS"
GERMAN-STYLE WEIZENBOCK

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

- 4.75 lb dark Munich malt (2.15 kg)
- 7.5 lb wheat malt (3.4 kg)
- .25 oz Perle hops, 9.4% alpha acid (7 g) (120 min.)
- .125 oz Perle hops, 9.5% alpha acid (3.5 g) (60 min.)
- .125 oz Perle hops, 9.5% alpha acid (3.5 g) (10 min.)
- Wyeast No. 3068 Weihenstephan ale yeast
- 1.5 qt gyle (1.42 L) to prime
- Original specific gravity: 1.070
- Final specific gravity: 1.012
- Boiling time: 120 minutes
- Primary fermentation: 3 weeks at 67 degrees F (19 degrees C) in plastic
- Secondary fermentation: one week at 68 degrees F (20 degrees C) in glass

Brewer's Specifics

Mash grains using a double decoction mash schedule.

Judges' Comments

"Roasted malt flavor, some clove, balance toward malt. Could use more weizen phenolic characteristics. Nice drinkable beer."

"A very nice beer. Quite close to Aventinus. Warming. Good job."

Runners-Up

Silver Medal: Dan Gross, Gettysburg, PA, "El Hefe Weizen"

Bronze Medal: Shane Coombs, Warrenville, IL, "Sharico Berliner Style Wheat"

Smoked Beer



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

DEAN FIKAR, FORT WORTH, TX
"SMOKED WEE HEAVY #1"
OAK-SMOKED SCOTCH ALE

Ingredients for 7 U.S. gal (26.5 L)

- 13 lb British pale malt (5.9 kg)
- 4.5 lb smoked pale malt (2.04 kg)
- 2 lb Belgian Munich malt (.91 kg)
- 1 lb Cara-Vienne malt (.45 kg)
- 1 lb Belgian aromatic malt (.45 kg)
- 1 lb Belgian Cara-Munich malt (.45 kg)
- .38 lb Belgian Special B malt (178 g)
- .13 lb roasted barley (57 g)
- 1.5 oz E. Kent Goldings whole hops, 6.8% alpha acid (43 g) (75 min.)
- Wyeast No. 1338 European ale yeast
- forced CO₂ to carbonate
- Original specific gravity: 1.089
- Final specific gravity: 1.029
- Boiling time: 100 minutes
- Primary fermentation: 9 days at 60 degrees F (16 degrees C) in plastic

- Secondary fermentation: 112 days at 32-68 degrees F (0-20 degrees C) in glass

Brewer's Specifics

Mash grains at 150 degrees F (66 degrees C) for 20 minutes. Raise temperature to 155 degrees F (68 degrees C) for 70 minutes.

Judges' Comments

"Base beer would have worked well on its own; smoke adds nice dimension to both aroma and flavor profile. Well done!"

"Pretty big smoke, but a very nice beer. Good drinkability, nice balance, well made."

Runners-Up

Silver Medal: Kevin Knox, Pacific Grove, CA, "Asilomar Ale-Beach Fire"

Bronze Medal: Curt Hausam, Salem, OR, "Only You"

Fruit and Vegetable Beer



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

KEVIN KNOX, PACIFIC GROVE, CA
"ASILOMAR ALE-CHRISTMAS VACATION"
COCONUT WHEAT ALE

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

- 5.5 lb two row pale malt (2.5 kg)
- 4.5 lb wheat malt (2.04 kg)
- 1 lb Cara-Munich malt (.45 kg)
- 1 oz Saaz hops, 3.2% alpha acid (28 g) (60 min.)
- .5 oz Saaz hops, 3.2% alpha acid (14 g) (15 min.)
- 2.5 cup coconut rum (591 mL) added to secondary
- Wyeast No. 3068 Weihenstephan ale yeast
- forced CO₂ to carbonate
- Original specific gravity: 1.045

- Final specific gravity: 1.010
- Boiling time: 60 minutes
- Primary fermentation: 6 days at 68 degrees F (20 degrees C) in glass
- Secondary fermentation: 10 days, slow drop to 32 degrees F (0 degrees C) in glass

Brewer's Specifics

Mash grains at 152 degrees F (67 degrees C) for 60 minutes.

Judges' Comments

"Nice coconut character. Could use more wheat."

"Well-made beer, with just a bit too much coconut."

Runners-Up

Silver Medal: Dennis Waltman and Paul Waltman, Atlanta, GA, "Old Grizzly Raspberry Ale II"

Bronze Medal: George O. Proper, Albany, CA, "Homer's Apricot Hefeweizen"

- .75 cup corn sugar (177 mL) to prime
- Original specific gravity: 1.068
- Final specific gravity: 1.012
- Boiling time: 60 minutes
- Primary fermentation: 2 weeks at 70 degrees F (21 degrees C) in glass
- Secondary fermentation: 3 week at 70 degrees F (21 degrees C) in glass

Brewer's Specifics

Boil extract for 60 minutes. Add ginger to secondary.

Judges' Comments

"The ginger seems to linger a little too long. Otherwise seems to have a good balance. Maybe cut back on the hops a bit."

"A very well-built beer. Nice balance of traditional and spice ingredients. Try using noble hops next time to allow the other flavors to come through."

Runners-Up

Silver Medal: Danny Hiller, Boulder, CO, "Reveille"

Bronze Medal: John Tantillo and Dan Bleaking, Wilmington, NC, "Bleaking's Ginger Beer"

Herb and Spice Beer



GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Marin Brewing Co., Larkspur, CA

CHAD MIDDLESWORTH, DIKI SHORT AND DAVID ALMOND, HILO, HI
"HAWAIIAN GINGERROOT BEER #110"
HERB AND SPICE BEER

Ingredients for 20 U.S. gal (75.7 L)

- 40 lb pale malt (18.16 kg)
- 6 lb 10 °L crystal malt (2.72 kg)
- 4 oz Chinook hops, 11.4% alpha acid (113 g) (60 min.)
- 16 oz Cascade hops (452 g) (0 min.)
- Wyeast No. 1728 Scottish ale yeast
- sliced ginger

Specialty and Experimental Beer



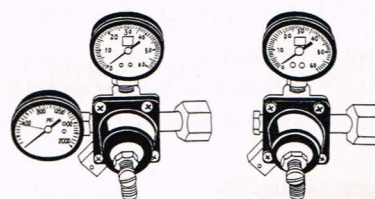
GOLD MEDAL

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

STEVE PIATZ, EAGAN, MN
"OLD PORTER"
ROBUST PORTER WITH BRETTANOMYCES

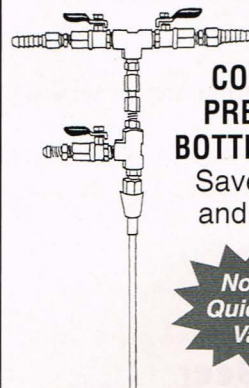
Ingredients for 6 U.S. gal (22.7 L)

- 10.5 lb pale malt (4.7 kg)
- 1.5 lb aromatic malt (.68 kg)
- 1.8 lb 40 °L crystal malt (.86 kg)
- .5 oz black patent malt (.26 kg)
- 2 oz roast barley (.06 kg)



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- 1.75 oz Northern Brewer hops,
8.8% alpha acid (52 g) (90 min.)
- .5 oz Northern Brewer hops,
8.8% alpha acid (14 g) (20 min.)
BrewTek CL160 & *Brettanomyces*
culture
- 3 oz dextrose (85 g) to prime
 - Original specific gravity: 1.082
 - Final specific gravity: 1.012
 - Boiling time: 90 minutes
 - Primary fermentation: 5 days at
68-72 degrees F (20-23 degrees C)
in glass
 - Secondary fermentation: 9 months
at 50-72 degrees F (10-22 degrees
C) in glass

Brewer's Specifics

Mash grains at 153 degrees F (67 degrees C) for 60 minutes.

Judges' Comments

"Really intriguing beer. Excellent porter, sight on in style. And the Brett. note. . . is contradicted by the porter note. Wow!"

"Nice sweet/sour balance between the porter and the Brett. Very nice beer."

Runners-Up

Silver Medal: Patrick McKee, Aptos, CA, "P.T.'s Salsa Beer"

Bronze Medal: James MacDonald, Arvada, CO, "Rye Wit"

California Common Beer



**GOLD
MEDAL**

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

DAVE DIXON, BEDFORD, TX
"DAVE'S DREADED SUNDAY
STEAM BEER"
CALIFORNIA COMMON BEER

Ingredients for 10 U.S. gal (37.85 L)

- 12 lb pale malt (5.44 kg)
- 6 lb light Munich malt (2.72 kg)

- 2 lb Cara-Pils malt (.91 kg)
- 1.5 lb 60 °L crystal malt (.68 kg)
- 1 lb 20 °L crystal malt (.45 kg)
- 2 oz Northern Brewer hops,
9.2% alpha acid (57 g) (90 min.)
- 1.5 oz Northern Brewer hops,
9.2% alpha acid (43 g) (45 min.)
- 2 oz Liberty hops, 4.5% alpha acid
(57 g) (2 min.)
Wyeast No. 2112 California lager
yeast
forced CO₂ to carbonate

- Original specific gravity: 1.060
- Final specific gravity: 1.017
- Boiling time: 90 minutes
- Primary fermentation: 20 days at
60 degrees F (15 degrees C) in
stainless steel
- Secondary fermentation: 60 days
at 40 degrees F (5 degrees C) in
stainless steel

Brewer's Specifics

Mash grains at 156 degrees F (69 degrees C) for 60 minutes. Mash out at 168 degrees (76 degrees C).

Judges' Comments

"Interesting blend of flavors. Hops are almost too strong but you balanced it well. Fun to drink."

"Excellent beer. Maybe a touch sweet, but only marginally; I really like the complexity of the malt character. I agree with my partner that there is some phenolic character, but it's to be expected in a lightly-hopped beer."

Runners-Up

Silver Medal: Ray Taylor, Fargo, ND, "I Call It STEAM!"

Bronze Medal: George Huhtanen, Overland Park, KS, "Hootz Uncommon Common Jr."

Traditional Mead and Braggot



**GOLD
MEDAL**

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

Category award sponsored by Bacchus & Barleycorn Ltd., Shawnee, KS

BEN JANKOWSKI, OYSTER BAY, NY
"KAP J"
SPARKLING MEAD

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

- 5 lb basswood honey (2.27 kg)
- 5 lb blueberry honey (2.27 kg)
- 8 lb apple honey (3.63 kg)
- Wyeast dry mead yeast

- Original specific gravity: 1.106
- Final specific gravity: n/a
- Boiling time: 15 min.
- Primary fermentation: 40 days at
58 degrees F (14 degrees C) in
glass
- Secondary fermentation: 6 months
at 58 degrees F (14 degrees C) in
glass

Brewer's Specifics

Boil must for 15 minutes.

Judges' Comments

"Good honey flavor. Somewhat sweet for a dry mead. Nicely made, no fermentation problems."

"Honey overpowers apple, but both are present. Fine finish, mellow."

Runners-Up

Silver Medal: Thomas J. O'Connor III, M.D., Rockport, ME, "Rockport Still Mead"

Bronze Medal: Darryl Hickey, Miami, FL, "First Try Mead"

Fruit and Vegetable Mead



GOLD MEDAL

AHA 1999
Meadmaker of the Year

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

STEVE SCHMITT, ANCHORAGE, AK
"OAK AGED RHUBARB RASPBERRY
MELOMEL"
STILL MELOMEL

Blend of three different meads:

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

- 12 lb desert mesquite honey (5.44 kg)
- 4 oz toasted oak chips (113 g)
Red Star Epernay II yeast
- Original specific gravity: 1.096
- Final specific gravity: 1.008
- Boiling time: Pasteurize must at 170 degrees F (77 degrees C) for 30 minutes.
- Primary fermentation: 3 to 12 months at 60-65 degrees F (16-18 degrees C)

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

- 12 lb blueberry blossom honey (5.44 kg)
- 3 lb clover honey (1.36 kg)
- 98 oz rhubarb juice (2.94 L)
- 7.5 lb frozen raspberries (3.4 kg)
Red Star Epernay II yeast
- Original specific gravity: 1.120
- Final specific gravity: 1.018
- Boiling time: Pasteurize must at 170 degrees F (77 degrees C) for 30 minutes.
- Primary fermentation: three to twelve months at 60-65 degrees F (16-18 degrees C)

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

- 17 lb clover honey (7.72 kg)
Red Star Pasteur Champagne yeast
- Original specific gravity: 1.162
- Final specific gravity: 1.068
- Boiling time: Pasteurize must at 170 degrees F (77 degrees C) for 30 minutes.
- Primary fermentation: 3 to 12 months at 60-65 degrees F (16-18 degrees C)

Brewer's Specifics

Blend one part oak/mesquite mead, two parts rhubarb/raspberry, and two parts clover. Schmitt has experimented with several different honey varieties, and has used his experience to better his mead making technique. Sometimes not every batch works out to his satisfaction, but rather than throw out a batch that may be too sweet or too tart, he blends them to taste.

Judges' Comments

"Good balance and fruit flavor. Well made. Didn't detect the mesquite. Well done."

"Good effort. I like this mead."

Runners-Up

Silver Medal: Harrison Gibbs, Los Angeles, CA, "Muscat Love"

Bronze Medal: Susan Ruud, Ray Taylor, Bob Ruud and Maureen Taylor, Harwood, ND, [Untitled]



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Herb and Spice Mead



**GOLD
MEDAL**

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

**JASON CLAYPOOL, HIGHLANDS
RANCH, CO
"PAPAZIAN'S VISION"
STILL METHEGLIN**

Ingredients for 5.5 U.S. gal (2.49 L)

- 12 lb star thistle honey (5.44 kg)
- 6 lb clover honey (2.72 kg)
- 6 Tbsp Szechuan peppercorns ground (88.7 mL)
- 2 Tbsp black peppercorns (29.6 mL)
- Wyeast No. 3184 Sweet Mead yeast

- Original specific gravity: 1.124
- Final specific gravity: 1.053
- Boiling time: 15 min.
- Primary fermentation: 13 days at 78 degrees F (26 degrees C) in plastic
- Secondary fermentation: 182 days at 78 degrees F (26 degrees C) in glass

Brewer's Specifics

Skim proteins from the must continually as it boils.

Judges' Comments

"Honey flavor is excellent. Very creative. Drinkable"

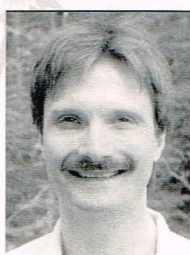
"Very nice. The pepper comes through right at the end. Flavorful without being spicy."

Runners-Up

Silver Medal: John Carlson, Louisville, CO, "Mango-Tango-Bean"

Bronze Medal: Tim Schulz, Roy Taylor, Jim Gebhardt, Carl Eidbo, Gene Pribula and Neil Gudmestad, Walcott, ND, "Holiday Mead"

Cider



**GOLD
MEDAL**

AHA 1999
Cidermaker of the Year

AHA 1999
NATIONAL
HOMEBREW
COMPETITION

**THOMAS J. O'CONNOR III, M.D.,
ROCKPORT, ME
"ROCKPORT SWEET CIDER"
SPECIALTY CIDER**

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

- 4.5 gal Sewall's Orchard late harvest apple juice (17 L)
- 36 oz apple juice concentrate (1 L)
- 1 lb brown sugar (.45 kg)
- 1 lb white cane sugar (.45 kg)
- 1 lb raspberry blossom honey (.45 kg)
- 5 tsp Fermax (24.6 mL)
- 5 tsp acid blend (24.6 mL)
- 5 yeast energizer tablets
- 3 tsp pectin enzyme (16 mL)
- 1 tsp tannin (5 mL)
- Wyeast No. 2308 Munich lager yeast

- Original specific gravity: [unknown]
- Final specific gravity: 1.020
- Boiling time: n/a
- Primary fermentation: 18 months at 65 degrees F (18 degrees C) in glass

Brewer's Specifics

Add 12 oz apple juice concentrate (355 mL) at racking to keg. Kegged, filtered, force-carbonated, and counter-pressure bottled.

Runner-Up

Silver Medal: Thomas J. O'Connor III, M.D., Rockport, ME, "Rockport Spiced Cider"

Amahl Turczyn is a 1998 GABF Gold-Medal winning professional brewer and the former AHA Project Coordinator.



The Oregon Brew Crew (top) and the Urban Knaves of Grain



1999 Homebrew Clubs of the Year Final Results

112 AHA-registered homebrew clubs out of 869 in our database scored points for first, second or third place in the six AHA Club-Only Competitions and the first and second rounds of the 1999 AHA National Homebrew Competition. Here are the top 20 in terms of points.

Points	Club
1. 77	Oregon Brew Crew, Oregon
1. 77	Urban Knaves of Grain, Illinois
3. 70	North Texas Homebrewers Association, Texas
4. 54	Kansas City Bier Meisters, Kansas
5. 53	Prairie Homebrewing Companions, North Dakota
6. 52	Derby Brew Club, Kansas
7. 50	Central Florida Homebrewers, Florida
8. 46	Ann Arbor Brewers Guild, Michigan
9. 45	Hop Barley & the Alers, Colorado
10. 43	Cowtown Cappers, Texas
11. 39	Maine Ale & Lager Tasters (MALT), Maine
12. 36	Covert Hops Society, Georgia
13. 33	Chicago Beer Society, Illinois
14. 29	Quality Ale and Fermentation Fraternity (QUAFF), California
14. 29	Tampa Bay BEERS (Beer Enthusiasts Enjoying Real Suds), Florida
16. 27	Minnesota Timberworts, Minnesota
16. 27	Palm Beach Draughtsmen, Florida
18. 26	Bloaterian Brewers League, Ohio
19. 25	Capitol Brewers, Oregon
19. 25	State of Franklin Homebrewers, Tennessee

OCTOBER

- 23** Henry Ortlieb's Happy Halloween Hop Festival, **AHA SCP**, Philadelphia, PA. \$10 first entry, \$5 additional entries, includes festival ticket. Contact Steve DeSantis at (215) 413-3500, email: SDesan@aol.com, www.poorhenrys.com.

NOVEMBER

- 6** Novembeerfest, **AHA SCP**, Kent, WA. Entries due 10/31/99 with \$5 entry fee. Contact Rick Star at (425) 821-9388 (h) or (206) 544-2957 (w), email: we_star@msn.com, www.brews-brothers.org.
- 6** 5th Annual Franklin County Apple & Cider Day, Franklin County, MA. A celebration of the sweet and hard cider and the Brewers Publications book *The Art of Cidermaking*. Daylong events hosted by Paul Correnty, Charlie Olchowski and Ben Watson.

DECEMBER

- 4** Hoppiest Show of the Millenium Homebrew Competition, **AHA SCP**, Lambertville, New Jersey. Entries Due 11/24/99 with \$5 Entry Fee. Contact Kevin Trayner at (609) 890-8611 (h) or (609) 520-2357 (w), email: ktrayner@rocketmail.com, www.members.tripod.com/~Brewmeister_2/Home.html/flab/competition.htm

- 10-11** Happy Holidays Homebrew Competition, **AHA SCP**, St. Louis, MO. Entries due 11/22/99 through 12/3/99 with \$6 entry fee up to 4 entries, \$5 each for 5 and over. Contact Brian Dreckshage at (636) 207-7469 (h) or (800) 573-3067 (w), email: dreck@concentric.net, www.stlbrews.org.

JANUARY

- 22** Big Bend Brew-Off 2000, **AHA SCP**, Tallahassee, FL. Entries due 1/3/00 through 1/14/00 with \$6 entry fee. Contact John Larsen at (850) 422-3625 (h) or (850) 219-1310 (w), email: jllarsen@nxus.com, www.freenet.tlh.fl.us/~northflo/.

- 29** Meadlennium III, **AHA SCP**, Orlando, FL. Entries due 1/11/00 through 1/25/00 with \$6 entry fee. Contact Ron Bach at (407) 696-2738 (h) or (407) 897-2880 (w), email: emeasom@gdi.net, www.cfhb.org.

FEBRUARY

- 5** War of the Worts V, **AHA SCP**, Lahaska, PA. Entries due 1/15/00 through 1/29/00 with \$6 first entry fee, \$5 each for more entries. Contact Alan Folsom at (215) 343-6851 (h) or (215) 628-0353 (w), email: folsom@ix.netcom.com.
- 19** Florida State Fair Homebrew Competition, **AHA SCP**, Tampa, FL. Entries due 2/12/00 with \$5 entry fee. Contact Jeff Gladish at (813) 238-0403 (h) or (813) 874-0937 (w), email: JeffNGladish@ij.net, www.tampabaybeers.org.

MARCH

- 19** Ninth Annual NYC Spring Regional Homebrew Competition, **AHA SCP**, Entries due 3/16/00 with \$5 entry fee. Contact Kathie Garetti at (718) 442-0359 or (212) 630-3568, email: kgaretti@yahoo.com.

APRIL

- 15-29** American Homebrewers Association National Homebrew Competition. Details in upcoming *Zymurgy*.

MAY

- 19-21** Eleventh Annual Sunshine Challenge, **AHA SCP**, Orlando, FL. Entries Due 4/24/00 through 5/8/00 with \$6 entry fee. Contact Ron Bach at (407) 696-2738 (h) or (407) 897-2880 (w), email: emeasom@gdi.net, www.cfhb.org.

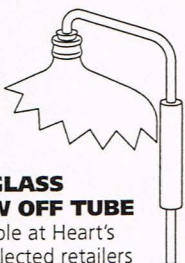


AHA SCP = American Homebrewers Association Sanctioned Competition Program

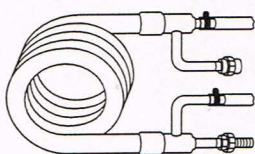
The Calendar of Events is updated weekly and is available from the Association of Brewers: info@aob.org or www.beertown.org on the web.

To list events, send information to **Zymurgy** Calendar of Events. To be listed in the January/February Issue (Vol. 23, No. 1), information must be received by Nov. 8, 1999. Competition organizers wishing to apply for AHA Sanctioning must do so at least two months prior to the event. Contact Paul Gatz at paulg@aob.org; (303) 447-0816 ext. 122; FAX (303) 447-2825; PO Box 1679, Boulder, CO 80306-1679.

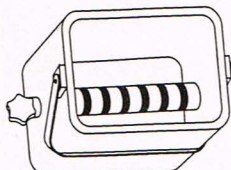
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• KUDOS •

AHA SANCTIONED
COMPETITION PROGRAM

• JANUARY 1999 •

Florida Keys Homebrew Competition
33 entries - Drew Griffin of Loxahatchee, FL won best of show.

• FEBRUARY 1999 •

Florida State Fair
Tampa, Florida, 114 entries - Jim Wagner of Pasadena, MD won best of show.

• MARCH 1999 •

New York City Spring Regional
Staten Island, New York, 134 entries - Phil Bernie of Staten Island, NY won best of show.

• APRIL 1999 •

New Jersey's First Annual Gold Medal Homebrew Competition
Woodbridge, New Jersey, 102 entries - Andy Henckler of Jackson Heights, NY won best of show.

• MAY 1999 •

10th Annual Sunshine Challenge
Orlando, Florida, 564 entries - Paul Novak of Orlando, FL won best of show.

HOPS Second Annual May Fest

Tacoma, Washington - Bill Trout of Graham, WA won best of show.

Oregon Homebrew Festival

Corvallis, Oregon, 322 entries - Curt Hausam of Salem, OR won best of show.

AHA 1999 "Bockanalia" Club-Only Competition

Boulder, Colorado, 33 entries - Jay Kash of Downers Grove, IL won best of show.

• JUNE 1999 •

8 Seconds of Froth

Cheyenne, Wyoming, 45 entries - Richard Miner of Cheyenne, WY won best of show.

Ellicottville Triple Threat

Ellicottville, NY, 81 entries - Karl Schwesinger of W. Amherst, NY won best of show.

5th Annual Mill Creek Classic

Salem, Oregon, 151 entries - Curt Hausam of Salem, OR won best of show.

Growlers 5th Semiannual Homebrew Competition

St. Charles, Missouri, 33 entries - Mike Slawinski of Kirkwood, MO won best of show.

• JULY 1999 •

Summer Cap-Off 99

Ceres, California, 60 entries - Steve Ellison of Seattle, WA won best of show.

5th Annual Commander SAAZ Interplanetary Homebrew Blastoff
Cape Canaveral, Florida, 150 entries - Dee Steensland of Orlando, FL won best of show.

E.T. Barnette Homebrew Competition
Fairbanks, Alaska, 30 entries - David Snow and Denis Urban of Anchorage, AK won best of show.

1999 Fur Rendezvous Homebrew Competition

Anchorage, Alaska, 172 entries - Craig Sinclair of Anchorage, AK won best of show.

Ohio State Fair Homebrew Competition
Columbus, Ohio - Brian Walrath of Columbus, OH won best of show.

• AUGUST 1999 •

Buckeye Brewer of the Year

Ashtabula, OH, 43 entries - Scott Turner of Jefferson, OH won best of show.

Iowa State Fair

Des Moines, Iowa, 163 entries - Gary Koppenhauer of Ames, Iowa won best of show.

Kentucky State Fair

Louisville, Kentucky, 114 entries - Curt Woodson of Georgetown, KY won best of show.

The Bitter Truth (from page 27) Never Poison Customers

The first great beer style of the Industrial Revolution was porter, which factory workers and other laborers consumed in almost oceanic quantities. By the beginning of the 19th century, however, porter's star began to set. One reason was the number of porter breweries who adulterated their product. Some of the additives they used, like chili extract and tobacco, were merely unappetizing. Others, like *coccolus indicus* (a kind of berry imported from India), were dangerous neurotoxins. It's never a good idea to kill your customers, and porter came under a cloud.

At about the same time, a new style—India pale ale—was about to take Britain by storm. India pale ale is a strong, well-hopped and well-aged ale that was originally formulated to survive the six-month journey through tropical waters to His Majesty's troops on the Subcontinent. Stay-at-home Englishmen developed a taste for IPA after a ship laden with 300 hogsheads sank in the Irish Sea in 1827. The underwriters managed to salvage some of the beer and auctioned it

off to recoup their losses. India pale ale fueled the rise of national brewers with names like Hodgson, Allsop and Bass.

A problem with IPA was that it was strong—19th century examples probably ranged between 6-7.75% abv. Given their druthers, colonial authorities in India would probably have preferred a lighter beer, as alcoholism and liver disease took a heavy toll on the troops. At home, the common laborer—even if he had been able to afford the new beer—would have been too addled to continue if he tried to down a few pints with lunch.

The Rise of Pale

Enter the taxman once again. In 1880, Prime Minister William Gladstone managed to push through the Free Mash Tun Act. This set a tax on beer that was based on original gravity; the more fermentable material went into the beer, the higher the tax rate. Furthermore, this tax had to be paid at the time the wort was transferred to the fermenter. As a result, it became less profitable for the brewer to make strong, well-aged beers. Instead, the new tax accelerated the trend toward so-called

"running beers" that could be shipped to the consumer within two weeks after brewing, and that were relatively light in body and alcohol.

That didn't happen overnight. Rather, it took two world wars, and their attendant tax hikes and food rationing, to produce the bitters we know today. But the change was vast and inexorable. In his book *Pale Ale*, Terry Forster writes that between 1880 and 1950, the average original gravity of British beer dropped from 1.057 to 1.037.

No one knows how the term "bitter" entered the lexicon as a beer style. The *Oxford English Dictionary* cites the earliest reference as 1857. In his novel *Verdant Green Married*, author C. Bede writes, "Verdant Green and Mr. Bouncer...turned into the coffee-room of 'The Mitre' to 'do bitters,' as Mr. Bouncer phrased the art of drinking bitter beer." "Bitters" is a much older term, referring to a medicinal potion made from bitter herbs. Mr. Bouncer may have been implying that the fashionable new beer tasted like medicine, or he may simply have been expressing the old adage that the best pharmacy is to be found at the bar.

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According to Ray Daniels in his *Designing Great Beers*, most brewers didn't begin calling their products bitters until after World War II. Daniels speculates that the marketers may have felt bitter was a more masculine term than the designation "light pale ale."

Whatever the truth, the fact remains that the post-World War II period brought unprecedented prosperity and upward mobility to the English people. Before the war most blue collar workers had preferred mild. Now, they were trading up to the slightly more upscale bitter. Anthony Glyn, in his 1970 book *The British: Portrait of a People*, cites this loss of class distinctions:

Bitter bestrides the line; formerly in the lunch camp, it stared across at bitter in the dinner camp, but one of the signs of increasing prosperity has been the switch from the cheaper mild to the more expensive bitter, and a pint of bitter now gives no indication of its drinker's social standing.

(Note: When he talks about "lunch camp" and "dinner camp," Glyn is referring to the respective terms that the upper classes and lower classes use for the midday meal.)

Today, mild is almost an endangered species, while Forster estimates that there are about 1,000 British brands calling themselves bitter.

But only one extra special bitter.

With additional spending money, English drinkers were more willing to splurge for higher-gravity, more flavorful beers. Not surprisingly, Fuller's ESB is a latecomer to the scene. The product was introduced in the 1971 as a winter seasonal, replacing a dark beer called Old Burton. It remains the only beer in Britain calling itself extra special bitter. The brewery plays up the name, marketing the beer under the slogan "Three words you can believe in."

Interestingly, American brewers have adopted ESB as a stylistic category. Some of the more well-known examples include Redhook ESB from the Redhook Brewery in Seattle, WA, Belk's Extra Special Bitter from Anderson Valley Brewing Company in Boonville, CA and Flying Fish ESB from the Flying Fish Brewing Company in Cherry Hill, NJ. In fact, in the American craft brewing scene, extra special bitter seems to be a more common designation than just plain bitter—

Fuller's ESB

This recipe is from Brew Your Own British Real Ale, by Graham Wheeler and Roger Protz

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

- 8.9 lb pale ale malt (4 kg)
- 4.8 oz Crystal malt (140 g)
- 11.2 oz flaked maize (317g)
- .9 oz black malt (25 g)

Start of boil:

- .5 oz Target hops (14 g)
- .8 oz Challenger hops (22 g)

Last fifteen min. of boil:

- .6 oz Golding hops (17 g)
- .3 oz Irish moss (8 g)

- Original gravity: 1.054 (13.3 °Plato)
- Mash schedule: 151 degrees F (66 degrees C), 90 min.
- Boil time: 90 minutes
- Racking gravity: 1.013 (3.1 °Plato)
- Alcohol content: 5.6% by volume, 4.4% by weight
- Bitterness units: 35
- Color: 31 EBC, 16 SRM

Malt extract version—Replace the pale malt with the appropriate blend of pale-colored malt extract syrups:

- 3.43 lb Premium malt extract (1.5 kg)
- 3.43 lb Diastatic malt extract (1.5 kg)

Fuller's claim to use a mixture of Alexis and Chariot pale malt. I have never heard of either, so I have simply specified pale malt in this recipe. Maris Otter would probably be the best malt to use in the absence of the above named malts. Fuller's also chuck a bucketful of yeast into the brew kettle about halfway during the boil. This would certainly provide an excellent yeast nutrient, but might also be done as a convenient way of getting rid of their surplus.

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possibly because the brewer can abbreviate it ESB and avoid that dreaded "B" word.

In the view of Terry Forster, this is wrong. An ESB, he insists, "is really only a bitter at the top end of the original gravity range."

And unlike many other companies, Fuller's doesn't seem to mind that their brand name has become a generic designation in America. Regardless of what we do here in the Colonies, there's really only one "Extra Special Bitter." "In the United Kingdom it was certainly ahead of its time in terms of alcohol by volume content," reflects

Fuller's Chris Gregson, "but the rest of the market has now caught up!"

If you should find yourself in London, Fuller's Griffin Brewery hosts tours each Monday, Wednesday, Thursday and Friday at 11 am, 12 noon, 1 PM and 2 PM. There is a charge of five pounds per adult and three and one-half pounds per child (must be over 14). Tours should be booked in advance. You can make your request in writing to Fuller, Smith & Turner, Griffin Brewery, Chiswick Lane South, London W4 2QB, England. Or phone 011-44-181-996-

Fuller's ESB

This recipe is from Clone Brews, by Tess and Mark Szamatulski

Ingredients for 5 U.S. gal (18.9 L)

Crush and steep in .5 gal (1.9 L) 150 degree F (65.5 degree C) water for 20 minutes:

- 12 oz 55 °L British crystal malt (.34 kg)
- 2 oz British amber malt (57 g)
- 2 oz aromatic malt (57 g)

Strain the grain water into your brew pot. Sparge the grains with .5 gallon (1.9 L) water at 150 degrees F (65.5 degrees C). Add water to the brew pot for 1.5 gal (5.7 L) total volume. Bring the water to a boil and add:

- 6.25 lb M&F light DME (2.8 kg)
- 4 oz corn sugar (113 g)
- 1.25 oz Target, 8% alpha acids (10 HBUs) (bittering hop) (35 g)

Add water until total volume in the brew pot is 2.5 gal (9 L). Boil for 45 minutes then add:

- .5 oz Challenger (flavor hop) (14 g)
- 1 tsp Irish moss (5 mL)

Boil for 5 min. then add:

- .5 oz. Northdown (flavor hop) (14 g)

Boil for 9 min. then add:

- 1 oz East Kent Goldings (aroma hop) (28 g)

Boil for 1 minute. Cool for 15 minutes. Strain the cooled wort into the primary fermenter and add cold water to obtain 5 gal (18.9 L). When the wort temperature is under 80 degrees F (26.6 degrees C), pitch yeast.

1st choice: Wyeast's 1968 Special London ale yeast (Ferment at 68-72 degrees F [20-22 degrees C])

2nd choice: Wyeast's 1028 London ale yeast (Ferment at 68-72°F [20-22°C])

Ferment in the primary fermenter 5-7 days or until fermentation slows, then siphon into the secondary fermenter. In the secondary fermenter add:

- .5 oz East Kent Goldings (dry hop) (14 g)

Bottle when fermentation is complete with:

- .75 cup corn sugar (180 mL)

Mini-mash Method

- 2.75 lb British 2-row pale malt and the specialty grains at 150 degrees F (65.5 degrees C) for 90 min. Then follow the extract recipe omitting 2.25 lb (1 kg) DME at the beginning of the boil.

All-grain Method

- 9 lb British 2-row pale malt (4.1 kg)
- .5 lb flaked maize, and the specialty grains at 150 degrees F (65.5 degrees C) for 90 minutes. Add 7 HBU (30% less than the extract recipe) of bittering hops for 90 minutes of the boil. Add the flavor hops and Irish moss for the last 15 minutes of the boil, the additional flavor hops for the last 10 minutes and the aroma hops for the last 1 minute.

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2048 (for fax, substitute 2079 for the last four digits). The company also maintains an informative Web site at www.fullers.co.uk

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- Greg Kitsock is a regular contributor to *Zymurgy*.

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A Belgian Frame of Mind (from page 36)

us. This is as close to a gueuze as any non-lambic I've tried, and it had the added complexity of a strongly malty beer: 8% by volume, in fact. Jean-Louis claims it is "undrinkable" going into the bottle, but after two years it is OK, and after four develops into something extraordinary. Vapeur Rousse at five years, such as the bottle we shared, is very low in carbonation but holds a wonderful sourness in the nose—all lactic character comes from the original ancient open copper fermenter—with lots of milky, buttery, fruity sourness and a hint of spice. There is also a slight woodiness to it and a coating, silky malt flavor that lingers along with the tartness. Jean-Louis no longer makes this beer, sadly, as the fermenter is far too difficult to clean. He much prefers his new cylindrical stainless fermenter, even though the sourness and other bacterial characteristics are no longer discernible. His wife thinks the old style is best. I agree, though neither one of us has to clean the fermenter.

4. La Trappe Koningshoeven Dubbel



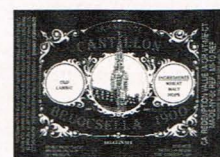
This is the quintessence of the dubbel style. The aroma is amazing: rich, sweet, and bready malt aromas explode from the beige foam of the rather modest head, with butter and molasses and perhaps a touch of chocolate. The flavor isn't overly sweet, as the aroma suggests, but has the same butter-molasses-chocolate combination, and finishes quite clean and balanced. Bittering hops only manage to counter the sweetness here, and leave no signature of their own. This ability to bring a huge, full malt aroma out without having the beer be cloyingly sweet rivals the skill of German brewers—this dubbel ale, in fact, outdoes some of the best bock beers I've tried in Bavaria. Three cheers for the brothers at De Schaapskooi.

5. Du Pont Avec Les Bon Voeux de Brasserie



From a full line of excellent beers (and cheeses!) this is Du Pont's finest. I talked with a brewer who was in the process of filtering a batch of the Moinette Blonde—apparently they use a bottling strain after the primary strain is removed with a diatomaceous earth filter—fairly modern practice for a "farmhouse" brewery. This, their Christmas beer, is spicy, but not flavored with any spices other than what the hops, malt and multi-strain ale yeast provide. Hop presence is incredibly full in aroma, flavor and finish. Carbonation is profuse and ebullient, forming a dense, cloudlike head that often leaps from the glass in frothy towers. (Please forgive my waxing poetic—this is an inspiring brew.) The nose is clovey with floral and fruity aromas, all of which are firmly propped up with hops. The palate is dry from both hops and alcohol, as is the finish. The color is very pale considering the amount of malt that must go into the beer. Thankfully, this is one of the few on the list that is available in the U.S.

6. Cantillon Bruocsella 1900



Some critics have said that this lambic doesn't live up to a blended gueuze, that the aged product loses life with-

out a little young gueuze blended in. To me, this grand cru exuded refinement (perhaps in lieu of sophistication) but the elegance of an aged single malt leaped immediately to mind. The character of the oak is much stronger than in the blended version, and is present all the way through the beer from nose to finish. This is a beer that absolutely must be served in a brandy snifter. Unlike the assault of sour, acid, dry character from younger Cantillon, the Bruocsella is neither aggressive to the senses nor fatiguing to the palate. It has the delicious elegance of age. One simply cannot visit Brussels without trying a bottle or two of such lovely history.

7. Rodenbach Alexander

Pow! This beer is one of the tartest available in Belgium, and with the local taste for lambics, that's saying quite a bit. This lacks much of the musty, cellary, bacterial character one expects from a lambic, but the fruit flavor, as it is added after fermentation in the form of cherry juice, comes through like an explosion. You also get the classic Rodenbach buttery, Tootsie-Roll candy flavors from the malt, which certainly don't mellow the cherry but do add a pleasant complexity. Small bottles are a good choice for Alexander—a little goes a long way, but what a trip. I know some would consider it sacrilege to not include the Grand Cru on this list, but despite its world-class reputation, I like the Alexander better.

8. Orval



Once again, I must pay homage to an order of Trappist brewers, though I have to admit Orval seems to be changing, and not for the better. I remember trying an imported bottle in the early 90s which was nothing short of a religious experience. I was flabbergasted—it was like church in a bottle. The hops were fresh,

chewy and delightfully bitter, and the beer was both refreshing and immensely complex. A little clove ester here, a little lactic tartness there, but always with that pervading dry-hop bite. About seven years later, upon sampling a bottle in Belgium, the beer just didn't live up to the memory. Sure, it's still one of the best beers in the world, but somehow the hops weren't quite as pungent, the complexity and depth somehow muted. Regardless, still one of my very favorites.

9. Westvleteren 8*

All three offerings from this small Trappist brewery are very special beers, and are rare enough even in their native land that if

you happen across them, you should buy what you can. Some of the larger specialty beer sellers in Belgium and border areas of the Netherlands are good places to find the elusive ales, though you can find them at the monastery itself, of course. Though the 6* and 12* ales are excellent, the latter being perhaps the most famous, the blue-capped (none have labels, only distinguishing caps) is my favorite. The malty bouquet of the 8* has a cereal-grain aroma, coupled with the delicious odor of a fresh mash—the brewer's first stage in the grain-brewing process. There is also an alcoholic fruitiness, slightly solventy in younger bottles, which includes pears, dates, figs and raisins. The flavor has more malt depth with

LAMBIC (KRIEK AND FRAMBOISE)

Marc Gaspard

Ingredients for 5.5-6 U.S. gal (21-22.7 L)

- 6 lb De Wolf Cosyns pale ale malt (2.7 kg)
- 1 lb wheat malt (454 g)
- 2 lb torried wheat (454 g)
- 1 lb 44 °L Briess crystal malt (454 g)
- 4 oz Hallertauer hops, aged, 4% alpha acid (113 g) (90 min.)
- 5 oz East Kent Goldings hops, aged 6 months, 5% alpha acid (14 g) (90 min.)
- 5 oz Saaz hops, aged 6 months, 3.2% alpha acid (14 g) (90 min.)
- 6 lb raspberries (2.7 kg)
- 6 lb cherries (2.7 kg)
- Wyeast No. 3278 Belgian Lambic Blend
- Pediococcus culture
- Brettanomyces lambicus culture
- 5 oz dextrose (207 mL) for priming
- Original specific gravity: unknown
- Final specific gravity: 1.010
- Boiling time: 90 min.
- Primary fermentation: 6 months at ambient temperature in glass
- Secondary fermentation: 6 months at ambient temperature over fruit, in plastic
- Tertiary fermentation: 1 month at ambient temperature in glass


Brewer's Specifics

Mash in pale malts at 132 degrees F (56 degrees C), allow to drop to 122 degrees F (50 degrees C) and hold for 30 minutes or until torried wheat is ready. Cook torried wheat at 160 degrees F (71 degrees C), then raise to a boil for 20 minutes. Add boiling wheat to mash gradually to raise temperature to 140 degrees F (60 degrees C); hold for one hour. Perform iodine test to check for starch conversion. Add crystal malt and hold for 30 minutes. Raise to 167 degrees F (75 degrees C) and hold for 10 minutes to mash out. Sparge to collect 6+ gallons (22.7 L) of wort.

Bring wort to boil, add hops and boil 90 minutes; stir occasionally. Remove from heat, chill, rack to fermenter and add yeast. Ferment six months. Add pediococcus after two months, brettanomyces after 4 months.

Following primary fermentation, rack in equal amounts to two 5-gallon (18.9-L) plastic fermenters, one containing raspberries and the other cherries. Ferment another six months. You may pitch fresh ale yeast at this point if desired.

Rack each batch to a 3-gallon (11 L) carboy for a month of clearing. Bottle with dextrose and optional gelatin finings.



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bready, grainy notes, finishing long with lingering malt and alcohol. I've found that like a good wine, Westvleteren ales benefit from several minutes in the glass to "breathe" before they are at their finest, especially when young.

10. Felix Oudenaards Oud Bruin



Smells of tart brown malt, chocolate and dried cherries. Very pleasantly sour. Fruiter, and not as buttery as the Roden-

bach Grand Cru, and slightly lighter, with less balsamic vinegar character than the other best Oud Bruin contender, Duchesse de Bourgogne. The three would make for a great side-by-side tasting, but I think Felix deserves the throne. Be careful, however, there is a pretender out there, a version with a deceptively similar label called "Felix Speciaal Oudenaards" which is clearly inferior. The difference is that the good stuff is unfiltered.

World traveler Amahl Turczyn is a regular contributor to *Zymurgy*.

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Dear Professor (from page 12)

Worcester, MA, this past March, so I'd like to ask you a few questions. There is a debate going on here regarding lager yeast. Should primary fermentation be carried out at temperatures above the "normal" lager yeast range? If not, this leads to a slower primary fermentation, which lessens the chance of any foam getting to the blow-off tube. Is this a big problem?

What's normal? Generally lager beer is always lagered at very cold temperatures, temperatures much colder than the primary fermentation; 50-55 degrees F (10-13 degrees C) is a good range for homebrewers. To avoid slower fermentations one needs only to use good healthy yeast and a good dose of it. Underpitching will cause slow fermentations. I start out at about 60 degrees F (16 degrees C) and as soon as there are signs of primary fermentation, the temperature is dropped to about 53 degrees F (12 degrees C).

David.Holland
FPCMS@fmr.com

Dear David,

Blow off tubes—I ferment five gallons in 6.5 gallon carboys these days.

If you're using five gallon carboys you have blowoff that doesn't create quality problem, just mostly quantity problems. Others also report that blowoffs reduce the bitterness of beer. They say they've measured a difference. So if that's the case, then so be it. I always figured that if there was a concentration of bitterness blown off in the foam it would have to be insoluble compounds. They would never make it into the final beer anyway, so I still don't quite believe the analysis. I'd prefer to go by my gut feeling until someone can explain why bitterness would be reduced and not just that it does.

What is the longest that a lager can stay in the primary fermenter (at about 58 degrees F) without getting a 'yeasty' taste in the beer? Which is more important in determining when to transfer to the secondary fermenter: fermentation activity or clarity of the beer?

The longest? I can only speak from experience. I travel a lot and I often can have an ale or a lager sit for six weeks before I either bottle it at that point or rack it off; 58 degrees F (14 degrees C) is not really a lager temperature for lager beers.

And which is more important? Fermentation activity is more important.

Hope this has helped.

Relax don't worry have a homebrew
The Professor, Hb.D.

Long and Novel Lager

Dear Professor,

I have a batch of doppelbock that has been lagering since January, and it doesn't seem to be finishing fermenting.

I brewed the batch in the beginning of December, using a triple decoction mash designed for high dextrin content. The O.G was 1.089. I pitched a 1.5 liter starter of Wyeast Bavarian Lager #2206, and also thoroughly aerated the wort with an air pump with a sterile filter. The primary fermentation was completed in 2.5 weeks, at a temperature of 52 degrees F (11 degrees C).

When I transferred into the secondary, the gravity had fallen to 1.027. Since then,



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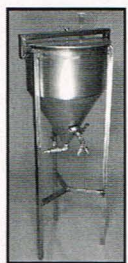
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it has been sitting in the fridge at 52 degrees F (11 degrees C) or so, slowly bubbling away. I was timing the bubbles from the airlock, and it seemed they were about five minutes apart. However, I recently lowered the temperature to 46 degrees F (8 degrees C), and it started fermenting faster, with the bubbles increasing to about two minutes apart. I had thought it was ready to bottle, but now I am not so sure. Perhaps I need to add some Champagne yeast to finish the fermentation of the high alcohol doppel? Or maybe I am not patient enough? Either way, I can't figure out why the yeast would increase when I lowered the temperature.

Impatiently awaiting doppelbock,
Brett Anderson
Concord, NC

Dear Brett,

Well golly gee willickers! That's the first time I've heard of fermentation going on a buzz after the temperature was turned down. I can't lend any insight to that phenomenon. If I doubted myself I would feel inadequate, but I have enough beer and mead to take me well into the next century.

The continuous fermentation? Well, I have the same experience every so often and the one thing that I notice that the beer usually turns out okay, but there's always something quirky about the finished beer. You know, something "off." I've come to the personal conclusion that if I get a long prolonged fermentation at cold temperatures, I have a wild yeast or other unwanted microbial contamination. I'm just not careful enough. So I'd conjecture you've introduced a level of contamination that is fermenting things that normally wouldn't ferment.

If there's no change in gravity over a couple of weeks, bottle the batch and add just a tad less priming sugar than normal. Monitor the beer and if it begins to get too carbonated then—it's party time!

Washing my hands of it,
The Professor, Hb.D.

Send your homebrewing questions to "Dear Professor", PO Box 1679, Boulder, CO 80306-1679; FAX (303) 447-2825 or professor@ao.org via e-mail.

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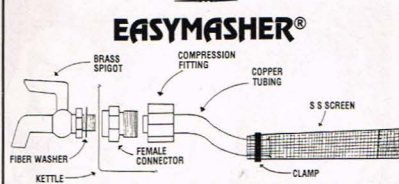
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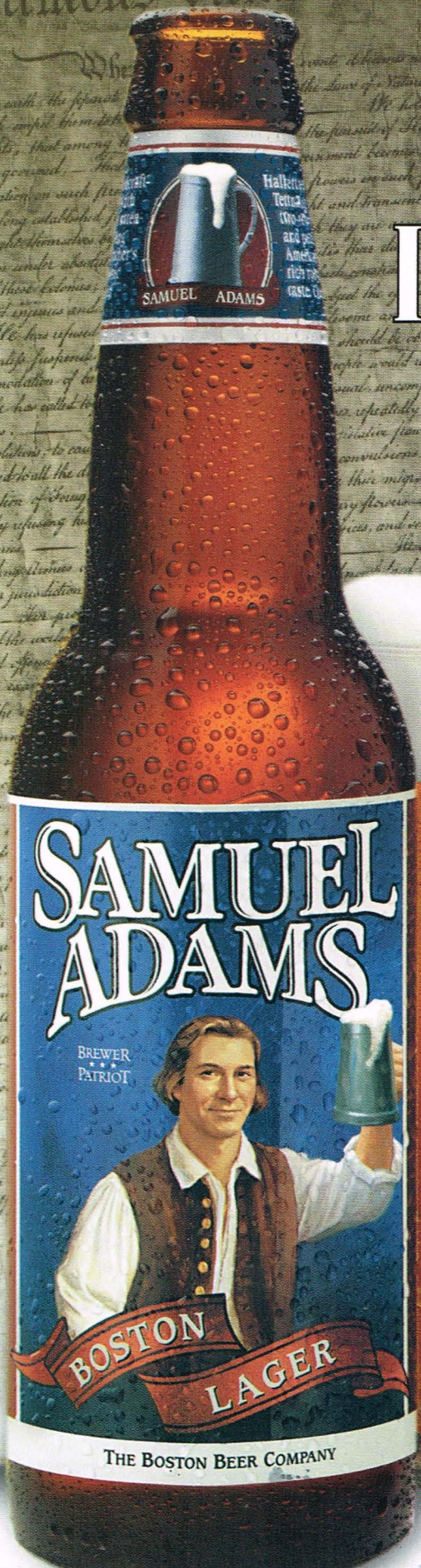
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