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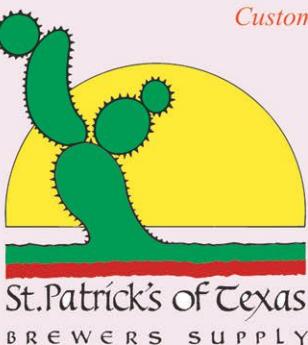
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*Zymurgy \zī'mər jē\ n: the art and science of fermentation, as in brewing.*

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# IT'S THE BEER TALKING

BY PAUL GATZA

**A**s we turn the page from the nineties to the aught-zeros, I'd like to reflect briefly on the past decade of homebrewing and present my vision for where I would like to see homebrewing communities head in the future.

The greatest success in homebrewing over the last decade has to be all of the great brews we made and all of the wonderful social times we had and connections we made. Homebrewing became popular for people of all ages over 21, the internet became a great resource for brewing information, and homebrewers unified in their own communities into clubs. The result of these connections and information was more technical knowledge learned and disseminated and a greater consistency in the quality of homebrewed beers. I remember back to an AHA Nationals judging in Denver where several "gushers" heightened the spirits and dampened judges at nearly every table. Gushers in competition are now a rarity.

AHA-registered homebrew clubs grew to over 900 by the end of the 90s. So while many homebrewers drifted away from the hobby after the surge in the mid-nineties, active and former homebrewers sought out local comrades to share good beer with. The on-line beer discussion groups and digests such as the *Homebrew Digest* (HBD) spread the information and made national connections possible on a daily basis.

The growth of these connections also contributed to some fragmentation of homebrewing communities. A friendly, inviting tone of some of the on-line discussions was often lost, I believe, due to the difficulty of sharing a beer in a relaxed environment over computer or telephone lines. I have met some really nice people at AHA conferences who have venomously attacked the techniques of other homebrewers on-line. I think this paradox is something we all need



to work on to avoid turning others away from our hobby. There is great informational value (and future social value as we travel) to these on-line connections and we should try to make them work to the benefit of the hobby.

The AHA had difficulty adjusting to the fast changes in our hobby as it surged in the nineties. The AHA and Home Wine and Beer Trade Association (HWBTA), which represents the business side of our industry, had some problems running the Beer Judge Certification Program (BJCP) as a joint project, and then had a falling out when the AHA attempted to develop a council for retailers. The AHA did not have the technical savvy to maintain the HBD and left some hard feelings before Pat Babcock and Karl Lutzen resuscitated and improved it.

President Clinton buzz-worded, "It's time to build a bridge to the twenty-first century." I believe it is the AHA's role to build bridges throughout the homebrewing community and work toward unifying the different groups to groups and homebrewers to homebrewers. One of these directions I have discussed in this column before—that AHA needs to become a grassroots association with greater program participation and direction-setting by the membership. In this way, the AHA can build these bridges for homebrewers in every town. The AHA Conference and

changes within the AHA board of advisers are early steps in this movement.

The AHA and HWBTA recently embarked on a new relationship with our first Teach a Friend to Homebrew Day. As a representative of homebrewers, I believe it is in our interest to have as many healthy homebrew shops as possible. By helping to support retailers and homebrew clubs by getting new blood into the hobby, we make our homebrew communities stronger. Across the country, I have seen homebrew communities wither when the local shop goes under. Support your local retailer; the consequences of losing it go beyond your wallet and brew kettle.

There have been two sets guidelines for homebrew competition over the last several years—AHA and BJCP. At the request of members I have worked toward a single set of homebrew style guidelines to simplify competition for entrants and judges. Style beliefs are based on experience, learning and international trends of what homebrewers and commercial brewers are putting in their kettles. Disagreements over two-thousandths of a gravity point can lead to heated discussions. The BJCP created a ten-member style guidelines committee who spent two years revising guidelines by researching and hashing out disagreements. That work has recently been finalized and presented AHA with an opportunity to build a bridge to competition entrants and judges. Here is the final nail to support the bridge: the AHA adopts the BJCP style guidelines for all AHA competitions in 2000.

One major difference in the guidelines from what we have had in the past is that our three mead categories have been collapsed into one with several subcategories. Since the AHA National Homebrew Competition has a large number of mead entries, I do not want to exclude meadmakers from getting recognition for excellent beverages. For the AHA NHC, we will (continued on page 62)

**Lager Special Issue**

Dear *Zymurgy*,

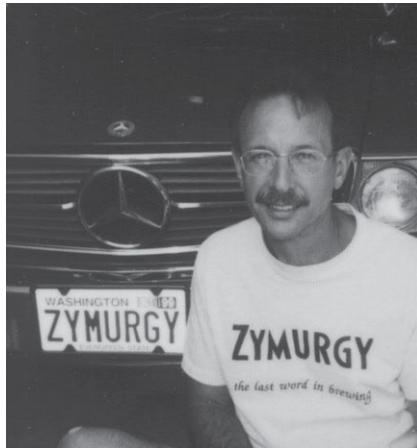
Congratulations on the very nice and interesting Lager issue of September-October 1999 (Vol. 22, No. 5).

I have read and re-read several of these interesting articles with much pleasure, appreciating the thorough and vast information discussed both old and new, addressing lager brewing from mash to maturing.

I especially liked the discussion of decoction for the production of nice Pilseners. I still feel the contribution and impact of decoction is not entirely captured by the written word, but is a nice example by whatever and however tested this procedure is, as another delightful consideration for home brewing.

The most cogent reason for this note is your excellent review of my favorite large U.S. brewery, Yuengling & Sons. I was surprised that no mention was made of their Chesterfield Ale—reasonable, I suppose since the purpose of this issue was Lager, still the discussion of Yuengling's focused upon Porter. But back to my point, this most remarkable ale with, when fresh, a wonderful hop aroma reminiscent of Ballantine's XXX's similar impact of olden days. Conceted efforts by my son and brewing friends to simulate this aroma was in no small way assisted by a phone call to Ray Norbert at his old post. This call in itself was to me an unforgettable experience, an example of what I humbly call the collegiality of brewers. He, without condescension or impatience reviewed with us his hopping and grain bill, with obvious implied success for our endeavor. As was the Lexington Brewing Company here, and it's staff likewise, a very supportive and paternalistic influence on local brewers and many are very sad about its' closure.

To be philosophical yet saddened by aspects of the involuntional and recessional



**You got the Mercedes; you got the license plate; you got the t-shirt. Ted Carlson is cool!**

current state of home brewing and microbrewing: this, too shall pass and hopefully soon. I appreciate the profound challenge to your journal negotiating between the two poles of homebrewers, appealing to the beginner on the one hand and the experienced on the other. Many homebrewers represent the novelty, eagerness, and freshness of the student in the early stages of enjoying the awesome thrill of beer making magic. Without this large and changing majority of brewers, however fluid, being well supported and entertained, the popular tide of interest in our hobby (and others' occupation) will wane, and the entire movement will, as my droughty garden this year, wither, disaffecting us all.

Experienced homebrewers on the other hand will probably always survive, whatever the doldrums; it is not quite as much fun without the upbeat interest in brewing. The last *Zymurgy* issue was by its nature an appeal to the latter group and was much appreciated.

Nothing has brought out the poignancy of the downscaling of the craftbrewing movement more than the closing of our Lexington Brewing Co. This very well planned project, thoughtfully outfitted by a hard working CEO, experienced in the business world, taking much consultation of brewing advisors and appropriate assistance with the nuts and bolts of the brewing world, set sail optimistically on the seas of commerce, only to fail. The brewery's loss will be very disappointing for many.

Sincerely,  
Lee C. Shine, M.D.  
Lexington, KY

*Lee, this is by far the nicest letter we've received in months. If we should ever have the good luck to get sick in Lexington, we know where to turn!*

### Hopping Right

Dear *Zymurgy*.

Something's wrong with the recipe for the Stoudt Export clone in a recent issue of *Zymurgy*. By my calculations the hopping rate would yield approximately 157 IBUs as opposed to the 23 to 27 normal for the style. Could you please correct the recipe and advise me of the correct hopping rate. Thank you.

Stephen Kurpiewski  
via email

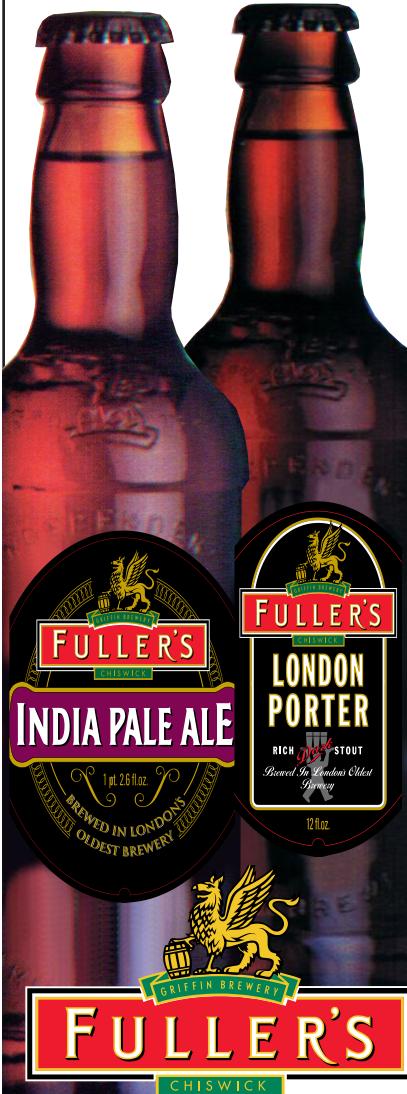
*Stephen, we think you're right that this recipe would give quite a bitter beer. Paul Gatza says he would cut the 30-minute hops to 10 minutes so that they add flavor and not bitterness. He would cut the cluster hops back to 1.25 ounces. That should put you in a better ballpark. Good luck.*

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### Another Triumph!

Dear *Zymurgy*,

In a previous *Zymurgy* issue you asked for articles describing homebrewing disaster. Well, I have a successful one to report. Prior to Labor Day, 1997, I brewed a five gallon batch of Scotch ale and a week later a similar size of hefeweizen. These were put in carboys out on my back porch for primary fermentation.

You may think I'm crazy leaving 10 gallons of fermenting wort out on my back porch during a hot Orlando summer. Well, the carboys were put in a 52-quart cooler that just fit the two carboys. The cooler was filled to the rim with water and was covered with a top I fashioned out of insulation board. The water was pushed from the bath with an aquarium pump through some tubing and into a copper coil I placed inside a dorm size refrigerator. The water was thus cooled and returned to the bath. A controller unit was utilized to turn the pump on when the bath temperature (and presumably the beer temperature) exceed 66 degrees F.

This chiller system had been in use by me for over a year and a half without a problem. However, my wife and I were planning a trip out of town for the long Labor Day weekend. Being the bright fellow I am and taking into consideration the weather forecast for Orlando that weekend (heat wave city), I decided to tweak down the thermostat in the dorm refrigerator.

Upon our return, I was horrified to find my carboys (and their contents) at 97 degrees F. I could only surmise that they were at that temperature from one to four days. Apparently, an ice plug had formed in the copper coil due to the freezing temperature in the frig (thanks to my tweaking).

In a panic, I called a few brew buddies from the homebrew club. No one had heard of fermenting at 97 degrees F. One suggestion was that I had just brewed 10 gallons of "lawn fertilizer." The literature was equally vacant of examples or suggestions. Dumping the product was unthinkable to me, especially after all the work that went into my creation (all grain for both and double decoction for the hefeweizen)!

So I proceeded to bottle both batches since each had attenuated out (to the max). At the club's Octoberfest party, I brought samples of the two. The Scotch ale was somewhat astringent, but certainly drinkable. The hefeweizen was not close to character for that style, but it was drinkable, even enjoyable. I shared this with several homebrewers at the party without telling them what it was and asking their opinion. One fellow guessed that the hefeweizen was a good example of a Belgian wit.

The more I thought about this beer as a wit, the more I liked the beer. In fact, I entered it in February in the Commander SASS (Scapegoats Association for the Advancement of Zymurgy) Blastoff Homebrew Contest. The beer did quite well with high scores and a medal to boot. In fact one judge commented on the coriander nose. Although there was no coriander in this beer, it did develop this flavor.

In October, 1998, this beer was entered in the Dixie Cup competition and took a first place! Again, the judges commented on the coriander nose and flavor.

Well, this "lawn fertilizer" has turned out to be quite a happy accident. Not only did I get a first place beer, I learned much about entering contests. I also learned a lot about the brewing process and quite possibly may have stumbled on the method unintentionally used by the original Wit brewers.

Sincerely,  
Edmund F. Measom  
Orlando, FL

*Ed, it's lucky you didn't send this letter to the Professor; it might have caused him to try it himself and ended up blowing up the place. Still, there's a lesson for all of us in this—to paraphrase a bit of wisdom from Jurassic Park, beer will find a way!*



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# The Millennium Hangover

I'm sick of the millennium hype already; you probably are too. These days it seems that everyone with a printing press, transmission tower or world wide web homepage has come up with a list of the most important events of the last millennium. Many of these self-important pontificators act like they have personally witnessed most of history. Yet despite this attitude, they seem to forget the one thing that everyone can relate to, namely food and drink.

These so-called experts focus on the things that have changed in the past thousand years, but they overlook the one thing that is still the same—people make beer at home. They make it to drink. They make it to share. And they make it because it satisfies a fundamental human need to manipulate the fruits of nature to create a sublime concoction for humankind.

Unlike most aspects of human history, the heritage of beer can be measured by the passage of multiple millennia. Yet despite this venerable past, much of the art and all of the science of beer have come about in the past thousand years.

Most of these advances relate to development of a commercial brewing culture worldwide. What has been lost or overlooked by history is the more fundamental everyday production of beer at home. This column re-creates that history—without any claims to accuracy and, indeed, with considerable reliance on creative license—so that homebrewers everywhere can enjoy a greater connection between their modern art and its historical antecedents. In short, you might consider this a chronicle of the “Lesser Known Events in the Annals of Brewing.”

**1000 A.D.** Beer is made by people who lived somewhere in Europe. We don't really know much more than that, and it was a long time ago anyway, so don't worry about it.

**1400:** All beer is homebrew. Several times each year, the woman of the house—a.k.a.



“the alewife”—brews up a batch. The man of the house invites all his buddies over to “drink till it's gone.” All is right with the world. This arrangement works fine until men discover that homebrewing, while hot and uncomfortable, is vastly more rewarding than dangerous, back-breaking work in the fields.

**1401:** Steve Richfield becomes first man to take up homebrewing, makes 37 batches the first month.

**1402:** Steve faced with crisis. Brewing “hobby” has taken over his life: all grains harvested in Fall have been made into beer, leaving none for food. Steve resolves to open a “pub” where he will trade beer for food. Over the next 500 years thousands of other homebrewers in Britain follow suit: pubs become ubiquitous.

**1438:** German nuns looking to eradicate a “pestilent weed” from their garden attempt to drown hop vines at the bottom of their mash tun. The resulting beer displays a lively bitterness of divinely inspired proportions. This serendipitous discovery induces twentieth-century homebrewers to propagate this pestilent weed in backyards, planter boxes and median strips across America.

**1590:** Inspired by the need for a fuel that will rapidly dry malt without a smokey or

rotten-egg flavor, a determined homebrewer perfects production of sulfur-free “coke” from coal. Greedy pre-industrialists swipe idea for production of steel, steam power and other ancillary uses.

**1795:** London porter producers become the world's first mega-brewers. In a desperate grab for profits, they reduce the amount of malt used in each batch. To sustain the impression of alcoholic potency, they add doses of opium, hemp, strychnine and tobacco. Not surprisingly, homebrewing increases in popularity.

**1821:** Appointment of first corporate brewer. Nathaniel “Pointy-nose” Buchbinder is appointed “Brewmaster” at his father's brewery. Even though Nathaniel was schooled at London's finest institutions and has served a 10-year apprenticeship at the brewery, he has never actually done what homebrewers everywhere still do to this day: brewed a beer from start to finish all by himself. The brewery closes in ruin a year later.

**1849:** British brewer William Black seeks to eliminate the occurrence of “sour beer” by isolating fermenters from electrical contact with the ground. He declares, “It has long been familiarly known, that thunder sours beer; but, though generally known, very few brewers have inquired into the cause, or adopted means to prevent atmospheric, or other action, affecting beer during thunder-storms, on in the different electric states of the earth and atmosphere.” Based on this insight, homebrewers adopt use of “electrically inert” glass fermenters.

**1860:** In Belgium, use of the household laundry tub for beer fermentation inadvertently leads to production of the first lambic. Seems that one Pierre Sartre filled the tub with wort while it still contained mud-crusted trousers from the previous day's plowing in his naturally fertilized fields. Pierre finally convinced his neighbors to drink the resulting beer, but it took

them two years to forget his stories about that "sodden" batch of homebrew.

**1918:** Widespread commercial beer production results in universal loss of homebrewing skills. When Prohibition strikes, this cultural void manifests itself in sugar-stoked swill and exploding bottles. Al Capone turns the public's lack of brewing skill into a vast criminal empire.

**1936:** Proper yeast pitching levels for liquid cultures discovered by Three Stooges who add three times as much as any previous brewer. ("I put the yeast in!")

**1962:** In screen tests for the first James Bond 007 movie, the martini wins out over cask ale to be Bond's beverage of choice. Cask ale—and with it homebrewing—enters a nose dive that it will not recover from until the founding of CAMRA some years later. This event also provided the impetus for the development of Zima, a colorless, tasteless beer-based intoxicant as a potential usurper of the Bond-beverage crown. Unfortunately for Coors, success comes 20 years too late: martini proves stubbornly intractable.

**1968:** Square-jawed and straight-laced

Calvin Birch of Super Mega Brewing Company sows the seeds of our modern homebrew revival when he hatches the concept for "light" beer to impress girl friend who doesn't like beer. Touched by his desire to include her in his beery world, she tastes the finished product but declares it unfit for human consumption. Alternate positioning as thinly veiled diet beer for aging, taste-disabled jocks emerges.

**1989:** Joe "Surfer" Slick, assistant brewer at Gnarly Barley Brewing Company pioneers use of mash tun as hot tub. Early trials indicate improved chick appeal using hot liquor without the grain. "Surfer" now known as "Red" due to confusion over mash tun temperature controller which reads degrees in Centigrade, not Fahrenheit.

**1991:** Rogue's homebrewer-at-heart John Maier formulates beer with more than 100 IBUs of bitterness. Attempts at commercial implementation produce nationwide hop shortage.

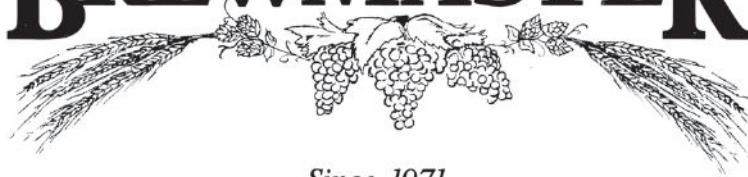
**1996:** Picking up on a technique pioneered by American homebrewer Steve Casselman, Japanese mega-brewers "carbonate" beers with hydrogen, giving karaoke singers an easy falsetto and wicked fire-breathing special effects. Singed-lung liability suits lead to a national recall.

**1998:** Michigan homebrewer Mike Bardallis produces the first authentic pair of "beer goggles" wherein a thin pool of Bell's Expedition Stout is entrapped between two layers of glass to protect the eyes from the harmful rays of the sun. When last seen, Bardallis was howling at the moon which he had mistaken for wooden cask of ale.

**1999:** Homebrewers the world over look forward to the year 2000. Even if an electronic apocalypse destroys life as we know it, we'll have beer and the skills to make more. Life is good.

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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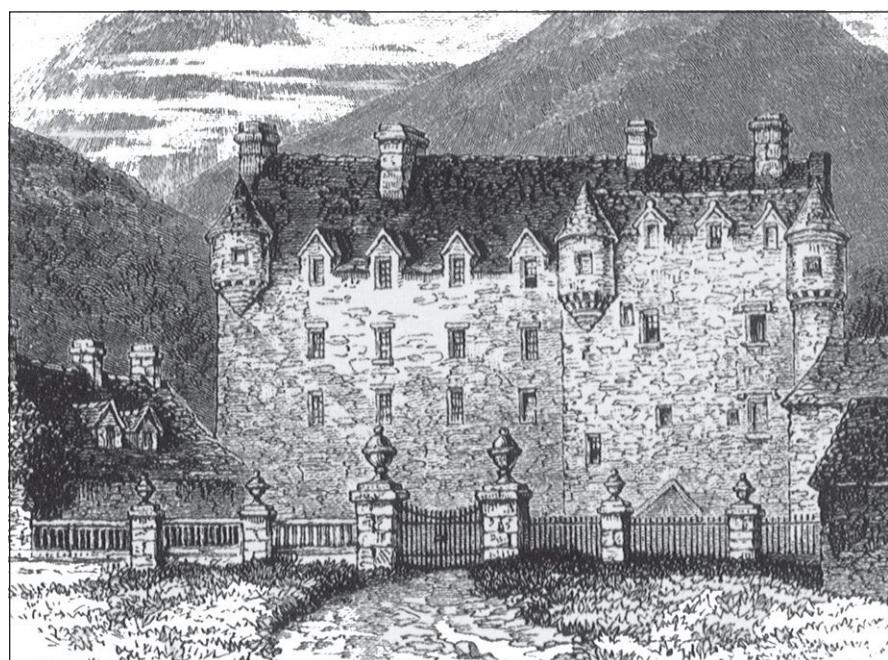
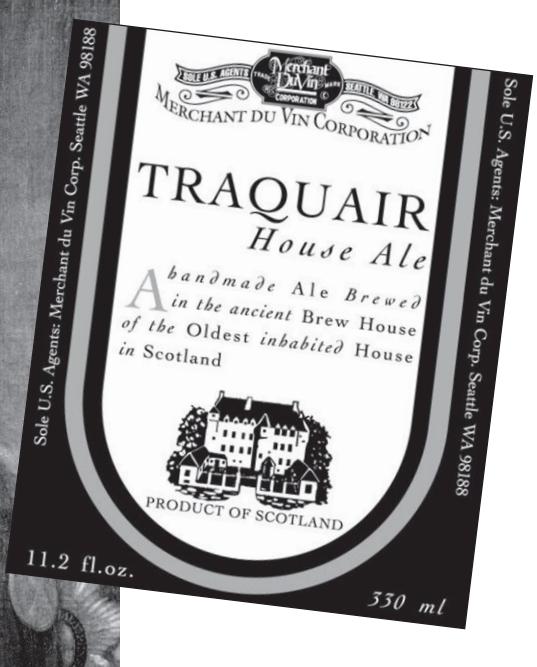
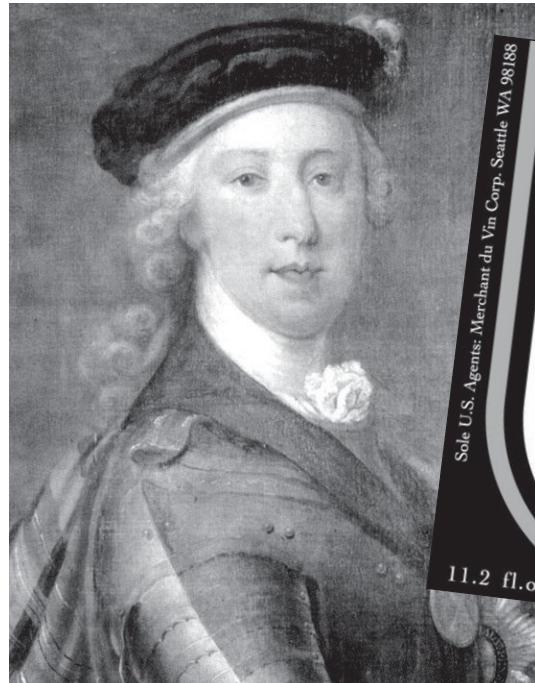
# Traquair House Ale

**W**hen you get into a discussion about Scotch ales with someone who's really in the know, it's a sure bet that at some point Traquair House ale will be mentioned. It is simply one of, if not the, finest Scotch ales available today. Still made in tiny four-barrel batches in the historic Traquair House brewery, some feel it is the crowning achievement of its country's already noble brewing tradition. Traquair, located south of Edinburgh, dates to the 12th century.

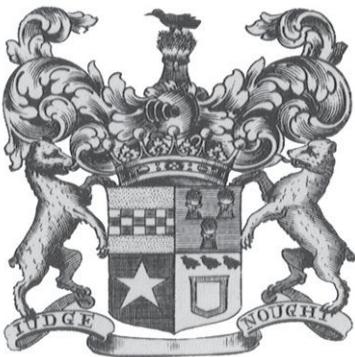
The first thing one notices about Traquair House is its distinctively rich malt aroma and deep copper color. Both are the result of an unusually long boil. Much of the color comes from caramelization in the kettle. And by the way, Traquair House gets quite a fire going under their brew kettle. To reproduce the proper degree of kettle caramelization at home, you'd better have nothing short of a space shuttle booster rocket under your boiling vessel.

Yeast is also a factor when you want to achieve the clean, rich malt aromas this classic ale has to offer. A good cultured strain from one of the famous Edinburgh breweries is best, and to really get it to perform, you need lots of it. Traquair House is fermented at cool temperatures, as are most Scottish ales, and the wort you'll be pitching into is strong—about 21 °Plato. So a large pitching quantity is an absolute necessity. In fact, culturing up a standard quantity of a good Scottish ale yeast, then pitching it into a five-gallon batch of lower-gravity Scottish ale is recommended. Then you can rest assured you will have enough slurry to get your Scotch ale clone off to a proper start.

Hops, as one can readily tell from most true Scotch ales, don't play a huge role in the character of the style. Scottish brewers traditionally used modest amounts, only using them early in the boil to counter some of the malt sweetness of the ales, and age them to



You want history? We got history...from Bonnie Prince Charles (cute, huh?) to the oldest inhabited house in Scotland, where Traquair is brewed.



make them even less obtrusive. Aging probably isn't necessary for the homebrewer, but a small amount of a fairly tame and traditional hop is. Kent Goldings, Fuggles or Willamette are probably the best bet.

One last ingredient is critical when making this beer at home—time. Scotch ales need long, cold storage; think of Traquair House as a doppelbock with ale yeast. Six months under refrigeration is about what you're shooting for. But if you have the patience to wait for it, you'll be glad you did.

**Amahl Turczyn is frequent contributor to *Zymurgy*.**



## Traquair House Ale Clone: MacAndrew's Gauntlet

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

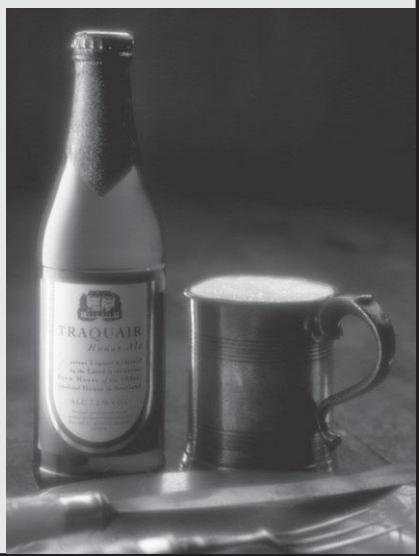
- 14 lb pale malt (6.35 kg)
- 4 oz brown malt (113 g)
- 2 oz roasted barley (57 g)
- 2 oz Golding hops (57 g) (5% alpha acid)  
first-wort hopped
- 16 oz fresh Edinburgh ale yeast slurry (.47 L)

- Original gravity: 21.5 °P
- Final gravity: 7 °P

**Extract Recipe:** Substitute 10 lb (4.54 kg) amber malt extract for pale and brown malt. Steep 2 oz crushed roasted barley in 150°-degrees-F (66°-degrees-C) water for 20 minutes, then remove grains and proceed with boil.

Treat mash water with about 1 tablespoon Burton water salts (14.8 mL). Mash grains at 155 degrees F (68 degrees C) for 90 minutes. Sparge, and run 10 gallons (37.85 L) of wort into your kettle, add the hops and commence boiling. Reduce the wort volume to 5.5 gal (20.82 L). This may take several hours! Chill and run wort into your fermenter at 64 degrees F (18 degrees C) and once

signs of fermentation appear, lower temperature to 60 degrees F (16 degrees C). Don't worry—if it's a true Edinburgh strain it should ferment just fine at that temperature. After final gravity has been reached, chill to 40 degrees F (4 degrees C) and hold for at least six months.



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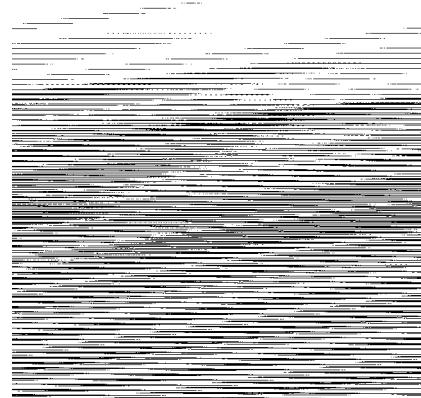
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*Well, you've been asking for more on what professional and semiprofessional brewers really like, so we decided to go ask one! Beginning this issue, our own Amahl Turczyn will query some of the top brewers around the world and bring their recipes back to you. Got a favorite brewer you'd like us to sic Amahl on? Let us know...Ed*

For this first installment of Brewer's Secrets, veteran brewer John Maier of Rogue Ales in Newport, OR, had no hesitation when asked to name his favorite beer. "Schlenkerla Rauchbier, and don't ask me to spell it," was the answer. Not surprisingly, John and the other Rogue brewers make their own version of this unique German world-class smoked lager; they simply call it Rogue Smoke.

Smoked beers, while relatively new in the U.S., have been common in Germany for centuries but, like most German styles, are quite region-specific. Schlenkerla Rauchbier is right at the point of origin for true German smoked lager: a town called Bamberg. Maier has made a pilgrimage to this brewing town twice and is gearing up for his next trip.

Bamberg, in the German region known as Franconia, is picturesque, quaint, tidy and as clean as the beers its nine breweries produce. Not only is it the home of rauchbier (*rauch* meaning smoke), Bamberg is a major source of high-quality malt, smoked and otherwise, which is used all over the world. Schlenkerla, while small, produces malt for its own use and smokes it using locally available beechwood. The brewery is located on a hill in Bamberg called Stephansberg, beneath which are caves where lager traditionally was stored. Although Stephansberg is mainly a residential area, the brewery remains with its lagering cellars below.



Schlenkerla Rauchbier is made with smoked malt only and requires a double-decoction mash. It is brewed to a gravity of 1.054, right around that of a Märzen, which is why the label bears this name. It is then fermented in open vessels, moderately hopped to 30 IBUs, then lagered for about two months. It emerges with a wonderfully rich, smoky flavor despite its moderate strength, and a very clean though subtle malt background. Its color is orange-copper, with a light cream-colored head. It is not a style for everyone—I sampled it at a small tavern in Bamberg and found it is not a session beer like its more popular cousin, Oktoberfest. Rather, it is a beer to be savored in sips on cold, damp evenings by a wood fire.

Maier's appreciation for Schlenkerla Rauchbier shows in his dedication to produce his own American version of the style. Rogue Smoke, also known as Welkommen on draft originally was inspired by the fall of the Berlin Wall. It is made with Rogue's "pacman" house ale yeast, and is generously hopped with Perle and Saaz hops—Maier is never one to hop lightly, and at 48 IBUs, this is one dry, snappy rauchbier.

The complex grain bill includes Northwest Harrington, Klages, crystal and carastan malts, as well as Bamberg beechwood-smoked malt and hand-smoked Munich malt using cherry and alder wood. Maier says the different wood smokes add complexity to, I might add, an already highly complex ale. Its original gravity is slightly higher than that of the German classic, weighing in at 1.057.

It may not be considered a world classic, but John Maier's version of his favorite beer has won some notable acclaim, winning a gold and several silver medals at the Great American Beer Festival®.

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



### Schlenkerla Rauchbier

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

10 lb beech-smoked Bamberg rauch malt  
(4.54 kg)  
3 oz black malt (85 g)  
1.5 oz Hallertauer hops (4.3% alpha acid)  
(43 g) first-wort hopped  
Bavarian or Munich lager yeast

- Original gravity: 1.054
- Final gravity: 1.013

Use a decoction mash schedule if possible. Otherwise, a step infusion method can be used: Mash grains at 122 degrees F (50 degrees C) for 20 minutes, then raise temperature to 149 degrees F (65 degrees C) and hold for 60 minutes. Lager the beer for four months at 32 degrees F (0 degrees C).

Smoking your own malt is a definite possibility but results will obviously vary. Bamberg rauch malt usually is available from specialty homebrew supply shops.

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# This Bud's for You

**EDITOR'S NOTE:** We continue this issue with Lynne O'Connor's odyssey through the Czech Republic, the heart of Pilsner country, with beer guru Michael Jackson.

First the bad news. You cannot buy the "original Budweiser," Budweiser Budvar, in North America. Now the good news. You can brew it—with Budvar's malt, hops and yeast.

Ceske Budejovice is an industrial city in southern Bohemia of the Czech Republic. This city was known as Budweis in the 19th century when the world's first clear golden beer was brewed about 130 kilometers to the north in the town of Plzen.

Tradition in Bohemia dictates the name of beer is derived from the city in which it was brewed. Budweiser simply noted a beer from Budweis. Since 1895 the Budvar brewery has brewed a Pilsener known appropriately as Budweiser Budvar.

There is of course another Budweiser®. America's Budweiser®, first brewed in 1875, accounts for 8% of beer sales worldwide in spite of the fact that it cannot be sold in many countries where Czech Budweiser is sold. Anheuser-Busch needs to obtain the "Budweiser" trademark in those countries in order to sell their Budweiser®.

The fall of the communist government in Czechoslovakia in 1989 led to privatization of Czech breweries. Anheuser-Busch moved to acquire the 'Budweiser' trademark worldwide by simply acquiring the Budvar brewery. A-B, which has long been the largest buyer of Czech hops, stopped buying hops at one point in order to pressure the government to accept their offer for Budvar. These heavy handed tactics led the head of Czech privatization agency to declare "Budvar will never fall into the hands of the Americans." Budvar is one of only two Czech breweries still owned by the government.

## Czech Pilsner Malt Specifications

	Budvar Undermodified	Moravian Well-modified
<b>Barley</b>	2-row spring barley grown near Olomouc in Hana	2-row spring barley grown near Olomouc in Hana
<b>Extract</b>	>80%	>80%
<b>Color</b>	3.0-3.5 EBC	3.5-4.5 EBC
<b>Protein</b>	10-11%	10-11%
<b>Kolbach</b>	32-36	43-45
<b>Hartong</b>	33	38

## Back Door Men

However, A-B may have found a backdoor to acquire the trademark. Budweis' other brewery, Samson, exports 'Budweiser Burgerbrau' to Germany. A recent court ruling upheld Samson's use of "Budweiser," over the objections of Budvar. Shortly after the court ruling, Samson was sold to what is essentially a hop company. This hop company lobbied strongly for the sale of Budvar to A-B, undoubtedly because of A-B's leveraging hop purchases. The hop company is not believed to have had the capital to purchase Samson. Rumors are swirling that A-B may have secretly financed the purchase. If A-B owns Samson, they have another avenue to challenge Budvar's trademark.

I learned of the intriguing Budweiser battles during my recent trip with Michael Jackson to the Czech Republic. We were guests of a Moravian malt company who escorted us to several breweries and maltings, large and small, throughout Bohemia and Moravia. In addition to the intrigue of Budweiser, I was provided unprecedented access into the details of Czech brewing. In this article I will focus on Czech Pilsener, first discussing the ingredients and then the brewing process.

## The Malt

"The best varieties of barley are cultivated in Moravia, especially in the valley of region of Hana. In fact, Hana barleys are considered the finest malting barleys in the world."

—Jean de Clerck, *A Textbook of Brewing*

The rich agricultural region of Hana lies along the river Morava in central Moravia. The Czech Republic consists of two regions, Bohemia in the west and Moravia in the east. As Roger Protz has noted, it was the unique quality of Moravian barley that enabled the production of the first clear beer at Plzen in 1842. The soft malt texture of Czech Pilsener emanates from this barley.

Several malt specifications for two types of Czech Pilsener malt, well-modified Moravian and undermodified Budvar, are given in Table I. Only those parameters that uniquely relate to Czech Pilsener will be discussed here.

## Flavor Rules

The most valued malt parameter for Czech Pilsener and all quality beer is flavor (not nitrogen content or extract as is often naively suggested). Budvar recognizes the correspondence of not only barley variety to flavor, but additionally the soil and climate impact on flavor. Accordingly, Bud-

var species the barley must come not only from Hana but from a small area in Hana near the town of Olomouc. Note that the other malt in the Table, well-modified Moravian, is produced from barley grown in the same small area near Olomouc.

Czech Pilsener malt is slightly darker in color (3.5-4.5 EBC) than it's American or German counterparts (~3 EBC). As a result, Czech Pilseners are deeper colored. Long boils and decoction mash also contribute to the fuller color. For example, Budweiser Budvar is a relatively dark Pilsener, even though Budvar malt is relatively light by Czech standards.

The two Czech malts are delineated by their degree of modification as seen in the Kolbach index. Well-modified malt is often defined as having a Kolbach index >42, moderately modified 38-42, and undermodified <38. A Hartong number less than 36 is also indicative of undermodified malt. A rule of thumb is that well-modified malt, such as the Moravian malt, can be used in a single temperature infusion mash, typically 154 degrees F (68 degrees C). On the other hand, undermodified malts, such as Budvar malt, require additional lower temperature rests, e.g., acid and protein rests.

In reality, small brewers in America have been forced to use well-modified malts even when including a protein rest in the mash schedule. This is due to the fact that undermodified malt has not been available. There has been much contentious debate over protein rests with well-modified malt. The controversy centers around the putative flavor enhancements resulting from decoction versus the detriments known to result from protein rests with well-modified malts. The availability of well-modified and undermodified malt produced from barley grown in the same small area presents an opportunity to address this issue in the brew-house rather than merely by conjecture.

Sugar (sucrose) is used in some flavorful Czech Pilseners, for example Vyskof. It

constitutes approximately 10% of the fermentable sugars and is added at the end of the boil. Interestingly, the sugar is refined from sugar beets grown in the same fields as the barley. Sugar beet is the best crop to rotate with barley in Hana. Adjuncts such as corn or rice are not used in Czech beers. Budweiser Budvar is an all-malt Pilsener.

### The Hops

The other cornerstone of Czech beer is the world's most famous hop, Zatec, which we know from the Germans as Saaz. There are three principle hop-growing regions of the Czech Republic. The Zatec region in northwest Bohemia is the best regarded. There are three main varieties of hops: Zatec, Bor and Sladek. (Sladek is the Czech word for "maltster.") As in Germany, hops are denoted by growing region and the variety. Zatec Zatec denotes the Zatec variety grown in the Zatec region.

Zatec Zatec hops are noted worldwide for fine bitter flavor and unique pleasant aroma. Alpha acid content is 3-5%. The fine bitter flavor of Zatec Zatec correlates with relatively high beta acids content. The prized hop aroma correlates with the relatively low myrcene and very high farnesene content. Zatec Zatec hops are processed into Type 45 and Type 90 pellets as well as whole flowers.

Both Bor and Sladek are combination hops (alpha acids 5-8%) and neither is available in North America. Bor and Sladek are available in the Czech Republic primarily as pellets and processed hop extract.

### Water and Yeast

Soft water cannot be overemphasized in attaining the fine bitterness, hop aroma, and soft malt flavor of Czech Pilsener. I have never washed my hair in softer water than that at a hotel near the Platan brewery in Protivin. Budvar draws its soft water from a nearly 1,000 foot well.

Czech Pilseners exhibit relatively little sulfur character that can be attributed, in part, to the yeast. I obtained the Budweiser Budvar yeast and will discuss it in more detail in a future article. Wyeast Czech Pils 2278 is the Pilsner Urquell strain.

### Mash and Boil

Double decoction is the norm in Czech breweries, although triple decoction is not unknown. Perhaps the most important point is that double decoction still involves four temperature rests as, of course, does triple decoction. Here's a common double decoction regime. Mash-in at 38 degrees C (100 degrees F), raise temperature by direct heat to 50 degrees C (122 degrees F), first decoction to 62-65 degrees C (144-149 degrees F), followed by second decoction to 72 degrees C (162 degrees F).

Bohemian Pilseners typically have a higher final gravity, with associated mouthfeel and malt flavor, than either German or American. For example, Budweiser Budvar, original gravity of 12° Balling, finishes at 1.009 (2°). Although choice of yeast contributes to this, mash temperatures are very important as well.

It has been suggested that decoction brewing results in greater extract yield than other mashing regimes. However, high efficiency may be inconsistent with brewing high quality Czech Pilsener. For example, Budweiser Budvar uses 21-22 kg malt/hectoliter for 12° Balling Pilsener. This equates to a very low efficiency by modern standards, approximately 27-28 pts/lb.

Budweiser Budvar is well respected within the Czech brewing industry for two reasons. First, Budvar is prospering with double digit growth during a time when most Czech breweries are struggling. Secondly, and perhaps not coincidentally, Budvar continues to use traditional malt and obviously less efficient brewing practices.

Pilsener worts are boiled for two hours. In fact, only beers of very low original



**Michael Jackson and Lynne O'Connor interview for Moravian television. Three maltings are represented at the table.**

## Bohemian Budweiser

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

12° Balling (OG 1.048)

- 9 lb (4.08 kg) Budvar Undermodified malt\*
- or 9 lb (4.08 kg) Moravian Well-modified malt†
- or 7.5 lb (3.4 kg) Moravian syrup malt extract#
- or 6 lb (2.72 kg) Moravian dry malt extract#
- 1.5 oz Zatec Zatec hops (43 g): 1.5 hours
- 1 oz Zatec Zatec hops (28 g): 1 hour
- 1 oz Zatec Zatec whole hops (28 g): 20 minutes
- St. Pat's Budvar Yeast (Wyeast No. 2000)
- 1.5 cups Moravian dry malt extract (355 mL) to prime

- \* Undermodified Malt: Mash rests at 38 degrees C (100 degrees F), 50 degrees C (122 degrees F), 62 degrees C (143 degrees F), 72 degrees C (161 degrees F). Double or triple decoction or direct heat to reach rests. Two hour boil.
- † Well-modified Malt: Single Infusion mash at 71-72 degrees C (159-162 degrees F). Two hour boil.
- # Malt extract: 1.5 hour boil is sufficient.

Best to make one liter (.26 gal) starter from Wyeast 2000 XL pack. Ferment at 8-10 degrees C (46-50 degrees F) for 11-12 days. Rack to secondary and lager for 60-90 days at 1-3 degrees C (37-38 degrees F).

gravity, less than 9° Balling, are boiled for less than two hours.

### Hop Additions

Three additions of nearly equal amounts are standard. The first addition, 1.5-2 hours, may be either hop extract, hop pellets or whole hops. The second addition, at one hour, may be either hop pellets or whole hops. The final addition, whole hops only, is 20-30 minutes before cooling. First wort hopping and dry hopping are not part of Czech brewing.

Sladek and Bor (hop extract or pellets) as well as Zatec (pellets or whole flowers) may be used in the first two additions. This varies from brewery to brewery. However, only whole Zatec hops are used in the final addition. Budweiser Budvar and Pilsner Urquell use Zatec Zatec whole hops for all three additions.

The bitterness levels of Czech Pilsners vary considerably from Pilsner Urquell (40-45 IBUs) to Budweiser Budvar (approximately 35 IBUs) to Bernard (25-30 IBUs). Pilsner Urquell is hopped at 400 grams/hectoliter. The hoppiest beers all come from the region of Bohemia which includes the towns(breweries) Plzen (Pilsner Urquell), Trebon (Regent), Protivin (Platan), and Budweis (Budvar).

### Fermentation

**Primary Fermentation:** Most breweries reuse yeast six to eight times. Yeast are washed with 1 degree C (34 degrees F) water (no acid) between batches. Pitching rates are typically .5 liter per hectoliter. This equates to approximately 17 x 106 cells/mL. Primary fermentation is at 7.5-10 degrees C (45.5-50 degrees F). Note that this is the temperature of the wort itself; the room is colder. Length of primary fermentation follows the "Czech Rule": one day for every degree Balling. That is, a 10° Balling beer is fermented for 10 days, while 12° Balling for 12 days. Many breweries use open fermentation in "squares," steel tanks often lined with fiberglass. Stainless steel open fermenters are being added in some breweries. Pilsner Urquell has replaced traditional open oak fermenters with stainless cylindroconical fermenters. Budweiser Budvar uses a mix of open squares and cylindroconical fermenters.

**Secondary fermentation:** The beautiful oak barrels of Pilsner Urquell and even smaller breweries such as Cerna Hora have been replaced with steel. Lagering is typically at 1-3 degrees C (34-37 degrees F) although it can be as high as 6 degrees C (43 degrees F), e.g., Hostan brewery. Duration of lagering varies from 30-60 days for a 10° Balling beer to 60-90+ days for a 12° Balling. Krausening is used only to kick-start a sluggish fermentation.

As I travelled from brewery to brewery in the Czech Republic I was struck by this apparent quandry. At first glance the ingredients and brewing procedures are nearly indistinguishable between Czech breweries. And yet, the resulting Pilsners are indeed very distinguishable. The beauty of brewing, as in beer, lies in its subtleties.

Lynne O'Connor owns St. Patrick's of Texas Brewers Supply.



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### Sweet Things and We All Sings

Dear Professor Surfeit,

I must take exception to your advice to mead-maker Angie in Anchorage, AK (May/June *Zymurgy* 1999, Vol. 22, No. 3). Your anti-sulfite statement was misleading. Yes, I agree that Angie was using too many Campden tablets. You should not use more than 1-2 per gallon. Any more is excessive. However, there are more ways of controlling alcohol than by changing yeast to an ale yeast; Lalvin D-47, for example, is a very good mead yeast from Lalvin. With any type of good wine yeast the best way to controlling your alcohol is to use your hydrometer and shoot for a specific gravity of 1.100 or less.

Then let the wine yeast ferment dry, below a specific gravity of 1.0. After it has cleared and the mead is ready for bottling; sweeten the mead backup to a specific gravity of 1.000 or higher, depending on taste. After adding your sweeter, use some Sorbi-stat-K or Sorbic Acid to prevent growth of yeast as you might in bottled wines. For sweetener you can use honey or sugar, but I prefer honey for my meads. For sweetening I boil my honey in water, skimming the white foam off until it is clear. A good mead should have an alcohol content between 10 and 13% alcohol. Anything above that is excessive and destroys the balance of your flavors. The moral of the story is control your alcohol by using a hydrometer and not your yeast. Use of Campden tablets is not bad if used properly. Follow normal wine-making procedures when sweetening mead. Keep your wines between 10 and 13% alcohol to start with, which is a specific gravity of 1.076 to 1.100. Just for the record, your suggestion of fixing her problem I do not find fault with.

James R. Jones  
Newburgh, IN

ILLUSTRATION BY JOHN MARTIN

Dear James,

*A tip of the hat and thank you for added insight for sweetening mead. Personally, I kind of stay away from those preserving additives you mention, but I recognize that it exists in a lot of other foods we eat. Just a personal choice. And don't bash high alcohol meads. I got a humdinger at 14.5% alcohol and it is balanced to my complete satisfaction.*

Keep on meading

The Professor, Hb.D.

### Having the Right Atmospheres

Dear Professor,

I am responding to Roger Beardsley's letter in the May/June 99 issue of *Zymurgy* (Vol. 22, No. 3), which addressed mixing CO<sub>2</sub> and nitrogen to push beer. I agree with Roger, but there is a slight error in his calculation. Using a 75% CO<sub>2</sub>/25% N<sub>2</sub> mixture

at 16 psi will not result in 12 psi (.75 x 16 psi) of CO<sub>2</sub> being applied to the beer. At sea level a gauge that indicates 12 psi (12 psig) means that the actual pressure (psia) is 12 psi plus 14.7 (the air pressure at sea level) or a total of 26.7 psia. This 26.7 pounds of actual CO<sub>2</sub> pressure (at beer cooler temperatures) is how most American beers are designed to be pressurized. If the pressure gauge is set to 16 psi, then the actual pressure will be 16 + 14.7 = 30.7 psi and if 75% of this mixture is CO<sub>2</sub> then the actual pressure of CO<sub>2</sub> will be .75x30.7=23 psia. This carbonation would be equivalent to 100% of CO<sub>2</sub> at a gauge reading of 23-14.7=8.3 psi. To get "12 psi" of CO<sub>2</sub> (26.7 psia) on a beer with a CO<sub>2</sub>/N<sub>2</sub> mixture that has a gauge which reads 16 psi then the % of CO<sub>2</sub> would have to be 26.7/(16 + 14.7) or 86.9%.

Bill Cunningham  
Chippewa Falls, WI

Dear Bill,

*Wow. That there are a lot of numbers! I'll give you space and let your arithmetic stand hoping Roger is still an AHA member and reads this column. I appreciate your writing me and hope that many more great homebrews come your way.*

Mathematically impressed,  
The Professor, Hb.D.

### Wide Awake and Thirsty

Dear Professor Surfeit,

I have a question. I love coffee nearly as much as I love beer. I have seen beer recipes that call for coffee and have tasted Redhook's Double Black Stout, which I love. Someplace, I can't remember where, I read that coffee contains some type of "head" diminishing oils. I have read through several books and a couple years





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of **Zymurgy** issues. I cannot find where I read this, or anything about how exactly I can use coffee in a brew.

I like to grind my own coffee—should I put freshly ground coffee beans into my brew? Should I brew the coffee and then add it? I plan on adding my coffee to either the brewpot or secondary. My brother has used a coffee extract with success, but I prefer to use the real thing if at all possible. What to do?

Please spill the beans,

Jeff Petruso

Meadville, PA

Hi Jeff,

I always thought that a homebrewed coffee brew would be unsurpassed. I love the taste of coffee myself. I take my once-a-week

espresso straight up and savor every moment of the rich aroma, flavor and bitterness. So I'm with you. Yes, you're right, coffee has a lot of oil in it, but if it does destroy foam I wouldn't worry too much. If you rack your fermentation a few times the oil will be floating on the surface and it will unlikely be transferred to the next container. As far as maxing the quality, I'd toy around with adding fresh ground coffee to the primary or secondary fermentation. Or you could steep it in the final minutes of hot wort. Never boil the coffee if you want to preserve all those great aromatics.

Make mine straight up and chilled,  
The Professor, Hb.D.

P.S. If you do a coffee porter or stout, try a scoop of vanilla ice cream in your glass. It will be amazing!

## Making Sense of BU and HBU

Dear Professor Surfeit,

The latest issue of **Zymurgy** (Vol. 22, No.1; Jan./Feb. 1999) describes a recipe for Dos Equis Special Lager. Page 61 provides the ingredients for a malt extract. I am planning on using a liquid malt extract and have been able to determine how much I need. My problem is that I am unable from the info supplied to determine how much of each type of hop to use. The only info provided in the article is for 2 HBU for each type and duration of boil. The other piece of info supplied is Bittering Units = 60. I have checked all my reference books and am stymied how to assess quantity of hops to use. I have info on specific alpha content for each type of hop. Can you please direct me to an appropriate procedure to determine amounts needed. Your prompt reply is appreciated as I am all set to try this most interesting sounding recipe.

Murray Haight  
Ontario, Canada

Dear Murray,

Boy, am I glad you wrote your letter. I've checked with the author of *Homebrewers Gold*, the book from which the recipe you refer to was excerpted. It seems that he is embarrassed to realize that there is a typographical error in the book that got relayed to our beloved **Zymurgy**. Gold-medal-winning Dos Equis Special Lager does not have 60 BUs (bittering units). In fact it ranges in the 18 to 20 BU area. So that said, let's address your question.

You ask about HBUs and how to convert these units to hop weights. Take a look at Charlie Papazian's World of Worts column in this and every issue of **Zymurgy** (page 49, this issue). There you will find simple arithmetic to figure out how many grams or ounces of any hop variety you wish to use.

With regard to the BU or Bittering Unit reference. This is an international standard way of measuring the weight per volume of hop bittering compounds in beer. The definition of Bitter Units according to Charlie Papazian's *The Home Brewers Companion* (Avon, 1994) is:

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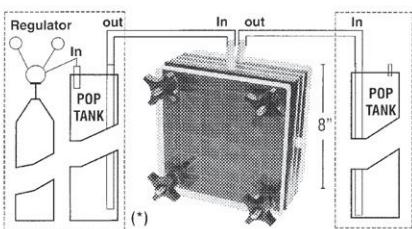
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## Bitterness (International Bitter Units [IBUs] or Bitter Units [BUs])

Measured as an amount of iso-alpha acid in solution. One IBU equals 0.000133 of an ounce (weight) of iso-alpha acid per U.S. gallon of solution or about one milligram per liter. Note: Its measurement is a helpful indication of bitterness but there are other important factors that can contribute to the perception of bitterness that are not measured by IBUs.

*I suppose it's always helpful to review the nitty gritty about hops and bitterness. Here's a good relatively brief overview again excerpted from my colleague Papazian's book The Home Brewers Companion.*

## I.B.U., B.U., A.A.U, H.B.U.

### What's going on here?

There are several ways to express bitterness and bitterness potential. International Bitterness Units (IBUs) refer to the same scale as Bitterness Units (BUs). One BU is equal to one milligram of isomerized alpha acid in one liter of wort or beer. This is a system of measuring bitterness devised by brewing scientists and is an accepted standard throughout the world.

Homebrew Bitterness Units (HBUs) are the same as Alpha Acid Units (AAUs), the system first devised by the late British homebrew author and pioneer, Dave Line. One HBU is equal to a 1% alpha acid rating of one ounce (28.4 gm) of hops. HBUs are calculated by multiplying the percent of alpha acid in the hop by the number of ounces of hops. Ten HBUs could be equal to two ounces (57 gm) of a 5% alpha acid rated hop or one ounce (28.4 gm) of a 10% alpha acid rated hop. Contrary to what BUs represent, HBUs or AAUs are not a measure of bitterness in beer. They are simply an indication of the amount of alpha acid called for in a recipe, which is a first step in figuring how much bitterness could end up in your beer.

Infrequently you may come across a professional recipe that specifies the amounts of bittering hops in terms of milligrams alpha acids/liter. This is not an indication of how bitter the beer is or of its BUs. It is used to devise a recipe for any given volume of beer. If the bittering hop amount is given in terms of mg/l alpha acid,

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first you must determine how many liters you are going to brew and multiply that amount times mg/l to determine how many total milligrams of alpha acid will be needed for the recipe. Alpha acid rating of hops is expressed as a percentage of the total weight of the hop. For example, if you have one ounce (28.4 gm) of 5% alpha acid hop, then you have .05 ounce of alpha acid. Multiply .05 times 28.35 to convert to 1.418 grams or 1,418 mg. Working the other way you can determine that if you need 200 mg/l alpha acids and you wish to make a 19 liter (5 gal) batch, then:

$$19 \text{ liters} \times 200 \text{ mg/l} = 3800 \text{ mg of alpha acids} \\ = 3.8 \text{ grams}$$

If a 5% alpha acid hop were used then:

$$3.8 \text{ grams} \div .05 = 76 \text{ grams (2.68 oz.) of hops}$$

*Well Murray, perhaps this is a little more than you bargained for, but put it all into perspective with a homebrew in hand and you should be forging ahead with glee and passion.*

*"Mmmmmmm. Beer." (Homer Simpson, 1999)*

*Me too,  
The Professor, Hb. D.*

### Using Gas Safely

Dear Professor Surfeit,

I still have some confusion about a long-standing and oft-visited issue of homebrewing. Previous explanations that I have heard were oversimplified and/or not backed up by any real evidence, data or accepted principles of science.

The question is this:

Why is it that I can run a gas stove indoors (even all four burners *and* the oven simultaneously), a bunsen burner indoors and a furnace and water heater indoors, but yet everyone talks about how dangerous it is to run your King Kooker™ indoors? What's the difference? All burn gas; some burn very large quantities.

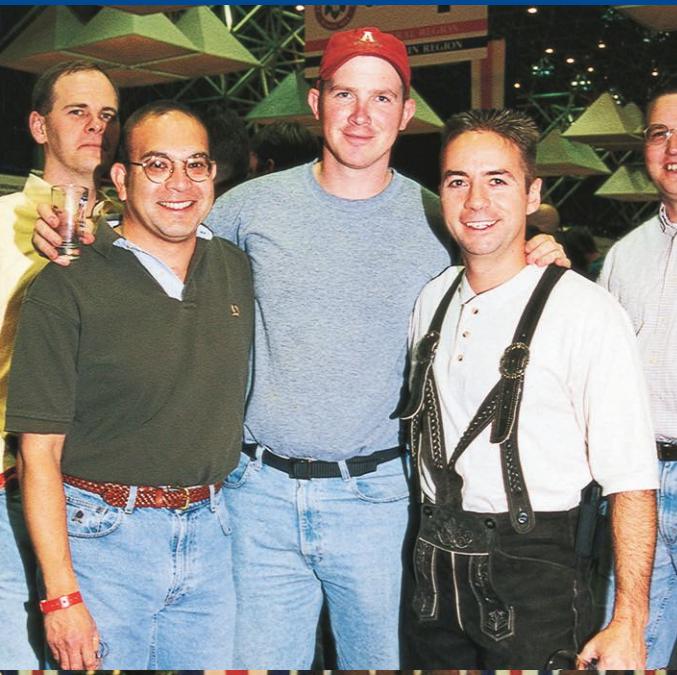
Let's ignore the issue of storing propane indoors, which is obviously not a good idea, and focus on the issues of combustion products and available oxygen. Can you shed any light on this? The more technical your answer, the happier I'll be.

Thanks.

Francisco Jones  
Bellevue, NE

Dear Francisco,

*I don't mean to disappoint, but I don't think my answer is going to be too technical. I think your point is worth considering, but I think the fact of the (continued on page 58)*





# GABF Reigns Supreme!

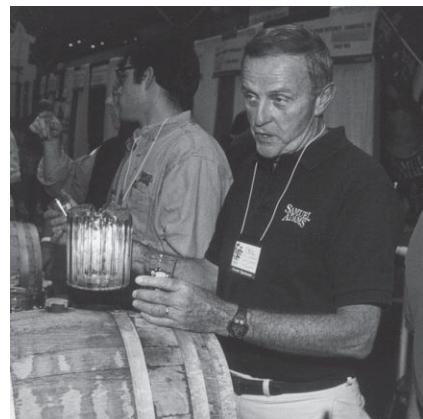
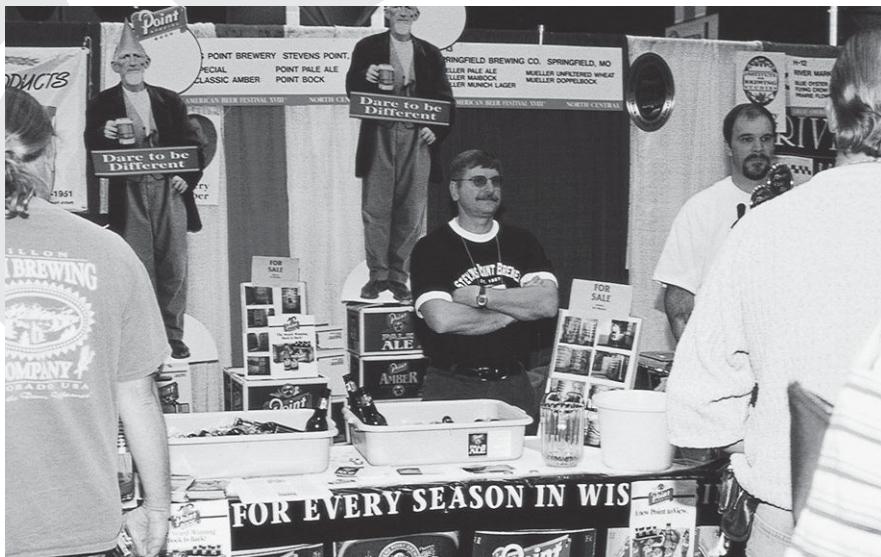


The 1999 Great American Beer Festival®, held once again in Denver, CO, was another grand opportunity for lovers of beer, be they brewers or enthusiasts, to all converge under one roof for a serious dose of beer appreciation. Attendance was up this year, with 12,500 people on Saturday alone, making it the biggest night in the history of the festival, and 38,500 people attended the entire three-day event in the stadium-sized Currikan Hall. Assuming the average attendee drank 12 one-ounce pours per hour, roughly 137,000 gallons of beer were consumed! More than two thousand volunteers were there to help pour, and 125,000 pounds of ice was used to chill the beer down.

Over 400 breweries came to show off their best brews (1,700 beers were on tap) and to compete in one of the largest beer contests in the nation, boasting three possible awards in 54 categories. That's also up from last year—a few new style categories made it onto the list, such as category 37: Irish-Style Red Ale.

The organizers also added a list of new special awards to recognize the top five outstanding breweries that have won the most medals. Obviously, it wouldn't be quite fair to pit a small ten-barrel brewpub like the Elk Grove Brewing Company of California directly against an industry giant like Stroh's, so categories were made for small, mid-sized and large brewing company of the year, as well as large and small brewpub of the year. Breweries and brewpubs of approximately equal size only competed against themselves, with each category determined by annual output. Small breweries made up to 15,000 Bbls per year, mid-size from 15,000 to two million, and large two million and up. That isn't to say smaller breweries and brewpubs aren't putting out high-quality beer this year—on the contrary.

By Amahl Turczyn



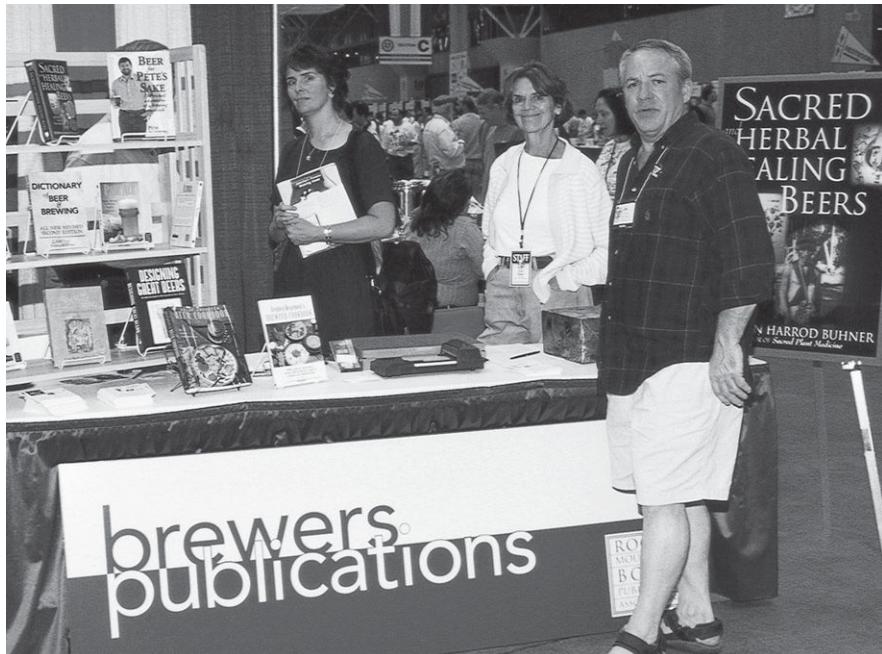
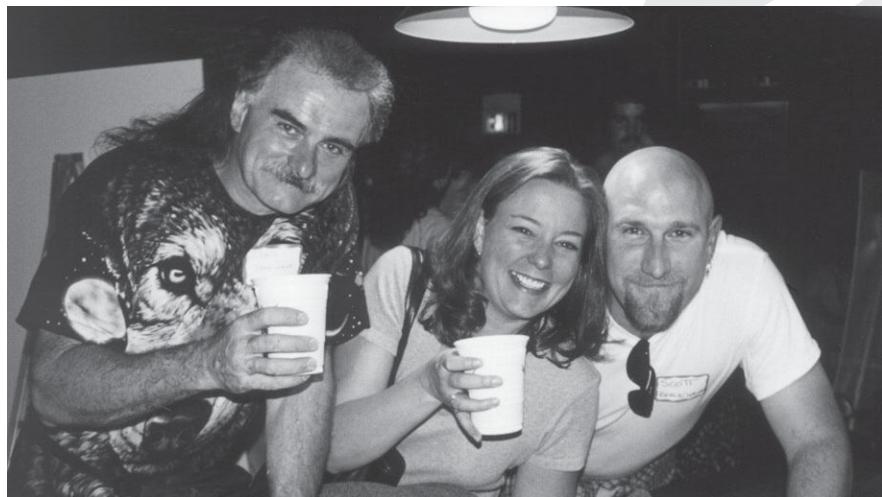
**The Stevens Point Brewery booth; (counterclockwise) the AHA's Paul Gatz at the judging; Dick Cantwell of Elysian Brewing Company and Public House in Seattle (Large Brewpub and Large Brewpub Brewmaster of the Year); Vinnie Cilurzo of Russian River Brewing Company in Guerneville, CA (Small Brewing Company and Small Brewing Company Brewmaster of the Year); and the Boston Beer Company booth.**

While Stroh's and its owned companies claimed nearly all awards for American lager beers (not bad for a brewery that's out of business), small breweries like the Russian River Brewing Company of Guerneville, CA, took medals for very different styles. That a small operation is capable of putting out excellent-quality beer in a wide range of styles should come to no surprise to homebrewers, but this year there seemed to be more small breweries winning awards than ever in states that aren't widely recognized as brewing states. Wyoming's Snake River brewery has won a medal

every year since 1994, for instance, and Nevada and North Carolina also made strong showings this year. In fact, a number of up-and-coming breweries from the east coast now have their 1999 GABF medals to prove it. Beside North Carolina's Cottonwood, breweries like Back Bay of Boston, New South Brewing of South Carolina and Iron Hill of Delaware all came home with a medal or two, and many of them were of the gold variety. Cottonwood, for its part, is planning to open a third brewery.

Russian River's Vinnie Cilurzo, this year's Small Brewery Brewmaster of the

Year, said Russian River was not only small, but young—only two and a half years old. Formerly the brewer for Blind Pig Brewing Company, Cilurzo started out as a homebrewer using his old recipes to brew award-winning ales professionally. He seemed elated about the gold medals he took this year for his ESB and Belgian Strong Golden ale, as well as the new special awards—then again he has won medals at the festival for the last three years. When asked what beer he found the most interesting there, Cilurzo was quick to mention New Belgium Brewing Company's "1554 Brussels Black" beer.



**The Centennial State Pipes and Drum cranks it up; happy people (right, clockwise); Diana Shellenberger, Toni Knapp and Jim Dorsch at the Brewers Publications booth and the ubiquitous Fred Eckhardt with Lisa Variano.**

His favorite at Russian River, a hoppy pale he calls "Harvest Ale", did not take a medal, but the way things are going it has a good chance next year.

The Small Brewpub of the Year award went to California's Elk Grove Brewing Company. Brewer Bill Wood has taken five medals at the festival in the last three years; this year both his Dusseldorf Altbier, "Otis Alt," and his American-Style "Diamondback Wheat" won gold. His "Rainbarrel Stout" has won in previous years, and his beer of choice from the ones he makes. His favorite at the festival was the gold medal-winning

Waterloo Brewing Company's "Waterloo Grand Cru." Dick Cantwell, brewmaster of Elysian Brewing Company of Seattle, WA, not only won two gold medals and took the Large Brewpub of the Year award, he was also a judge at the festival. His "Perseus Porter" won for the Robust Porter category, and his "Dragontooth Stout" won for the Other Strong Ales or Lagers category. His favorite at the festival was a Belgian-style geuze—seems as though Belgian ales are the beers of choice for brew masters!

As usual, Charlie Papazian was on hand at the awards ceremony to congratulate the

brewers who won, but this year he also spent a lot of time at the AHA booth. For beer enthusiasts who stopped by to sign up for a membership, the AHA held an "I drank with Charlie" session. The new members received a special tasting glass, and were able to share a glass of Charlie's own homebrew. Not surprisingly, new membership recruits at the festival doubled this year—though there is some speculation that in reality it was Charlie's wife Sandra who really stole the show. Unfortunately, second-time Homebrewer of the Year and all-around great guy (continued on page 60)



# 1999 Great American Beer Festival XVIII Medal Winners

October 7-9, 1999, Denver, Colorado

## NON-ALCOHOLIC (BEER) MALT BEVERAGES GOLD:

Old Milwaukee NA, The Stroh Brewery Company - Fogelsville, PA  
**SILVER:** No Medal Awarded  
**BRONZE:** O'Doul's, Anheuser-Busch, Inc. - St. Louis, MI

## AMERICAN LAGER/ALE OR CREAM ALE

**GOLD:** Liebtschancer Cream Ale, The Lion Brewery, Inc. - Wilkes-Barre, PA  
**SILVER:** Brew 22, Mill Creek Brewpub - Walla Walla, WA  
**BRONZE:** Gotham City Gold, Commonwealth Brewing Company NY - New York, NY

## AMERICAN-STYLE WHEAT ALE OR LAGER

**GOLD:** Diamondback Wheat, Elk Grove Brewing Company - Elk Grove, CA  
**SILVER:** Shiner Honey Wheat, Spoetzl Brewery - Shiner, TX  
**BRONZE:** Stoddard's American Wheat, Stoddard's Brewhouse and Eatery - Sunnyvale, CA

## FRUIT BEERS (OTHER THAN RASPBERRY)

**GOLD:** No Medal Awarded  
**SILVER:** Oasis Blueberry Ale, Oasis Brewery - Boulder, CO  
**BRONZE:** Black Cherry Stout, Main Street Station - Las Vegas, NV

## RASPBERRY BEERS

**GOLD:** Widmer Widberry, Widmer Brothers Brewing Company - Portland, OR  
**SILVER:** Railway Razz, Willoughby Brewing Company - Willoughby, OH  
**BRONZE:** Blackberry Beauty, Bill's Tavern and Brewhouse - Cannon Beach, OR

## CHOCOLATE/COCOA FLAVORED BEERS

**GOLD:** No Medal Awarded  
**SILVER:** No Medal Awarded  
**BRONZE:** Chocolate Thunder Porter, Watch City Brewing Company - Waltham, MA

## HERB AND SPICE BEERS

**GOLD:** Cerveza Chilibeso, Great Basin Brewing Company - Sparks, NV  
**SILVER:** Special B, Brew Moon Enterprises Inc. - Boston, MA  
**BRONZE:** Great Pumpkin Spiced Ale, Cottonwood Brewery - Boone, NC

## SPECIALTY BEERS

**GOLD:** Island City Wild Rice Lager, Minocqua Brewing Company - Minocqua, WI  
**SILVER:** Erie Nights Pumpkin Brew, Crooked River Brewing Company - Cleveland, OH  
**BRONZE:** Captain Smith's Rye, Titanic Brewing Company - Coral Gables, FL

## SPECIALTY HONEY LAGERS OR ALES

**GOLD:** Nayati's Honey Ale, Wolf Canyon Brewing Company - Santa Fe, NM  
**SILVER:** Gandy Dancer Honey Ale, Flossmoor Station Brewing Company - Flossmoor, IL  
**BRONZE:** Garden Party Elixir, Bill's Tavern and Brewhouse - Cannon Beach, OR

## EXPERIMENTAL BEER (LAGER OR ALE)

**GOLD:** Hempen-Rogen, Diamondback Brewery - Cleveland, OH  
**SILVER:** Old Conundrum Barley Wine, Flossmoor Station Brewing Company - Flossmoor, IL  
**BRONZE:** Burgehead Pict Heather Ale, Alameda Brewing Company - Portland, OR

## SMOKE-FLAVORED BEERS

**GOLD:** DeGroen's Rauchbock, Baltimore Brewing Company - Baltimore, MD  
**SILVER:** Georgia Smoke, John Harvard's Brew House, Wayne - Wayne, PA  
**BRONZE:** Watson's Smoked Porter, Watson Brothers Brewhouse - Cincinnati, OH

## GERMAN-STYLE PILSENER

**GOLD:** Smooth Talker Pilsner, Local Color Brewing Company - Novi, MI  
**SILVER:** Stoudt's Pilsner, Stoudt Brewing Company, Adamstown - Adamstown, PA  
**BRONZE:** Hometown Blonde, New Glarus Brewing Company - New Glarus, WI

## BOHEMIAN-STYLE PILSENER

**GOLD:** Royal Bohemian Pilsner Hoppers Brooker Creek Grille and Tap Room - Palm Harbor, FL  
**SILVER:** Samuel Adams Boston Lager, Boston Beer Company - Boston, MA  
**BRONZE:** Pillage Pilsner, Valhalla Microbrewery and Restaurant - Pittsburgh, PA

## MUNCHNER-STYLE HELLES

**GOLD:** Velas Helles, Calhoun's Tennessee Microbrewery - Knoxville, TN  
**SILVER:** Lucknow Munich-style Lager, Castle Springs Brewing Company - Moultonborough, NH  
**BRONZE:** Penn Gold, Pennsylvania Brewing Company - Pittsburgh, PA

## EUROPEAN-STYLE PILSENER

**GOLD:** Pilsner 500, Prescott Brewing Company - Prescott, AZ  
**SILVER:** Das Dort, Bob's House of Brews - Grand Rapids, MI  
**BRONZE:** Ybor Gold, Ybor City Brewing Company - Tampa, FL

## AMERICAN-STYLE LIGHT LAGER

**GOLD:** Old Milwaukee Light, The Stroh Brewery Company - Fogelsville, PA  
**SILVER:** Schlitz Light, Jos. Schlitz Brewing Company - Fogelsville, PA  
**BRONZE:** Schmidt's Light, G. Heileman Brewing Company - Fogelsville, PA

## AMERICAN-STYLE LAGER

**GOLD:** Old Milwaukee, The Stroh Brewery Company - Fogelsville, PA  
**SILVER:** Schmidt's, G. Heileman Brewing Company - Fogelsville, PA  
**BRONZE:** Miller High Life, Miller Brewing Company - Milwaukee, WI

## AMERICAN-STYLE PREMIUM LAGER

**GOLD:** Miller Genuine Draft, Miller Brewing Company - Milwaukee, WI  
**SILVER:** Dundee's Classic Lager, High Falls Brewing Company - Rochester, NY  
**BRONZE:** Henry Weinhard's Private Reserve, Blitz-Weinhard Brewing Company, Tumwater, WA

## AMERICAN-STYLE SPECIALTY LAGER

**GOLD:** Brewery Hill Pocono Pilsner, The Lion Brewery, Inc. - Wilkes-Barre, PA  
**SILVER:** Mickey's Ice, Mickey's Brewing Company - Milwaukee, WI  
**BRONZE:** St. Ides Malt Liquor, St. Ides Brewing Company - Fogelsville, PA

## VIENNA-STYLE LAGER

**GOLD:** Iron Range Amber Lager, James Page Brewing Company - Minneapolis, MN  
**SILVER:** Snake River Lager, Snake River Brewing Company - Jackson, WY  
**BRONZE:** Vienna, Iron Hill Restaurant and Brewery - West Chester, PA

## AMERICAN-STYLE AMBER LAGER

**GOLD:** New South Oktoberfest, New South Brewing - Myrtle Beach, SC  
**SILVER:** Auburn, Mad Anthony Brewing Company - Ft. Wayne, IN  
**BRONZE:** Oktoberfest, T-Bonz Homegrown Ales - Myrtle Beach, SC

## GERMAN-STYLE MARZEN/OKTOBERFEST

**GOLD:** Black Forest Oktoberfest, Black Forest Brew Haus LLC. - Farmingdale, NY  
**SILVER:** Atwater Blocktoberfest, Atwater Block Brewery - Detroit, MI  
**BRONZE:** Tabernash Oktoberfest, Tabernash Brewing Company - Longmont, CO

## EUROPEAN-STYLE DARK/MUNCHNER DUNKEL

**GOLD:** Atwater Dunkel, Atwater Block Brewery - Detroit, MI  
**SILVER:** Black Forest Dark, HofbrauHaus Brewery and Biergarten at Station Casino - Kansas City, MO  
**BRONZE:** Penn Dark, Pennsylvania Brewing Company - Pittsburgh, PA

## AMERICAN DARK LAGER

**GOLD:** No Medal Awarded  
**SILVER:** Boiler Room Dark Lager, Colorado Belle - Laughlin, NV  
**BRONZE:** Black Star Black Lager, Great Northern Brewing Company - Whitefish, MT

## GERMAN-STYLE SCHWARzbIER

**GOLD:** Black Hole Lager, Brew Moon South Shore Mall Ventures - Braintree, MA  
**SILVER:** Kings Peak, Uinta Brewing Company - Salt Lake City, UT  
**BRONZE:** Schwarzbier, Three Needs - Burlington, VT

## BOCK

**GOLD:** Maibock, Iron Hill Brewery and Restaurant, Newark - Newark, DE  
**SILVER:** Mad Brewer Maibock, Church Brew Works - Pittsburgh, PA  
**BRONZE:** Native Dark, Native Brewing Company - Alexandria, VA

## GERMAN-STYLE DOPPLEBOCK

**GOLD:** Hogback Doppelbock, Mountain Sun Pub and Brewery - Boulder, CO  
**SILVER:** No Medal Awarded  
**BRONZE:** Doppelbock, H.C. Berger Brewing Company - Fort Collins, CO

## GOLDEN ALE/CANADIAN-STYLE ALE

**GOLD:** Blonde Ale, Goose Island Brewing Company - Chicago, IL  
**SILVER:** Golden Wheat Ale, Russian River Brewing Company Dry Creek Valley - Guerneville, CA  
**BRONZE:** Blonde Ale, Powerhouse Brewing Company - Sebastopol, CA

### **GERMAN-STYLE KOLSCH/KOLN-STYLE KOLSCH**

- GOLD:** Skinny Atlas Light, Empire Brewery of Rochester - Rochester, NY  
**SILVER:** Osage Golden Wheat, Two Rows Restaurant and Brewery - Dallas, TX  
**BRONZE:** Red Lodge Reserve, Red Lodge Ales / H & H Brewing Company - Red Lodge, MT

### **CLASSIC ENGLISH-STYLE PALE ALE**

- GOLD:** Denver Pale Ale, Great Divide Brewing Company - Denver, CO  
**SILVER:** Flying Dog Doggie Style, Broadway Brewing - Denver, CO  
**BRONZE:** London Bridge Pale Ale, Arizona Roadhouse and Brewery - Tempe, AZ

### **INDIA PALE ALE**

- GOLD:** Racer 5 IPA, Bear Republic Brewing Company - Healdsburg, CA  
**SILVER:** Marin IPA, Marin Brewing Company - Larkspur, CA  
**BRONZE:** Lucknow India Pale Ale, Castle Springs Brewing Company - Moultonborough, NH

### **AMERICAN-STYLE PALE ALE**

- GOLD:** Igniter Pale Ale, Pumphouse Brewery - Longmont, CO  
**SILVER:** BridgePort India Pale Ale, BridgePort Brewing Company - Portland, OR  
**BRONZE:** Sharptail Pale Ale, Montana Brewing Company - Billings, MT

### **AMERICAN-STYLE AMBER/RED ALE**

- GOLD:** Red Nectar, Humboldt Brewing Company - Arcata, CA  
**SILVER:** Capstone ESB, Oasis Brewery Annex - Boulder, CO  
**BRONZE:** Believer's Bitter, Angelic Brewing Company - Madison, WI

### **ENGLISH-STYLE BITTER**

- GOLD:** No Medal Awarded  
**SILVER:** Dergy's Amber, Wilmington Brewing Company - Wilmington, NC  
**BRONZE:** Red Butte Bitter, Desert Edge Brewery - Salt Lake City, UT

### **ENGLISH-STYLE (EXTRA SPECIAL) STRONG BITTER**

- GOLD:** Extra Special Bitter, Russian River Brewing Company - Guerneville, CA  
**SILVER:** Settlers Ale, Crooked River Brewing Company - Cleveland, OH  
**BRONZE:** Saint Arnold Amber Ale, Saint Arnold Brewing Company - Houston, TX

### **SCOTTISH-STYLE ALE**

- GOLD:** No Medal Awarded  
**SILVER:** Tilted Kilt, Pyramid Breweries - Seattle, WA  
**BRONZE:** Kilt Lifter Scottish Amber, Four Peaks Brewing Company - Tempe, AZ

### **IRISH-STYLE RED ALE**

- GOLD:** Scarab Red, Oasis Brewery Annex - Boulder, CO  
**SILVER:** Fatty Rice Irish Ale, Il Vicino Brewing Company, Colorado Springs - Colorado Springs, CO  
**BRONZE:** Badger Red Ale, J.T. Whitney's Pub and Brewery - Madison, WI

### **ENGLISH-STYLE BROWN ALE**

- GOLD:** Offshore Nut Brown, Offshore Ale Company - Oak Bluffs, MA  
**SILVER:** Nut Brown Ale, Park Slope Brewing Company, Brooklyn, NY  
**BRONZE:** Old Elk Brown, Walnut Brewery - Louisville, CO

### **AMERICAN-STYLE BROWN ALE**

- GOLD:** Doryman's Dark Ale, Pelican Pub and Brewery - Pacific City, OR  
**SILVER:** Emerald Irish Ale, Steelhead Brewing Company, Burlingame - Burlingame, CA  
**BRONZE:** Burly Brown Ale, James Page Brewing Company - Minneapolis, MN

### **GERMAN-STYLE BROWN ALE/DUSSELDORF-STYLE**

- ALTBIER**  
**GOLD:** Otis Alt, Elk Grove Brewing Company - Elk Grove, CA  
**SILVER:** Spalty Alt, Red Rock Brewing Company - Salt Lake City, UT  
**BRONZE:** Old 8444, Union Colony Brewery - Greeley, CO

### **GERMAN-STYLE WHEAT ALE**

- GOLD:** Hoffbrau Hefeweizen, Arizona Roadhouse and Brewery - Tempe, AZ  
**SILVER:** Double Play Dunkel Weizen, Leinenkugel's Ballyard Brewery - Phoenix, AZ  
**BRONZE:** Wild Pitch Hefeweizen, Sandlot Brewery at Coors Field - Denver, CO

### **BELGIAN-STYLE ALES**

- GOLD:** Damnation Belgian-Style Ale, Russian River Brewing Company - Guerneville, CA  
**SILVER:** Trident Tripel, Angelic Brewing Company - Madison, WI  
**BRONZE:** Saison, Brasserie Monx Ltd. - Seattle, WA

### **BELGIAN AND FRENCH-STYLE**

#### **SPECIALTY ALES**

- GOLD:** Waterloo Grand Cru, Waterloo Brewing Company - Austin, TX  
**SILVER:** Western Reserve Cloud Nine, Western Reserve Brewing - Cleveland, OH  
**BRONZE:** La Conner Red, La Conner Brewing Company - La Conner, WA

### **ROBUST PORTER**

- GOLD:** Perseus Porter, Elysian Brewing Company and Public House - Seattle, WA  
**SILVER:** Muddy River Porter, Boston Beer Works - Boston, MA  
**BRONZE:** Lazy Jake Porter, Long Valley Pub and Brewery - Long Valley, NJ

### **BROWN PORTER**

- GOLD:** Puget Sound Porter, Harmon Pub and Brewery - Tacoma, WA  
**SILVER:** Trout Creek Porter, Trout Creek Brewing Company - Boulder, CO  
**BRONZE:** St. Charles Porter, Blackstone Restaurant and Brewery - Nashville, TN

### **CLASSIC IRISH-STYLE DRY STOUT**

- GOLD:** Dark Starr, Starr Hill - Charlottesville, VA  
**SILVER:** Iron House Stout, Red Star Brewery and Grille - Greensburg, PA  
**BRONZE:** Reverend Sandi's Sinful Stout, Oskar Blues - Lyons, CO

### **FOREIGN-STYLE STOUT**

- GOLD:** Zonker Stout, Snake River Brewing Company - Jackson, WY  
**SILVER:** Obsidian Stout, Deschutes Brewery, Inc. #2 - Bend, OR  
**BRONZE:** West Brothers Stout, West Brothers Brewery - Eugene, OR

### **SWEET STOUT**

- GOLD:** No Medal Awarded  
**SILVER:** Kickstart Stout, Barley Brothers Brewery and Grill - Lake Havasu City, AZ  
**BRONZE:** A Beer Named Bob, Bitter Creek Brewing - Rock Springs, WY

### **OATMEAL STOUT**

- GOLD:** Blast Furnace Stout, Church Brew Works - Pittsburgh, PA  
**SILVER:** Farmer Jon's Oatmeal Stout, Heartland Brewery - New York, NY  
**BRONZE:** Ohio City Oatmeal Stout, Great Lakes Brewing Company - Cleveland, OH

### **ENGLISH OLD ALE/ENGLISH STRONG ALE**

- GOLD:** Anniversary Ale, Steelhead Brewing Company, Eugene - Eugene, OR  
**SILVER:** Cabin Fever Winter Ale, Boundary Bay Brewing Company - Bellingham, WA  
**BRONZE:** Special Old Ale, Commonwealth Brewing Company - Boston, MA

### **STRONG SCOTCH ALE**

- GOLD:** MacSpuotin Scotch, Back Bay Brewing Company - Boston, MA  
**SILVER:** Winterfest Ale, Rocky River Brewing Company - Sevierville, TN  
**BRONZE:** Prescott's Wee Heavy, Bitter End Bistro and Brewery - Austin, TX

### **IMPERIAL STOUT**

- GOLD:** Old Rasputin, North Coast Brewing Company - Fort Bragg, CA  
**SILVER:** John Wayne Imperial Stout, Newport Beach Brewing Company - Newport Beach, CA  
**BRONZE:** Fat Cat, Liberty Street Brewing Company - Akron, OH

### **OTHER STRONG ALES OR LAGERS**

- GOLD:** Dragontooth Stout, Elysian Brewing Company and Public House - Seattle, WA  
**SILVER:** Ricardo's Red Rocket, Bear Republic Brewing Company - Healdsburg, CA  
**BRONZE:** Bell's Expedition Stout, Kalamazoo Brewing Company , Inc. - Kalamazoo, MI

### **BARLEY WINE-STYLE ALE**

- GOLD:** Old Gander Barley Wine Ale, Snow Goose Restaurant and Sleeping Lady Brewing Company - Anchorage, AK  
**SILVER:** Full Sail Boardhead Barleywine Ale, Full Sail Riverplace - Portland, OR  
**BRONZE:** Old Scratch's Wicked Stepmother, Great Dane Pub and Brewing CO. - Madison, WI

### **SMALL BREWING COMPANY OF THE YEAR:**

- Russian River Brewing Company, Guerneville, CA

### **SMALL BREWING COMPANY BREWMASTER OF THE YEAR:**

- Vinnie Cilurzo

### **MID-SIZE BREWING COMPANY OF THE YEAR:**

- The Lion Brewery, Inc. , Wilkes-Barre, PA

### **MID-SIZE BREWING COMPANY BREWMASTER OF THE YEAR:**

- Leo Orlandini

### **LARGE BREWING COMPANY OF THE YEAR:**

- The Stroh Brewery Company, Fogelsville, PA

### **LARGE BREWING COMPANY BREWMASTER OF THE YEAR:**

- Dan Malideo

### **SMALL BREWPUB OF THE YEAR:**

- Elk Grove Brewing Company, Elk Grove, CA

### **SMALL BREWPUB BREWMASTER OF THE YEAR:**

- Bill Wood

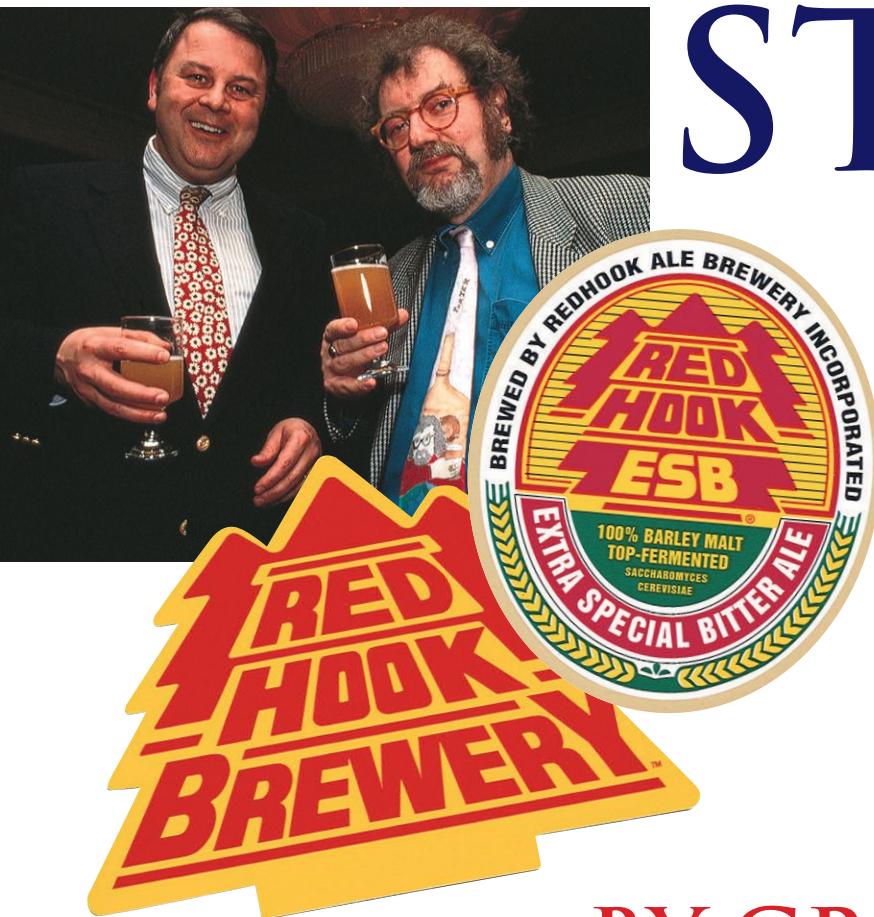
### **LARGE BREWPUB OF THE YEAR:**

- Elysian Brewing Company and Public House, Seattle, WA

### **LARGE BREWPUB BREWMASTER OF THE YEAR:**

- Dick Cantwell

# SEATTLE SUCCESS STORY



Welcome to one of the great success stories from Seattle, where a coffee guy turns a wine guy into the ultimate beer guy.

BY GREG KITSOCK

**I** am truly not qualified to do anything else," modestly admits Paul Shipman, CEO of the Seattle-based Redhook Ale Brewery. He says he's never homebrewed, either before or after he founded Redhook. "I don't have the durability or the attention necessary to make a successful brewer. And if I were ever to have one rule at Redhook, it would be, don't let me on a forklift!"

In fact, he credits partner Gordon Bowker, of Starbuck's Coffee fame, with hatching the idea for the brewery. "I wanted to do a champagne winery. I showed Bowker the plans, and he said, 'There's only one thing I'd change. Instead of champagne, do beer.'"

Nevertheless, it was Shipman's business acumen and prescience that allowed Redhook to blossom into the sixth largest craft brewer in the nation, and one of a handful with national distribution. Redhook was the first of the microbreweries to raise big bucks through an initial public offering. Redhook was the first to forge an alliance with a large brewer, gaining access to a first-rate distribution system. As a result, Redhook is sitting pretty at a time when the industry is undergoing a period of retrenchment.

## FROM WINE TO BEER

The 46-year-old Shipman comes from a Philadelphia family that placed a premium on competitiveness and achievement. "As a lad I had a train set, and so did my older brother," recalls Shipman. "I always thought his was a little better than mine." Even as a grade schooler, he was following stock prices in the *Philadelphia Inquirer*, writes Peter Krebs in his book *Redhook: Beer Pioneer*, and investing the money from his paper route in shares of Sperry Rand.

Shipman developed an appreciation for fine wine in Paris, where he spent his junior year of college. He worked for Chateau Ste. Michelle winery in Woodinville, WA until 1980, when a perceived lack of opportunities for advancement led him to set out on his own. (Ironically, Stimson Lane, the parent company of Chateau Ste. Michelle, would later expand into the craft beer business by acquiring Redhook rival Yakima Brewing Company.)

Observers of the craft beer industry have tended to group the major players into two



**The brewing tanks at Redhook, which are busy all the time.**



**When it stops raining, the Northwest is a great place to have a Redhook.**



camps: the “suits” and the “ponytails.” Shipman, with his MBA from the University of Virginia and his driving ambition, was one of the suits. Ad man and entrepreneur Gordon Bowker, on the other hand, was a ponytail: a free spirit who (according to Krebs) liked to loaf because ideas popped into his head when he was bored. As a political science major at the University of San Francisco, he spent more time editing the campus newspaper than attending class and dropped out eight credits short of graduation. In the early 1960s, while tramping across Europe, he acquired a taste for English bitter and Italian coffee. Bowker couldn’t get these beverages back in the states so he founded Starbucks and put the bug in Shipman’s ear about starting a brewery. Shipman calls him a “profession-

al namer,” and gives him credit for coming up with the monicker “Redhook.” Actually, he laughs, their first choice for a brand name was Rainer, but that was already taken.

#### FLEDGLING MICROS

Redhook debuted in 1982 as the Independent Ale Company. At the time there were a mere handful of other micros scattered across the country, including Sierra Nevada Brewing of Chico, CA, Boulder Brewing (later renamed Rockies Brewing) of Boulder, CO, and such now-defunct operations as the Thousand Oaks Brewery of Berkeley, CA and the William S. Newman Brewing Company of Albany, NY. Like most of these fledgeling breweries, Redhook was forced to make due with humble quarters: a petroleum-soaked transmission repair shop in the blue-collar Ballard neighborhood. It cost \$9,000 just to sandblast the grime off the floor.

The brewery’s initial product, Redhook Pale Ale, was supposed to be a pale ale in the English tradition, but it turned out a little different than expected. Shipman, Bowker and their brewmaster at the time, the Weihenstephan, Germany-educated Charles McElevey, had selected an oddball, sausage-shaped yeast that imparted a fruity flavor to the beer. Customers described the ale as tasting like iced tea, grapefruit and—the most common response—banana.

Shipman and Bowker tried to put the best spin on the situation. According to Krebs’ book, the former once told a few tavern owners that he was using a wild yeast strain whose flavor notes were “expressive of the Pacific Northwest.” After beer writer Michael Jackson commented that the ale had a distinctively Belgian taste, the partners hastily rewrote their advertising brochures to give the beer a new nationality.

Another problem with Redhook Ale was that it clocked in at 6.25% abv. Even the beer’s most ardent fans had to switch to a

different brand after a glass or two because an evening drinking Redhook would have put them under the table.

#### POP GOES THE BOTTLE LINE

Initially a draft-only brewery, Redhook installed its first bottling line—used soda pop equipment—in 1984. The filler was nicknamed “the crusher” because so many bottles came out broken. Those that survived often had dangerously high levels of oxygen as well as a lactobacillus infection. “If you didn’t keep them refrigerated, they went bad before your eyes, like beers in the old Soviet Union,” recalls Shipman. Consequently, Redhook became the first microbrewery to freshness date its beer in a consumer-friendly form. The original labels warned the customer, “For best flavor, drink before...” and were hand-stamped a mere seven days into the future. Today, a shelf life of one week would give wholesalers a fit, but in the early days Redhook did its own distribution and sold almost all the bottles directly out of the brewery.

“If you ask the people at Pyramid about the history of Redhook, they’ll say that many times they gave us up for dead,” reflects Shipman on the early years. However, he picked the right time and place for making mistakes. Few people in the early eighties had ever tried a microbrew before; hence, they had no benchmark for judging Redhook’s flavor profile. And Seattle, at the time, was on the rise. Boeing, the area’s leading employer, had recovered from a severe slump in the late 1960s and early 1970s and the city was attracting a horde of Generation Xers who were receptive to new influences in music, coffee and beer. Even that early “banana beer” found a small but diehard group of adherents.

Redhook gradually upgraded its equipment (shelf life for its bottled beers is now a respectable 110 days, 150 for the Double Black Stout), and in 1988 opened a new, fully automated brewery with attached pub in Seattle’s Fremont neighborhood. Quality control improved dramatically under the guidance of brewmaster Al Triplett, a former oil rigger who had begun his employment at Redhook washing kegs. The company also expanded its product line.

Blackhook Porter, a top-fermented porter brewed with Caramel 40, black malt and a

**“August Busch cares more about the quality  
of his beer than any brewer I have ever  
met...except maybe us!”**

little roasted barley, debuted in 1983. Two years later, the brewery phased out its original flagship brand in favor of Ballard Bitter, a pale ale more in the tradition of an English session beer. (Beginning in 1995, the recipe for Ballard Bitter was extensively revamped, and the product gradually morphed into Redhook IPA.)

## ONE SLICK ESB

Redhook ESB, which now accounts for two-thirds of production, was introduced as Winterhook, a Christmas seasonal, in 1986. "This is the beer we wanted to make right at the beginning," says Shipman. Made with Caramel 60 and hopped with Willamette and Tettnang, Redhook ESB has a toasty, toffeeish flavor and sweet, full-bodied finish. Shipman insists that the mouthfeel comes not from residual sugar content, but from an extra step in the mashing process that he declines to discuss in detail.

After releasing its Redhook ESB, the brewery received a letter from the firm of Fuller, Smith and Turner in London, which had been producing the classic Fuller's ESB since 1971. "They said they owned the designation ESB," recalls Shipman. "We pointed out that there was another ESB in Britain, Mitchell's ESB, which had been around for 80 years." No legal action was taken, and today ESB is recognized as a stylistic category in America.

Redhook also produces a Hefe-Weizen, using about 45% malted wheat along with two-row Klages and Munich malt, and hopped with Mount Hood, Willamette, and Yakima Hersbrucker. The latter hop strain exhibits a "unique compatibility with that style of beer," notes Shipman.

Seasonals include Redhook Nut Brown Ale, released each spring in a slightly tweaked form. The 1999 version was brewed from two-row and chocolate malts, malted wheat and roasted barley, and hopped with Northern Brewer and Hersbrucker. Alcohol is a very modest 4% by volume. Shipman calls the Nut Brown "more-ish," in the sense that one sip makes you want more.

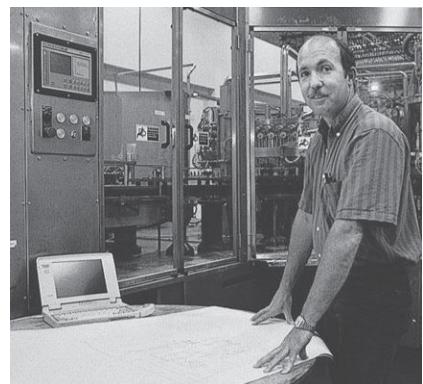
In terms of drinkability, Redhook's products range from the easy-sipping summer seasonal Redhook Blonde Ale to the uncompromising Redhook Double Black Stout. The latter is brewed from a complex grain

bill consisting of CaraPils, carastan 30/37, chocolate malt, black malt, and a little malted wheat and roasted barley. The beer also contains a coffee extract that Starbucks developed as a flavoring for ice creams and other products. Many stouts exhibit a mocha-like flavor from the use of roasted malts, but the Double Black is intensely coffeeish. According to Shipman, a standard 12 ounce serving contains as much caffeine as a half of cup of coffee.

## OFF THE WALL BEERS

Redhook also released a variety of more off-the-wall beers through its Blueline project, including Redhook Rye (which was added to the regular product line) and a peated Scotch ale. The brewery no longer uses the Blueline name, but continues to produce experimental brews, primarily at its plant in Portsmouth, NH. Last fall, Redhook released Hoptoberfest, an amber ale brewed with a little smoked malt, and this spring will do a Russian imperial stout. The stout, like the Hoptoberfest, will be draft-only. However, Shipman says that farther down the line he may package these one-time releases in 22 ounce "bomber" bottles.

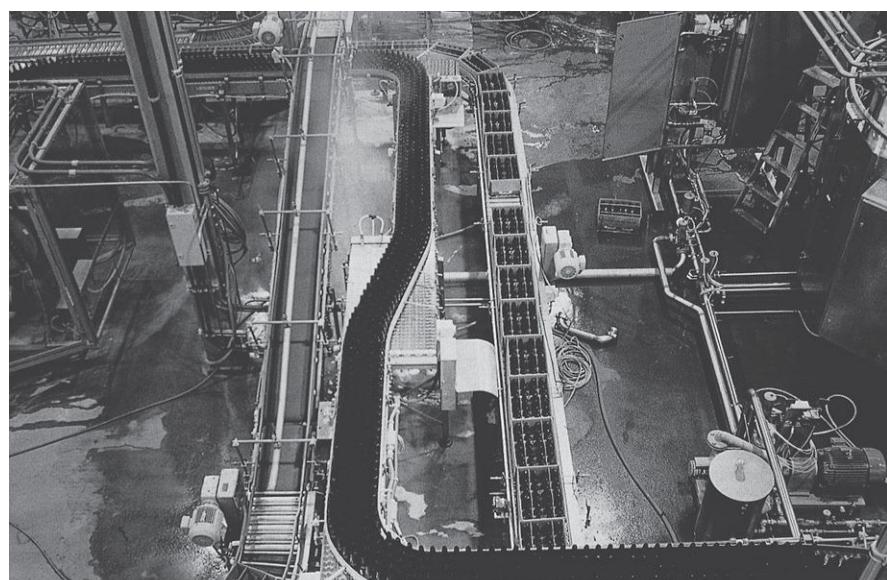
By 1990, Shipman—encouraged by several years of double digit growth—began to view Redhook as having national potential. He envisioned a new 250,000-barrel production facility in Woodinville, WA, which would be modeled after the monastery brew-



**Vice President of Brewing Al Triplett in front of the Krones rinser/filler block at the brewery in Woodinville, Washington.**

ery in Andechs, Bavaria. To help raise the \$20 million he needed for expansion, Shipman launched an initial public offering in 1993. Years later, he would insist that he saw a narrow window of opportunity for big Wall Street stock offerings before the market grew saturated and investors grew impatient with the rate of return. Given the current state of the industry, Shipman believes it will be at least 50 years before we will see any more.

"The alternative was to circle the wagons out in the Pacific Northwest and become a regional power," relates Shipman. Indeed, this was the approach his partner Gordon Bowker favored. Overruled by Shipman and Redhook's board of directors, Bowker became increasingly less (continued on page 61)



**Lots of bottles of Redhook speed along the bottling line.**



# DUBBEL VISION DUBBEL VISION DUBBEL VISION

## I had a vision.

A vision of a beer that's big, brown, estery and malty, yet not so heavy as a barley wine. A vision of a beer topped with a beautiful, thick, creamy, tan head. A vision of a beer that can take the nip out of a cold winter night. A beer that's, well, heavenly.

That beer is Belgian-style dubbel.

As is often the case, no one seems to know the style's origin. Of course, it's inexorably linked with Belgian monastic brewing. Who knows? Perhaps it's a product of divine intervention.

### DISTINGUISHED

Dubbel is distinguished in several ways. A portion of the fermentable materials comes from candy sugar. In *The New World Guide to Beer*, Jackson explains that these sugars were commonly produced by Belgian farmer-brewers by making a syrup from beets and allowing it to crystallize on strings. Whether caramelized and brown or just plain white, candy sugar contains proteins and salts that contribute to its flavor. Jackson maintains that candy sugar adds to a beer's head retention, flavor, aroma and texture.

Perhaps most important is the yeast. Typical of Trappist ales, it's top-fermented, but not with any old yeast. A dubbel fermented with Chico ale yeast will scarcely resemble its brethren. Dubbel is fermented with yeasts that ooze with esters and funky Belgian character. Fermentation is often at high temperatures that accentuate these characteristics even more.

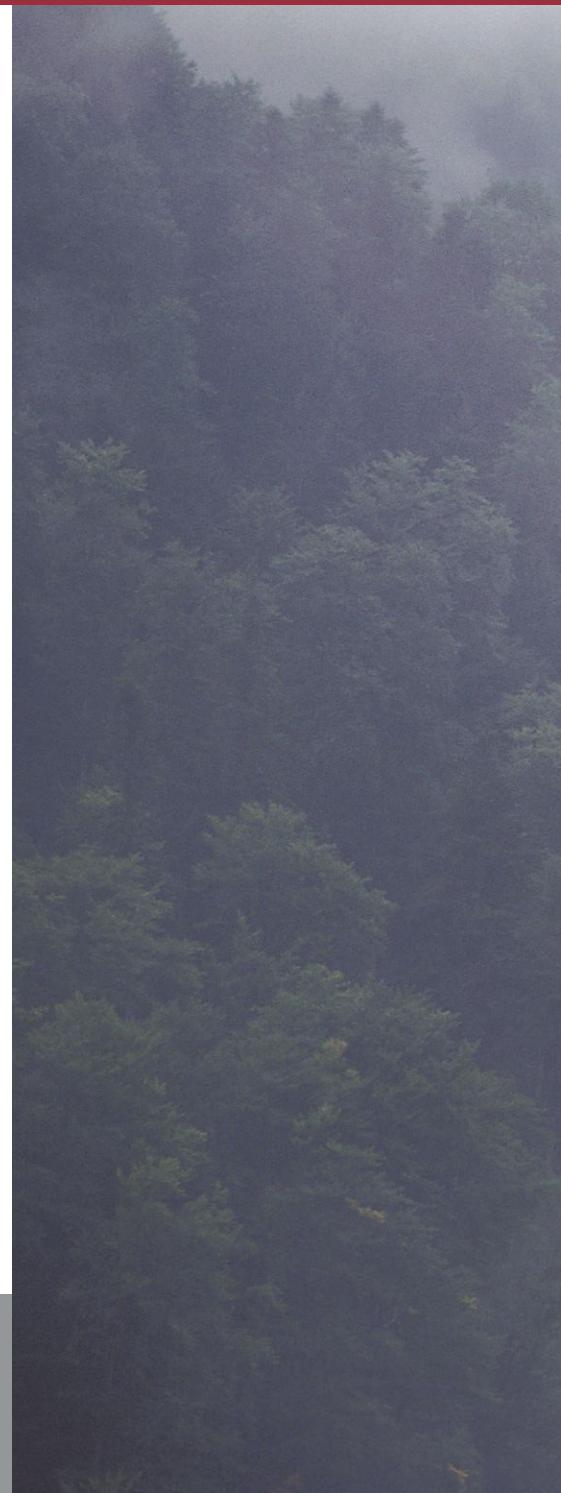
As a Trappist or Abbey style, dubbel is traditionally primed with a solution of fresh yeast and sugar and bottle-conditioned. But homebrewers often keg their dubbels.

### TASTE THE DIFFERENCE

Keith Chamberlin of Riverdale, MD, brews dubbel from a base malt and three or four specialty grains. "I typically use pils malt," he says. "It might attenuate a bit better, but there's nothing wrong with pale malt."

Special B malt is essential. Use up to a half-pound in a five-gallon batch for its unique burnt caramel flavor. Otherwise, try brown malt, which has a toasty, malty character. Chamberlin typically adds aromatic or biscuit malt for melanoidins and a malty mouthfeel; Munich malt for creaminess and body; crystal malt for sweetness and color; and perhaps two ounces of roasted barley in a five-gallon batch for complexity, and to aid in conversion.

Chamberlin acidifies his soft water with 1/8-teaspoon of lactic acid per five gallons, bringing the pH down to 5.5. This low pH ensures that harsh tannins aren't extracted from the malt. He employs an infusion mash at 152-153 degrees F (67 degrees C). Alternatively, try



BY JIM DORSCH

DUBBEL VISION DUBBEL VISION DUBBEL VISION DUB



## COMMERCIAL EXAMPLES

Gordon Strong and a group of fellow BJCP judges in the DRAFT homebrew club tasted 17 dubbels. Top choices in the blind tasting were:

1. Westmalle Trappist Dubbel
2. Grimbergen Double
2. Affligem Dobbel
3. St. Sebastiaan Dark
3. Ename Dubbel
4. Corsendonk Abbey Brown Ale

a step mash with a protein rest at 130 degrees F (54 degrees C) and a saccharification rest at 152 degrees (67 degrees C). There's a possible lack of clarity without the protein rest.

For sugar, Chamberlin says "candy sugar from Belgium is nice, but I see little difference from dextrose. Some say they can taste the difference." Chamberlin has won awards with dubbel made with corn sugar. He recommends up to two pounds of sugar—about 15 percent of fermentables—in five gallons of beer.

In accordance with style parameters (see sidebar), Chamberlin hops the beer lightly with Styrian Goldings or Saaz.

Yeast selection is critical. "You won't get the character without Belgian yeast," says Chamberlin. While dubbels tend to show sweetness, Chamberlin prefers an attenuative yeast. "You don't want it to be sweet due to lack of fermentation," he says. "You want it to come from the malts." Chamberlin likes

to use a yeast like that used in the Belgian Roquefort. "It has a unique character, but never wins," he says. He also likes Wyeast No. 1388 Belgian Strong Ale, and notes that some brewers achieve success with wit yeast.

Spices? "Not for a dubbel," Chamberlin says. "I never have." Typical of the brewers we interviewed, he believes that spices propel one into the realm of Belgian strong ales.

Fermentation proceeds for two to three weeks at 70 degrees F (21 degrees C), perhaps lower if the yeast is particularly fruity. Chamberlin usually kegs the beer, in which case it's ready to serve. Bottle-conditioned beers should rest for at least two to four weeks.

## FLAVOR EXPLOSION

Andy Anderson of Alexandria, VA, uses a grain bill similar to Chamberlin's. Biscuit malt gives a toasty flavor—"It really helps a dubbel." Aromatic malt provides a malty taste similar to what one might obtain from decoction. The obligatory Special B is there; "People sometimes don't use enough," says Anderson. CaraMunich provides color, and Anderson likes the flavor better than that of British crystal malt.

Anderson used to pack his suitcase with candy sugar when returning from Belgium, but he's not sure that it matters. "I can't say it's the most critical thing," he says. "There are some unfermentable bits that add to flavor."

There's a more practical side to the debate. Candy sugar's resemblance to C4 explosive material could cause extensive delays at airport security checkpoints.

## SPECIFICATIONS SPECIFICATIONS SPECIFICATIONS

According to the *North American Brewers Resource Directory*, 14th edition, dubbel has the following specifications:

**Original Gravity:** 1.050-1.070 (12.5-17.5 °Plato)

**Final Gravity:** 1.012-1.016 (3-4 °Plato)

**Alcohol by Volume:** 6.0-7.5%

**Color:** 10-14 SRM (dark amber-brown)

**Bitterness:** 18-25 International Bitterness Units

The BRD goes on to describe the beer's sensory qualities:

This medium- to full-bodied, dark amber- to brown-colored ale has a malty sweetness and nutty, chocolate-like and roast malt aroma. A faint hop aroma is acceptable. Dubbels are also characterized by low bitterness and no hop flavor. Very small quantities of diacetyl are acceptable. Fruity esters (especially banana) are appropriate at low levels. Head retention is dense and moussetlike. Chill haze is acceptable at low serving temperatures.

## DUBBEL

ANDY ANDERSON,  
ALEXANDRIA, VA

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

- |     |  |
|-----|--|
| 9.5 | lb DeWolf-Cosyns Pilsener malt<br>(4.3 kg)               |
| 1.9 | lb biscuit malt (.86 kg)                                 |
| 1.4 | lb aromatic malt (.64 kg)                                |
| .5  | lb CaraMunich malt (.23 kg)                              |
| .5  | lb wheat malt (.23 kg)                                   |
| .35 | lb Special B malt (.16 kg)                               |
| 1   | lb dark candi sugar (.45 kg)                             |
| .5  | Tbsp Irish moss (7.4 mL)                                 |
| 1.5 | oz Styrian Golding hops,<br>5% alpha acid (43 g)(1 hour) |
| 0.5 | oz East Kent Goldings hops<br>(14 g) (15 min.)           |
- Wyeast No. 3787 Belgian  
Trappist liquid yeast culture in  
a 2-quart starter (1.9 L)
- Original specific gravity: 1.078
  - Final specific gravity: 1.015
  - Boiling time: 1 hour
  - Primary fermentation: 1-2 weeks at 65 degrees F (18 degrees C) in stainless steel
  - Secondary fermentation: 5 weeks at 50 degrees F (10 degrees C) in stainless steel

### Brewer's Specifics

Mash for one hour at 148 degrees F (64 degrees C), then for a half-hour at 159 degrees (71 degrees C). Mash-out at 165-170 degrees F (74-77 degrees C). (Mash efficiency assumed to be 25 pt/lb/gal.) Sparge, then add candi sugar and boil one hour. Add Styrian Goldings at beginning of boil and East Kent Goldings with 15 minutes remaining. Cool to 65 degrees F (18 degrees C) and pitch yeast. Ferment at 65 degrees (18 degrees C), racking to keg after 1-2 weeks. Mature for 5 weeks at 50 degrees F (10 degrees C) before bottling or kegging the finished beer.

Anderson prefers a double-decoction mash, but says it's not necessary. For enhanced foam retention, he recommends a two-step infusion mash. First he mashes for one hour at 148 degrees F (64 degrees C), then for a half-hour at 159 degrees F (71 degrees C), followed by mashout at 165-170 degrees F

## DUBBEL

KEITH CHAMBERLIN,  
RIVERDALE, MD

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

9 lb Belgian Pilsener malt (4.1 kg)  
1 lb Belgian aromatic malt (.45 kg)  
1 lb Belgian biscuit malt (.45 kg)  
.75 lb Belgian Munich malt (.79 kg)  
1 lb Belgian CaraMunich malt (.45 kg)  
1 lb Belgian Special B malt (.45 kg)  
1 oz Belgian roasted malt (28 g)  
1.5 lb corn sugar (.68 kg)  
2 oz Styrian Golding hops,  
5% alpha acid (57 g) (1 hour)  
1 oz Saaz hops, 5% alpha acid  
(28 g) (at knockout)  
Yeast cultured from a bottle of  
Roquefort Trappist ale, 2-quart  
starter (1.9 L)

- Original specific gravity: 1.075
- Final specific gravity: 1.015
- Boiling time: 1 hour
- Primary fermentation: 1-2 weeks at 70 degrees F (21 degrees C) in stainless steel
- Secondary fermentation: 6-8 weeks at 70 degrees F (21 degrees C) in stainless steel

### Brewer's Specifics

Acidify brewing water with lactic acid to 5.5 pH. Infusion mash at 152 degrees F (67 degrees C). Sparge, then add corn sugar and boil one hour. Add Styrian Goldings at beginning of boil and Saaz hops at knockout. Cool to 70 degrees F (21 degrees C) and pitch yeast. Ferment at 70 degrees (21 degrees C), racking to keg after 1-2 weeks. Carbonate and allow to mature for 6-8 weeks at 70 degrees F (21 degrees C).

(74-77 degrees C). This regime is designed to produce a dextrinous wort. Mashing only at 159 degrees F (71 degrees C) leaves too many dextrans, while a 147-degree F (64 degrees C) mash produces a wort that's too thin.

Anderson limits hop bitterness to about 20 IBUs. "I use East Kent Goldings, or

whatever noble hops I have left over," he says. "I don't use Saaz; there's some spice character I don't care for." The last hopping is 15 minutes before the end of the boil, which gives only a slight hop flavor.

Anderson looks for some characteristic Belgian earthiness in a yeast. He performed an experiment with four Wyeast products, listed here with the suspected source in parentheses: Wyeast 1388 Belgian Strong Ale (Duvel), 1762 Belgian Abbey II (Rochefort), 3787 Belgian Trappist (Westmalle) and 3944 Belgian White Beer (Hoegaarden). Of these, he prefers Wyeast 1762 and 3787. He also likes La Chouffe yeast, which he obtained from the Yeast Culture Kit Co. of Ann Arbor, MI.

Fermentation temperature? Brewers often ferment Belgian-style ales at temperatures as high as the upper 70s [Fahrenheit], but it depends on the yeast. "With the Westmalle strain, you'll get pure bananas at high temperatures," says Anderson. "In the 50s and 60s, it's clean, but you lose some esters." Anderson prefers to ferment in the mid- to upper 60s. The beer ferments for three weeks before racking into a keg, where it's kept near 50 degrees F (10 degrees C) for a month, which smoothes out fusels. He doesn't want to cold-condition the beer, as this reduces esters.

## LOTS OF LATITUDE

Gordon Strong of Beavercreek, OH, says the dubbel style guidelines "allow for quite a bit of latitude," although like others we interviewed, he hesitates to add spices, while admitting that style guidelines allow it. But Strong recommends that brewers be "very subtle" if they take that route. "My personal opinion," he says, "is that there is enough other stuff going on that you don't need it."

Strong likes to enhance complexity by using several malts; he advises brewers to use Munich-type malts—light Munich, dark Munich, and aromatic—to achieve maltiness without excessiveness sweetness. He's used CaraMunich to add a slight plum element.

Looking for some dryness, Strong prefers Wyeast No. 3787 yeast for its attenuation and alcohol tolerance. "It can generate a lot of phenolics," he (continued on page 60)

## DUBBEL TRUBBEL

GORDON STRONG  
BEAVERCREEK, OH

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

5 lb DeWolf-Cosyns Pilsener or pale ale malt (2.3 kg)  
3 lb Durst Munich malt (1.4 kg)  
2 lb Weyermann Dark Munich malt (.90 kg)  
1.5 lb DeWolf-Cosyns Aromatic malt (.68 kg)  
.75 lb DeWolf-Cosyns CaraPilsener malt (.34 kg)  
.25 lb CaraMunich malt (.11 kg)  
.33 lb DeWolf-Cosyns Special B malt (.15 kg)  
1 oz Weyermann chocolate wheat malt (28 g)  
1 lb dark candi sugar (.45 kg)  
1 oz Styrian Goldings hop plugs,  
5% alpha acid (28 g) (1 hour)  
.25 oz Saaz hops, 3.9% alpha acid  
(7 g) (15 min.)  
.25 oz Saaz hops, 3.9% alpha acid  
(7 g) (2 min.)  
Wyeast No. 3787 Belgian Trappist liquid yeast culture in a 2-quart starter (1.9 L)

- Original specific gravity: 1.070
- Final specific gravity: 1.018
- Boiling time: 75 min.
- Primary fermentation: 2 weeks at 70 degrees F (21 degrees C) in stainless steel
- Secondary fermentation: 3 weeks at 65 degrees F (21 degrees C) in stainless steel

### Brewer's Specifics

Treat soft water with 1 tsp calcium chloride and 0.25 tsp calcium sulfate. Single infusion mash at 155 degrees F (68 degrees C) until conversion. Mash out at 168 degrees F (76 degrees C). Boil 75 minutes, adding Styrian Goldings one hour before end of boil, first Saaz charge 15 minutes before end and second Saaz charge 2 minutes before end. Prime with 0.75 cup cane sugar (177 ml) and bottle, or keg and force carbonate.

# THE DAWN

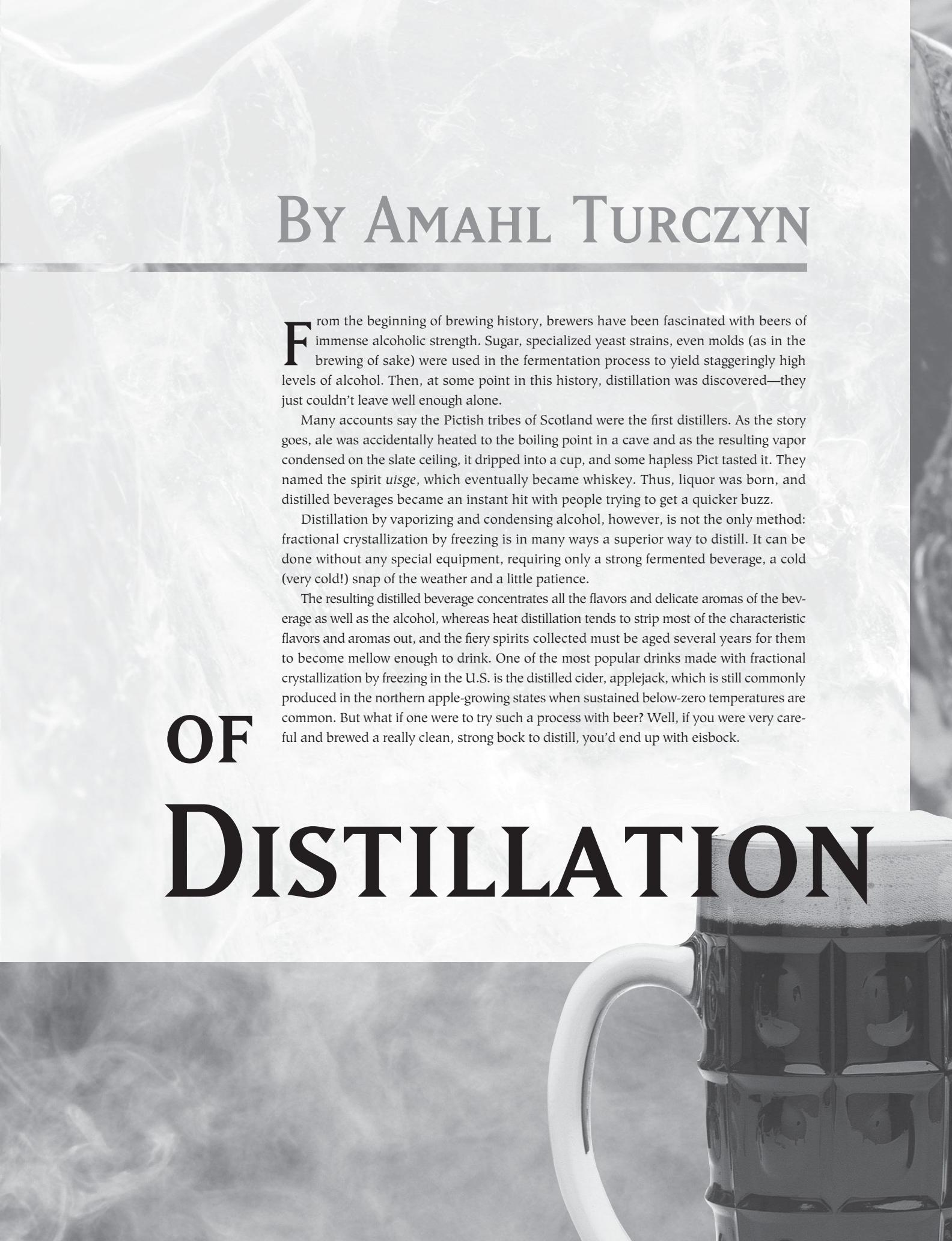
ARE YOU LOOKING FOR A

KICK WITH GOOD TASTE?

EISBOCK IS THE DISTILLED

TRUTH. . .





# BY AMAHL TURCZYN

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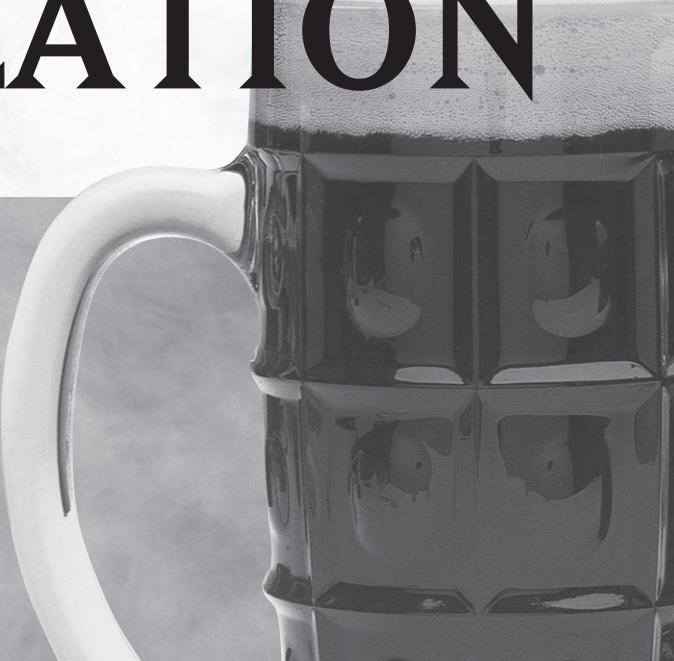
**F**rom the beginning of brewing history, brewers have been fascinated with beers of immense alcoholic strength. Sugar, specialized yeast strains, even molds (as in the brewing of sake) were used in the fermentation process to yield staggeringly high levels of alcohol. Then, at some point in this history, distillation was discovered—they just couldn't leave well enough alone.

Many accounts say the Pictish tribes of Scotland were the first distillers. As the story goes, ale was accidentally heated to the boiling point in a cave and as the resulting vapor condensed on the slate ceiling, it dripped into a cup, and some hapless Pict tasted it. They named the spirit *uisge*, which eventually became whiskey. Thus, liquor was born, and distilled beverages became an instant hit with people trying to get a quicker buzz.

Distillation by vaporizing and condensing alcohol, however, is not the only method: fractional crystallization by freezing is in many ways a superior way to distill. It can be done without any special equipment, requiring only a strong fermented beverage, a cold (very cold!) snap of the weather and a little patience.

The resulting distilled beverage concentrates all the flavors and delicate aromas of the beverage as well as the alcohol, whereas heat distillation tends to strip most of the characteristic flavors and aromas out, and the fiery spirits collected must be aged several years for them to become mellow enough to drink. One of the most popular drinks made with fractional crystallization by freezing in the U.S. is the distilled cider, applejack, which is still commonly produced in the northern apple-growing states when sustained below-zero temperatures are common. But what if one were to try such a process with beer? Well, if you were very careful and brewed a really clean, strong bock to distill, you'd end up with eisbock.

# OF DISTILLATION



## WHO FROZE MY BEER

Eisbock, like whiskey, is said to have been made by accident. A brewer forgot a barrel of beer outside in cold weather and when the ice was removed and the beer tasted, it was strong, very full-flavored and delicious. Though few breweries produce this beer today, even as a specialty, one brewery continues to produce it regularly: Reichelbräu, in the Bavarian city of Kulmbach. This brewery, in fact, registered the name "Eisbock." Of course, to reproduce this procedure with any consistency, special equipment is required, which may be one reason so few breweries choose to go to the trouble.

Reichelbräu only makes it once a year, for two weeks near the beginning of September. Then, after half a year of aging, the beer is celebrated at the Eisbock Festival in Kulmbach's town hall on the last Saturday of March. Reichelbräu brews this monarch of the bock family to a gravity of 24 °Plato (1.096) (10% ABV), ferments it for a little over a week, then freezes it for two weeks. Five to seven percent of the total volume of liquid is left behind as ice, whereupon the remainder is aged for several months.

## DON'T TRY THIS AT HOME

While the process seems very simple and straightforward to the curious homebrewer

wishing to expand his or her repertory of beer styles, one should keep in mind that the U.S. government still considers any form of distillation without a license to be a tad illegal. The penalty for each offense of home distillation is a fine of up to \$10,000 and five years imprisonment, or both. Therefore, the following description of eisbock production is intended only as an explanation of how the style can be produced by homebrewers where such distillation is allowed.

## MAKING EISBOCK

Fractional crystallization by freezing concentrates all flavors and aromas from the fermented beverage, so the first thing to keep in mind when making eisbock is that the bock needs to be as good as you can possibly make it. Every flaw in the original beer will be amplified by the distillation along with the beer's merits, so harsh alcohols, esters and any other off-flavors and aromas will stick out like a sore thumb in an eisbock.

You may accidentally be creating a beer with monstrous headache potential if fusel alcohols are produced in too warm a fermentation, so make sure you have adequate chilling capability. Ironically, the water you pull from the distillation will be wonderfully pure! A double-decoction, all-grain doppelbock recipe is probably the most traditional route to an eisbock. The extra maltiness

## GERMAN-STYLE EISBOCK

Gold Medal

1995 National Homebrew Competition  
Eisbock

Dennis Davison, Greenfield, WI

### Ingredients for 10 U.S. gal (19 L)

- |    |  |
|----|--|
| 23 | lb light malt extract (10.44 kg)                         |
| 5  | lb Pilsener malt (2.27 kg)                               |
| 5  | lb CaraPils malt (2.27 kg)                               |
| 5  | lb CaraMunich malt (2.27 kg)                             |
| 2  | oz Perle hops, 8.1% alpha acid (57 g)<br>(60 min.)       |
| 1  | oz Perle hops, 8.1% alpha acid (28 g)<br>(45 min.)       |
| 1  | oz Hallertauer hops, 3.2% alpha acid<br>(28 g) (10 min.) |
- Wyeast 2007 Pilsen lager yeast  
force-carbonate in keg
- Original gravity: 1.116
  - Final gravity: 1.024
  - Boiling time: 90 minutes
  - Primary fermentation: 2 weeks at 55 degrees F (13 degrees C)
  - Secondary fermentation: 6 months at 32 degrees F (0 degrees C)
  - Age when judged: 9 months

### Brewer's Specifics

Mash grains at 154 degrees F (68 degrees C) until conversion is complete. After fermentation, place keg outdoors at -30 degrees F (-17 degrees C) until you can hear the sound of ice crystals hitting the side of the keg. After shaking, siphon under pressure into a clean keg. Repeat procedure until you have collected a total of one gallon of ice.

### Judges' Comments

"Alcohol apparent. Maltiness rounds it out. Has a high alcohol without the nastiness of fusels—very impressive. A hard style to hit without overdoing the alcohol or getting off-tastes."

"Sweet. Cloying. Strong. Alcohol is soft. Warms all the way down. Hint of hops. Only 50 I've given in 10 years of judging."

"Malt and alcohol. Great balance. The only thing wrong with this beer is that there's only one bottle."

American Homebrewers Association®

## My Barley Doesn't Whine

Warm up with your best barley wine-style ale in the "My Barley Doesn't Whine" AHA club only competition. Style categories 12A and 12B, two bottles per entry, one entry per club. Entries are due by January 31, 2000. Please use the AHA sanctioned competition entry form and include the \$5 entry fee. Host club is the Rillito Creek Homebrew Club. Visit the competition website [www.goodnet.com/~@b21571/bwhome.htm](http://www.goodnet.com/~@b21571/bwhome.htm).

All AHA registered clubs are eligible and encouraged to participate.

Ship entries to:  
RCBC Event  
c/o Rhino Pub  
1112 E. 6th St.  
Tucson, AZ 85721

Questions? Please contact the AHA  
at 1-888-U-CAN-BREW (U.S. and Canada only),  
(303) 447-0816, or e-mail [info@aob.org](mailto:info@aob.org).



YOU MAY ACCIDENTALLY BE CREATING A BEER WITH MONSTROUS HEADACHE

POTENTIAL IF FUSEL ALCOHOLS ARE PRODUCED IN TOO WARM A FERMENTATION,

SO MAKE SURE YOU HAVE ADEQUATE CHILLING CAPABILITY.

resulting from this mash schedule is wonderful when intensified by distillation.

The grain bill should consist mainly of a good-quality pale malt along with some dark caramel malt for color. This said, perfectly good eisbock can be made using a partial-extract recipe with a single infusion mash, as demonstrated by the recipe included! Eisbock is traditionally a deep, reddish brown color. Beware of too much sweetness, however. The concentration of alcohol should balance much of the malt sweetness, but in making a beer of this strength, it is easy to end up with something too rich and cloying.

Hops, as in most bock beers, should play second fiddle to the malt, but for a gravity around 24 °Plato (1.096), IBUs should range in the upper 20s to low 30s. German varieties, again, are traditional: Perle, Tettnanger and even Hallertauer are good choices. Three additions for bitterness, flavor and aroma give a complete, yet subtle balance. You want just a hint of hop character throughout the beer, but it should be there.

A few yeast strains that really bring out the true character of German bock beers include Wyeast's 2308 Munich lager and 2206 Bavarian lager strains, Weihenstephan 308 and White Labs WLP 830 German lager yeast.

Fermentation, as one would expect for a lager of this strength, should be long and cold—45–50 degrees F (7–10 degrees C) is great for the primary, and when signs of fermentation activity begin to die down, after two weeks or so, a 24-hour diacetyl rest at 62 degrees F (17 degrees C) is advisable.

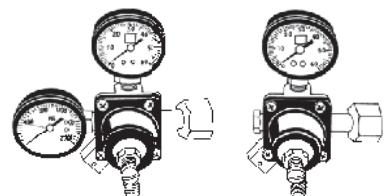
For the lagering stage, a gradual drop to 32 degrees F (0 degrees C) should suffice. The bock can then be held there for two to six months. While lagering can be performed after distillation rather than before, it is recommended that the beer to be distilled taste as clean as possible before undergoing the freezing process, so several months before and after are best.

#### THE DISTILLATION

Temperature is critical. The rule of thumb is, the colder you can get it, the more effective the distillation will be. A prolonged outdoor freeze is better than a chest freezer: temperatures in parts of the brewing world that reach -30 degrees F (-17 degrees C) are, of course, ideal, as they produce a stronger eisbock, but for those of us in more temperate climates, artificial refrigeration often must suffice. Five to seven percent of the total volume of liquid should be removed (that is roughly 10% when measuring removed the ice slush) to yield a traditional eisbock, but even if less is removed, a noticeable effect will be achieved. Remember alcohol acts like antifreeze, so it really takes some frigid temperatures to yield an eisbock of exceptional strength. Eight to 10 percent alcohol by volume is typical for the style, though higher levels are certainly possible with colder temperature freezing.

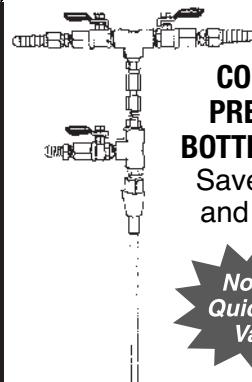
Two methods are possible for home distillation by freezing: the use of covered plastic buckets and a siphon hose, or Cornelius kegs and CO<sub>2</sub> pressure. If using buckets, simply siphon the finished beer into one, freeze, and then shake the bucket around a bit to loosen the ice. Then poke a siphon tube down to the bottom of the bucket and transfer the liquid into another container. This process may be repeated several times until a satisfactory amount of ice has been collected. With kegs, one can rely on the long dip tube that reaches down to the bottom to push the beer over to another keg. You'll know the contents are partially frozen by knocking on the side of the Corny. If it feels solid, or there is a slushy, rasping sound when the keg is shaken slightly, it is time to transfer. Again, the process can be repeated several times to concentrate the beer further.

**Amahl Turczyn** is a world traveler and regular contributor to *Zymurgy*. 



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# So You Want to Run a Competition?



Beer, beer and more beer at the Bluebonnet Competition



The judges ponder long and hard



## By Amahl Turczyn



DRAFT (Dayton Regional Amateur Fermentation Technologists) hosts the 1999 AHA "Why Don't We Do It in the Robe" Club Only Competition.

**Putting on your own homebrew competition can be a daunting task, but it doesn't have to be.**

**As a homebrew club you already have your most important resource, namely people who have an interest in beer and are willing to pitch in. Here is a list of questions to ask your club before getting your own event going:**

#### **How large an event do we want?**

 How many entries should we expect? Do we want it to be a strictly local event? Most clubs holding their first event try to keep it small (under 50 entries) then plan on expanding it later when the second annual (or biannual, or quarterly) event rolls around. The first time is always a learning experience for all involved, so the less volume you have to deal with the more time you have to make sure everything that needs to get done is getting done.

#### **What can our club members do?**

 Finding someone, or even a couple of people, to organize this group into an effective, motivated team to make sure the event goes smoothly is an important initial priority. Once you choose your organizer that person can then delegate necessary duties to others. Remember there can be a lot of work involved, so the more work you can dole out as an organizer the better.

Don't take full responsibility for everything—it's supposed to be fun, not stressful! Here are some of the main duties you will need:

**Advertising Director**

**Judge Director**

**Judges**

**Stewards**

**Supply and Equipment Coordinator**

**Beer Sorters**

#### **How much will it cost?**

 Food, equipment rental, venue rental, prizes, printing costs—expenses can add up quickly for even a small event, so here's a tip: the more sponsors who are willing to donate to your event the better. Even a small event can get the support of local businesses like print shops, homebrew supply stores, breweries and restaurants. Make it a community thing and get people involved. You can offer to advertise for their businesses when you advertise your event. You'd be surprised how great a resource this can be and, even if you aren't sure, it never hurts to ask. "Brewing Experts of East Reno (BEER) present the First Annual Nevada Desert Bre-

woff. First prize: a 12 hp chipper-shredder, generously donated by the High Plains Arborists Association."

#### **What prizes should we offer?**



Realistically, you shouldn't expect to have really expensive gifts donated to your competition if it is the first one you organize. Brewing-related prizes are usually best (a sack of grain, a pound of hops) for the top prizes, or perhaps some equipment. The local homebrew supply store is a good place to look, or you might consider purchasing a gift certificate. T-shirts, glasses and hats donated by or purchased from breweries also make good gifts, and again, breweries are more likely to give them up free because it's free advertising for them. Even if you can't afford to buy prizes at your first event, you should at least offer ribbons for the "best of show" and for the top honors in each category. The traditional blue, red and yellow ribbons are readily available from a trophy shop, and are usually sufficient to satisfy most entrants. If you want to spend a little more, medals are great, and your winners will have something a little more durable to display at every possible opportunity.

#### **What should we charge per entry?**

 Free-entry competitions are rare. Even if your club has really deep pockets be aware that even a token entry fee tends to encourage better-quality beer entries simply because, if people are really proud of their beer, they will be willing to shell out a few bucks to have it judged. On the other hand, charging exorbitant fees for a competition with fewer than 100 entries will have the opposite effect: people won't enter. Five to 10 dollars is the most common range for per-entry fees, and will help your club get back some of the revenue necessarily spent on the competition. Many competitions also do a sliding scale for entry fees, charging say \$8 for the first entry, \$5 for the second and \$3 for three or more. The logic here is that if you have 15 entries, you are probably a pretty serious brewer, and you should be encouraged to enter a lot.





**More from the Bluebonnet**

### Where will the event take place?

Is the lighting sufficient? Is it natural (best), incandescent (okay, if bright enough) or fluorescent (not recommended)? Is there plenty of room for judging tables? Beer storage facilities? A PA system? (Not necessary, but nice.) Sometimes a civic hall or auditorium can be rented. Often local breweries or restaurants will offer part of their space for such an event. This can be great for them, since they know they'll not only get free advertising but also have a guaranteed crowd of hungry customers. It's great for the event organizer because chairs, tables, food and possibly even cold storage space will already be taken care of. Barring that, holding the event outdoors at a park or other open space is a possibility, but keep in mind that weather, insects, noise and of course direct sunlight can all interfere with the judging. ("Weird—all the beers entered were skunked...")

### What equipment will be needed?

Here's a list of recommended items for a small competition:

- tables that seat at least six people
- chairs
- dump buckets—1-2 per table.

The judges need a sturdy vessel in which to dump beer dregs.

- pencils—1 per judge, though many bring their own. Mechanical are best.

- entry forms—1 per entry. Of course, some entrants will have multiple entries, but it is easier for your own record keeping to have them fill out several forms. Originals for photocopying are available from the AHA or the BJCP.

- score sheets—three per entry minimum. Originals for photocopying are available from the AHA or the BJCP.

- cover sheets—1 per entry. Originals for photocopying are available from the AHA or the BJCP.

- cups—all cups have to be the same, hold at least 6 ounces (177 mL) and be of clear plastic. Make sure the cups don't have a plastic odor that can interfere with the judging. You'll always need more than you think—six per entry is not excessive by any means.

- glasses or cups for water—1 per judge.
- pitchers for water (and beer, if necessary)—2 per table.

- bread or crackers to cleanse the judges' palates  during judging (enough for each table).

- case boxes for beer storage—number depends on how many bottles you have entered.

- name tags for judges and stewards.
- permanent markers—used for labeling case boxes during the sorting, and for name tags during the competition.

- adhesive stickers for labeling bottles.

Some competitions assign a random number to each entry, but it's also nice to include the category and subcategory for each entry on each bottle.

### How many judges do we need, and where do we find them?

For most competitions, you'll want at least two judges per entry. Three is even better—remember that people enter competitions not only to win prizes and gain prestige for their clubs, but also to receive feedback. The more you give them the more satisfied they'll be and the better the chances they will enter your competition the next time you hold it.

On the same note, good beer judges are willing to not only provide some notes on how each entrant measures against the others, but

also a detailed description of the flaws and strengths of each submission. Many even recommend ways of improving the beer next time it is brewed. As educators, beer judges have to have a thorough knowledge of both beer appreciation and the mechanics of brewing it, so professional brewers and homebrew supply store owners as well as certified beer judges can qualify to judge your competition.

The Beer Judge Certification Program (<http://www.bjcp.org/>) is an organization specializing in providing beer judges for local competitions all over the U.S. If you choose to sanction your competition with the AHA (<http://beertown.org/>), you will receive a list of judges in your area from the BJCP as well as advertising and information from the AHA; so really, you recruit the assistance of both organizations.

### How about stewards?

Stewards help with the actual judging, and can be anybody who just wants to lend a hand. One per table is usually enough; their duties include fetching bread and water for judges, opening and pouring beer if the judges prefer, double checking entry (continued on page 62)



**Here's the big prize at the Sunshine Challenge.**

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### Maltose Falcons Turn 25!

The Maltose Falcons Homebrewing Society celebrated their 25th Anniversary on September 18th with a gala event at the Equestrian Center in Burbank. Club officer "Stone Cold" Steve Keppler provided the following text for the Clubs Report on some of the earlier stages in the development of this homebrewing institution.



"The club was founded in 1974 by a fellow named Merlin Elhardt, who was a lineman for Southern California Edison company. He had a particular interest in producing pale, delicate German-style lager beers at home and was doing all-grain brewing and yeast culturing during a time when few homebrewers knew of such techniques.

The club grew steadily into the 1980s, and rapidly in the late 1980s with the expansion of the popularity of home brewing as a hobby. By the early 1990s, we were having club meetings in our sponsoring shop (The Home Wine, Beer and Cheesemaking Shop in Woodland Hills, CA; John Daume, proprietor) with 90 to 100 people crammed into the shop!

The club developed a tradition of staging three fests each year: the Mayfaire (originally the Springfest) in the springtime, the Sunfest in the summer and of course the Oktoberfest in the fall, in addition to holding monthly meetings and circulating a monthly newsletter, Brews and News. Its members have organized two yearly regional homebrewing competitions since 1988, the Maltose Falcons Mayfaire Competition and the Los Angeles County Fair Home Brewed Beer Competition.

Other traditions include the yearly Mead Tasting (beginning in 1992, sometimes held twice-yearly) and the start of the Maltose Falcons Brews Band in February of 1990 at the Anchor Brewery in San Francisco during a

celebration of the Falcons as Anchor's California Brew Club of the Year for 1989 (subsequently awarded for 1994 and 1996 as well). The band has played its unique blend of blues, rock and roll, R & B, oldies and original brew tunes at every Falcons fest since about 1991 and at the first eight Southern California Homebrewers Festivals; it will celebrate its own tenth anniversary early next year.

Club members who have gone on to become pros Mary Beth Raines-Casslman with Hollywood Blonde, Michael Bowe with Angle City Brewing, Mark Jilg with Craftsman Brewing, Ken Grossman with Sierra Nevada, John Maier is now at Rogue, Marty Velas at Bohemia.

The "Dead Palates Society," now famous at feasts and adopted by many other clubs, was born at a Falcon's Oktoberfest. This society consists of brewers who have been sampling homebrew all day and, by late in the evening, can only taste the strongest, tastiest beers available due to their dead palates."

### Santa Barbeerians at the GABF

Thanks to Pete Johnson for leading a caravan of AHA members through the Rockies to staff the AHA booth at the 1999 Great American Beer Festival. The Barbeerians, along with Caroline Carlson and Arne Sjodin of Hop Barley and the Alers and homebrewers Dick Deyoe from Wyoming and Charlie and Sandra Papazian, did an exceptional job of informing the public about homebrewing and gaining new AHA memberships at the festival. JoAnne Carilli set up a promotion to "Have a drink with Charlie," with a commemorative glass and some of Charlie's homebrew for all new and renewing members. The result was over 105 people signing up for AHA membership, which was more than double the number we signed up last year. Great work folks.

### Grateful Deaf Homebrew Club

Ken Fisher and the Grateful Deaf Homebrew Club of Oregon teamed up with Charlie Sturdevant and the Golden City Brewery to create the Grateful Deaf Steam Beer. The materials were donated by Great Western Malting, Hopunion USA, Wyeast Laboratories and Five Star Chemicals. One hundred percent of the proceeds of the sales of the beer at Denver-area brewpubs will be donated to the Center on Deafness.

### Club-Only Competition News

The AHA would like to thank the Capitol Brewers for hosting the Porter! AHA Club-Only Competition in October. This

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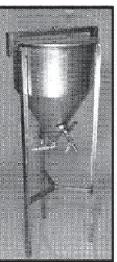
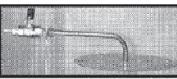
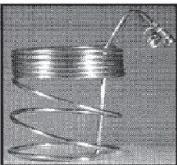
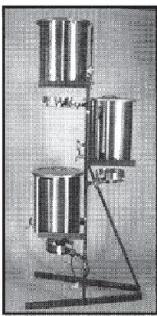
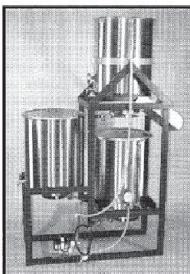
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competition was the second one in the August to May cycle with points going toward the Homebrew Club of the Year trophy on a six points for first, three for second and one for third basis. Other points for clubs are scored in the first and second round of the AHA National Homebrew Competition. Thanks to everyone who entered. There were 35 entries:

**Congratulations to the following winners:**

#### First Place

Mike Porter, representing Kansas City Bier Meisters

#### Second Place

Brian Knaupp, representing Capitol Brewers

#### Third Place

Phil McDermott, representing Cincinnati Malt Infusers

#### Club-Only Change for 2000

As discussed in my column earlier, AHA has adopted the BJCP Style Guidelines for AHA club-only competitions for 2000. For full descriptions and specifications, please visit [www.beertown.org](http://www.beertown.org) or [www.bjcp.org](http://www.bjcp.org). Here is the numbering for the 2000 AHA club-only competitions:



#### Early-February

Category 12A English-style Barleywine and 12B American-style Barleywine

#### Late-March

Category 20 Lambic and Belgian-Style Sour Ale (all five subcategories)

#### Mid-May

"Weiss is Nice" Category 17 Wheat Beer (all four subcategories)

#### End of August

Best of Big Brew (pale ale)

#### Mid-October

"Best of Fest" Category 9 German Amber Lager

#### Early-December

Historical Beers from Category 24

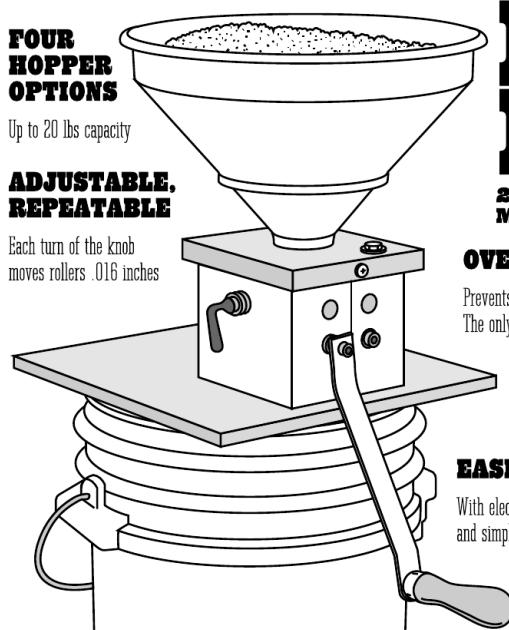
AHA head Paul Gatz is the softball coach for Hop Barley and the Alers, a Boulder, CO homebrew club.

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# The Last Beer in Swakopmund

Swakopmund, Namibia - 13 March 1997

I am on vacation. There is no aroma as tantalizing and sensual as the Atlantic Ocean at Swakopmund, Namibia. The cold, Antarctic Benguela current graces the coast of this southwestern Africa country creating a micro climate unique and so very different from the interior. Nearby the largest sand dunes in the world rise 1,000 feet. There on the average day temperatures soar over 100 degrees F and drop to near freezing in the evening. Only one slim mile to the west of these magnificent dunes the Atlantic Ocean brings cold water along the coast creating, they say, the coldest desert in the world. Ask around and it hasn't rained here in recent memory. In Swakopmund, an outpost oasis on the coast, the climate is in the 60s and 70s during the day and damn chilly during the evening. A fog rolls in every morning and what vegetation that has evolved drinks the morning dew.

But the ocean aroma—to me it is much more intoxicating than the perfectly brewed Namibian German-style lager I enjoy tremendously. This one special evening I slowly walk the beach. The sun sets over the South Atlantic. The sky is nothing memorable—no clouds no glory. But the smell, the wonderful sweet and tantalizing aroma of the cold sea—that is what is wonderful. It reminds me of my months of exploring the northwest coast of North America in the 1970s along the cold seas and among the islands of British Columbia. Here in Swakopmund the aroma is similar, but its presence of here and now is ever so much more sweet.

Did you know that the sound of the sea is a function of its temperature? I've never read anything about this but I certainly know it for sure! The sound of tropical ocean waters crashing on a beach is so distinctly different from that of cold water



crashing on this southwest African sand. I know that this sound is indicative of so much more life in these cold waters. My mind drifted earlier over a draft of the local *Reinheitsgebot*-style Windhoek Lager (Am I in Germany or Africa?). The sound of the drip and the spray of hot sparge water versus cold water. The sound that every beer pour makes. If you listen to your beer it tells you things about its personality.

I was in search of Namibian oysters! I found them, but not before a slow walk down the beach wrapped warmly in my Bar Harbor Brewing Company sweatshirt. A few Windhoek Lagers, a dozen oysters and assorted other sea creatures were my dinner at The Tugboat, recommended for its seafood. But I digress. Before this small feast I encounter a bus load of black Africans on the beach. They are a spectacle and sight to remember the rest of my life. The sea is ice cold, beautiful and crashing. These men and women are in business suits and dresses. Rolling their leggings up as fast and as far as they could, but never far enough as they laugh and play in the

foaming surf. All adults, they smile grins that would make Alice in Wonderland's Cheshire cat jealous.

These were their first glorious minutes of ocean "baptism." I recall my first glimpse of the Pacific Ocean, the first mountain climbed and several other special firsts of my life. I continue to watch as they scoop water into their mouths, tasting the salt of the sea for the first time in their lives. Others are busy gathering gallons of ocean and sand into containers. I grin to myself and warm inside as I imagine this little bit of sea taken back to relatives perhaps 500 miles inland to marvel at the taste of the Atlantic ocean. I've seen oceans a thousand mornings of my life but this is a sight that is still a marvel even to me, the Atlantic stretching out to the western horizon. They dance in the glimmer of the setting sun not able to judge how far the crashing waves thrust their tongues up the sand. Soaked in their business suits, they laugh and, to be sure, love every minute of it.

I ask, "Where are you from?" "From Botswana. This is the first time we've ever

**HOMEBREW 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:

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

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:

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

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

seen the ocean." You know, there are special moments in everyone's life and this is one for me. I don't quite know why, but I am overcome with deep emotion simply watching these people and taking in the great gray-blue sea crashing wildly on this distant coast. I am there for the moment. I know I'll be there forever in my mind, watching these 30 people, silhouetted by the setting sun in their suits and dresses as children of the world we all want to be.

After dinner walking halfway down the beach I break into a light jog as I head back into town. It is very cool, the ocean dampness is invigorating and fresh. I

glance up awed, knowing that just beyond my sight are sand dunes and one of the driest deserts in the world.

But deserts are for exploring and that is tomorrow. Tonight I am in search of one last beer before retiring. The town looks dreadfully quiet. One last beer? In the desert? Little did I have faith in fate.

The streets are empty, deserted, I mean dead. I methodically crisscross the small grid of city center streets. I am about to give up and then at the last moment I find the warm glow of incandescent lights at the "The Last Western Pub." I walk in. There are a few people still there.

"Is the draft Tafel or Windhoek Lager?" I asked. "It's all the same and brewed right here in Swakopmund," answers the owner in German-accented English. I knew the brewery was three blocks down the street and that it brewed all the country's draft beer, but didn't quite believe it was all the same. So I argued. "Are you sure about that?" "Come around the bar and see for yourself." So I stroll past a young lady and mention in an overconfident four-Windhoek state, "He doesn't know that beer is my business and I'm working late."

I was wrong. He proves his point. And one thing leads to another and I'LL BE DAMNED! He nonchalantly adds to the conversation, "Well, we have a microbrewery just around the corner. Namibia's first, Swakopmund's first. Maybe you can help us....."

How do I find these places? This country is small but not that small. There are great distances between places and people. Yesterday I was encountering black rhinos, giraffes, zebras, oryx, kudus, gemsbok, springboks (great name for a beer, eh?), dikdiks, lions, ostriches and trees stranger than your weirdest dreams—500 kilometers to the north. There's a lot of weird desert and sand between there and here. I need another Windhoek Lager. I am in a small state of serendipitous shock. How do I find these places? I was just wandering aimlessly and what the he-- I walk down an alley and end up at the Swakopmund Brauhaus.

To make a long sad story short, Swakopmund is a desert oasis for Germans and Namibians. The owners of The Last Western Pub had the ubiquitous dream of "let's brew our own beer." Having conspired over a few too many their aspirations were noble, but like so many other undeveloped microbrewing countries, they got royally ripped off. Spending \$40,000 on one of worst pieces of equipment I've ever seen in all my born again days as a brewer. I could have done better with \$1,000. Needless to say, they were searching for solutions, having shut down the brewery for lack of anything that tasted like beer. "We just want to make three or four barrels of beer a week—quality beer—and we're prepared to find a solution." They ask and I tell them part of the solution is to scrap most of the system they have; worthless as an asset.

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And to their credit not only are they selling the super quality local beer, as well as a selection of more than 50 great beers from Europe and I was drinking it—free. I think to myself, two hours ago I was heading back to my hotel discouraged. Now I was being asked if I knew of any homebrewers who might wish to spend six months all expenses paid to fix their brewery to make three hl/week. Their biggest asset is the one and only license (other than the Windhoek Brewing Company) to brew and sell beer. And if that were not enough they were on good terms with the Windhoek Brewing Company and allowed to buy ingredients from the brewery. I tell them their goal is not unreasonable and soon depart binged and lightheaded.

Before I leave my eyes glance up at a sign in back of the bar. It says "Remember when they said sex was safe and flying was dangerous?" This was the motto and business card of Rui, the person I jumped off a mountain paragliding with in Rio de Janeiro only four weeks earlier. It is truly an amazing serendipitous world.

What goes around keeps going around and comes around again and again. Remember this. Always. Sometimes I don't remember, but it comes around anyway. They say the fog rolls in here in the morning. I will be heading east across the dessert.

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

### Good Life Pale Ale

A terrific basic pale ale with hopping short of the India pale ale standard. Rich malty flavor without a heavy body. Great English hop background character. American-grown Crystal hop pellets are used to add what I perceive to be a hybrid of German Hallertauer and Kent Goldings aroma and flavor to the finished product.

The Good Life is one we all lead every day of our lives. Why not celebrate serendipity with Good Life Pale Ale. I have! In a year's time I'm on batch number three of this great and favorite brew.

### Ingredients for 6 U.S. gal (23 L)-All-Grain Recipe

#### Malt

9 lb Harrington/Klages pale malt  
(grain) (4.1 kg)

1.6 lb Munich malt (7 °L) (.73 kg)  
0.5 lb crystal malt (20 °L) (.26 kg)

#### Hops

1.7 oz U.K. Fuggle (7.8 HBU/220 MBU) whole hops (48 g) (60 min.) (contribution of 25 IBUs)  
1 oz U.K. Kent Goldings (6 HBU/168 MBU) whole hops (28 g) (30 min.) (contribution of 10 IBUs)  
1 oz U.K. Kent Goldings (6 HBU/168 MBU) whole hops (28 g) (3 min.) (contribution of 4 IBUs)

0.5 oz American Crystal pellet hops, dry-hopping (14 g)  
.25 tsp powdered Irish moss (1.2 mL)  
.75 cup corn sugar/glucose (priming) (177 mL)  
ale yeast (either White Labs English ale yeast or Wyeast Thames Valley No. 1275 ale yeast)  
  
• Original gravity 1.052-1.056 (13-14 °B)  
• Final gravity 1.012-1.014 (3-3.5 °B)  
• IBUs: about 40  
• Approximate color: 8 SRM (16 EBC)

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**HBU = % alpha acid rating of hops multiplied by ounces = Homebrew Bittering Units**

**MBU = % alpha acid rating of hops multiplied by grams = Metric Bittering Units**

A one-step infusion mash is used to mash the grains. Add 11 quarts (10.5 L) of 175-degrees-F (79.5-degrees-C) water to the crushed grain, stir, stabilize and hold the temperature at 157 degrees F (69.5 degrees C) for 60 minutes. Then raise the temperature to 167 degrees F (75 degrees C), lauter and sparge with 4 gallons (15 L) of 170-degree-F (77-degrees-C) water. Collect about 6.5 gallons (25 L) of runoff and add the Fuggles and bring to a full and vigorous boil.

The total boil time will be 60 minutes or long enough to end up with 6 gallons (23 L) of wort. When 30 minutes remain add one ounce of U.K. Goldings hops. When 10 minutes remain add Irish moss. When three minutes remain add the other one ounce of U.K. Goldings. After a total wort boil of at least 60 minutes (6 gallons should remain) turn off the heat. Now you must cool all of the wort. Use an immer-

sion cold water bath or heat exchanging coils. Then strain and sparge into a sanitized fermenter.

Pitch a good dose of healthy active ale yeast and primary ferment at temperatures of 65 to 70 degrees F (18 to 21 degrees C). Make sure that nearly all of the fermentation is complete before racking, adding the dry-hop pellets and "cellaring" (secondary fermentation) at about 55 degrees F (13 degrees C) for about two weeks. Your net yield will be about 5.5 gallons (21 L) to the secondary.

Prime with sugar and bottle when fermentation is complete.

#### Here is an alternate recipe using malt extract and simpler procedures:

##### Malt

- 5 lb extra light dried malt extract (2.3 kg)
- 2 lb amber dried malt extract (.9 kg)

**Hops [Note: more hops are used in this version due to more concentrated wort boil.]**

- 2.1 oz U.K. Fuggle (9.7 HBU/270 MBU) whole hops (60 g) (60 min.) (contribution of 25 IBUs)
- 1.3 oz U.K. Kent Goldings (7.8 HBU/218 MBU) whole hops (36 g) (30 min.) (contribution of 10 IBUs)

1.3 oz U.K. Kent Goldings (7.8 HBU/218 MBU) whole hops (36 g) (3 min.) (contribution of 4 IBUs)

.5 oz American Crystal pellet hops, dry-hopping (14 g)

.25 tsp powdered Irish moss (1.2 mL)  
.75 cup corn sugar/glucose (priming) (180 mL)  
ale yeast (either White Labs English ale yeast or Wyeast Thames Valley No. 1275 ale yeast)

Add the malt extract and Fuggle hops to three gallons of boiling water. The total boil time will be 60 minutes. When 30 minutes remain add one ounce of U.K. Goldings hops. When 10 minutes remain add Irish moss. When 3 minutes remain add the other one ounce of U.K. Goldings. After a total wort boil of at least 60 minutes turn off the heat and cool the pot of wort in a cold water bath for 20 minutes, then strain and sparge into a sanitized fermenter to which you've added 3 gallons (11.5 L) of water. It helps to prechill (33 degrees F/1 degree C) the water added to the fermenter rather than simply adding tap water. Top off the volume to 6 gallons (23 L).

Pitch a good dose of healthy active ale yeast and primary ferment at temperatures of 65 to 70 degrees F (18 to 21 degrees C). Make sure that nearly all of the fermentation is complete before racking, adding the dry-hop pellets and "cellaring" (secondary fermentation) at about 55 degrees F (13 degrees C) for about two weeks. Your net yield will be about 5.5 gallons (21 L) to the secondary.

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 books are *Home Brewers Gold* (Avon, 1997), a collection of prize-winning recipes from the 1996 World Beer Cup Competition, and *The Best of Zymurgy* (Avon, 1998) a collection of the best articles and advice from 20 years of *Zymurgy*.



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list of items.

To kick off the new year's batch of recipes from the 1999 National Homebrew Competition, here is a diverse selection of new methods for old styles.

Let's face it though; with all the creativity these winning brewers bring to homebrewing, some methods appear over and over in Winners Circle because they make good beer. For example, Brian Cole's award-winning strong ale recipe includes the addition of yeast from a local brewery rather than from a starter. Pitching a decent amount of yeast slurry is always a great idea, and doubly so for high-gravity worts. Although you see it every year in the NHC recipes, I'm surprised more homebrewers don't do it.

If you are lucky enough to live near a brewery, go talk to the brewer there and explain your interest in the craft. Most times, as long as you provide a sanitized container, getting fresh yeast for your homebrew is not a problem, and you'll find it not only saves you time and money but also makes a tremendous difference in the quality of your beer.

## German-Style Bock



### BRONZE MEDAL

#### AHA 1999 NATIONAL HOMEBREW COMPETITION

Jerry Janis, West Palm Beach, FL

"Jer's Brew #2"

**German-Style Eisbock**

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

- .12 lb dry malt extract (5.44 kg)
- 3 lb amber malt syrup (1.36 kg)
- 1 lb crystal malt (.45 kg)
- .25 lb black patent malt (.11 kg)
- .25 lb roast barley (.11 kg)
- 4 oz Fuggle hops, 5% alpha acid (113 g) (60 min.)
- .5 oz Fuggle hops, 5% alpha acid (14 g) (15 min.)
- Wyeast No. 1056 American ale yeast
- .75 cup dextrose (177 mL) to prime
- Original specific gravity: 1.120
- Final specific gravity: 1.040
- Boiling time: 60 min.
- Primary fermentation: 12 days at 65 degrees F (18 degrees C) in glass
- Secondary fermentation: 2 weeks at 65 degrees F (18 degrees C) in glass

#### Brewer's Specifics

Steep grains at 150 degrees F (65 degrees C) for 45 minutes. Remove grains and boil with extract for 90 minutes.

#### Judges' Comments

"Big big big. Rich, creamy, warming...eisbocklike! A big, good eisbock."

"Full-bodied, very warming and creamy. A very nice Eisbock."

## English- and Scottish-Style Strong Ale



### SILVER MEDAL

#### AHA 1999 NATIONAL HOMEBREW COMPETITION

Brian Cole, Black Mt., NC

"Old Crawdad"

**English-Style Strong Ale**

#### Ingredients for 4.5 U.S. gal (17 L)

- 8 lb pale malt (3.63 kg)
- 3 lb gold dry malt extract (1.36 g)
- 2 lb Special B malt (.91 kg)
- 2 lb wheat malt (.91 kg)
- 2 lb Munich malt (.91 kg)
- 1 lb CaraPils malt (.45 kg)
- .25 lb aromatic malt (.11 kg)
- .6 oz Nugget hops, 14.3% alpha acid (16 g) (2.5 hrs.)
- 1.8 oz Saaz hops, 3.7% alpha acid (52 g) (45 min.)
- .6 oz Kent Golding hops, 8.4% alpha acid (16 g) (45 min.)
- .6 oz Centennial hops, 8.8% alpha acid (16 g) (45 min.)
- Highland Brewing Co. ale yeast
- .75 cup corn sugar (177 mL) (to prime)
- Original specific gravity: 1.110
- Final specific gravity: 1.033
- Boiling time: 2.5 hrs.
- Primary fermentation: 20 days at 65 degrees F (20 degrees C) in glass
- Secondary fermentation: 19 days at 65 degrees F (20 degrees C) in glass

#### Brewer's Specifics

Mash grains at 154 degrees F (68 degrees C) for 90 minutes.

#### Judges' Comments

"Chewy toffee and caramel. Good complexity. Lots of warming alcohol, intense character."

"This is very complex. It has a lot going for it."



Every gold-medal winning recipe from the AHA 1999 National Homebrew Competition was printed in the 1999 Nov/Dec Zymurgy (Vol. 22, No. 6) "Winners Circle."

## English-Style Pale Ale



### BRONZE MEDAL

#### AHA 1999 NATIONAL HOMEBREW COMPETITION

Fred Hartwig, Independence, MO

"Independence Pale Ale"

India Pale Ale

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

10 lb pale malt (37.85 kg)  
1 lb 40 °L crystal malt (.45 kg)  
3 lb pale ale malt (1.81 kg)  
.5 lb biscuit malt (.23 kg)  
.5 lb flaked barley (.23 kg)  
1 oz Cascade hops, 5.8% alpha acid (28 g) (90 min.)  
1 oz Target hops, 10% alpha acid (28 g) (40 min.)  
.5 oz Northern Brewer hops, 7.5% alpha acid (14 g) (35 min.)  
.5 oz Cascade hops, 5.8% alpha acid (14 g) (dry, secondary)  
1 oz Cascade hops, 5.8% alpha acid (28 g) (dry, keg)  
Wyeast No. 1056 American ale yeast  
forced CO<sub>2</sub> to carbonate

- Original specific gravity: 1.063
- Final specific gravity: 1.014
- Boiling time: 90 min.
- Primary fermentation: 7 days at 64 degrees F (18 degrees C) in glass
- Secondary fermentation: 7 days at 64 degrees F (18 degrees C) in glass

### Brewer's Specifics

Mash grains at 155 degrees F (68 degrees C) for 90 minutes.

### Judges' Comments

"Very hoppy, fruity. Intense flavor and aftertaste. Excellent effort!"

"Very nice. Hop flavor lingers."

## Specialty Beer



### BRONZE MEDAL

#### AHA 1999 NATIONAL HOMEBREW COMPETITION

James MacDonald, Arvada, CO

"Rye Wit"

Classic-Style Specialty Beer

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

6 lb pale malt (2.72 kg)  
4 lb white wheat berries (1.81 kg)  
1 lb flaked wheat (.45 kg)  
.5 lb malted rye (.23 kg)  
.5 lb flaked oats (.23 kg)  
.2 lb rye berries (.11 kg)  
1 lb rice hulls (.45 kg) to assist sparge  
.5 oz Kent Golding hops, 5% alpha acid (14 g) (60 min.)  
.5 oz Kent Golding hops, 5% alpha acid (14 g) (20 min.)  
.5 oz Spalt hops, 5% alpha acid (14 g) (10 min.)  
.6 oz bitter orange peel (20 g) (steep)  
1.2 oz ground coriander seed (14 g) (5 min.)  
Wyeast No. 3944 Belgian Witbier yeast

- Original specific gravity: 1.051
- Final specific gravity: 1.012
- Boiling time: 60 min.
- Primary fermentation: 4 days at 68 degrees F (20 degrees C) in plastic
- Secondary fermentation: 24 days at 60 degrees F (16 degrees C) in glass

### Brewer's Specifics

Mash grains at 120 degrees F (40 degrees C) for 45 minutes. Raise temperature to 152 degrees F (67 degrees C) and hold for one hour. Mash-out at 156 degrees F (69 degrees C) for 10 minutes. Use rice hulls in mash to lighten consistency and improve sparge flow.

### Judges' Comments

"I liked this very much! A very subtle blend of grains, hops and spices. Would like to know your recipe."

"Very well-made beer. Spice flavors are up front with malt in background. Citrusy smell and flavor. . . . Keep making lots of it."

## California Common Beer



### SILVER MEDAL

#### AHA 1999 NATIONAL HOMEBREW COMPETITION

Ray Taylor, Fargo, ND

"I call it STEAM!"

California Common Beer

Ingredients for 5.5 U.S. gal (20.82 L)

7.5 lb pale malt (3.4 kg)  
.75 lb wheat malt (.34 kg)  
.75 lb aromatic malt (.34 kg)  
.75 lb wheat malt (.34 kg)  
.75 lb CaraPils malt (.34 kg)  
.5 lb CaraMunich malt (.34 kg)  
2 oz Special B malt (57 g)  
.75 oz Northern Brewer hops, 9.2% alpha acid (21 g) (90 min.)  
.5 oz Northern Brewer hops, 9.2% alpha acid (14 g) (30 min.)  
.5 oz Northern Brewer hops, 9.2% alpha acid (14 g) (15 min.)  
.25 oz Columbus hops, 13.6% alpha acid (7 g) (5 min.)  
.25 oz Columbus hops, 13.6% alpha acid (7 g) (2 min.)  
1 oz Cascade hops, 5.5% alpha acid (28 g) (steep)  
Wyeast No. 2112 California lager yeast  
forced CO<sub>2</sub> to carbonate

- Original specific gravity: 1.056
- Final specific gravity: 1.017
- Boiling time: 90 min.
- Primary fermentation: Five days at 68 degrees F (20 degrees C) in glass
- Secondary fermentation: 21 days at 64 degrees F (18 degrees C) in glass

### Brewer's Specifics

Mash grains at 122 degrees F (50 degrees C) for 20 minutes. Raise temperature to 152 degrees F (67 degrees C) and hold for 60 minutes.

### Judges' Comments

"Clean and fun, interesting blend of flavors."

"Tasty malt character, nice caramel and tasty flavors."

## Herb and Spice Mead



### BRONZE MEDAL

#### AHA 1999 NATIONAL HOMEBREW COMPETITION

Tim Schulz, Roy Taylor, Jim Gebhardt, Carl Eidbo,  
Gene Pribula and Neil Gudmestad, Walcott, ND

"Holiday Mead"

Still Metheglin

Ingredients for 3 U.S. gal (11.36 L)

- 9 lb wildflower honey (4.08 kg)
- 1 tsp yeast nutrient (4.9 mL)
- 1 tsp yeast energizer (4.9 mL)
- 1 tsp acid blend (4.9 mL)
- .5 tsp cinnamon sticks (2.5 mL) per gal (secondary)
- 12 cloves per gal (secondary)
- Flor Sherry yeast

- Original specific gravity: 1.140
- Final specific gravity: 1.040
- Primary fermentation: 3 months at 70 degrees F (21 degrees C) in glass
- Secondary fermentation: 9 months at 70 degrees F (21 degrees C) in glass

### Brewers' Specifics

Heat must to 200 degrees F (93 degrees C) and hold for 15 minutes. Add spices several months after mead is fermented out. Add one whole clove per bottle at bottling.

### Judges' Comments

"Clove is interesting. Some nice honey flavor. Lemony type of acidic flavor blends well with clove astringency. Nice aftertaste. Aggressive clove gets salivary glands active. Very creative."

"Balance is good. Very tasty, interesting flavor combination."

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

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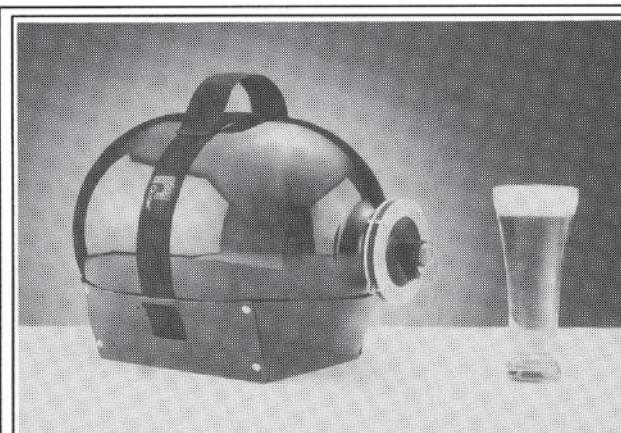
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# CALENDAR

AMERICAN HOMEBREWERS ASSOCIATION

## 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: jlarsen@nxus.com, http://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 bachian@juno.com, http://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.
- 5** 13th Annual National Bay Area Brew Off, **AHA SCP**, Walnut Creek, CA. Entries due 1/10/00 through 1/22/00 with \$6 entry fee. Contact Bryan Gros at (510) 336-3377, email: gros@bigfoot.com, http://www.valhallabrewing.com/board/babo2000.htm.

- 18-19** Kansas City Bier Meisters 17th Annual Regional Homebrew Competition, Olathe, KS, **AHA SCP**. Entries due 2/5/00 with \$6 each for 1-6 entries, \$5 for 7 or more. Contact Steve Ford at (913) 432-6109 (h), email: sparepart@kcbiermeisters.org, http://www.kcbiermeisters.org.

- 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, http://www.tampabaybeers.org.

- 26** 11th Annual Reggale and Dredhop Competition, **AHA SCP**, Boulder, CO. Entries due 2/18/00 with \$5 entry fee. Contact Bob Kauffman at (303) 828-1237 (h), email: acmehow@juno.com, http://www.members.xoom.com/hbwab/.  
**26** Best of Brooklyn 2000, **AHA SCP**, Brooklyn, NY. Entries due 2/7/00 through 2/18/00 with \$5 each first 5 entries, \$4 each additional. Contact Andrew Henckler at (718) 626-3978 (h) or (917) 452-0717 (w), email: henckler@mydeja.com, http://www.hbd.org/mbas/bob2000.htm/.

## MARCH

- 4** Drunk Monk Challenge, **AHA SCP**, Warrenville, IL. Entries due 2/19/00 through 2/26/00 with \$5 entry fee. Contact Steve McKenna at (630) 305-0554 (h) or (630) 961-7846 (w), email: stmckenna@compuserve.com, http://www.synsinc.com/scoombs/ukgdmc/ukgdmc2k.htm.  
**4** Seventh Annual America's Finest City Homebrew Competition, San Diego, CA. \$6 entry fee. Contact Peter Zien at email: pz.jdz-inc@worldnet.att.net, http://soft-brew.com/AFCHBC/.

- 11-25** Bluebonnet Brew-Off, **AHA SCP**, Irving, TX. Entries due 2/11/00 through 3/3/00 with \$6 entry fee for AHA members, \$7 entry fee for AHA non-members, \$10 late entries. Contact Rett Blankenship at (972) 353-3116 (h) or (214) 670-6295 (w), email: Firebrew20@aol.com, http://www.welcome.to/bluebonnet.

- 12** 3rd Annual Eastern Connecticut Homebrew Competition, **AHA SCP**, Willimantic, CT. Entries due 3/6/00 with \$5 entry fee; \$4 if over 4 people. Contact Paul T. Zocco at (860) 742-7879, email: ptzocco@snet.net or Richard Rosen at (860) 742-5465, www.geocities.com/southbeach/coast/1609

- 18-19** St. Patrick's Cascadia Cup Homebrew Competition, Woodinville, WA. Entries due 3/10/00 with \$6 entry fee. Contact Marc Milrod at (206) 632-5832, email: MMILROD@nwhsea.org, http://www.cascadebrewersguild.org.

- 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.

- 25** TRASH X, **AHA SCP**, Pittsburgh, PA. Entries due 2/1/00 through 3/11/00 with \$6 entry fee. Contact Ralph Colaizzi at (412) 331-8087, email: rcw@pair.com, http://www.trashhomebrewers.org.

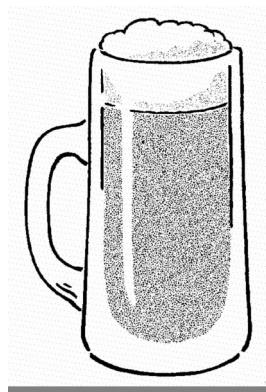
## APRIL

- 1** Salt City Homebrew Competition, **AHA SCP**, Syracuse, NY. Entries due 3/17/00 with \$7 for first entry, \$4 each additional entry. Contact Andrew Moon at (315) 656-8917 (h), email: VAYELIRIVERA@prodigy.net, http://www.hbd.org/clubs/scbc.  
**1** Slurp and Burp Open, **AHA SCP**, McMinnville, OR. \$6 first entry, \$5 additional entries. Contact Ted Hausotter at (503) 538-9501 or (503) 625-2566.

- 21-30** American Homebrewers Association National Homebrew Competition. Rules and regulations in polybag of this *Zymurgy*. Shipping addresses for first round sites will be published in March/April *Zymurgy*.

## MAY

- 19-21** 11th 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 ext. 136 (w), email: bachian@juno.com, http://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 March/April 2000 Issue (Vol. 23, No. 2), information must be received by January 7, 2000. Competition organizers wishing to apply for AHA Sanctioning must do so at least two months prior to the event. Contact Paul Gatzka at paulg@aob.org; (303) 447-0816 ext. 122; FAX (303) 447-2825; PO Box 1679, Boulder, CO 80306-1679.

**KUDOS •**

AHA SANCTIONED  
COMPETITION PROGRAM

**JULY 1999 •**

**Oregon State Fair Amateur Beer Competition**  
Salem, OR, 131 entries - Mark Norbury of Salem, OR won best of show.

**AUGUST 1999 •**

**Wild Brew '99**  
Tulsa, OK, 120 entries - David Moos of Tulsa, OK won best of show.

**4th Annual Montgomery County Fair Homebrew Competition**  
Gaithersburg, MD, 85 entries - Stephen Laughlin of Derwood, MD won best of show.

**1999 Colorado State Fair Homebrew Competition**

Colorado Springs and Pueblo, CO, 65 entries - Rick Chase of Parker, CO won best of show.

**Benton Franklin County Fair**  
Kennewick, WA, 46 entries - Wayne Robertson of Richland, WA won best of show.

**Mt. Brewer Open '99**  
Huntington, WV, 81 entries - Mike Bronosky of Flatwoods, KY won best of show.

**SEPTEMBER 1999 •**

**Eastern Idaho State Fair**  
Blackfoot, ID, 45 entries - Bob Beckwith of Firth, ID won best of show.

**Santa Cruz County Fair Homebrew Competition**  
Watsonville, CA, 76 entries - Ron Elfving of Santa Cruz, CA won best of show.

**1999 Cactus Challenge**  
Lubbock, TX, 158 entries - Dean Fikar of Fort Worth, TX won best of show.

**Northern New England Regional Homebrew Competition**  
Rockport, ME, 239 entries - Clifford Timpson of Milton, VT won best of show.

**OCTOBER 1999 •**

**Mid-South Fair Homebrew Contest**  
Memphis, TN, Michael Lee won best of show beer, Robert Lewis won best of show mead, John and Doran Moranville won best of show cider.

**Minnesota Brewfest**  
St. Cloud, MN, 70 entries - Gary Westman of Shorewood, MN won best of show.

**Arizona Society of Homebrewers Oktoberfest**  
Phoenix, AZ, 67 entries - Doug Chaffee of Mesa, AZ won best of show.

**The Derby Brew Club 6th Annual Homebrew Competition**  
Derby, KS, 118 entries - Chris Kaufman of Derby, KS won best of show.

**Fort Lauderdale American Brewoff**  
Weston, FL, 53 entries - Robert Gordash of Davie, FL won best of show.

**Third Annual Flavor of the North Homebrew Competition**  
Duluth, MN, 76 entries - Bob and Tina Packwood and Mike Talarico won regular beer best of show, Bryn Jacoben won flavored beer best of show.



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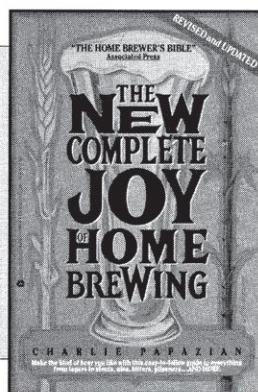
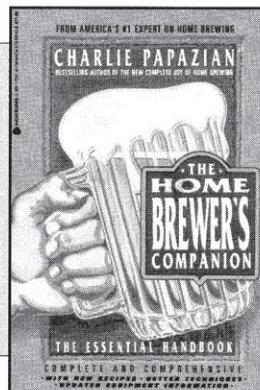
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**Dear Professor** (from page 21)

matter is that most propane "King Kookers" throw out a hell of a lot more BTU's of heat than any stove or bunsen burner. I mean we're talking LOTS of combustion when those puppies are turned up. So to play it safe, warn and discourage the use of high energy propane heaters indoors. Now, the furnace and the water heater are another matter—they're vented to the outside, so you don't get the waste products of combustion, such as carbon monoxide, that might accumulate in closed quarters.

*Still recommending "Don't!"*

The Professor, Hb.D.

**Yeast Viagra?**

Dear Professor Surfeit,

I've been a homebrewer and AHA member for about 15 years and have had many a success in brewing. Due to several work related transfers, I have taken a four year hiatus from brewing. Now that I have hopefully settled down, the wife agreed to let me upgrade my brewing equipment and get started again. I have, unfortunately, developed a problem

that I have been unable to fix. I'm stuck on primary fermentation's, and primary fermentation's are stuck on me. I want to get that full "looks like the wort's boiling" type of ferment. I've had many discussions and homebrews with my local homebrew shop owner, and nothing has helped. So help me, Professor Surfeit, you're my only hope. I'm an extract brewer and brew as Papazian has taught me in the *Complete Joy of Home Brewing*.

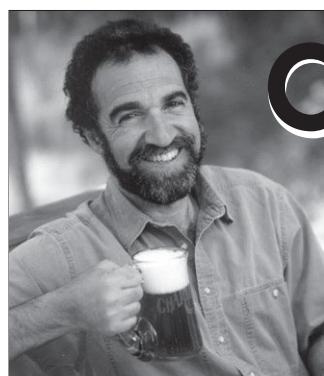
I now have a full rolling boil of five gallons of wort, and I use a wort chiller. Our first thought was that the wort wasn't getting aerated. I now strain the entire wort to remove the hops. By the time the wort is in the fermenter, it is very foamy. Next, I siphon the wort off the trub, using an aerating cone on the end of the siphon hose. I think that should take care of any aeration concerns.

We next thought I might be under pitching my yeast. I used Wyeast 1056XL liquid yeast. I also stepped up the volume of yeast by making a quart of yeast starter. Six hours after I pitched the yeast, fermentation had started, and there was about a quarter inch of krausen on the wort. But my optimism quickly deteriorated as the krausen never rose over two inches above the wort and at took two weeks to ferment out. It was a one bubble a second in the airlock kind of ferment.

We next turned our attention to my grain bill. I typically use four pounds of Alexander's Pale Malt Extract, two pounds of spray malt, one pound of wheat extract and one pound crystal malt, that I steep prior to the boil. I'll also add about two ounces of boiling hops and one-two ounces of finishing hops, depending on my mood. I also use local tap water, which is hard, and is described as good ale water. Original gravity is 1.066 and final gravity is 1.018. I don't have a good taste profile, as I imitated one of my favorite locally brewed beers, Hopalleuia by Spilker Ales of Cortland NE, and they use a very judicious amount of dry hops.

I hope I have given you enough information so you can tell me what I need to do. I want you to help because the Wife wants me to make some mead, and I'm not about to try that endeavor until I can get my fermentation up. Is there a Viagra for yeast?

Sincerely,  
Mark Fjeld  
Omaha, NE



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## Charlie's COMING TO TOWN.



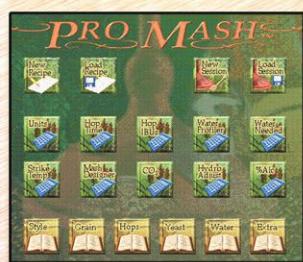
Charlie Papazian, homebrewing guru and founder of the American Homebrewers Association®, is hitting the road throughout the Mid-Atlantic states. He'll be stopping at a homebrew shop, brewery, or homebrew club meeting near you—looking for great beers, good times, and good friends. Bring a friend who hasn't brewed yet, and we'll see you there!

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Dear Mark,

I've printed you're letter out in full because it outlines a great way to update brewing techniques while still maintaining the ease and quality of extract beers. All the symptoms of your fermentation indicate inadequate aeration, underpitching yeast or that your temperatures a bit too cool for the type of yeast you are using.

You could attempt to aerate your chilled wort a lot more. Sure you are getting a foamy head, but what you need to do is really shake that carboy in order to get more air into solution. It sounds like you are getting plenty of air—but try a more forceful approach. You could go the gadget route and buy a small aquarium pump and pump air into your wort. There are even homebrew gadgets that you can attach and get a fine spray of bubbles. Stuff sterile cotton in the hose and you will effectively clean the air you are using.

Underpitching? That could be but 1056XL should do the trick. You could culture it through one cycle in a gallon jug with some preboiled and cooled wort. Shake the beezingers out of the wort, i.e., shake shake shake.

Then there's the temperature. Ale yeast like 1056 would do well to be started around 70 degrees F (21.5 degrees C) or even a few degrees higher. Maintain temperatures at about 66 to 70 degrees F (19-21.5 degrees C) to observe a forceful head and rapid primary fermentation.

You've got all the right attitudes. Welcome back to homebrewing and keep on brewin'.

The Professor, Hb.D

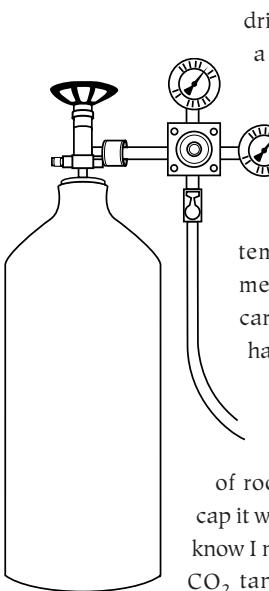
### Forced Carbonation be With You

Dear Professor Surfeit,

I've been homebrewing since 1991; tried everything from full-extract to all-grain and have had relative success at every level. I've always bottle conditioned my homebrew and I really don't have much desire to force-carbonate my beer.

However, my kids love homemade root beer, and I just don't have the refrigerator space to store it after it reaches appropriate carbonation level.

What I need to know is how would I force carbonate root beer or any other soft



drink without using a keg? The yeasty taste is unfavorable if it's left too long at room or even basement temperature, not to mention the "over-carbonated" effect it has on the root beer.

Is there a way to force carbonate individual bottles of root beer and then cap it with a crown cap? I know I need to purchase a CO<sub>2</sub> tank, but are there devices out there that would allow me to do this?

Thanks,  
Mike Bargardi

Dear Mike,

I love you man! I wish all the questions I get were as simple to answer as yours. There's a little doo-hicky-ma-jig that you can buy at your local homebrew supply store. It's called a carbo-cap or something like that. There may be different brand names. It's basically a cap that screws tightly onto a plastic PET bottle. The cap has a quick disconnect adapter on the top, the kind used on cornelius-soda-type kegs. This system is not for use with glass bottles! You put your uncarbonated soft drink in a plastic PET bottle. Chill the contents for best results. Adjust the regulator on your CO<sub>2</sub> tank to the desired pressure. Start out between 5 and 10 pounds p.s.i. Connect the gas to the carbonator cap and shake the contents. Ta-dum. Within a minute you have carbonated soda. For best results visit your local shop and have a two minute discussion before using. Simple.

There you go,  
The Professor, Hb.D.

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



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### Dubbel Vision (from page 35)

says, "so a warmer fermentation should be used to favor ester development."

Strong likes the combination of Styrian Goldings for bittering and Saaz in the finish.

### EXTRACT ALTERNATIVES

It's going to be difficult to attain an appropriate character with malt extract. "It will be tough to get the malty flavor and dry finish," says Anderson. "It's probably a good idea to do a partial mash." Strong suggests a very malty extract such as the Ireks brand.

### FOLLOW YOUR MUSE

There you have it. Follow your muse. Explore the following references. Seek your dubbel vision. Amen.

### REFERENCES

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Strong, Gordon. *Belgian Dubbels*, personal correspondence.  
**Jim Dorsch publishes *Mid-Atlantic Brewing News* (information: [www.brewingnews.com](http://www.brewingnews.com)). **

### GABF Reigns Supreme (from page 25)

Charlie Gottenkieny had to cancel his trip to Denver for this year's GABF, but with the popularity of his geuze among National Homebrew Competition judges, he may very well win the coveted title once more and be there next year.

At the Brewer's Publications booth, editor Toni Knapp was on her own to take on the masses. According to Knapp, book sales were very strong at the festival: among the best-sellers were *Sacred and Herbal Healing Beers* by Stephen Buhner and *Beer in America* by Gregg Smith. Pete Slosberg, maker of "Pete's Wicked Ale" was also on to sign copies of his wicked new book, *Beer for Pete's Sake: The Wicked Adventures of a Brewing Maverick*.

You'll find a complete list of 1999 GABF winners in this *Zymurgy*, and on our website at <http://beertown.org>.

**Amahl Turczyn is a 1998 GABF gold-medal-winning professional brewer.** 



**Charlie and Sandra Papazian have a drink, the Kaltenberg booth and the Harley giveaway at the Longmont Humane Society booth.**

## **Seattle Success Story** (from page 31)

involved in the brewery and downgraded his role to that of consultant.

### THE A-B CONNECTION

As for Redhook's alliance with Anheuser-Busch, Shipman claims he had the idea as early as 1985. "The beer business comes down to two things: 1) image and 2) distribution," he notes. And he didn't want to have to worry about the latter. As the number of breweries across the country has increased, the number of wholesalers has plummeted...and will probably continue in that direction, with the blessings of the large brewers. According to a recent article in *Beverage World*, for instance, Anheuser-Busch would like to reduce the number of distributors nationwide from just under 700 to 300. "When wholesalers consolidate, they tend to focus on fewer, higher volume products. It's all part of a trend toward profitability. I was way ahead of the curve in worrying about this," insists Shipman.

Shipman made his pitch to a roomful of A-B executives in November 1993. "Within six weeks after the presentation, August Busch III came to visit me," recalls Shipman. He remains impressed with the president/CEO of the world's largest brewery. "August Busch cares more about the quality of his beer than any brewer I have ever met...except maybe us!"

"We made the deal in an hour," states Shipman, "but it took 11 months to document." A-B was allowed to acquire 25% of Redhook (negotiated downwards from 49%). In return, Redhook was permitted to approach A-B's network of distributors as an A-B-affiliated product. (This was important, because since 1996 Anheuser-Busch has granted extra credit, trucks painted for free, and other perks to wholesalers who sell only brands from A-B's portfolio. As a result, many of these wholesalers have dropped all rival brands, including numerous microbrews.)

About this time, Shipman was becoming a gadfly to major contract brewers such as Boston Beer Company's Jim Koch. Shipman believed contract brands like Pete's and Sam Adams were misleading the public about their point of origin, and that it was impossible to maintain quality control by renting tank space in other people's plants. He also predicted



**Wynn Jones has been brewing since 1994.**

that the industry was about to experience a major reduction in excess capacity (a prognostication that came true when Stroh folded in early 1999). The only way one could control one's destiny, insisted Shipman, was to build one's own breweries from the ground up...and this he intended to do in various regions around the country.

Koch disputed Shipman's claims, and derisively referred to his product as "Budhook." He also pointed out, correctly, that Shipman's minority partner Anheuser-Busch was the world's largest contract-brewer, producing its beer under license in numerous foreign facilities.

### A MELLOWING OF MEISTERS

Both men have mellowed out considerably. Koch, at the 1999 National Craft-Brewers Conference in Phoenix, stated that his biggest mistake was poaching in the Pacific Northwest with his Oregon Originals line. And Shipman has softened his stance on contract brewing. On a February 1999 visit to the Brickskeller Restaurant in Washington, DC, he was so impressed by one local product—Toppers' Hop Pocket Ale from the Old Dominion Brewing Company—that he talked about doing a West Coast version. He also revealed that he's been producing a 3.2 version of his Redhook ESB under license at the Uinta Brewing Company in Salt Lake City, UT.

When Shipman landed the deal with Anheuser-Busch, envious colleagues may have felt that now the sky was the limit for Redhook. But it hasn't turned out that way. In late 1997, declining sales forced Shipman to lay off 10 workers and curtail brewing at the Fremont facility. In 1998, the company turned out 202,000 barrels, a decline of 6% from 1997. Redhook's Portsmouth, NH brewery did a little over 50,000 barrels, about 25% of capacity. "We're committed to it, but thank God we did the IPO and got all that money," comments Shipman.

Even though second quarter 1999 sales were down a few percentage points, Shipman was optimistic that Redhook—and the industry as a whole—were over the hump. He said he was looking forward to the beginning of a new millennium. "I think Y2K is going to be a non-event, but it will be important for the business. People are going to be so happy when the airplanes still fly and bank machines still work that they're going to drink a lot of beer."

Regarding his plans to build a third branch in America's heartland, Shipman said, "I don't know if I'll build another brewery in my career. But I've got one on my mind, and so far everything in my mind has been realized."

**Veteran beer writer Greg Kitsock recently received an award from the Beer Writers Guild for his *Zymurgy* story on Anchor Steam. Congratulations, Greg!**

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**It's the Beer Talking** (*from page 5*)

continue to have three mead categories, using BJCP descriptions and specifications. A listing of categories for the NHC is included in the polybag that accompanies this *Zymurgy* with the Rules and Regs for the 2000 AHA NHC. The full listing of style descriptions and specifications is available on [www.beertown.org](http://www.beertown.org) or [www.bjcp.org](http://www.bjcp.org). I would also like to appeal to all judges to print your own copy of the guidelines to bring to each homebrew competition you judge. That way, competition organizers do not have to spend money and paper on a large number of photocopies for every competition.

The AHA is committed to working together with homebrewers, clubs, shops, technical information sources and other organizations to create a better, more unified homebrewing community. Picture a lambic cellar. We can have a major homebrewing network all working together with the AHA as the spider in the center connecting all of the strands of the web together through the power and energy of our members.

**Homebrewer and former homebrew shop owner Paul Gatz is the director of the AHA.**

**So You Want to Run a Competition?**

(*from page 42*)

numbers and judge scores and tidying up the tables. It's also a great way for an aspiring beer judge to learn about competitions and how judges conduct the judging. In fact, stewarding an event for which the BJCP provides judges gives not only the judges experience points toward a greater BJCP rank, but the stewards advance as well.

**Where can the beer be stored?**

Again, this depends on the size of the event. Usually, if it is small and the entries number less than 100, storage won't be that big a deal. If you are holding the event at a restaurant or brewpub, storage space will be easy to come by, but make sure you plan ahead with them, especially in the summer when their coolers may already be pretty full. Ice chests or spare chest freezers also can be brought in by well-supplied homebrewers in a pinch. Remember that a few hours before the event you may want to take out some beer styles, like English ales, and let them warm up to serving temperature. Judges appreciate it if the stouts and barley wines are not ice cold, though the American light lagers are.

**What's a "calibration beer"?****Do we need them?**

While not strictly necessary, a calibration beer is served at many competitions just prior to the first round of beer to be judged. It can be a local microbrew, commercial bottles of beer or even homebrew. Basically, it just allows the judges to get a feel for each other's comments and judging style, and to warm up their palates. You don't necessarily have to have a commercial example of each style represented in the competition. In an ideal world, that would be great, but even if you have an ale, a lager and a mead to pass around judges will appreciate it.

**What sort of restrictions should be place on entrants?**

You should make a set of rules and regulations available for entrants. This will include the categories of beer styles they are allowed to enter in your competition, bot-

tle size and type, where people can drop off or mail their entries, what the entry deadlines are, where and when the judging, award ceremonies and prize distribution will occur.



The new, unified style guidelines can be downloaded from [www.beertown.org](http://www.beertown.org) or [www.bjcp.org](http://www.bjcp.org). Competition organizers can expand or collapse categories based on expected or actual entries. A web page for all this competition info is a great idea if someone in your club is so inclined. Two bottles required per entrant should suffice for one-round competitions and a best of show. Most judges prefer unmarked 12 ounce brown long-neck returnable bottles with blank caps. This makes it easy for the sorters to pack them in cases, and assures anonymity of each entrant. State something like "Failing to follow these rules may result in disqualification," just so entrants take you seriously, though most organizers will try their best to work with entries so all can be accommodated.

Clubs often have drop-off points at homebrew shops, breweries or wherever there is plenty of cooler space to store the bottles until competition time. Clubs should allow a few days at least between the last day entrants can send in or drop off beer and the day of the competition so the beer can be unpacked, sorted, labeled and packed in case boxes. All the above should be done while the beer is cold to preserve its quality and freshness. If you can give it at least day or two to settle, too, that's great for entrants who bottle condition and don't want to be marked down for having cloudy beer.

**Should we do a "best of show" round?**

This is usually a good idea that allows you to determine the best entry of the competition. Organize your judges so they judge the volume of beers in each category first, and as they go set aside the most promising ones. This is where having entrants send in two bottles instead of one comes in handy. Judges can argue the merit of the best beers, set them aside, then have fresh bottles to open when it really comes down to selecting the top beers. With a one-bottle-per entry competition this is more dif-

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ficult because the opened beers or meads warm up, lose carbonation and may kick up sediment, changing their character. Of course, experienced judges will take all this into consideration if one bottle is all they have to deal with, but having two makes life easier for them.

### When should we get started?



As soon as possible.

It's not uncommon, especially for some of the older, larger club-only competitions

to start finding sponsors and donors five or six months prior to the actual event. Make life easy for yourself and come up with a time line so your club will have set deadlines by which each step of the process needs to get done. That also helps everyone who has specific tasks laid out for them, and gives the organizer time to find alternatives in case one step or another takes a little longer than planned. But above all, don't panic! It's just beer. Have fun at it, and others will too.

### Where can we get more information on holding our own competition?

Both the AHA and the BJCP can help you organize your event—the AHA is great for advertising and providing forms and information; the BJCP is great for providing judges, forms and information. The AHA's Sanctioned Competition Program allows you to receive benefits from both organizations, and the sanctioning fees you pay (\$40) are split evenly between the two.

**Amahl Turczyn is the former AHA Project Coordinator.**



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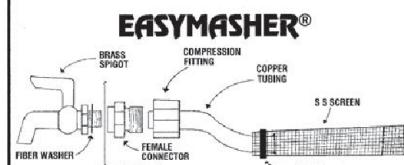
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# Annual Fish & Brew Day



For the past three years, our homebrew club, coincidentally named, the Hop River Brewers, has conducted a trout season opening day fishing and brewing event. The HRB clubhouse is on the banks of the Hop River in Andover, CN, built and owned by an avid and passionate pharmacist/homebrewer. Aside from the obvious attraction of the trout in the river, we have a well-

the other activities of the day. One of the club members deep fries a Cajun style turkey while another stokes up his smoker and fills it with sausage and chicken. In case we get hungry, someone is also assigned to grill hot dogs and burgers.

By 8 p.m., the non-fishing contingency starts showing up with bags of food and coolers of all types of homebrew (again,

brewed in half-barrel brewing systems, one a commercial type and the other a back-yard home-built system (watch *Zymurgy* for details of this one). With so many homebrewers present, there are as many opinions on topics such as hop additions, grain bill, temperatures and recipe formulas as trout.

Grains are added, mashing temperature monitored, hops sprinkled in, pH's checked, and all sorts of the fun things are done that go along with homebrewing. There is much discussion concerning why this chosen method is better than that one. This may be the one recipe where too many cooks don't spoil the pot.

The day passes with people stopping by to see, "What's all this homebrewing about?" Some try their hand at catching a trout as they see others arrive from the river with fish in hand (I caught my limit this year!). Members, friends and families share their experiences of brewing, fishing or whatever else comes to mind.

Today, at least, the kitchen doesn't smell like a brewery!

**Gadget guy Paul Zocco is also an avid windsurfer.**

**There is great food to eat, homebrews to enjoy and fishing tales to tell later on in the day.**

equipped kitchen designed for home brewing, refrigerators full of beer, and hop vines growing out in front. Cases of empty bottles, coasters, colorful beer towels and other beer paraphernalia are found in every corner. This is homebrew heaven.

At the crack of dawn on this special day, we brew-brothers/fishermen wet our fishing lines in anticipation of catching the elusive trout. There is great food to eat, homebrews to enjoy, and fishing tales to tell later on in the day. The plan is to add a fish fry to all

none of us wants to risk starvation if the fish aren't biting).

Traditionally, a 15-gallon batch of beer is brewed on this special day by one of our very passionate (beerwise, of course) club members, usually an oatmeal stout affectionately called Trout Stout. This beer has won many local beer awards and has been enjoyed by all at our monthly club night meetings. I brew a 15-gallon batch of IPA (Brookie Ale), which has also been a very successful award-winner. Both beers are

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With more than 125 different parameters to control in every batch, it's not surprising to find them tasting, testing, and talking beer deep into the night.

As they tell us all too often, a brewer's work is never done.

### The Brewers of Samuel Adams Beer

