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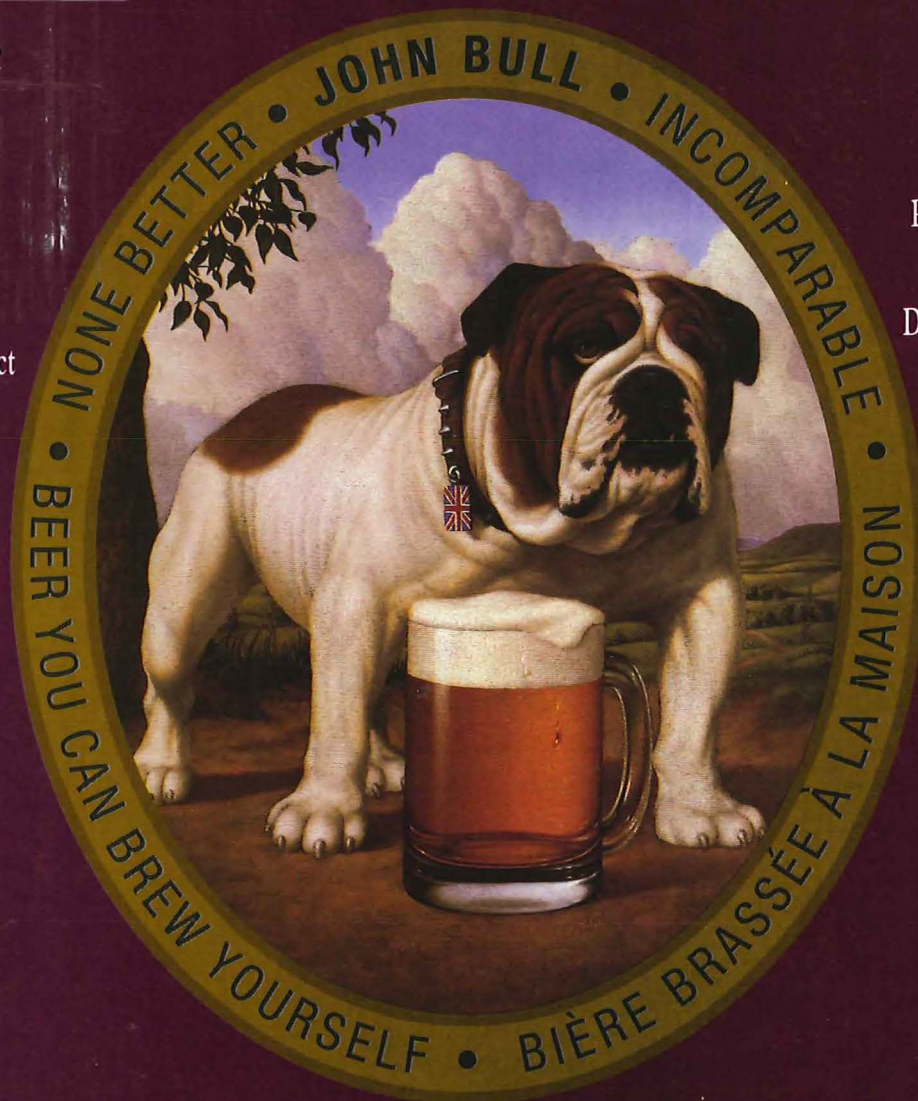
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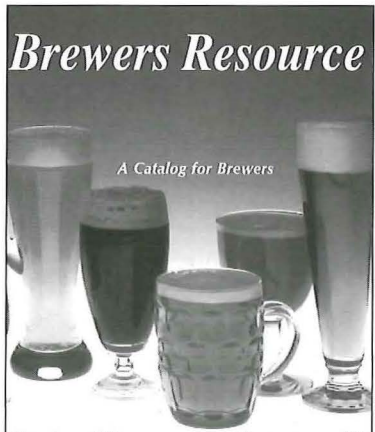
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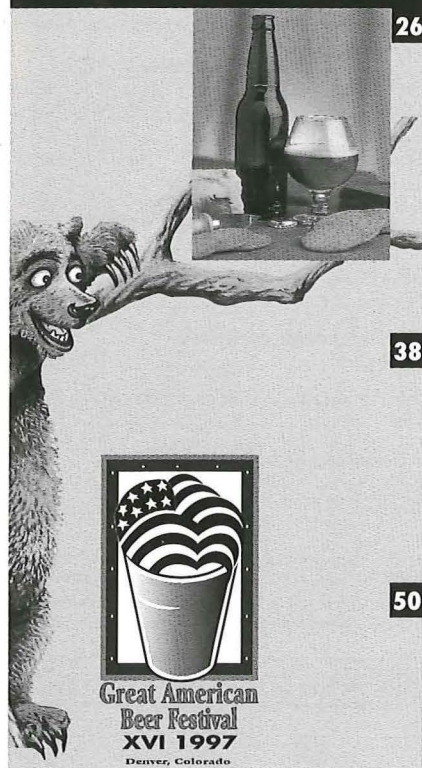
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tion, as in brewing.*



VOLUME 20, NUMBER 5



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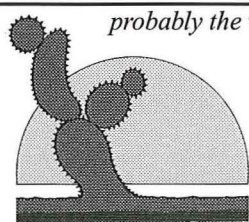
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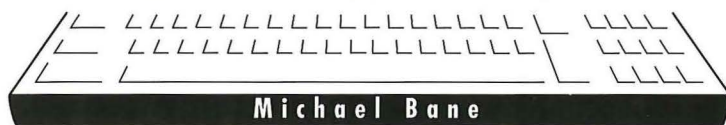
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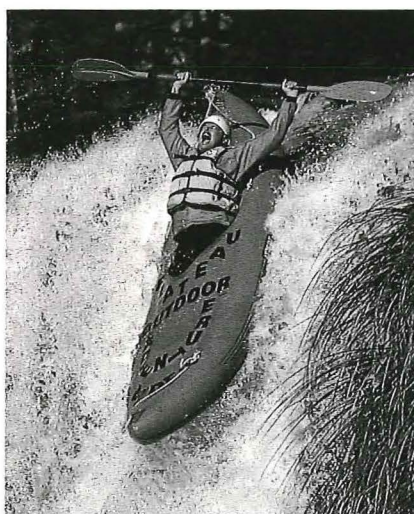
EDITORIAL



I think it was management guru Tom Peters who noted a while back that change has become the only constant. Dena Nishek, who's done such a spectacular job shepherding *Zymurgy* for the last six years, has moved on to greater challenges as an editor (although she assures us that she'll continue homebrewing).

In the meantime, the Captain's Chair (at least, that's what they call it on the Enterprise) has been passed to me. I'd like to regale you with stories of my homebrewing expertise, but, as yet, I don't have any. What I do have is 20 years' worth of magazine experience and a deep, abiding love of beer. I'm lucky enough to have—like Charlie Papazian—a thoroughly checkered career. You may have read my most recent book, *Over The Edge: A Regular Guy's Odyssey In Extreme Sports* (or, heaven forbid, seen me on television doing stupid things), or one of my earlier books. My *White Boy Singing The Blues*, which has been in print for more than a decade, was, last year, called one of the five best books on rock and roll ever written. I write regularly for *Men's Journal*, *Snow Country*, *Aqua*, *Men's Fitness*; my articles have also appeared in such magazines as *Rolling Stone*, *Esquire*, etc. I've written about everything from small wars to barbecue—a few months ago, I had lunch in Nashville with Dolly Parton (no, as a matter of fact...She drank only mineral water...).

I have noticed a really strange beer phenomenon, however. Whenever I've traveled to the far reaches of the world for a story, I always include in that story a little bit about the local beer, good or bad. When I get



letters, it's always about the beer. Always. My favorite was after spending some time whitewater rafting in Central America, I wrote about a beer that was spectacularly bad. I received a letter from the son of the founding brewmaster of that particular beer. He agreed that the beer was pretty grim taste-wise, but it had a high alcohol content and was really, really cheap.

In any case, this week I start Homebrew 101 with Jim Parker, who swears he could teach even a dog to homebrew. I then get passed around through the rest of the AHA experts, and finally end up in Finishing School with Charlie P.

If you'd like to toss in your two-cents worth (luckily, homebrewers aren't a bit opinionated!), you can reach me through the AHA webpage or my e-mail address (michael@aob.org).

I look forward to hearing from you!

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standards. You see, Sean belongs to that

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naturally processed hops and

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boiled in our 1000 gallon

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on including a special dry hop package

for extra aroma and flavour. And true to

form, his instructions are comprehensive,

even with information on the specific

ingredients used. Sean's no dummy. He made Wort Works with his

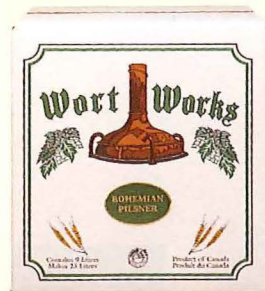
fellow homebrewers in mind, but he also made sure

that its user friendly, no-boil method would be perfect

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DEAR

Z Y M U R G Y

Our Readers

Corrections

The incorrect system price was reported for the Marcon Filter unit in the *Zymurgy* Fall 1997 (Vol. 20, No. 3) story on filter systems. The proper price for the tested system is US\$160. As a result of this error, the "Total System Cost" values in the table on page 36 of the Fall issue were also incorrect and should have been \$168 for 25 gallons, \$193 for 100 gallons and \$272 for 500 gallons.

Sheaf & Vine Brewing Supply has long since been sold. It should now read: P. T. Barley Brewing Supply
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708-795-HOPS

Add 1 teaspoon of sugar to the list of ingredients for the Basic European-style Soft Pretzel on page 14, *Zymurgy* Fall 1997 (Vol. 20, No. 3).

"Lambic Fermentation Agents" *Zymurgy* Fall 1997 (Vol. 20, No. 3), contained the statement "(a)though the end result . . . it does secrete proteases into the wort. . ." Jim Liddil advises us that as yet, there has been no evidence of protolytic activity in Kloeckera.

Obscure Lambics

Dear *Zymurgy*,

As a barleyophile who has been lucky enough to have lived in Belgium and who visits it often, I was happy to see your cover story, "For the Love of Lambic"

Zymurgy Fall 1997 (Vol. 20, No. 3). John Isenhour's article is a fine introduction to lambic for homebrewers. Because the style is unique, and because the hand-crafting of commercial lambic leads to great variety within the style, I think it's particularly important for homebrewers to have the opportunity to sample the real thing. That was almost impossible in this country until quite recently.

Therefore, your guide to commercial lambics was quite useful. Let me point out, however, one mistake and two omissions in the list. First, Liefmans Kriek is not a lambic. Liefmans specializes in Flemish brown ale—their Goudenband is world-class, and their kriek is a cherried brown ale. It's delicious and, in fact, is the prototype of the kriek I brew—but it isn't a lambic.

You also neglected to mention two of the smallest, but best, producers, Oud Beersel and Hanssens. Both produce spectacularly sour and delicious gueuzes and krieks. Jean Hanssen, in fact, is just about the last of a noble breed of gueuze makers. He doesn't brew the beer himself, but is a master blender, buying the best lambics from various brewers to create just the right blend of old and new beers.

Perhaps these producers weren't listed because their products are so difficult—impossible?—to find on this side of the Atlantic. Even in Belgium, one has to search to find them. I discovered them with the guidance of H. Eftekhari, the knowledgeable and helpful English-speaking proprietor of the outstanding beer

store, Bieres Artisanales, 174 Chaussee de Wavre, 1050 Brussels. If you find yourself anywhere near Brussels, make a pilgrimage to the store and sample the best—and rarest—lambics in the world.

John Rohrkemper
Lancaster, PA

Thanks, John... We're going to make a concerted effort to find those two lambics—Ed.

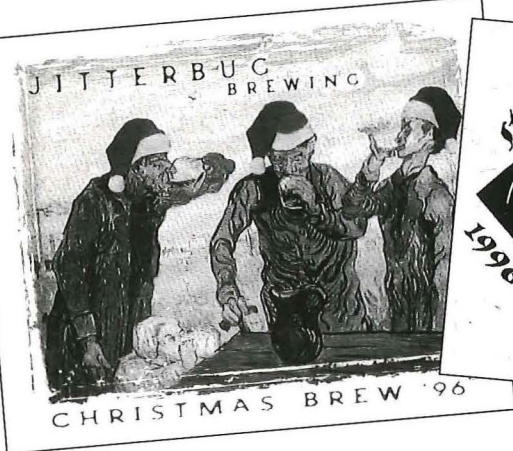
Blue Christmas

Dear *Zymurgy*,

With regard to your request for bottle labels in your last issue (*Zymurgy*, Spring Vol. 20, No.1), I'd like to submit a sampling of the labels I put on my last batch of Christmas Ale. I created them basically freehand on my PC using the Microsoft Paint accessory. The smaller label went around the neck of the bottle while the larger one, of course, went around the base. I found that 6-packs of homebrew make great gifts, and the labels just give them that personal touch. I hope you enjoy them!

Prost!
Paul Hummel,
Harrisburg, PA





Dog Dangers

Dear *Zymurgy*,

My husband, who happens to be an avid homebrewer, gave me a copy of your *It's a Dog's Brew* from *Zymurgy* Fall 1997 (Vol. 20, No. 3). As the regional manager for *Midwest Dog Magazine*, a writer for other dog publications, and a breeder of champion show dogs, I am always interested to read "doggie stories." Although I enjoyed the charming piece, I am more than a little concerned for your readers and

their animals, who may, because of this story, offer beer or other alcoholic beverages to their pets.

I have recently finished an article myself, regarding hemodialysis for dogs. After reading your story I pulled my research file. An article in *Veterinary Medicine*, February 1997 states, "Ethanol toxicosis may occur in dogs and cats after ingestion of alcoholic beverages or raw sourdough containing yeast *Saccharomyces cerevisiae* (common baker's and brewer's yeast)." Reference: Thrall, M.A. et al Ethanol toxicosis secondary to sour-

dough ingestion in a dog. *JAVMA* 184: 1513-1514; 1984.

Jym Shearer's Greyhounds appear to have suffered no ill effects thus far, perhaps due to their size relative to the amount ingested, their metabolism or some other factor. The fact remains it is irresponsible of you not to make your readers aware of the potential danger. I hope you will print this information in an upcoming issue. Your readers should be encouraged to keep all of their supplies and "brew" out of the reach of pets and children.

Sincerely,
Virginia Larioza
Midwest Dog Magazine
San Diego, California

Keeping Cool

Dear *Zymurgy*,

After reading the "Chill Out" article in *Zymurgy* Fall 1997 (Vol. 20, No. 3), I wanted to share my experience with you.

A couple of years ago I converted our old chest freezer to keep draft kegs in. I brew ales and want the temperature to be about 45-50 degrees F. No problem, my home-made controller handled the task just fine.

Problem. After a few months the freezer compartment walls started to show moisture, and the tops of the kegs (where drops of beer had been spilled from the cobra heads) were getting moldy.

I inquired about this at an appliance store and was told by a technician the following:

1) chest freezers were designed to run at freezing (32 degrees F) or colder, and 2) they have no built in mechanism to get rid of moisture like refrigerators do. He suggested to run the freezer as cold as possible and clean out the moisture/mold on a regular basis.

My ales will be cooler than I like but on the other hand, it won't take as much CO₂ to carbonate the beer. Life is full of compromises!

Regards,
J. Wdowiak
Warsaw, Ontario

(continued on page 88)


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Pale, Wheat, Amber, & Dark

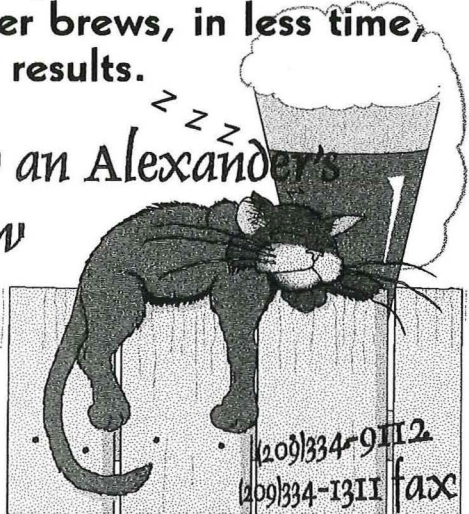
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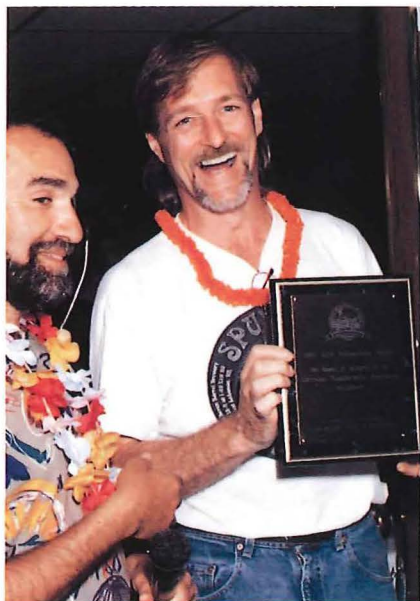
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BREW NEWS

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HEAD LINES



A happy Greg Noonan accepts award.

Noonan Wins AHA Recognition Award

Professional brewer and beer writer Greg Noonan received the 1997 American Homebrewers Association Recognition Award at the Homebrew Rendezvous awards ceremony in Cleveland. The much-deserved honor was given to Noonan for his invaluable service to the homebrewing community. Among his recent books are *The New Brewing Lager Beer* (Brewers Publications, 1996) and *The Seven Barrel Brewery Handbook* (GW Kent, 1996). Greg is brewmaster at the Seven Barrel Brewery in Vermont.

Domestic Tettnanger and Fuggle Hops the Same?

A recent report of gas chromatography tests conducted on U.S. Tettnanger and Fuggle hops showed the two varieties were in fact identical. The American hop industry has been breeding new varieties of Old World hops for several years: Liberty and Mount Hood to replace Hallertauer Mittelfrüh and Hersbrucker, Willamette to replace Fuggle and Cascade to replace Styrian Golding. Only in the last 10 years has the Tettnanger variety been grown on U.S. soil.

Samples of the tested crop as well as the 1991 and 1993 crops were analyzed. It was speculated in the report that either much or all of the crop was labeled incorrectly or, during the propagation and selection of one of these varieties, it was not identified correctly. No checks were made by chemical analysis to confirm the variety. This raises the question of how valuable true "noble-type" hop varieties like Tettnanger really are to homebrewers and craft-brewers alike, if they can so easily be passed off as non-noble varieties like Fuggle. (*Journal of the Institute of Brewing Studies*, July-August 1997, Vol. 103, pp. 239-243)

More Health Benefits of Beer

A study done by Japanese researchers suggests that carcinogens from charred foods prepared on a grill, over a campfire or under a broiler may be reduced by the consumption of beer. Apparently just a few

drops of beer can inhibit these cancer-causing substances. (*Self*, April 1997)

Big Bellies Not from Beer

Several studies conducted in Finland, the United States and the United Kingdom, have concluded that drinking beer does not contribute to what was formerly known as the "beer belly." In a study in Wales, researchers found that on a regular but moderate beer diet (most recommend a half-liter of beer daily), life expectancy can be prolonged one to two years compared to non-drinkers. The low level of alcohol in beer reduces heart ailments by increasing the flow of blood. The high water content compensates for the dehydrating effect of the alcohol, and if you are drinking homebrew, or unfiltered beer, the beverage will be high in B-complex vitamins and proteins. Thanks to the long boiling process, beer is free of bacteria, heavy metals and other contaminants.

As for alcohol contributing to fat, several studies in the United States have provided evidence that calories from alcohol do not lead to weight gain. In Finland a recent study showed that daily drinkers actually were leaner than less frequent drinkers. They speculated that frequent moderate consumption creates an "energy-wasting pathway" for alcohol calories, and that the alcohol does not interfere with the absorption of nutrients.

If you still have your doubts, a U.K. herbal supplement company has released a product called "Beer Block" supposed to prevent the formation of the dreaded pot belly. One pill per pint of beer consumed is

North American Brewery List

The following information is provided by the Institute for Brewing Studies. To obtain a copy of the *North American Brewery List* contact the Association of Brewers at (303) 447-0816. For corrections, omissions or additions, please contact David Marcati at davem@aob.org or (303) 447-0816, ext. 135. This list reflects openings and closings as of Sept. 3, 1997.

OPENINGS

UNITED STATES

Regional Breweries

California: Pyramid Brewery and Alehouse, Berkeley

Microbreweries

California: Sonoma Mountain Brewing Co., Glen Ellen; Russian River Brewing Co., Guerneville; Bonnama Brewing Co., Atascadero; Jack Russell Brewing Co., Camino

Illinois: Two Brothers Brewing Co., Warrenville

Michigan: Bear River Brewing Co., Petoskey; Local Color Brewing Co., Novi

Montana: Big Hole Brewing Co., Belgrade

Ohio: Local Brewing Co., Westlake

Oregon: Caldera Brewing Co., Ashland

Pennsylvania: Appalachian Brewing Co., Harrisburg; York Brewing Co., York; Dirty Dawg Brewing Co. No. 2, Limerick

South Carolina: Appalachian Ale Works, Moore

Virginia: Shenandoah Brewing Co., Alexandria

Wisconsin: Pioneer Brewing Co., Black River Forest; Eclipse Brewing Co., Black Creek; Wild Onion Brewing Co., Lake Barrington

Brewpubs

Arizona: Globe Brewery and Barbecue Co., Globe; Cougar's Brewery and Grille, Glendale

California: Howlin Coyote Brewing Co., Dana Point; Sunrise at the Oasis/Sacramento Brewing Co., Citrus Heights; Old Towne Brewing Co., Orange; The Tap House, Huntington Beach; Dockside Brewing Co., Long Beach; E & O Trading Co., San Francisco

Colorado: Wolf Tongue Brewery, Nederland; The Walnut Brewery (No. 2), Englewood

Connecticut: Southport Brewing Co., Southport

Florida: Big Bear Brewing Co., Coral Springs

Georgia: Rock Bottom Brewery (No. 18), Atlanta

Hawaii: Sam Choy's Breakfast, Lunch and Crabs, Honolulu

Indiana: Duneland Brewhouse, Michigan City; Glaciers End Brewing Co., Indianapolis

Maryland: Capitol City No. 5, Baltimore; Ellicott Mills Brewing Co., Ellicott

Massachusetts: Cottage City Brewing Co., Vineyard Haven

Michigan: Big Rock Chop and Brew House, Birmingham; Blind Tiger Brewing Co., Howell; Goose Island Brewery of Michigan, Keego Harbor; Harper's Restaurant and Brewpub, East Lansing; Mackinaw Brewing Co., Traverse City; North Peak Brewing Co., Traverse City

Minnesota: The Brewhouse, Brewery and Grille, Duluth

Missouri: Iron Horse Restaurant and Brewpub, Suplin

Ohio: Thirsty Dog Brewing Co., North Canton

South Carolina: Charleston Battery Sandwich Shop and Brewpub, Charleston

Tennessee: Breckenridge Brewery and Pub, Memphis

Virginia: Hill Top Brewing Co., Virginia Beach

West Virginia: River and Rail Brewing Co. (formerly Brewbakers), Huntington

Contract Breweries

California: Reccow Brewing Co., San Francisco

CANADA

Microbreweries

Nova Scotia: John Allen Brewing Co., Halifax; The Garrison Brewing Co., Halifax

Ontario: F & M Brewery (reopened), Guelph

Brewpubs

British Columbia: Knucklehead Brewing Co., Victoria

CLOSINGS

UNITED STATES

Microbreweries

California: BrewMakers, Mountain View

Colorado: Squaw Mountain Brewing Co., Golden

Virginia: Old Raleigh Brewing Co., Raleigh

Brewpubs

Colorado: Dimmer's Brewpub, Fort Collins

Florida: Buckhead Brewery and Grill, Tallahassee; Thai Orchid No. 1, Coral Gables (no longer brewing); Thai Orchid No. 2, Miami (no longer brewing)

Nevada: Carson Depot, Carson City; Muddy River Brewery and Sportspub, Mesquite

New Mexico: Compass Rose Brewpub, Alamogordo; Humphrey's Bar and Grill, Gillette

North Carolina: Weeping Radish Brewery (No. 2), Durham

Texas: Panther City Brewery and Café, Fort Worth

Utah: Naisbitts Brewing Co., Ogden

Wisconsin: Black River Brewery and Pub, La Crosse

Contract Breweries

California: Mainline Brewing Co., Los Angeles

CANADA

Microbreweries

Ontario: Elora Brewery Ltd./Taylor and Bate, Elora

claimed to stop the body from storing excess beer carbohydrates. A packet of 60 pills sells for \$30. (*Brauwelt, International*, 1997, Vol. II, P. 85, *Beverage Alcohol Market Report*, Vol. 16, No. 7, and *Modern Brewery Age*)

Reviving Ancient Yeast for Historic Brew

Having trouble getting those two-month-old yeast starters to get going? Try propagating a 40-million-year-old sample. Several strains of prehistoric *Saccharomyces*

cerevisiae have been found preserved in amber, and have been successfully revived for brewing. The Fossil Fuels Brewing Co. has created a line of microbrewed beers with these ancient yeast strains. Thanks to the marvel of modern science, you can now swig a malt beverage that would have been around when dinosaurs walked the earth — if only there had been brewers to make it.

In the more recent year of 1825, a ship sank in the English Channel carrying bottles of porter. Owing to the fact that the bottles were well-sealed with corks and wax stoppers, and the temperature was low enough

and fairly consistent, some yeast in these bottles was recovered and repropagated by Keith Thomas. He markets the beer as Flag Porter, imported by Legends Ltd. (Alyson Dutch, Brown and Dutch Public Relations and Legends Ltd., 1997)

Nude Beer Labels

Cantillon's Belgian lambic beer Rosé de Gambrinus sports a label depicting a voluptuous nude woman sitting on the lap of Gambrinus, the mythic king of beer.

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Painted by Belgian artist Raymond Coumans, the label was not allowed into the United States by the BATF, probably because it fell under the agency's policy against "indecent or obscene" pictures on the labels of alcoholic beverages. Coumans was required to design a special American version of the label that showed the same woman clothed in a long blue dress. Recently that decision was reversed, and the dress has disappeared.

The same BATF policy came into play when Hoegaarden Grand Cru made its debut on the U.S. market. Called "Forbidden Fruit," the strong, spiced Flemish ale has a label based on Reubens' painting of Adam and Eve. The pair is unclothed, except for carefully placed leaves, and is enjoying frothy glasses of ale. When the BATF took issue it seems the importer protested that the label was a great and famous work of art. The BATF official retorted, "Did Adam really tempt Eve with a glass of beer? I thought he used an apple." (Shelton Broers Importers and *Michael Jackson's The Great Beers of Belgium*, p.133.)

THE BIG WORLD OF BEER

Egyptian Brewers to Improve Quality

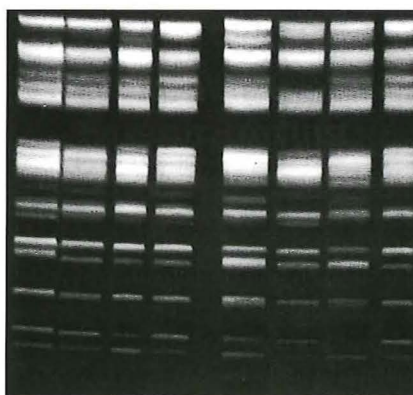
State-owned brewery Stella in Cairo, Egypt, is seeking to clean up their act. U.S. and European investors purchased the brewery in February with the intention of completely reworking the company's image. Quality problems apparently were rampant: dirt, bottle caps, stones, flies, spiders and other insects had been found in bottles; bad

batches discovered by the brewery's lab were mixed in with good ones to tone them down; T-shirts began to circulate reflecting Stella's reputation with their yellow beer label and the slogan "That which does not kill us makes us stronger."

Under new management the company has repaired equipment, undergone a thorough cleaning and sanitation program and includes a bottling date on its label. Danish brewing giant Carlsberg has been contracted to provide technical support. The new Stella Premium, launched in September, is darker, stronger and of much higher quality. It will have to be – two other brewing companies are planning to open in Egypt as early as next year, ending Stella's 83-year monopoly. (*The Daily Camera*, July 30, 1997)

TECHNOTES

Yeast Chromosome Fingerprinting



Lane	Yeast Culture
1	Reference Yeast
2	Bohemian #2124
3	Pilsen #2007
4	Munich #2308
5	American #2035
6	Danish #2042
7	California #2112
8	Bavarian #2206

By closely examining the chromosomal fingerprint of a wide selection of yeast varieties, scientists have been able to draw some startling conclusions about the origins

of ale and lager strains. A wide sampling of lager yeast strains bore such a close resemblance to one another when fingerprinted that researchers concluded all current lager strains evolved from one of two lines: Tuborg and Carlsberg. More detailed examinations of these samples revealed minute differences between strains were caused by environmental selection pressures. Basically, lager yeast is resilient enough to adapt to these pressures without any major mutation of chromosomal characteristics. While some ale yeast strains also bore a distinct resemblance to one another (the Muntona/Nottingham and Irish/British strains in Figure 1), as a whole, ale yeast showed highly disparate fingerprints, not only between strains but within what were once thought to be single strains. German weisse yeast, for example, has a wide variety of different chromosomal signatures – there is no single-strain Weihenstephan wheat beer yeast.

Ale yeast that has been repitched for centuries at certain breweries usually is a blend of several different strains (some exhibiting greater flocculation characteristics than others, for example) working in concert. Because many of these strains originally were selected from a variety of warm-temperature wild yeast strains, it stands to reason they would have a much greater diversity than the highly specialized lager yeast strains. As the technology of chromosomal fingerprinting becomes more sophisticated, researchers will be able to monitor, interpret and control changes in yeast composition to assure greater consistency in yeast behavior. (*MBAA Technical Quarterly*, Vol. 33, No. 1, 1996, and Dr. George Fix)

Specialty Malts

Keith Gretenhardt of Schreier Malting Co. defines specialty malt as "any malt that has been used in brewing and has color and flavor beyond the basic characters found in six-row or two-row brewer's malt." Specialty malts can be further defined by the methods used to produce them and by what they contribute to beer. The three basic groups are color malts, caramel malts and roasted

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malts. There is some confusion over caramel and color malts. Europeans often refer to what U.S. brewers call "caramel malts" as "color malts." In the United States any malt that has gone through saccharification is called "crystal malt."

Color malts can be produced in a standard malt kiln and undergo no roasting. Apart from standard lager or Pilsener malt, this group includes pale ale malt, Vienna, Munich, aromatic, Victory and high-dried malts. The color range in degrees Lovibond generally varies from about 3 to 60. Most of these color malts still have

enough enzymatic content to convert their own starches in the mash, but the heat used to produce darker color malts like Munich and high-dried can deactivate enzymes. Therefore, these malts should be blended with two-row or six-row malt to guarantee complete conversion.

Caramel malts are produced in a roasting drum rather than a kiln. They go in as germinated green malt with a high moisture content (45 percent). The active enzymes within the kernel saccharify the starches and the resulting sugars crystalize. Caramel malts include crystal malt and any malt with

the "cara" prefix: CaraPils, Carastan, Caramalt, CaraVienna and CaraMunich. The color range of these malts varies from 8 degrees Lovibond, namely CaraPils or dextrin malt, to 135 degrees Lovibond for some of the darkest crystal malts. After the saccharification process, these malts are dried to 5 or 6 percent moisture with heat that ranges from 176 degrees F (80 degrees C) to 325 degrees F (145 degrees C).

The amount of heat at this stage varies the color and flavor of the crystallized maltose within these malts. The finished malt has a glassy, brittle texture within the husk when it is finished. Because of the higher temperatures available to maltsters with the roasting drum, caramel malts tend to form more nitrogen heterocyclics, which result in the stronger toffee and nutty flavors. The highest temperatures used for these malts give rise to pyrroles and pyrazines, bringing in burnt, bitter flavors. Caramel malts lend body to finished beer, with increased head retention.

Roasted malts are produced by taking finished malts, or plain barley, and processing them in a roaster. In addition to chocolate malt, black malt and roasted barley, this group includes biscuit malt, amber malt and brown malt. The range of color for these malts goes from around 80 degrees Lovibond for biscuit malt to 500 degrees Lovibond or higher for the darkest varieties (black malt and roasted barley). The grain is subjected to increasing levels of heat in the roaster, ending at temperatures as high as 510 degrees F (230 degrees C), which is perhaps unsurprisingly close to barley's combustion temperature of 543 degrees F (248 degrees C). The carbonization that takes place at these extreme temperatures contributes little body to beer, but imparts very strong color and flavor.

The most important thing to remember when using any specialty malt is to not overdo it. Try using a few ounces in a five-gallon batch, take careful notes on the way it affects your beer's color and flavor and then try adding more if you like the results. (*Technical Quarterly*, Vol. 34, No. 2, 1997)

Amahl Turczyn has been homebrewing since 1985 and professionally brewing since 1995. He compiled *A Year of Beer* (Brewers Publications, 1997) and is AHA project coordinator.

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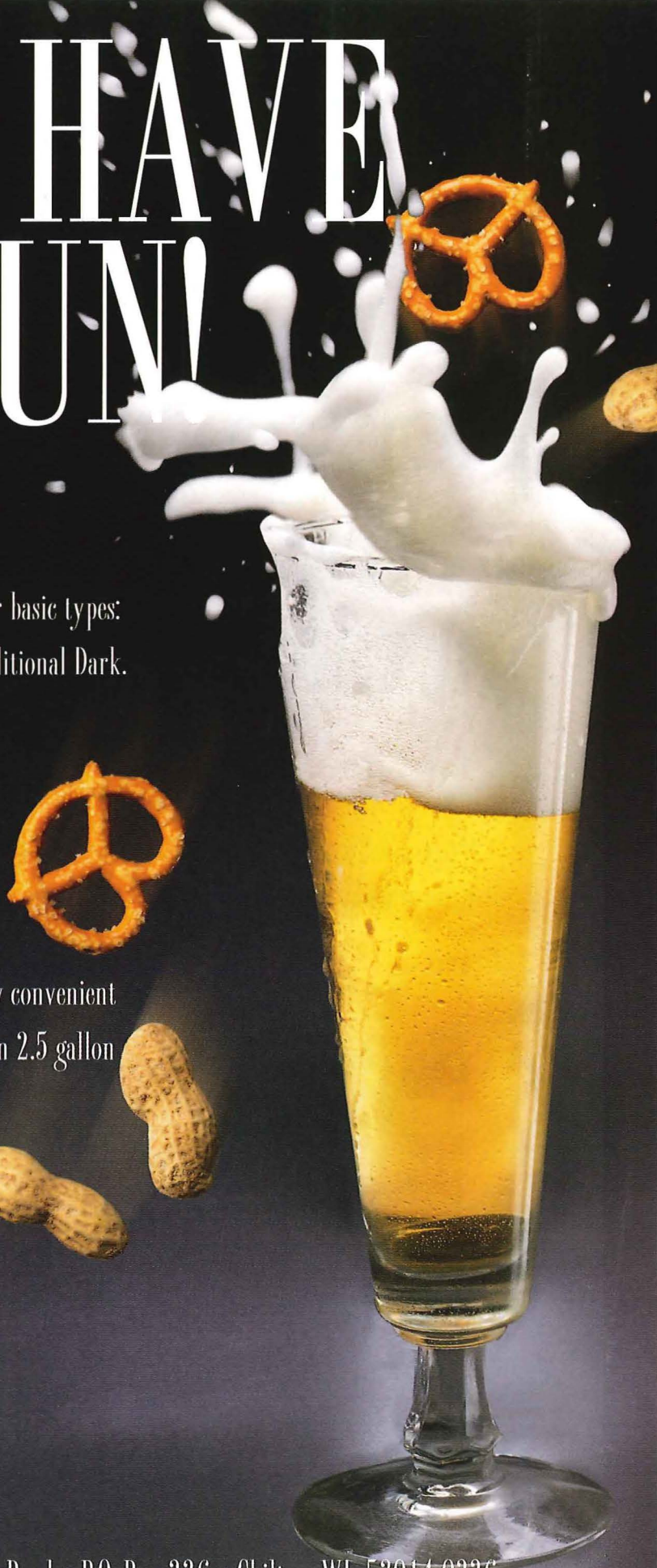


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JACKSON ON BEER

Michael Jackson

Pondering Porters

Even though my parents scarcely drank alcohol, except for a modest glass on special occasions, I knew as a small boy that there was something called Port. It seemed to be winey stuff of some kind or another.

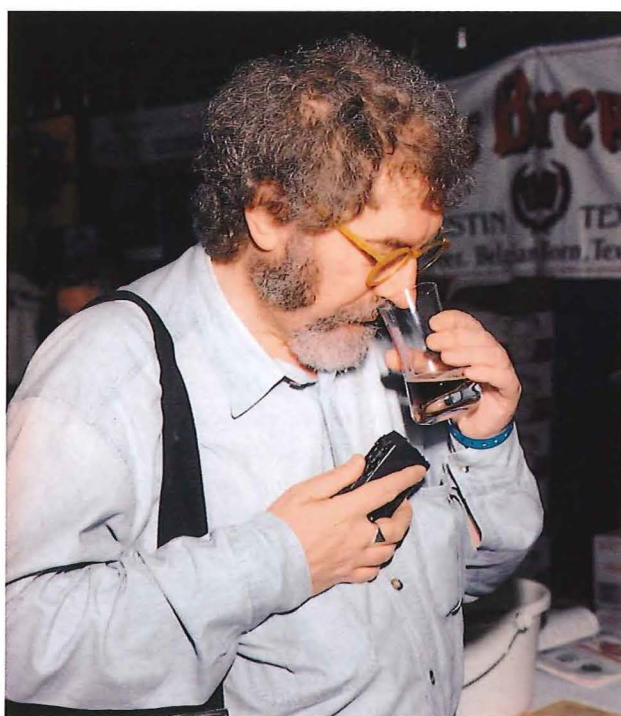
Was that what the sign above the pub door meant? Should it have read, "Licensed to sell tobacco, ale and Port?" Trouble was, it didn't. The sign clearly mentioned Porter, as though it were offering to carry my bags. As I stood waiting by the pub for the school bus, I reread that sign a thousand times. Even when I was old enough to go inside the pub, the sign remained a puzzle: there was nothing called Porter anywhere to be seen.

Long before I ever drank beer, let alone devoted my life to it, I knew that Porter was a mystery. No style of beer has loomed quite so large, or so long, in the history of Britain and Ireland.

Yet no style of beer is so shadowy and elusive. It is not a spirit, but it is a recurrent ghost among beers.

No style of beer inspires so many questions when I give talks. What was the original Porter like? Why was it so called? How did it differ from Stout? Should we regard Porter as a British, or Irish, style? Does it belong to London, or perhaps Belfast or Dublin?

Anyone who has ever asked these questions is probably familiar with the received wisdom that the name Porter was first



applied to a beer produced by "one Ralph Harwood" at a brewhouse (and pub?) called The Bell, in Shoreditch, London, in 1730, according to the 1889 book *The Curiosities of Ale and Beer*; 10 years earlier if we believe A. Monckton's 1966 work, *A History of English Ale and Beer* (or did he simply confuse the decades?).

On my bookshelf, the most detailed account is in the 1975 work, *A History of Brewing*, by H.S. Corran, a former curator of the Guinness brewery's archives

The earliest mention of Porter spotted by Corran was in a letter of 1726 from a Frenchman (or Belgian?) to his family.

Corran also refers to the early trade journal, "The London and Country Brewer," pointing out that, "Porter is not mentioned in the 1735 edition, but is said to appear in 1739, and there are several mentions in 1750."

Most accounts of British brewing in the 1700s say that Porter was a ready-made blend of three different styles previously available, sometimes known as "ale," "beer" and "twopenny." Because it was a combination of all three, it was also known as "Entire."

This beer is said to have been popular with the workmen who carried meat, fish and vegetables in the produce markets to the east of Central London, none of them far from Shoreditch; hence the "Porter."

I feel that too much is made of these romantic stories. It seems likely that the trio of "styles" was simply the results of the three waters used in mashing and sparging.

Brewers would have made their lives easier by combining three into a single product and persuading themselves this was in response to public demand (sound familiar?).

The period under review was the beginning of the Industrial Revolution. Previously, most breweries had been in the pubs they served; now some were freestanding, distributing their beer by canal. In this new situation, did some delivery men announce themselves by shouting, "Porter!"?

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It has been argued that sharp increases in the prices of malt encouraged brewers to use less, offsetting the impact on flavor by kilning it more highly and adding more hops.

For whatever reason, this very dark beer happened to be hitting its stride just as a national transport network came into existence. That is why Porter became the first nationwide style of beer anywhere in the world. Britain's Industrial Revolution preceded those of other parts of Europe and North America.

The darkness of Porter as a style would have covered up cloudiness and the roasty, bitter tastes masked flavor defects—both important factors as beer was shipped farther from the brewery. Although Pale Ale is first mentioned in the same period, it does not seem to have been perfected until the 1820s, at which time the two styles—the translucent bronze of amber and the large-ly opaque black—became rivals for the affection of the British drinker.

Both styles, but especially Porter, were the stock-in-trade of British brewers in the greatest days of this country's Imperial and international influence. That is why the shadow of Porter looms so large. While internal transport was still embryonic, Porter was being shipped across the Channel and the North Sea and through the Baltic to Eastern Europe and even China.

In all of those regions, the term Porter is to some extent still used, normally to identify a dark, roasty, very strong brew, sometimes made with a top-fermenting ale yeast, but more often with a lager culture.

Even after World War II, at least one German brewer continued to make a "British-style" Porter with a *Brettanomyces* yeast culture.

This type of yeast typically developed during the long maturation of strong, export Porters in the huge wooden tuns of the Victorian period.

The brewer told me that a Porter without the "horse blanket" aroma of *Brettanomyces* would have been thought "insufficiently British."

By then, the term Porter had all but vanished in Britain. Dr. John Harrison, who has researched brewhouse records from London to Scotland, points out that a British brewer in the 1800s typically produced Porter

to as many gravities and strengths as he later made Pale Ales and, today, that style's descendant, Bitter.

The lower-gravity Porters evolved into Mild ales, those in the middle range retained their original designation (only to vanish for decades before their recent revival), and the fuller-bodied versions came to be known as Stouts.

Brewing historian Terry Foster argues that the term Stout derived from the fuller flavors introduced when the drum-roasting of malts was developed in 1817.

Guinness, which has brewed in Dublin since 1759, first made ales. It launched a Porter in the 1770s, and was concentrating on that style before the decade was out.

For a time, there were two gravities of Porter, marked with a single and a double "X," and already a stronger third version for export to the Caribbean.

In the 1820s, the double was renamed Guinness Extra Stout Porter, and, at some point, the triple "X" gained the sobriquet Foreign Extra Stout. In 1974, the "single," still known as Porter, was dropped.

The type of Dry Stout made by Guinness and its local competitors had, in the meantime, become Ireland's national style of beer.

When both Porters and Stouts diminished in popularity in Britain, why did they stand their ground in Ireland? One reason may be that the restriction of energy during World War I made it difficult for British maltsters to roast their grains. These restrictions were not imposed in Ireland, where rebellion and independence were in the wind.

If the terrible beauty finally finds a lasting serenity, perhaps the toast should be in a new brew called Peace Porter.

Reprinted from What's Brewing with permission from the author.

Michael Jackson, internationally the best-known writer on beer, was awarded the Gold Tankard for 1996 Beer Writer of the Year by the British Guild of Beer Writers. His *Beer Companion* (Running Press, 1993) was awarded the 1994 Glenfiddich Trophy and the Andre Simon Award. Michael's articles, books, documentary videos and CD-ROM introduce beer styels to countless drinkers and brewers outside their native lands.



HOMEBREW COOKING

• Timothy S. Schafer

A French Farmhouse Feast

It's truly exciting to be part of the wonderful "re-revolution" of new micro-breweries and brewpubs popping up around the country. I call it a "re-revolution" because, before Prohibition dried things up, there were more than 4,000 breweries in the United States. Unfortunately, back then, beer didn't have the ability, nor the means, to travel far. During this recent influx of brewing establishments producing some original styles, along with many current creations, I find comfort knowing there still is one style of beer I can count on to be an old reliable to pair with some of my favorite dishes.

There are a couple of styles of French country ales. Saison is a classic rendition of a farmhouse ale, brewed mostly in the south of Belgium. Because of the introduction of spices and herbs, this beer is food-friendly and works well with hearty dishes and ripened cheeses. A great example is Saison Dupont, a perfect drink for summer with grilled meats, sausages and spicier fare.

For now I would like to concentrate on another style known as *bière de garde*, or in English, "beers to keep." This beer can be either top or bottom fermented and originally was brewed in February and March and laid down for the summer months when the weather was not agreeable for brewing. It was often bottled with a cork, cage and foil wrapper, à la *Methode Champenoise*, which was quite possibly influenced by the purchasing of grains from the Champagne region.

In the northern part of France, about 20 miles from the Belgian border, some of the

towns to claim this wonderful style are Flanders, Picardy and Artois. *Bière de garde* has a mild fruitiness and light hoppy aroma and flavor and sometimes a spicy malt character. Usually unfiltered, this brew can range from golden to amber brown in color. A slight corkiness or even mustiness is found in the finish with a pleasant alcohol presence.

I have found this style of beer to be compatible to the country-style cookery found in the northern and southern parts of France. Here are some of my favorite recipes from both regions, all of which include a *bière de garde* (and of course, all with the Brew Chef's twist). I hope you enjoy making them as well as sharing them with friends over a wonderful glass of *bière de garde*.





Country-style Cassoulet "The Brew Chef's Way"

Cassoulet is a classic preparation from the Gascony region of France. This savory bean stew or casserole can include duck, goose or other game birds in addition to a variety of meats and sausages.

Serves 8 generously

- 1 tbs olive oil (14.8 mL)
- 1 lb bacon, diced (0.45 kg)
- 4 chicken legs, disjointed
- 1 cup flour (142 g)
- 1 large Spanish onion, diced
- 10 garlic cloves, minced
- 3 shallots, minced
- 1 lb dried cannellini or other white beans, soaked overnight in water (0.45 kg)
- 3 stalks celery, diced
- 2 carrots, peeled and diced
- 1 tbs Dijon mustard (14.8 mL)
- 2 oz malt vinegar (59 mL)
- 12 oz Jenlain Country Ale (355 mL)
- 1 1/2 qt brown veal stock (1.42 L)
- 3/4 lb smoked pork sausage, sliced (andouille, chorizo or kielbasa) (0.34 kg)
- 3/4 lb fresh garlic sausage, sliced (not Italian) (0.34 kg)
- 3/4 lb smoked ham, diced (0.34 kg)
- 3 bay leaves
- 1/2 tsp freshly cracked black pepper (2.5 mL)
- 1 tbs fresh rosemary leaves (14.8 mL)
- 1 tbs fresh thyme leaves (14.8 mL)
- 1 tsp salt (to taste) (5 mL)

Heat the olive oil in a six-quart (5.68-L) stockpot, add the bacon, cook until just crisp then push to the side of the pot. Lightly season chicken legs with salt and pepper, dredge in flour, shaking off excess. Add chicken to the hot oil and brown on both sides then remove from pot. Combine onion, garlic, shallot, beans, celery and carrot. Sauté for three to five minutes. Add mustard and vinegar and sauté two more minutes. Add beer and veal stock. Bring to a simmer, add sausages, ham, chicken legs, bay leaves, cracked pepper, rosemary, thyme and salt. Cover and simmer

over moderate heat, stirring occasionally for about 1 1/2 hours, or until chicken is tender and ready to fall off the bone. Taste and correct seasonings if necessary. (Instead of simmering, cassoulet can be oven-baked at 400 degrees F for about 1 1/2 hours.)

Place cassoulet in an oven-proof casserole dish and top with an even coating of beer-scented Dijon bread crumbs (recipe follows) and bake an additional 15 minutes. This recipe also works great with darker beers like porters and stouts.

Savory Country Bread Pudding

Another takeoff on the ever-so-popular dessert, bread pudding. This version is excellent served right out of the oven with a generous helping of Saison-spiked Sabayon Sauce.

Makes 12 four-ounce soufflé dishes or one 10-inch casserole

- 1 loaf crusty French bread, cut in one-inch cubes
- 1 qt heavy cream (0.95 L)
- 4 oz country ale (113 mL)
- 4 whole eggs
- 6 egg yolks
- 1 cup nuts, chopped (pignola, walnut, pecan) (237 mL)
- 4 oz goat cheese, crumbled (113 g)
- 1 tbs fresh herbs, picked and coarsely chopped (thyme, oregano, rosemary) (14.8 mL)
- 2 tsp salt (10 mL)
- 10 twists freshly cracked black pepper nutmeg, freshly grated (to taste)

Preheat oven to 400 degrees F. Coat the inside of the dishes with butter. Blend whole eggs and yolks, whisk in cream, add beer and bread. After a minute, add remaining ingredients. Pour mixture into prepared individual baking dishes or casserole. Place in a baking pan and add hot water halfway up the side. Butter aluminum foil and place loosely over puddings. Bake at 400 degrees F for 40 minutes for individual portions or 1 1/4 hours for a casserole. Check after one-half hour to 45 minutes with a toothpick. If pudding still is wet, uncover and bake additional five minutes.

Beer-scented Dijon Bread Crumbs

This is the Brew Chef's version of the Classic Dijonnaise Bread Crumbs. They also make a great crust for roasted rack of lamb.

- 2 cups bread crumbs (473 mL)
- pinch dry oregano, basil and thyme
- 1 tbs Dijon mustard (14.8 mL)
- 1 1/2 oz India pale ale (44 mL)
- pinch salt and cracked black pepper

Mix all dry ingredients and add beer and mustard to moisten. Season with salt and pepper to taste.

Ale-scented Mashed Potatoes with Roasted Garlic

These heavenly potatoes work well with hundreds of dishes. They can be spread over the top of stews and casseroles to create a wonderful crust for shepherd's pie. Sweet potatoes also work well in this recipe.

- 8 large potatoes, peeled and cut into one-inch cubes
- 12 oz country-style ale (355 mL), reserve 4 oz. (118 mL)
- 2 tsp salt (10 mL)
- 2 bay leaves
- 1/2 lb sweet butter, diced (0.23 kg)
- 1 cup heavy cream (237 mL)
- 6 cloves roasted garlic
- salt and freshly cracked black pepper (to taste)

Place potatoes in a pot, cover with eight ounces of ale and the remainder cold water. Add bay leaves and salt. Cover and bring to a boil, uncover and simmer until potatoes are tender, then remove bay leaves and strain. Pass potatoes through a food mill (ricer), alternating potatoes with diced cold butter, then pass heavy cream with roasted garlic through food mill into the potatoes. Fold in cream and remaining beer, season with salt and pepper.

Country Farmhouse Ale Bière de Garde

This is a wonderful classic recipe for a French country ale from a dear friend and real "alewife" Julianne Targan, owner of Hop and Vine – Supplies for Home Brewers, in Morristown, N.J.

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

- 6 lb dry malt extract (2.72 kg)
- 1 lb amber candi sugar (0.45 kg)
- 1 lb Vienna malt (0.45 kg)
- 1 oz Brewers Gold hops,
6% alpha acid (28 g) (60 min.)
- 1/2 oz Brewers Gold hops,
6% alpha acid (14 g) (10 min.)
- Wyeast Belgian Abbey II yeast
culture
- 3/4 cup corn sugar (177 mL)
(to prime)

- Original specific gravity: 1.065
- Final specific gravity: 1.016

Add crushed grain to 2 1/2 gallons (9.46 L) soft brewing water. Heat to 155 degrees F (68 degrees C) and hold for one hour. Remove grain. Bring liquid to a boil. Add dry malt extract, candi sugar and bittering hops. Add remaining hops during the last 10 minutes of the boil. Chill rapidly to 75 degrees F (24 degrees C). Dilute to five gallons and pitch prepared yeast. Ferment in primary at 70 degrees F (21 degrees C) for one week. Rack to glass secondary fermenter and condition for three weeks. Prime with corn sugar when bottling.

Tim Schafer, a.k.a. the Brew Chef, is a chef, homebrewer and beer enthusiast who appears on the Television Food Network. When you're in the Morris County area of New Jersey, stop in and Chef Tim will prepare food with your favorite beer. To receive special recipes and other updates, send a SASE to Tim Schafer's Cuisine, "Cuisine Updates," 82 Speedwell Ave., Morristown, NJ 07960; (973) 538-3330, menu hot line (973) 538-7500.



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TIPS & GADGETS

Our Members

Siphon Starting – Revisited



The drain and fill kits for waterbeds include a simple reducing feature used to facilitate draining the water from the mattress. (By reversing the flow direction, it also can be used to fill the mattress.) By adding a garden hose with a female three-eighths-inch barbed fitting to the suction side, the standard waterbed drain/fill device becomes the homebrewer's siphon starter.

To use, simply attach the water inlet connection of the siphon starter to an outdoor faucet (or kitchen faucet using the faucet adapter usually included with the waterbed drain/fill kit). Attach the sanitized three-eighths-inch diameter siphon hose to the suction side of the siphon starter (or the barbed end of the fitting). Make sure the outlet valve is open (in the drain position) and turn on the faucet. Be prepared to quickly pinch clamp the siphon hose as soon as beer/wort flow is established (or else your creative works will end up down the drain). Then disconnect the siphon hose from the siphon starter, relocate the hose to the destination vessel (carboy, keg, etc.) and release the pinch clamp. Waterbed mattress drain/fill kits are available at most discount stores.

Tom Nichter of Corpus Christi, Texas

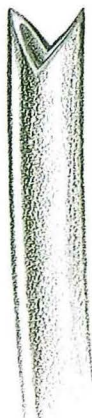
Bottler's Rap



Just prior to capping your counterpressured bottle of brew, rap on the side of the bottle with a screwdriver. This will expel some CO₂, forcing air out of the head space and aid in reducing staling effects.

Pat Conway of Great Lakes Brewing Co., Cleveland, Ohio

Siphon Hose Trimming

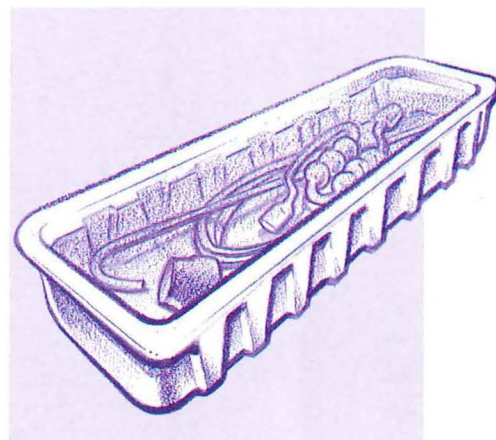


Those who find cleaning the inside of a racking cane a colossal chore may want to simply use a length of plastic hose for the job. You can get a wider diameter hose to increase the flow rate and shorten overall racking time. The problem is the end of the hose often sucks up against the

inside of the fermenter, blocking flow. The solution? Cut the hose end so it has two points. This stops the "octopus effect."

Amahl Turczyn of Boulder, Colo.

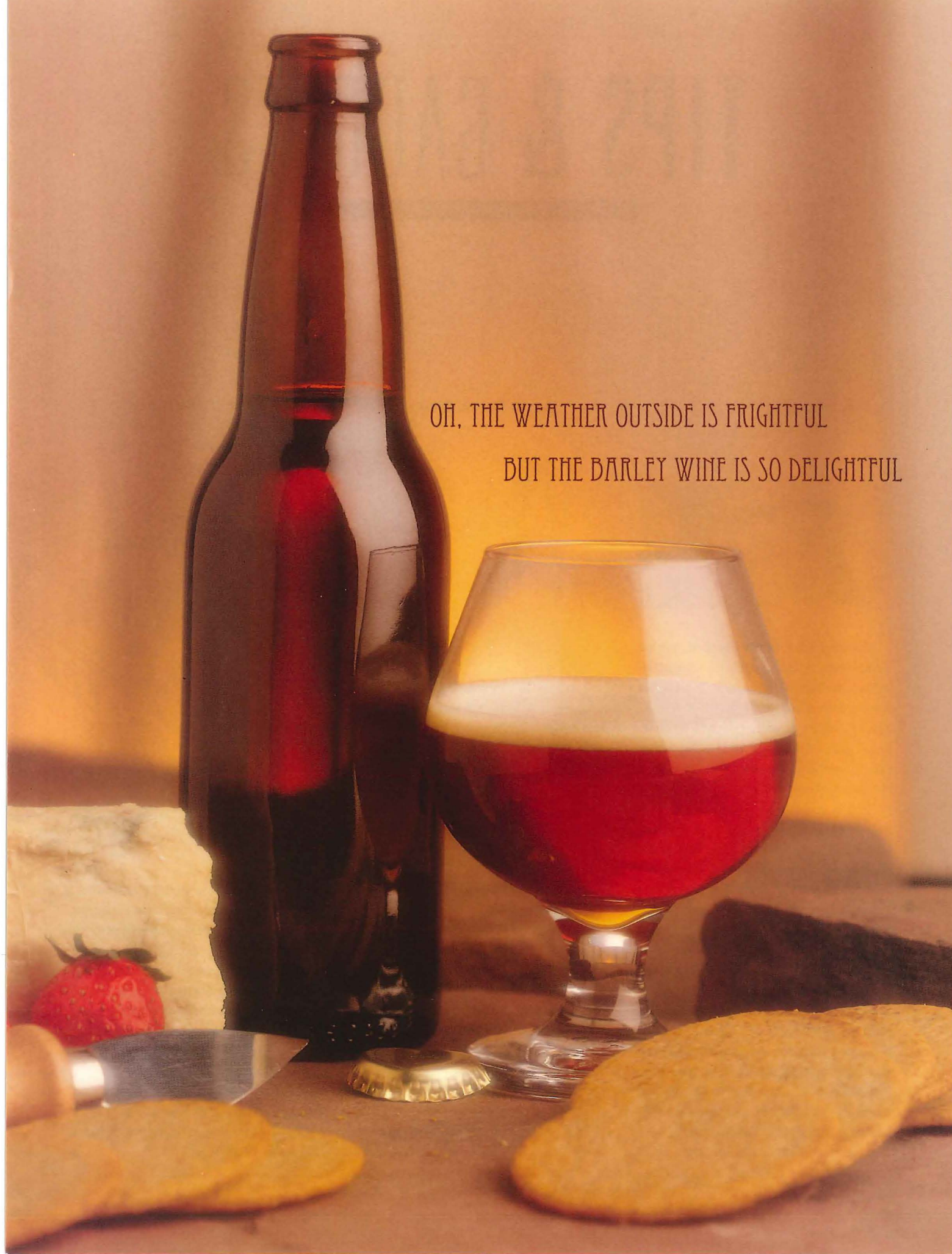
Savvy Sanitation Trick



To save sanitizing solution and water, I sanitize my racking cane, hose and other assorted "sanitizables" in an inexpensive (less than \$2) tray I spotted at a hardware store designed for wetting rolls of wallpaper. This technique saves the trouble of flipping the cane over after a few minutes, which I used to do when I sanitized in a too-short five-gallon bucket.

Rod Schlabach of Anderson, Ind.

If you have a quick tip or tested gadget to share, send a brief description and photos to Tips and Gadgets, PO Box 1679, Boulder, CO 80306-1679.



OH, THE WEATHER OUTSIDE IS FRIGHTFUL

BUT THE BARLEY WINE IS SO DELIGHTFUL

MAKE MINE BARLEY WINE

BY STEPHEN SNYDER

At the Pike Brewery in Seattle, the annual brewing of the barley wine is a communal event where everyone joyously takes part. As brewers dressed in Santa Claus hats mill around the mash tun in the middle of August, the newest edition of Old Bawdy is born amid piped-in Christmas music. Old Bawdy is crafted for pride, not profit, and as an expression of the brewer's art. This is the essence of what makes barley wine special.

In most breweries barley wine isn't a beer for mass consumption. Sometimes it's not for the public at all, but for the brewery's own employees as a winter gift. Brewed in small quantities, slowly aged and bottled in small "nips," its rarity, like gold, makes barley wine precious. Likewise, amateur brewers who desire to brew for something more than their everyday needs can turn to this special beer made of the finest ingredients, carefully crafted, lovingly cared for and patiently awaited. For homebrewers, this is the beer you jealously reserve to your closest friends or for a momentous occasion.

Stylistically, barley wines possess many of the qualities of their weaker cousins, English bitter—a full, pale malt profile, rounded hop bitterness and a pronounced fruitiness. In a barley wine, however, these elements are drastically elevated and enhanced. The chewiness in body delivered by so many dextrins is married to a great depth of complexity balanced by as many as six times the normal amount of bittering hops. The higher alcohol levels produce a gentle warming effect that traditionally links these beers to the winter season.

BARLEY WINE STYLE GUIDELINES

Original Gravity	Final Gravity	Percent alc.	IBU	Color
Specific Gravity(Plato)	SG(Plato)	alc/wgt (alc/vol)		SRM(EBC)
1.085-120 (21-30)	1.024-32 (6-8)	6.7-9.6 (8.5-12.2)	50-100	14-22 (28-43)

"1a) English-Style Barley Wine. Tawny copper to dark brown in color with a full body and high residual malty sweetness. Complexity of alcohols and fruity-ester characters are often high and counterbalanced by the perception of low to medium bitterness and extraordinary alcohol content. Hop aroma and flavor may be minimal to medium, and the use of English hop varieties is typical. Diacetyl should be very low. A caramel and vinous aroma and flavor are part of the character. Chill haze is allowable at cold temperatures.

"1b) American-Style Barley Wine. Tawny copper to dark brown in color with a full body and high residual malty sweetness. Complexity of alcohols and fruity-ester characters are often high and counterbalanced by the perception of medium to assertive bitterness and extraordinary alcohol content. Hop aroma and flavor may be medium to very high, and the use of American hop varieties is typical. Diacetyl should be very low. A caramel and vinous aroma and flavor are part of the character. Chill haze is allowable at cold temperatures."

FROM THE AHA 1997 CATEGORY DESCRIPTIONS

Although barley wine as a style designation clearly originates in England, the tradition of brewing a stronger-than-normal ale from the very best barley and hops has been part of worldwide brewing culture for centuries, if not millennia. This beer was most likely named barley wine first and foremost because of an alcohol content that approached that of wine, but no doubt the name served as an indication of its above-average cost as well as its strength. Equating this brew with wine also gave it an elevated status, which it richly deserved. The term "barley wine" first appeared in early 19th century England, although Michael Jackson has pointed out the name doesn't seem to have made its way onto the labels of commercially bottled versions of these strong top-fermented beers until late in the last century or early in this one.

As Jackson and British styles expert Garrett Oliver have pointed out, especially strong ales were variously called "first sort," "October beers," "malt liquors" or "malt wine." More than likely these were synonymous with the strong, well-aged "old ales" blended in small quantities by publicans with weaker, inferior beers to improve the drinkability of "green" small or mild beers. These strong old ales also were brewed in England for the aristocratic lord of the manor by his household staff. Where

money was no object these brews provided a relatively temperate counterpart to the wildly popular gins and rums of Britain's colonial era. Indeed, government leaders on both sides of the Atlantic pushed ales of this sort as drinks of moderation in an attempt to curb rising problems associated with heavy spirits consumption.

Old ales and barley wines appear to have developed into distinct and recognizable styles a century ago. Old ales now are best represented by such diverse brews as Eldridge Pope's Thomas Hardy's, Greene King's Strong Suffolk, Marston's Owd Rodger and, of course, Theakston's Old Peculier.

Barley wines have diverged into at least two more distinct categories: the dark style (Young's Old Nick) and the light golden style (Whitbread Gold Label). Lt. Col. Harry Wise of Tennant Brothers Exchange Brewery of Sheffield is credited with developing the idea of a pale barley wine in 1951 when he convinced the board of directors there might be a market for an ale that departed from the traditional dark barley wines. He was right, and the beer was immediately successful. When Tennant's was bought out by Whitbread, this beer became Whitbread Gold Label.

You might successfully argue the case for the existence of a third American-style category exemplified by Sierra Nevada Bigfoot or Anchor Old Foghorn. These can sometimes

fit into one of the English categories if you judge by color alone, but what defines American barley wines is a distinctively robust and assertive hop character that is quite different from their European counterparts.

I like to think rather broadly in terms of barley wine technical parameters, because there are many strong ales, mostly British in origin, that defy easy categorization. Several classic strong beers are too big for ESB britches, such as Gibbs Mew's The Bishop's Tipple (6.5 percent alcohol by volume), Greene King's St. Edmunds (6.3 percent alcohol by volume) or even Mendocino Brewing's Eye of the Hawk Select Ale (7.6 percent alcohol by volume). But in the interest of simplicity, original gravities starting at 1.085 perhaps are where real barley wines begin and super-strong ales end. Barley wines of lesser strength can come off as thin and lacking complexity when sampled alongside such heavyweight classics as Bass No. 1 (10.5 percent alcohol by volume) or Anchor Old Foghorn (8.7 percent alcohol by volume).

Unfortunately, the water tends to get even murkier when using alcoholic strength alone to determine what is a barley wine. Old ales can invade those limits, as do strong imperial stouts or Belgian ales. Looking at the grain bills of many of the classic barley wines we see they are similar to classic bitters and pale ales not only in ingredients—British two-row malt, English hops and pale ale yeast—but also in their simplicity. Indeed, many are simply the first runnings of a pale ale mash. As with most beer styles, trying to nail down a hard-and-fast rule will lead you in circles. Thomas Hardy's Ale fits all the criteria for a barley wine but, because of its distinctive character as much as its need to be laid down for three to five years before drinking, it probably is best considered an old ale. The AHA national competition guidelines provide a good framework for defining and formulating barley wines.

BREWING BARLEY WINE

"This is where a brewer really gets to show his stuff," says Old Bawdy head brewer Fal Allen, describing the myriad problems a brewer faces when undertaking such

a big brew. Choosing the right yeast, keeping the beer from being too sweet, maintaining proper fermentation temperature, maintaining proper runoff and adequate wort aeration are common brewing problems, but they are greatly amplified in brewing a barley wine.

Although barley wine is clearly a beer to test your skill as well as your patience, it is easier to design than one might think. The ingredients are simple and the brewing process is much the same as for your simplest pale ale. One of the greatest challenges might be committing to the sacrifice involved in giving up large quantities of grains that could be more thriftily put to use in two, or even three, batches of your standard-gravity beer.

Barley wines often are "parti-gyled," that is, the same mash is used for a variety of beers of successively lower gravities with the first runnings being used for the barley wine. The economy of this practice becomes obvious, because there is plenty of good wort left. You don't want to dilute the barley wine wort, which you will then have to boil down to proper gravity, and the remaining wort is too rich in fermentables to simply discard. I usually sparge until I have enough for a batch of ordinary bitter or reserve the remaining wort to make yeast starters. An old brewing practice was to remash the grains one or two times and use the subsequent runoff for different beers.

As we discussed earlier, many of the classic barley wines are brewed by the classic pale ale producers and use brewing liquor generally ranging from medium to hard and having moderate levels of temporary hardness. As with any brewing liquor, you have to make adjustments based on your water supply. Water profiles matching those of Burton or London are as well-suited for barley wine as they are for best bitter.

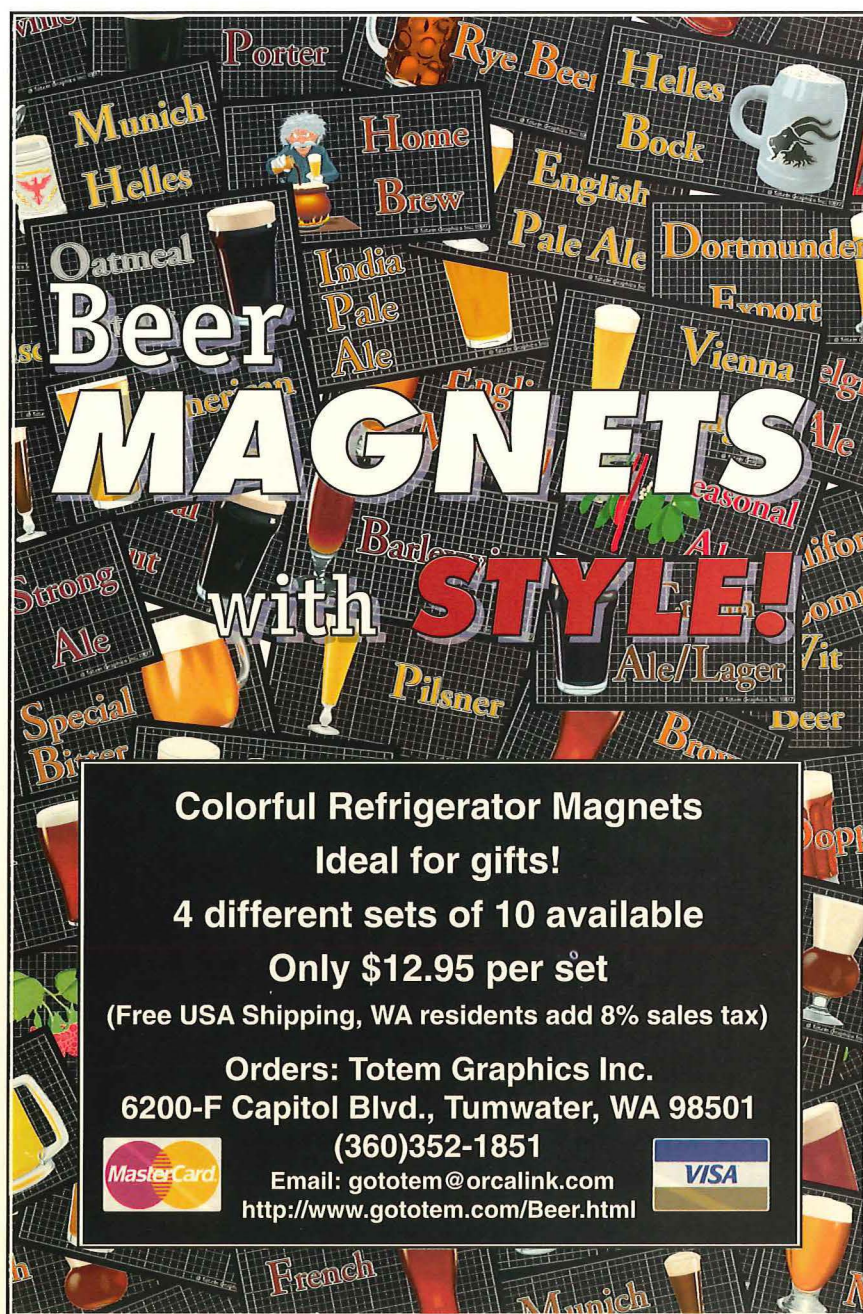
Traditional English hop varieties such as Kent Golding, Fuggle, Northdown, Bramling Cross and Challenger contribute an authentic replication of the rounded mellow bitterness and peppery aroma of the English classics. With bitterness levels of 50 to 70 IBUs, it's a common consensus among British brewers that these hops often can take three

to five years to mellow. American-grown hops can create an almost completely different brew having a wonderfully fresh, lively hop profile. Economical high-alpha-acid hops such as Chinook, Nugget or Eroica should be reserved for bittering, while aromatic varieties of Cascade, Columbus and Willamette are best for late additions and dry-hopping. When planning your hopping schedule, remember that high-gravity worts reduce hop utilization, so don't expect the same level of bitterness per ounce of hops you'd get in a standard-gravity pale

ale. Whereas commercial brewers might achieve utilizations of 35 to 40 percent using pellets in the boil of a 1.040-gravity wort, homebrewers using whole hops or old hops in a 1.110-gravity wort might achieve only 15 percent.

A formula used by commercial British brewers approximates utilization this way: Utilization = 170 minus degrees gravity (OG 1.095 = 95) divided by 4. Therefore,



$$\frac{(170 - 95)}{4} = 18.75 \text{ percent utilization.}$$



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THE CHAMPAGNE YEAST QUESTION

Many homebrewing texts recommend using Champagne yeast to ensure a thorough ferment in a high-alcohol environment. That methodology was perhaps more useful when low-grade dry yeasts adulterated with bakers yeast were the norm. Today's generation of quality liquid yeasts are more than adequate for the challenge and can successfully handle up to 10 percent alcohol by volume

before becoming sluggish, and many can do well in a 12 percent alcohol content. Accounts abound about British brewers rousing the yeast in the fermenter and rolling the casks of barley wine around the brewery yard to rouse the yeast to increased activity. You might use this technique if using The Yeast Culture Kit Co. AO8 or Wyeast 1968, high flocculators with low attenuation, whereas Wyeast 1098 and 1275 have greater apparent attenuation and medium flocculation.

Rousing is often necessary with older proprietary ale strains and is not quite as

TUMBLEDOWN BARLEY WINE

A traditional dark English-style barley wine deriving its deep mahogany color not from specialty grains but a from very long wort boil.

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

- 16 lb British two-row pale ale malt (7.26 kg)
- 2 oz Target hops, 10% alpha acid (56 g) (60 min.)
- 3 oz Fuggle hops, 4.5% alpha acid (84 g) (60 min.)
- 1 oz East Kent Golding hops (28 g) (aroma, 2 min.)
- 1 oz East Kent Golding hops (28 g) (dry-hopped, three to four weeks)
- Wyeast 1098 Thames Valley ale yeast
- 1/3 cup corn sugar for priming

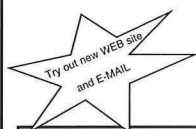
- Original specific gravity: 1.095
- Final specific gravity: 1.024
- Potential alcohol: 9.5 percent by volume
- IBUs: 69

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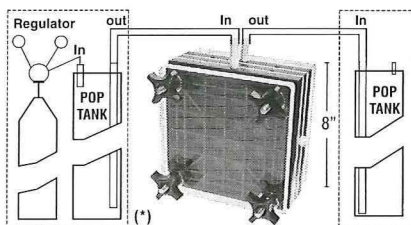
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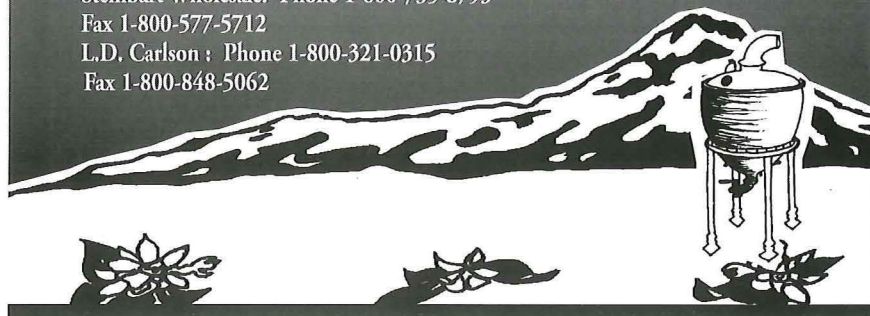
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crucial with low or medium flocculators. Nevertheless, highly flocculant yeasts can be roused if you're having a difficult time reaching your target terminal gravity, but do so only under scrupulously sanitary conditions. A safer alternative for ensuring healthy and complete yeast activity throughout fermentation is to avoid highly flocculant yeasts altogether. Another is to pitch fresh yeast during each stage—in the primary, again in the secondary and, finally, when you package the beer.

As with any high-gravity wort, always pitch a large quantity of yeast to begin with. At least two quarts of an actively fermenting wort starter or a quart of thick yeast slurry is a good rule of thumb for five gallons. Also remember that highly flocculant yeasts require greater aeration than less

Mash-in 4 1/2 gallons of Burton-style brewing liquor, carefully stirring to mix the liquor and grist. Rest for 60 minutes at 158 degrees F (70 degrees C), stirring occasionally.

Test for remaining starches with an iodine tincture. Mash-out. Raise mash temperature to 168 degrees F (76 degrees C) by adding doses of hot water or bottom heat. Rest for 10 minutes to decrease wort viscosity.

Transfer to lauter tun if separate vessel is being used. Slowly sparge with just enough 168-degree-F (76-degree-C) water over 30 minutes to collect 6 1/2 gallons of wort. Boil for 180 minutes, adding hops as noted above.

Force cool with wort chiller, rack to primary fermenter and pitch yeast, preferably in a one- to two-quart starter. Aerate well.

Open ferment in a sanitary room free from drafts at 65 degrees F (18 degrees C) for five days. Rouse yeast on day three if sanitary conditions can be assured. Rack to secondary, add fresh yeast and dry hops in a sanitized muslin bag. Ferment under airlock for three to four weeks.

Rack to bottling bucket, prime, add fresh yeast and bottle. Condition at 65 to 75 degrees F (18 to 24 degrees C) for five days. Cellar for nine to 12 months. Serve at 50 to 60 degrees F (10 to 16 degrees C).

flocculant strains. Old Bawdy brewer Allen, who is writing a book on barley wine for the Brewers Publications Classic Beer Style Series, emphatically stresses that poor aeration is the biggest problem barley wine brewers face. It's impossible to get too much air into your barley wine wort, so aerate as much as you possibly can. Keep fermentation temperatures at the lower end of the yeast's recommended temperature range—for example, no higher than 65 degrees F (18 degrees C)—to avoid a disorderly fermentation and stupefying levels of higher alcohols. Keep fermentation temperature steady because highly fermentable worts are prone to rapid fermentations, which can cause yeast stress. In extreme cases this results in autolysis and the yeast's rapid demise.

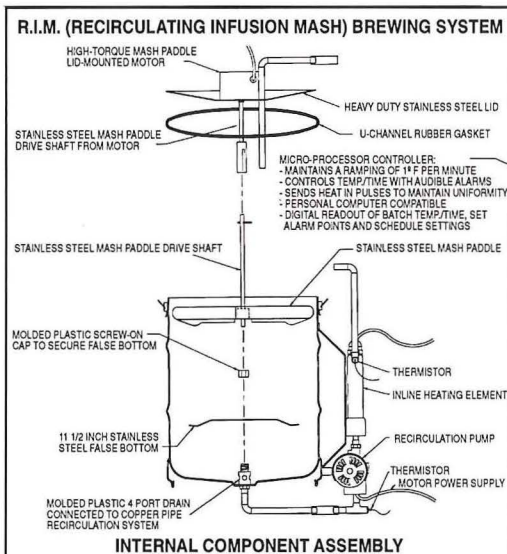
Nearly all barley wine brewers, whether professional or homebrewers, use a secondary fermentation/maturation period. Traditionally this was done in oak casks, but a glass carboy or Cornelius keg do nicely. In addition to allowing the flavor profile to develop and the bittering hops to mellow over the space of several months, a period of maturation allows a lengthy period of dry-hopping, a universal part of the barley wine profile. Rates range from one to two ounces per five gallons, with Kent Golding being a favorite among English breweries and Cas-

cade a top choice among classic American producers. Left in the secondary at cellar temperatures between 50 to 60 degrees F (10 to 16 degrees C), the barley wine should be allowed to quietly mature for one to three months before being bottled.

Unless the beer is left for an extended period of time, say a year, in the secondary, only minimal priming is necessary. This is especially true if it is to be bottle conditioned for several years. A small priming of 1/3 to 1/2 cup corn sugar per five gallons along with residual sugars and slowly fermenting

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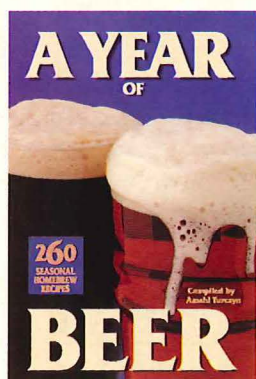
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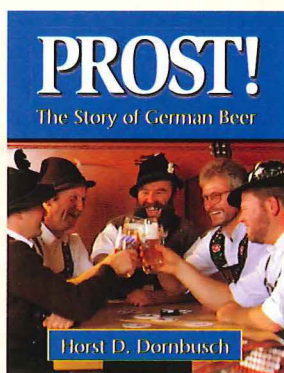
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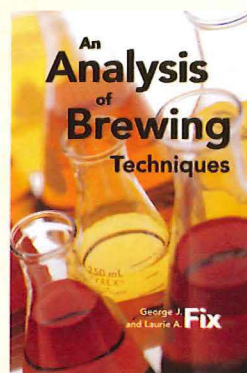
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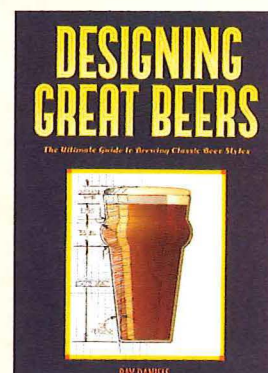
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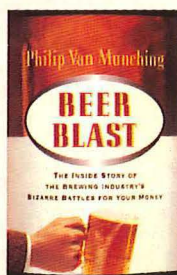
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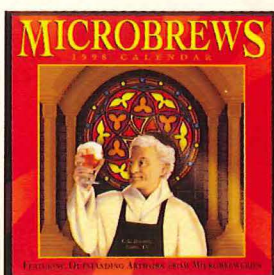
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dextrins will gradually bring the beer to condition. Overconditioning will obscure the complex malt flavor profile. Only if the beer has reached a very low terminal gravity and is to be consumed quickly should the normal 3/4 cup of priming sugar be used. Otherwise, you might be greeted with a geyser when opening your long-awaited barley wine to commemorate the new millennium.

In addition to its high alcohol content, another parallel barley wine has with grape wine is that, like a full-bodied cabernet, it should be allowed to breathe. For wine this is done in the bottle or decanter, while with barley wine it should be done in the glass after pouring, where it can "stretch its legs" after so many long months in the bottle.

In the United Kingdom barley wines often are served in a simple half-pint tumbler, but to enjoy the deep aromas of hops and malt try serving yours in a brandy snifter or balloon glass poured three-quarters full with a nice one-inch head. Serve between 50 and 60 degrees F (10 to 16 degrees C), depending on your preference, the barley wine in question and the time of year. Although this classic style often is considered a winter beer, one of my fondest memories of enjoying a barley wine was while sitting under a shade tree watching farmers mowing hay against a late-summer sunset. It seemed I had in a glass the essence of man's relationship to the land.

BUCKEYE BARLEY WINE

The 1997 AHA Commemorative Brew

"Mark Richmond told me to give you this," Randy Mosher said with a devilish smile as he presented a well-poured glass of this fabled nectar. I awkwardly blubbered something about how much I loved his writing and took the glass while he dissolved into the throng as serenely as he had appeared. In the glass was Richmond's Buckeye Barley Wine, brewed to commemorate the Great Lakes Homebrew Rendezvous in Cleveland in July.

The coppery-amber ale seemed luminous even in the sobering light of a hotel conference room. The aroma was assertive—bold, mineral, massively fruity and malty with the enticing pungency of

ROUGHNECK BARLEY WINE

An American-style barley wine that, like its commercial counterparts, uses domestic hops and malt as well as small amounts of specialty grains for added color and complexity. The Cascade hops lend the classic citrusy, floral Pacific Northwestern hop bouquet that compliments malt aromas so well.

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

- 15 lb domestic two-row pale ale malt (6.8 kg)
- 1/2 lb 40 °L crystal malt (0.23 kg)
- 1/4 lb chocolate malt (113 g)
- 1/4 lb CaraPils malt (113 g)
- 2 oz Galena hops, 12% alpha acid (57 g) (60 min.)
- 2 oz Chinook hops, 11% alpha acid (57 g) (60 min.)
- 1 1/2 oz Willamette hops, 4% alpha acid (42 g) (30 min.)
- 1 oz Cascade hops (28 g) (aroma, 2 min.)
- 1 oz Cascade hops (dry-hopped, three to four weeks)
- Wyeast 1056 American ale yeast
- 1/3 cup corn sugar for priming

- Original specific gravity: 1.102
- Final specific gravity: 1.023
- Potential alcohol: 10.6 percent by volume
- IBUs: 101

Mash-in 4 1/2 gallons of Burton-style brewing liquor, carefully stirring to mix the liquor and grist. Rest for 60 minutes at 158 degrees F (70 degrees C), stirring occasionally.

Test for remaining starches with an iodine tincture. Mash-out. Raise mash temperature to 168 degrees F (76 degrees C) by adding doses of hot water or bottom heat. Rest for 10 minutes to decrease wort viscosity.

Transfer to lauter tun if separate vessel is being used. Slowly sparge with just enough 168-degree-F (76-degree-C) water over 30 minutes to collect 6 gallons of wort.

Boil for 120 minutes, adding hops as noted above. Force cool with wort chiller, rack to primary fermenter and pitch yeast, preferably in a one- to two-quart starter. Aerate well.

Ferment under airlock at 65 degrees F (18 degrees C) for five to seven days, rousing yeast if necessary. Rack to secondary, add fresh yeast and dry hops in sanitized muslin bag. Ferment under airlock for three to four weeks.

Rack to bottling bucket, prime, add fresh yeast and bottle. Condition at 65 to 75 degrees F (18 to 24 degrees C) for five to seven days. Cellar for nine to 12 months. Serve at 50 to 60 degrees F (10 to 16 degrees C).

Columbus hops shouting to be recognized. The flavor was at first malty sweet and tangy, then suddenly robustly hoppy and balanced, rounding off incredibly slowly with a warming afterglow and lingering aftertastes of malt, fruit and drying hops. An impressive ale no doubt and, incredibly, or should I say dangerously, drinkable at 28 degrees Plato. The mark of a good barley wine is its ability to confound the palate as you try on each successive sip to comprehend its complex weave of flavors. Flavors that continually evolve over years or even decades. This one did so expertly, drawing me and most of the other attendees back for

more in a fruitless attempt to unravel all of this beer's mysteries in one sitting.

Although he was working at Great Lakes Brewing Co. in Cleveland OH, at the time, Mark did not want to use the brewery's services. "Since this beer was for a homebrewer's conference, it should be brewed at home," he said. Another problem was that he had accepted the head brewer position at Big Hole Brewing Co. in Belgrade, MT, and was due to leave Cleveland in early February. Time was not on his side. Working feverishly he began brewing in late October 1996. The beer would need to be brewed, fermented, then dry-hopped and

matured for one month in Cornelius kegs before being bottled.

Mark tackled the mammoth task of homebrewing 65 gallons of beer by brewing in 13 five-gallon batches after working all day in the brewery. Each batch required 20 pounds of malt donated by Liberty Malt Supply in Seattle, WA. By not using any specialty grains, Mark intended to highlight the immense depth and complexity of a classic English two-row malt. He used floor-malted Maris Otter pale from the small maltings in England and Laaglander dry malt extract donated by Homebrew Adventures

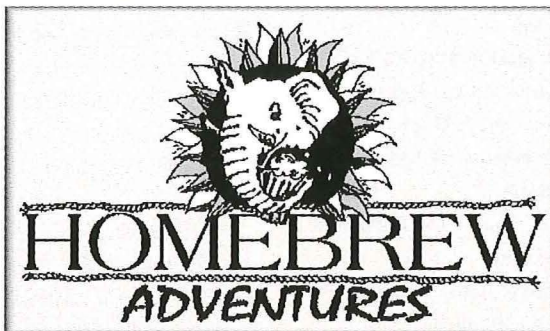
in Charlotte, NC. The use of malt extract was a way not only of boosting gravity, but also of deliberately giving confidence to and saluting the many extract brewers who belong to the AHA. Each batch required nine ounces of hops, all donated by Freshops in Oregon; Columbus and Centennial in the boil for bittering, Tettnanger for aroma and Columbus again for dry-hopping. Other than Irish moss, no additives, adjuncts or specialty grains were used.

Mark used a single-temperature infusion mash with a one-hour rest at 158 degrees F (70 degrees C) to give the beer lots of dex-

trins for body, then sparged minimally to keep the gravity high. "I'm a great believer in simplicity," Mark says.

Each batch got one quart of Wyeast 1028 London ale slurry contributed by Great Lakes Brewing Co. He fermented at 65 degrees F (18 degrees C) in five-gallon carboys, rousing the yeast after three days to ensure thorough fermentation. After the primary fermentation, the beer was racked to Cornelius kegs with a minimum of head pressure to protect the beer inside. No priming sugars were used, but proper conditioning relied solely on residual sugars left to ferment out in the unfiltered beer once it was in the bottle. The result was a smooth and creamy beer that, when poured, had a classic softness of conditioning reminiscent of the English classics.

At the Festival no one took it for granted that one of America's best (and busiest) craft brewers had taken the time to concoct such a stellar beer for them. And I don't think it was the barley wine talking when the locals cried in their beer over his departure for Big Sky country. As a testament to his continued success, Mark's Headstrong Pale Ale recently achieved a nearly perfect score in a Beer Connoisseur rating of craft beers.



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BUCKEYE BARLEY WINE

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

- 20 lb Maris Otter pale malt (9.08 kg)
- 5 lb Laaglander dried malt extract (2.27 kg)
- 1 1/2 oz Columbus hops, 16.3% alpha acid (42 g) (60 min.)
- 2 oz Centennial hops, 10.7% alpha acid (56 g) (30 min.)
- 2 oz Columbus hops, 16.3% alpha acid (56 g) (20 min.)
- 1/2 oz Centennial hops, 10.7% alpha acid (14 g) (10 min.)
- 1 oz Tettnanger hops, 4.7% alpha acid (28 g) (at knockout)
- 2 oz Columbus hops, 16.3% alpha acid (56 g) (dry-hopping)
- Irish moss

- Original specific gravity: 1.112
- Final specific gravity: 1.028
- Potential alcohol: 11.4 percent by weight
- IBUs: 158

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COMMERCIAL EXAMPLES

Bass No. 1 (1.105 OG, 10.5 percent alcohol by volume). In a long line of big-brewery atrocities, this world classic was discontinued by Bass in 1994 for lack of sales volume (isn't that a given for barley wines?). Although now resurrected in limited quantities on draft by the Bass Museum Brewery in Burton, England, its future is uncertain. Brewed entirely from pale ale malt and Fuggle and Golding hops, *Bass No. 1* gains its deep color and caramel notes from an impressive 12 hours in the kettle. This is the logical limit of the barley wine style and truly the benchmark. Rich, thick, chewy and impossibly fruity, this is as close to time travel as a beer lover can get. As British beer writer Ted Bruning says, it conjures up "visions of gout-ridden squires savouring goblets of strong ale before a roaring fire." If you've never had it, get on a plane right now, fly to the Bass Museum for a tour, then refuse to leave until head brewer Steve Wellington serves you some.

Fuller's Golden Pride (1.089 OG, 9.2 percent alcohol by volume). The gravity and alcohol levels have fluctuated slightly over the years, but this is always a classic pale barley wine. Deep amber-gold in color, this pale example of the style has perhaps more character than most, with a smooth, soft sweetness not overpowered by hops. The brewery makes a version for brewery VIPs that gets an extra three months in an old hogshead.

Young's Old Nick (1.084 OG, 6.8 percent alcohol by volume). Although one of the best examples of a dark English barley wine, *Old Nick* is more available and more popular in the United States than in its native land. Deep brown with reddish highlights, *Old Nick* is vinous, fruity and intensely hopped with the old favorites Fuggle and Golding to balance its thick caramel-tinged maltiness.

Whitbread Gold Label (1.095 OG, 10.9 percent alcohol by volume). England's leading brand with sales at 38,000 barrels per year, *Gold Label* was the world's first pale barley wine. Now only slightly weaker than the 1.101 gravity of the 1951 original, *Gold Label* retains a bright honey-gold color

despite being boiled for three hours. It spends 4 1/2 days in the primary, and eight days at around 30 degrees F (minus 1 degree C) to stabilize it. The flavor is very different from the dark barley wines, less complex and having a more nutty, spritzy character and a blunt sweetness not unlike a Belgian strong.

Traquair House Ale (1.075 OG, 7.2 percent alcohol by volume). It may be somewhat risky in light of the surge of Scottish nationalism to suggest that one of that country's world classics belongs in the decidedly

English category of barley wines, but Scotland's dangerously drinkable *Traquair House Ale* might be considered one of the very best in that style. While the OG is a little below the style standards, this is definitely more than a strong ale. Oaky, nutty, walnut-colored, complex and warming, *Traquair House* is brewed from an old Scottish recipe using 18th-century equipment.

Anchor Old Foghorn. Anchor stopped releasing technical data on its beers a few years back because they were being copied mercilessly, but the best available informa-

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ZYMURGY Winter 1997

35

BARLEY WINE

An example of the pale English-style barley wine brewed using malt extract as the base.

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

- 10 lb unhopped extra light dry malt extract (4.54 kg)
- 1/2 lb CaraPils malt (23 kg)
- 1/2 lb light crystal malt (23 kg)
- 2 oz Northern Brewer hops, 11% alpha acid (57 g) (60 min.)
- 1 oz Styrian Golding hops, 5.3% alpha acid (28 g) (60 min.)
- 1 oz Bramling Cross hops, 6% alpha acid (28 g) (30 min.)
- 1 oz Kent Golding hops [alpha acid T/C] (29 g) (aroma, 2 minutes)
- 1 oz Kent Golding hops [alpha acid T/c] (29 g) (dry-hopped, three to four weeks)
- Wyeast 1028 London ale yeast
- 1/3 cup corn sugar for priming
- Original specific gravity: 1.085
- Final specific gravity: 1.021
- Potential alcohol: 8.5 percent by volume
- IBUs: 56

tion (from Michael Jackson) puts their legendary ale, a classic on either side of the Atlantic, at around 1.100 OG, 65 IBU and 8.7 percent alcohol by volume. Made exclusively from the first runnings of an all-malt mash, dry-hopped with Cascade and cellar conditioned for nine to 18 months, Old Foghorn was first brewed in 1975 and is most widely seen in seven-ounce "nips." Not as malty and chewy as its English counterparts, this ale expresses supreme balance with a delicate herbal hop dryness and one of the best combinations of aromas ever to rise above a beer. Thankfully, this beer is available year-round.

Sierra Nevada Bigfoot Barleywine (1.092 OG, 10.6 percent alcohol by volume). Considered by many to be the quintessential American barley wine, its string of gold medals at the GABF seems to back up that claim. It's brewed from two-row and caramel malts with Nugget hops for bittering, Cascade

Place cracked crystal and CaraPils malts in hop bag and put into 1/2 gallon of 158 degree F (70 degrees C) water. Rest for 30 minutes then strain liquid into brew kettle. Sparge grains lightly with hot water.

Add 4 gallons of cold water to brew kettle and bring to a boil. Remove brew kettle from heat before adding extract to avoid sticking or burning. Boil for 60 minutes, adding hops as noted above.

Use wort chiller or let hot wort sit for 30 minutes (covered) in ice-water bath before straining into a fermenter containing enough ice-cold, sterilized, filtered water to equal a total of five gallons of wort.

Make certain wort is below 75 degrees F (24 degrees C) before pitching yeast. Stir vigorously to aerate. Cover and fit with airlock and ferment at 65 degrees F (18 degrees C) for five to seven days. Rack to secondary, add fresh yeast and dry hops and mature for three to four weeks.

Rack to bottling bucket, prime, add fresh yeast and bottle. Condition at 65 to 75 degrees F (18 to 24 degrees C) for five to seven days. Cellar for six to 12 months. Serve at 50 to 60 degrees F (10 to 16 degrees C).

for finishing and Centennial and Cascade for dry-hopping. The dark, reddish-brown Bigfoot features a dense, fruity aroma and rich, intensely bittersweet flavor. Its crowning glory is a perfect balance of hops and malt.

Pike Brewing Co. Old Bawdy. Although they like to change the recipe a little every year, the gravity tends to stay around 1.092 to 1.096 OG with 10 percent alcohol by volume. It is famous for its smoky character derived from the use of various amounts of Scottish peated whisky malt (30 percent this year) in addition to pale malt, Munich and small amounts of black malt. This prized brew employs a blend of hops including, for this year's version, Centennial, Spalt and Liberty. Also a perennial GABF medal winner, Old Bawdy, so named because the original brewery was sited in a former house of prostitution, is oak aged like the classic English versions. This American masterpiece is malty, chewy, smooth and warming with hints of smoke.

Rogue Old Crustacean (1.104 OG, 120 IBUs, 10.25 percent alcohol by volume). This multiple GABF medal winner is recognized as a great one by those with the patience to wait out the massive hoppiness. Early sweetness and fruity chaos evolve into great depth and mellow dryness. Stock up now, then give it three years.

This article went to press before the 1997 GABF could reveal the new crop of prize-winning barley wines (See Page 51), but last year's winners deserving of recognition are Little Apple's Big 12 Barleywine, Golden City's Centurion Barleywine Ale and Steelhead's Old Weasel Barleywine, which took the gold, silver, and bronze medals, respectively. Other past competition winners and notables both here and abroad include Big Time's Old Woolly, Boston Beer Works' Hercules Strong, Bardo Rodeo's White Lightning', Adnams' Tally Ho and the threatening sounding Woodeforde's Headcracker.

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- Stephen Snyder is author of *The Brewmaster's Bible*, *The Beer Companion* and *The Brewmaster's Recipe Manual*. He also writes a regular column on styles for *Ale Street News*. He and his wife own an herb farm in Vermont appropriately named "Barleywine."

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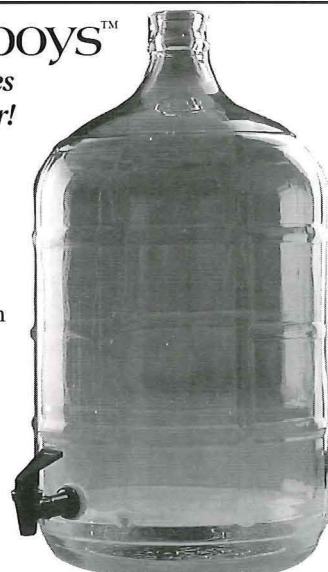
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Smokey says, "Only you can smoke your own malt."

Where There's Smoke There's Beer

The very first time I tried a smoked beer (I think it was Kaiserdom), I hated it. All I could taste was creosote and, after a few sips, I poured the rest down the drain. The problem was there was no one to guide me, to tell me what to expect. Smoked beer is a specialty beer like no other, and it can take some getting used to.

About two years later a friend reintroduced me to this style. Smoked beer goes well with many different foods. In combination with smoked cheese, smoked salmon or smoked sausage, the beer exhibits a totally different character. In addition to smoked foods, the flavor of many grilled foods, such as pork, chicken or fish, are enhanced when accompanied by smoked beer.

Anyway, I acquired a taste for this beer and, after a trip to Germany, where I spent a night in Bamberg, I knew I wanted to a brew beer like this for my own consumption.

An Overview of the Smoked Beer Style

Before we get into the actual method of making smoked beer, let's take a quick look at the style we're trying to achieve. First I'll pick apart the AHA Style Guidelines for smoked beer. Next I'll discuss different methods of creating smoked character in beer. Last, I'll give commercial examples of the style, some brewed in Germany and some in the United States, that can be purchased in the U.S.

The following information is taken directly from the AHA Style Guidelines, category 20: Smoked Beer.

"a.) Bamberg-Style Rauchbier—Rauchbier should have smoky characters prevalent in the aroma and flavor. The beer is generally toasted, malty sweet and full bodied with low to medium hop bitterness. 'Noble-type' hop flavor is low, but perceptible. Low 'noble-type' hop aroma is optional. The aroma should strike a balance between malt, hop and smoke. Fruity esters, diacetyl and chill haze should not be perceived. OG 1.048-52 (°P 12-13); FG 1.012-16 (°P 3-4); IBU 20-30; Color SRM 10-30 (EBC 20-39); Alc./wtg. 3.4-3.8 (vol. 4.3-4.8)"

I disagree with the concept that there should be a balance between malt, hop and smoke. In my opinion there is little hop flavor and the smoke overrides everything except for the maltiness.

"b.) Classic-Style Smoked Beer—Any classic style of beer can be smoked. The goal is to reach a balance between the style's character and the smoky properties. For OG, FG, percent alcohol, IBU and color refer to the individual classic styles" you are adding smoke character to.

This definition is okay, but I don't think all classic beer styles lend themselves to smoke. The beer needs to have enough muscle to handle the smoke so the original characteristics of the intended style won't be overpowered. For example, porters would be okay, but I wouldn't want to smoke a Belgian wit.

— By Jim Carroll —



The standard kettle smoker is easy to use and inexpensive (\$15-40). It can use electricity or charcoal.



The horizontal smoker with separate fire box, approximate cost \$300.



The vertical drum smoker with adjustable rack. The main disadvantage with this smoker is the full door will let all the smoke out when turning the grain or adding fuel. The cost is approximately \$100.

"c.) Other Smoked Beer—Any beer to which smoke flavors have been added. OG, FG, percent alcohol, IBU and color vary widely." In other words, anything goes.

With the addition of fruit and vegetable beer as styles, what's left? Smoked cherry lambic pumpkin ale?

Creating Smoked Character

Let's take a look at five methods of creating smoked character in beer.

- Peated malt
- Grain malted and kilned with wood
- Smoking malted grain
- Steinbier (stone beer)
- Liquid Smoke

In the first three methods of creating a smoked character, the smoke is introduced via the grain. The first two methods introduce the smoke flavor during the malting process and the third during the mashing process. In the last two methods the smoke flavor is introduced during the brewing and fermentation process.

Peated malt—The wet malt is placed on a grated floor. Blocks of peat are burned beneath the floor allowing smoke and heat to rise through the grain to dry the malt. Peated beers have a totally different flavor—more earthy. This isn't really a smoked beer; that is, the smoke flavor isn't the main intention of the brewer. The smoke flavor is a byproduct of the malting method. Some Scottish ales have a smoked character when peated malt is added to the mash. I have even perceived some faint smoke in a few wheat beers, but no smoke was added intentionally. Of course, many single malt Scotch whiskeys are known for this flavor.

Grain malted and kilned with wood—The grain is malted in much the same way as peated malt, except the fuel used in the kiln is beechwood logs. In the Franconia region of Germany the city of Bamberg is known for its smoked beer or *rauchbier*. I was there in 1991 on a weeklong pub crawl by rail, and we wished for more time to spend in this beautiful place. Bamberg is one of the few places in Germany that was spared from bombing during World War II. There are nine or 10 breweries in this small town, two

of which malt their own grain. There are also two malting houses in Bamberg producing malt commercially.

Smoking malted grain—This method gets its smoky character after the malting process by smoking the malted grain. This can be accomplished easily for small quantities. Malt, either wet or dry, is smoked over a small charcoal and wood fire, then crushed with the rest of the grist and added to the mash. Depending on the smoking method and type of wood used, the smoked flavor can be intense. Experimentation on the quantity of smoked grain to use in a given recipe is necessary. This method of obtaining smoked character is the easiest to reproduce for the homebrewer and is the method I'll discuss here in detail.

Steinbier (stone beer)—*Steinbier* also is made in the Franconia region of Germany. This beer gets its smoky flavor from beechwood, but in quite a different manner. Stones are heated over a beechwood fire then immersed in the wort during the boil. This causes the brew, and some of the malt sugars, to caramelize on the stones. After cooling, the stones are added to the lagering tanks. The smoked character created is milder than that of the Bamberg *rauchbier*. This method dates back to early man, when cooking stones were heated in a fire and dropped into skins or wooden cauldrons to make soup, tea or to heat water. Before indirect heating methods (such as steam) were used to malt grain and brew beer, it is highly likely that most beers had some level of smoked character due to this method of heating the liquid.

Liquid Smoke—These "liquid smoke" extracts have a strong hickory flavor. In my experience, any amount is too much. However, if you must use this method start your first batch with no more than two teaspoons in five gallons. Make sure to read the ingredients on the bottle. If it contains vinegar or something you can't pronounce, don't use it. Care to dash a little on a handful of grain and see how it tastes?

Some Commercial Examples

Commercial examples of smoked beer brewed in Germany and available in the United States include Heller Schlenkerla,

Kaiserdom, Rauchenfels Steinbiere and Rauchenfels Steinweizen. Heller Schlenkerla is the classic example of the style available in the United States. The brew house is located in Stephansberg, where they malt their own smoked grain about twice a week. Kaiserdom was at one time the only smoked beer available in the United States. It is brewed by the Bürgerbräu in Bamberg. Rauchenfels Steinbiere and Steinweizen are brewed in Neustadt. As far as I know, these two are the only German examples of stone beer made today in Europe that are available for purchase in the United States.

Commercial examples of smoked beer brewed in North America include Alaskan Smoked Porter (Alaskan Brewing Co., Juneau), Rogue-XS Smoke Ale (Rogue Ales, Newport, Ore.), Bosco's Stone Beer (Bosco's Brewpubs, Germantown and Nashville, Tenn.), and Vermont Smoked Porter (Vermont Pub and Brewery, Burlington). I have not tried any U.S. examples of stone beer, but I looked for them at the Great American Beer Festival in the fall. More breweries and brewpubs are experimenting with smoked beers. For a brewpub, this is a chance to match beer with a specific food.

Smoking the Grain

This is where we get down to the business of smoking grain at home. Any type can be smoked, so you can experiment. There are four essentials for smoking your own grain: the smoker, the fuel, the wood and the grain. Let's take a look at each aspect.

The Smoker

Kettle-type smokers work well and are relatively inexpensive. I have a cheap one that has served me well for many years and, consequently, is the type of smoker I recommend. Expect to pay between \$20 and \$40. The grain should be spread on a mesh screen of brass or stainless steel placed on the top grate. Be sure to choose a smoker where the fire is not too close to the grain. If you are using a water smoker, leave the pan in, but don't put any water in it. After all, you are try-

ing to smoke the grain not roast or toast it.

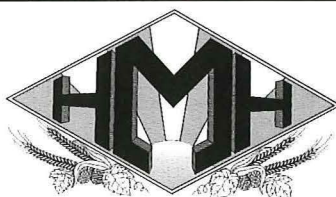
An access door to the fire is a necessity for adding charcoal and wood during the smoking process. A small door allowing access to the fire only allows less heat and smoke to escape when opened. Kettle-type smokers also are available in an electric version. They usually have a thermostatic control to vary the temperature of the heating element. This type of grill has the distinct advantage of heating rapidly and does not require the constant attention to keep the fire burning that a charcoal kettle-type smoker does.

I've found that the main disadvantage of an electric kettle smoker is that grain does not obtain as much flavor as with a burnable fuel such as charcoal. Although some experts feel that there is an advantage of being able to put in as much wood for as long as you like, with no danger of overheating the malt.

Gas grills are convenient, but too hot to use for smoking grain. Smoker boxes that you place on a gas grill allow the wood to burn too quickly.

Horizontal drum-type smokers with a separate firebox work well but are more costly.

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The Fuel

Wood fires require more attention than charcoal fires. Specialty wood purchased as logs are not only expensive but difficult to obtain, so I recommend using natural wood charcoal. It seems to work better than charcoal briquettes and burns longer. Natural wood charcoal doesn't produce as much ash, which tends to smother the fire, as briquettes do. The less the fire needs to be

attended, the less heat and smoke will escape, and the quicker the drying and smoking time. Stay away from the "match-light" type of briquette. You also hear a lot of bad things about charcoal starter fluid, but if you don't overdo it and use a clear, odorless starter fluid you should be OK. Once the fire is started it will need about 20 minutes to get established before you can add the grain. Any fumes from the starter fluid should be long gone before then. Caution—do not use gasoline as a starter fluid!

The Wood

Different types of wood have their own characteristics and produce different smoked flavors in the beer. Stick to hardwoods. Chips are good but chunks are better and burn longer. Beechwood and alder are my top choices for smoking, but are not easily obtainable. They produce a similar smoked flavor that is mellow, soft and mild, and work well in any beer. Other woods to try are hickory, maple, apple, cherry, oak and mesquite. Hickory is the most common wood used for smoking grain, but every time I've used it for making smoked beer I am told by beer judges or other critics that it tastes like bacon or smoked ham. This is an example of judging flavor by association—the flavor is compared to something familiar.

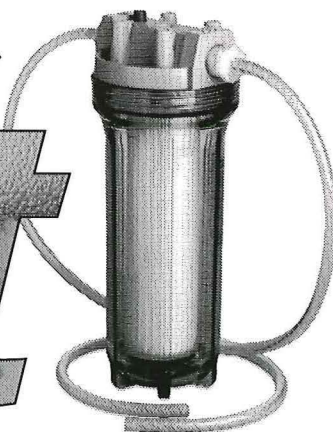
Maple and fruitwoods add a smoked nutty character to the grain. These woods work well for the darker ales, such as porter. Oak produces a harsh sharpness and has an earthy flavor similar to peated malt. Although oak varies by species, white oaks are the most pungent, and red oak is much softer. Mesquite wood gives the beer some spiciness and works well in wheat beer. Woods not suitable for smoking include pine, pressure-treated lumber, old railroad ties, glue-type fire logs and petrified wood. If you're using an electric smoker, check your owner's manual, it may advise using dry wood.

The wood should be soaked in water overnight so it won't burn as fast and will produce more smoke. Don't put all your wood on the fire at once; because it's wet, it could smother the fire. Either that or you'll be out of smoke after the first hour. Instead, keep the wood soaking in a bucket next to the grill and add small amounts during the course of the smoking process.

The Grain

Dry smoking—The grain is placed dry on the screen in the smoker and turned with a metal spoon or spatula about every 20 minutes. Usually a few hours of smoking are ample. If you choose this method, you'll need to keep a close eye on the grain. It'll burn easily because it's dry. Remember—smoke not

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roast. This smoking method will produce the least smoke flavor per pound of grain, but is well suited for electric smokers due to the cooler temperatures.

Wet smoking—In almost every recipe I found that calls for smoked grain, you're instructed to soak the grain in water for five to 15 minutes. This is not enough time for the water to fully penetrate the grain. The grain should be soaked in water overnight, or until it no longer floats. While smoking, turn it about every 30 minutes with a metal spoon or spatula. As the grain dries, it'll start to mash and caramelize, producing a smoked crystal malt. It'll take about six hours to dry fully. This method allows the smoke character to be absorbed and produces the greatest smoke flavor per pound of grain. It also darkens the color of your beer. If you're storing the smoked grain for future use, be sure it is completely cooled before you enclose it in an airtight container.

Sample Recipes

I've included recipes for three different smoked beers. But first, a few tips on how to formulate a recipe of your own. The yeast, whether ale or lager, is your decision. To determine the amount of smoked grain for your recipe, I recommend that initially no more than 10 percent of the total amount of grain should be smoked grain until you get some experience with your chosen method of smoking. If you are trying to make a Bamberg *rauchbier*, you should use "noble-type" hops. Otherwise, use the recommended hop variety for the classic style you are attempting.

Balancing the other ingredients in the recipe may be required. Typically, the smoked character will dominate. To offset the smokiness, a more malty, slightly sweet beer works best for producing most smoked beers. Hop rates may need to be adjusted for the intensity of the smoke character, depending on the style of smoked beer you are trying to make. This is just a guideline to help you get started. I recommend using a recipe you have already used successfully and add a pound or two of smoked grain to the grain bill.

Southern-Style BBQ Lager

This recipe will produce a light, smooth beer with very little smoked flavor.

- 7 lb two-row Belgian lager malt (3.18 kg)
- 1 lb two-row Munich malt (0.45 kg)
- 1 lb two-row Belgian lager malt smoked dry over alder for about five hours (0.45 kg)
- 1 lb six-row Vienna malt (0.45 kg)
- 1 tbsp Irish moss (14.8 mL) (30 min.)
- 2 oz Hallertauer hops, 3.9% alpha acid (57 g) (50 min.)
- 1 oz Hallertauer hops, (28 g) (10 min.)
- Wyeast No. 2278 Czech Pilsener liquid yeast

- Original specific gravity: 1.045
- Final specific gravity: 1.006

Mash at 152 degrees F (67 degrees C) for 105 minutes. Use single-step infusion. Boil one to two hours then whirlpool for 25 minutes.

Bamberg Remembered

- 8 lb Belgian lager malt (3.63 kg)
- 1 lb Belgian pale malt (0.45 kg)
- 1 lb Belgian lager malt smoked wet over alder for about six hours (0.45 kg)
- 2 oz Hallertauer hop pellets, 3.9% alpha acid (57 g) (70 min.)
- 1/2 oz Saaz hop plug, 3.1% alpha acid (14 g) (10 min.)
- Wyeast No. 2206 Bavarian liquid yeast (up to 1 liter)

- Original specific gravity: 1.052
- Final specific gravity: 1.011

Mash at 154 degrees F (68 degrees C) for 100 minutes. Use single-step infusion. An extra pound of smoked grain could be added to this beer if you like more smokiness. The smoked grain will darken the beer to an amber color and using a decoction mash will provide a more malty character.

A Summary of Important Dos & Don'ts

- Use only untreated hardwoods for smoking.
- Use natural wood charcoal instead of briquettes.
- Don't let your fire get too hot or too close to the grain.
- Soak wood overnight in water.
- Allow grain to cool before bagging for storage.
- Adjust hop rate to smoke intensity.

Remember the first rule of great homebrewing – there are no rules. If you try something new and it doesn't come out the way you expected it to, don't give up, try again. Don't be afraid to make changes in a recipe or in the method described. You could discover some great new technique or produce an award-winning beer. After all, homebrewing is supposed to be a hobby and you should have fun doing it.

Mike's Mesquite Wheat

- 5 lb American wheat malt (2.27 kg)
- 4 lb Klages two-row malt (1.8 kg)
- 1 lb Klages two-row malt smoked wet over mesquite for six hours
- 1 tbsp gypsum (14.8 mL) (mash)
- 1/2 tbsp gypsum (7.4 mL) (sparge)
- 2 oz Hallertauer hops, 4% alpha acid (57 g) (start of boil)
- 1/3 oz Cluster hops, 7.5% alpha acid (10 g) (start of boil)
- Wyeast No. 3056 Bavarian wheat liquid yeast

- Original specific gravity: 1.058
- Final specific gravity: 1.012

Mash at 152 degrees F (67 degrees C) for 120 minutes. Boil 90 minutes. Steep 2 ounces of Hallertauer hops for 20 minutes.

My good friend Mike Weeks and I were on a wheat beer kick for a while. In 1991,

we went to Munich and Bamberg with our wives. When we returned home, Mike tried combining his two favorite beers, wheat and *rauchbier*, with great success. He also is a great cook and smokes everything with mesquite. The beer was wonderful.

Where to Buy Specialty Woods

Specialty woods for smoking are not easily obtainable. I have listed the sources I know about and if any readers have addi-

tional sources, I would appreciate having the information, especially for a good source of alder or beech chunks.

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The Char-Broil Grill Lover's Catalog has been my source of alder, but this wood is not listed in the current catalog. The Charcoal Companion is a good source for apple and grapevine chips. The Lazzari Fuel Co. sells mostly to restaurants in bulk and carries mesquite charcoal. California law does not allow the sale of wood by the pound, only by cubic foot. Luhr Jensen & Sons Inc. carry smoking grills and alder. The Companion Group sells alder only in 50-pound bags at \$35 each with a minimum order of \$200.

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- Jim Carroll, an all grain brewer since 1990, has been homebrewing since 1981. He is also a certified BJCP beer judge.



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Caustic (sodium hydroxide)	1-3	122-140 (50-60)	A	B	C	High
TSP (trisodium phosphate)	5	140-158 (60-70)	B	B	C	Medium
Washing Soda (sodium carbonate/sodium silicate)	5	140-158 (60-70)	C	B	C	Low
B-brite (sodium percarbonate/sodium silicate)	5	140-158 (60-70)	C	C	C	Low

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Winter Zymurgy 1997

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How 'bout the country's top microbrews delivered right to your door?
Here's how five beer of the month clubs stack up.*

I got my beer of the month club subscriptions—all five of them—like most people do, as a gift. Well, that's at least partially true.

My then-fiancee, now-wife, gave me a beer of the month club subscription for Valentine's Day this year. Actually, she gave me a 20-oz. bottle of Abita Bock and a hand written card that said "beer of the month club." She explained that she didn't know which club to pick, so she thought it best to just leave the decision up to me instead of getting the wrong one.

I, however, had no more of an idea of the Best Club Possible than she did, so I decided to go the person I thought would be the most likely to know, the editor of *Zymurgy*. I assumed *Zymurgy* had done some sort of taste test in its history. I was wrong. *Zymurgy* had never reviewed the clubs.

As long as I'd called, however, the job of sorting through monthly brews was mine; I, of course, whole-heartedly agreed.

We agreed that I would call as many brew clubs as I could find numbers for on the Internet, in newspapers and in magazines and select the five with the most subscribers. To

those I would subscribe for three months without revealing my identity or purpose. *Zymurgy* would pick up the tab.

How They Stacked Up

The five clubs I joined from June to August were Ale in the Mail, The Brew Tour, Hog's Head Beer Cellars, Beer Across America and the Great American Beer Club. It should be pointed out that these five were probably not *the* five largest beer clubs in America. Some, like Beer Across America and the Great American Beer Club, undeniably are—each boast memberships that some fringe political parties would kill to have.

Others were included, however, because they weren't jerks. That is to say, that some clubs that probably had a high number of subscribers were not included because they would not release information to me that would have allowed them to be ranked. That's how a club like The Brew Tour, which has just a few thousand subscribers,

but very polite people answering their phones, got in on this test.

I should begin by pointing out that all five clubs tested were friendly, professional and quite easy to subscribe and unsubscribe to. The packaging was good in all cases; all 15 shipments arrived to me in pristine condition without one bottle out of place. The prices were all virtually the same, about \$25 for a half-case of beer per month including shipping, handling and various other charges. Even the newsletters included with each were similar, with almost all of them containing food recipes, beer trivia and re-order information. Each was also occasionally stuffed with newspapers and magazines such as *Southern Draft Brew News* or *Malt Advocate*.

Nearly the only difference in each was the beer they sent, which makes things easy on the consumer. If you find one with beer you like, the rest you can pretty much count on.

Here is how the individual clubs fared against one another. Only one club, Ale in the Mail, broke away from the pack. None of them stood out as being exceptionally bad, although a couple were more lackluster than the others.

Ale in the Mail



This was by far the best club of the five. The beer selections were always interesting in terms of styles and breweries chosen. Ale in the Mail was the only one to consistently deliver a solid variety of beer styles, including stouts, porters, brown ales, bocks, etc; not the same old boring so-called craft brews from a contract brewery that spends its days cranking out non-descript pilsners and pale ales with splashy graphics. Nope, these are the real thing.

Ale in the Mail also scored points for being the only one to deliver four different beers each month—two styles from two different breweries. Read this as, “More bang for the buck.” It’s the same number of bottles, but more types of beer.

The only area where Ale in the Mail fell short of the others was its newsletters. They were comparatively thin, with information only on the featured beers and some amount of self-promotion revolving around the likes of re-orders and member specials.

If you are buying for someone who is truly interested in beer, Ale in the Mail is worth it. The newsletter isn’t much to look at, but this club delivers where it counts.

Beers received: Santa Fe Brewing Co.’s Pale Ale and Wheat; Pretzel City Brewing Co.’s Steam Horse Lager and Alt Bier; Cabezon Brewing Co.’s Sunchaser Ale and Stout; Pony Express Brewing Co.’s Nut Brown Ale and Honey Blonde; Great Divide Brewing Co.’s Saint Brigid’s Porter and Bee Sting Honey Ale; and Stoudt’s Brewing Co.’s Scarlet Lady Ale ESB and Honey Double Bock.

Hog’s Head Beer Cellars



If you’re looking for nice packaging, look no further than Hog’s Head. The graphics design department apparently works overtime on their boxes and newsletters.

The shipping crates come complete with ornate Hog’s Head logo and stuffed with decorative packing material such as colored little squiggly bits of cardboard and earth-tone confetti. Certainly not by accident, it’s like a safari plunging into the box of beer.

The newsletter is the latest in graphics. Here you can find beer etiquette, recipes, glossaries for beer terms, and Hog’s Head merchandise.

If only they had spent as much time picking their beers as they did their design team.

Each month was a study in unchallenging and uninteresting beer styles. The wildest brew I received in three months was a Boysenberry Hefe-Weizen. The rest were innocuous non-styles. The monotony was heightened by the fact that you only receive two beer styles, a six-pack from each brewery featured.

It’s not that the beers were bad. On the contrary, I would possibly drink some of the ones I received on a regular basis if they were available at my local grocery store. The difference there is that I’m not paying shipping, handling and membership costs to be exposed to a wide variety of beer when I go to the grocery. When I join a beer club I am, and I expect to receive product accordingly.

If you’re serious about beer, pass this one by. If you just want to impress your neighbors and co-workers with a box that will look nice on your stoop or desk and obviously advertise that you’re a beer-of-the-month-club-kind-of-guy, Hog’s Head is an attractive choice.

Beers received: Steamship Brewing Co.’s Captain’s Lager; Odell Brewing Co.’s 90 Shilling Ale; Clipper City Brewing Co.’s Classic Pale Ale; New Knoxville Brewing Co.’s Swanky; Wilmington Brewing Co.’s Dergy’s; and SLO Brewing Co.’s Boysenberry Hefe-Weizen.

Beer Across America



I must admit that I was surprised by Beer Across America. I had heard some rather ugly comments about the club before I joined that painted it as the fast-food chain of beer of the month clubs. I guess what we all forget about the Budweisers and McDonalds of the world is that there’s a reason they are so popular: value. These companies provide a consistent product that is of a high enough quality to be worth at least as much as the money the consumer is trading to receive that product. There’s something to be said for that.

And that’s something to be said for Beer Across America. The beers weren’t as

Beer Clubs

Ale in the Mail
1-800-SEND ALE

Beer Across America
1-800-842-4050

The Brew Tour
1-800-660-8687

The Great American Beer Club
1-800-TRY-ASIP

Hog’s Head Beer Cellar
1-800-795-2337

Beers to You
305-945-2337

HOPS International-ALE
1-800-879-4677

Malt of the Earth
1-800-625-8238

MicroBrew Express
1-800-962-3377

North American Beer Odyssey
1-800-923-2337

MicroBeer Club
1-800-256-9853

exotic as Ale in the Mail, but the newsletter was chocked full of good information and recipes, specials and trivia. The newsletter design wasn’t as clever or attractive as Hog’s Head, but the beers were more interesting. The service was not as personal as The Brew Tour, but my order was handled promptly and correctly. Maybe some things could have been improved, but I was never disappointed with a shipment I received from Beer Across America for any reason.

For someone just getting into beer, this is a fine choice.

Beers received: Oldenberg Brewing Co.’s Pious Pale Ale; Nor’Wester Brewery’s Honey Weizen; Texas Brewing Co.’s Texas Crude Bock; Sea Dog Brewing Co.’s Blonde Ale; Great Divide Brewing Co.’s Bee Sting Honey Ale; and Schirf Brewing Co.’s Wasatch Hefewiezen.

Great American Beer Club



Another big player in the beer of the month club game, the Great American Beer Club also performed fairly well. Again, the selections could and

probably should have been more interesting, but in the three months of the subscription, I received a variety that included an oatmeal stout, a nut brown ale and a wheat. A nice aspect of this club is that each shipment included one style from three breweries, that's four bottles each for those of you scoring at home.

The newsletter was good, with the standard fare of recipes, brewery biographies and a glossary of beer styles. Nothing new here, but fairly well executed.

Like Beer Across America, the Great American Beer Club is a solid, if not particularly exciting, choice of beer clubs. Keep in mind the three different styles this club offers monthly when choosing between the two clubs.

Beers received: Middlesex Brewing Co.'s Middlesex Oatmeal Stout; Weyerbacher Brewing Co.'s Two Rivers Golden Amber Ale; Casco Bay Brewing Co.'s Katahdin Red Ale; August Brewing Co.'s Thomas Manley Bronze Lager; Carmel Brewing Co.'s Carmel Hefe-Weizen Wheat Beer; Reedy River Brewing Co.'s Caesar's Head Amber Ale; Wild Goose Brewing Co.'s Wild Goose Nut Brown Ale; Big Buck Brewery & Steakhouse's Boyne Amber Ale; and Coast Range Brewing Co.'s California Blonde Ale.

The Brew Tour



They try. I wish I could say something nicer about this beer of the month club because on the two occasions I had to talk to their sales people, they came across as the friendliest and most personable club.

Unfortunately, their beers were every bit as boring and poorly selected as Hog's Head and their newsletters aren't nearly as pretty.

Like Hog's Head, two six packs from two different breweries were sent each month. In fairness to the club, it should be pointed out that I was given a choice when ordering whether I wanted to be shipped dark or regular beers and I chose "regular," assuming that would mean a selection including both. Only light beers were sent.


It also should be pointed out that in my first shipment, Dubuque Brewing's Big Muddy Red was replaced by Bucks County Brewing Co. River Horse Special Ale. A note included with the shipment explained that

the substitution was made because the former selection is available in my area. To my knowledge it isn't available, but at least it shows they are attempting to bring some diversity to their club members and expose them to beers they can't get at home.


Beers received: Cherryland Brewing Co.'s Silver Rail; Bucks County Brewing Co.'s River Horse Special Ale; Spring Street Brewing Co.'s Wit; Arrowhead Brewing Co.'s Red Feather Pale Ale; Palm Springs Brewing Co.'s Amber Ale; and Coast Range Brewing Co.'s Desperado Pale Ale.

So there you have it. The Great Test is done. The votes are in. The moral of the story is that if you're looking to buy a beer of the month club for the novelty of having beer sent to your home, the choices are many. But if you're looking to really expand your knowledge and experience of beer, you need to shop a little more carefully.


New Orleans-based journalist James Slaton is a regular contributor to *Zymurgy*. He is no longer poised at his mailbox, awaiting the month's beer ration.




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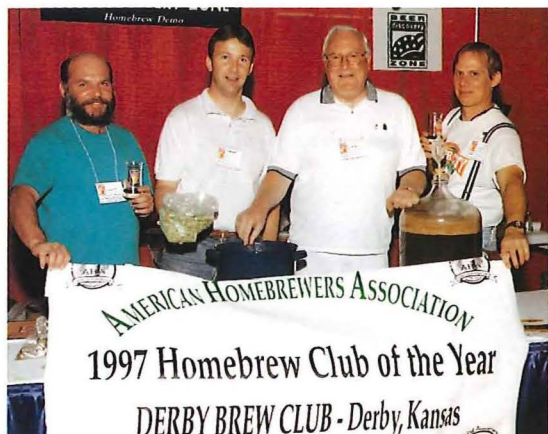
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Another Trek Into BEER UNIVERSE

by Michael Bane



Yes, we're not in Kansas anymore—our 1997 Homebrew Club of the Year joined us for GABF.



Two great aspects of the GABF—rows of medals (above) and some on-line education.

After a frenetic three days in Denver, it's safe to state two unequivocal things:

- 1) The art of craftbrewing is alive and amazingly healthy in the United States, and,
- 2) Homebrewers like nothing better than to sample the results of Point #1.



This year's Great American Beer Festival, the 16th, brought together a record-setting 1,700 beers from 400 breweries with 30,000 extremely thirsty beer fanatics. Not surprisingly, a large portion of those 30,000 were either homebrewers or aspiring homebrewers. At the AHA booth, we were serving Director Jim Parker's Porter and bitter, Project Coordinator (and author of *A Year of Beer*) Amahl Turczyn's bitter and Administrator Brian Rezac's spectacular Chai Beer.

We were joined by 1997 Homebrewer of the Year Charlie Gottenkiy, who brought one of his own bitters (there wasn't enough of his award-winning lambic to go around!) and members of the Homebrewing Club of the Year, the Derby Brew Club from Derby, Kansas, who kept a pot of "hop soup" boiling.

One of the appeals of the GABF is the chance to spend some time with

people who were previously only e-mail addresses. Ichiri Fujiura—whose business card reads, "Beer Seeker, Researcher, Investigator, Writer & Enthusiast"—stopped by, and, later on, off-premises, delivered a bottle of his own unique Porter, homebrewed in Japan and flavored with smoked coconut. We'll have a new recipe from Ichiri in *Zymurgy* as soon as possible. Ichiri reports that, despite Japan's anti-homebrewing laws, the membership of the Japanese homebrewers club has now soared to five people, up from three.

Much of the conversation around the AHA booth was of the, "How did they do that?" or, "Where can I buy that?" variety. Even Charlie Gottenkiy vowed to make a stop at a beer store in Seattle—closer than home base in Juneau—to stock up on Alaskan Brewing's Smoked Porter.

Check out our list of medal winners, and if you'd like to have a sip of them all, pencil in next year's GABF.



Just a portion of this year's record-breaking crowd in Denver.



**Great American
Beer Festival
XVI 1997**
Denver, Colorado

CLASSIC ENGLISH-STYLE PALE ALE

GOLD: BridgePort India Pale Ale, BridgePort Brewing Co./Spoetzel Brewery, Portland, OR
SILVER: Pick Axe Pale Ale, Tommyknocker Brewery & Pub, Idaho Springs, CO
BRONZE: Denver Pale Ale, Great Divide Brewing Co., Denver, CO

INDIA PALE ALE

GOLD: India Pale Ale, Marin Brewing Co., Larkspur, CA
SILVER: Lucknow India Pale, Castle Springs Brewing Co., Moultonborough, NH
BRONZE: Back Bay IPA, Boston Beer Works, Boston, MA

AMERICAN-STYLE PALE ALE

GOLD: Tupper's Hop Pocket Ale, Old Dominion Brewing Co., Ashburn, VA
SILVER: Anniversary Ale, Charlie & Jake's Brewery & Grille, Melbourne, FL
BRONZE: Main Street Pale Ale, Main Street Brewery, Cincinnati, OH

1997 GREAT AMERICAN BEER FESTIVAL™ VI MEDAL WINNERS

OCTOBER 2-4, 1997, DENVER, COLORADO

AMERICAN-STYLE AMBER ALE

GOLD: Chelsea Sunset Red Ale, Chelsea Brewing Co., New York, NY
SILVER: Tornado Ale, Pony Express Brewing Co., Olathe, KS
BRONZE: Angel Creek Amber Ale, Ruby Mountain Brewing Co., Clover Valley, NV

ENGLISH-STYLE BITTER

GOLD: Honkers Ale, Goose Island Beer Co., Chicago, IL
SILVER: Sweetwater Ale, Sweetwater Brewing Co., Atlanta, GA
BRONZE: Phillips Ave. Pale Ale, Sioux Falls Brewing Co., Sioux Falls, SD

ENGLISH-STYLE (EXTRA SPECIAL) STRONG BITTER

GOLD: Bay State E.S.B., Salem Beer Works, Salem, MA
SILVER: Nigel's E.S.B., Steelhead Brewing Co.-Burlingame, Burlingame, CA
BRONZE: Pike Pale, Pike Brewing Co., Seattle, WA

SCOTTISH-STYLE ALE

SILVER: Loch Lanier Ale, John Harvard's Brew House, Cambridge, MA
BRONZE: Rightfield Red Ale, Sandlot Brewery at Coors Field, Denver, CO

GOLDEN ALE/ CANADIAN-STYLE ALE

GOLD: Midnight Star Signature Ale, Sioux Falls Brewing Co., Sioux Falls, SD
SILVER: Kørslyk Golden, Typhoon Brewery, New York, NY
BRONZE: Alaskan Pale Ale, Alaskan Brewing Co., Juneau, AK

KÖLSCH

GOLD: Skinny Atlas Light, Empire Brewing Co. of Syracuse, Syracuse, NY
SILVER: Kölsch, Wild River Brewing, Grants Pass, OR
BRONZE: Aspen Vista Golden Ale, Wolf Canyon Brewing Co., Santa Fe, NM

ENGLISH-STYLE BROWN ALE

GOLD: Alcatraz Brown, Alcatraz Brewing Co., Indianapolis, IN
SILVER: Nut Brown Ale, Blackstone Restaurant & Brewery, Nashville, TN
BRONZE: Home Run Brown Ale, Champion Brewing Co., Denver, CO

AMERICAN-STYLE BROWN ALE

GOLD: Chihuahua Brown Ale, Jaxon's Restaurant and Brewing Co., El Paso, TX
SILVER: Naughty Monkey Brown Ale, Seabright Brewery, Pub and Restaurant, Santa Cruz, CA
BRONZE: Low Down Brown Ale, Cottonwood Brewery, Boone, NC

GERMAN-STYLE BROWN ALE/ DÜSSELDORF-STYLE ALTBIER

GOLD: Manchester Alt, Union Station Brewery & John Harvard's Brew House, Framingham, MA
SILVER: Alle Tage Altbier, McNeill's Brewery, Brattleboro, VT
BRONZE: Altered State, Brew Works at the Party Source, Covington, KY

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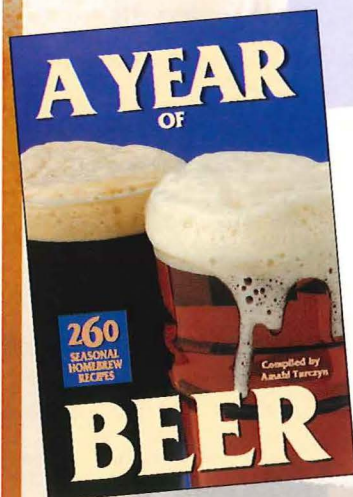
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YYRP



GERMAN-STYLE WHEAT ALE

GOLD: Brooklyn-Weisse, The Brooklyn Brewery, Brooklyn, NY
SILVER: Penn Hefe-Weizen, Pennsylvania Brewing Co., Pittsburgh, PA
BRONZE: Vulcan Hefe Weizen, Vulcan Brewing Co., Birmingham, AL

ROBUST PORTER

GOLD: Cool Mule Porter, Crooked River Brewing Co., Cleveland, OH
SILVER: Porter, Russian River Brewing Co., Guerneville, CA
BRONZE: Devou Dark, Brew Works at the Party Source, Covington, KY

BROWN PORTER

GOLD: Possum Trot Brown Ale, 75th Street Brewery, Kansas City, MO
SILVER: Ravensbrau Porter, Eel River Brewing Co., Fortuna, CA
BRONZE: Black Gold Porter, Huntington Beach Beer Co., Huntington Beach, CA

CLASSIC IRISH-STYLE DRY STOUT

GOLD: Chelsea Stout, Chelsea Brewing Co., New York, NY
SILVER: Survivor Stout, San Andreas Brewing Co., Hollister, CA
BRONZE: Latter Days Stout, Desert Edge Brewing Co., Salt Lake City, UT

FOREIGN-STYLE STOUT

GOLD: Old Man Winter Stout, Overland Stage Stop Brewery, Longmont, CO
SILVER: Snake River Zonker Stout, Snake River Brewing Co., Jackson, WY
BRONZE: Old Scout Stout, Twenty Tank Brewery, San Francisco, CA

SWEET STOUT

GOLD: Hammerhead Stout, Sanibel Brewpub, Sanibel Island, FL
SILVER: Grainbarrel Stout, Elk Grove Brewing Co., Elk Grove, CA
BRONZE: Steamboat Stout, Main Street Brewery, Cincinnati, OH

OATMEAL STOUT

GOLD: Farmer Jon's Oatmeal Stout, Heartland Brewery, New York, NY
SILVER: Seabright Oatmeal Stout, Seabright Brewery, Pub, and Restaurant, Santa Cruz, CA
BRONZE: Second Street Stout, Second Street Brewery, Santa Fe, NM

ENGLISH-STYLE OLD ALE/STRONG ALE

GOLD: Hibernation Ale, Great Divide Brewing Co., Denver, CO
SILVER: Old Scratch, Main Street Brewery, Cincinnati, OH
BRONZE: Fort Point Olde Ale, Steelhead Brewing Co./Fisherman's Warf, San Francisco, CA

STRONG SCOTCH ALE

GOLD: Smoked Scotch Ale, Westwood Brewing Co., Los Angeles, CA
SILVER: The Finn's Wee Heavy, Mickey Finns Brewery, Libertyville, IL
BRONZE: Auld Lang Syne Holiday Ale, Coast Range Brewing Co., Gilroy, CA

IMPERIAL STOUT

GOLD: Russian Imperial Stout, Fort Hill Brew House, Boston, MA
SILVER: John Wayne Imperial Stout, Newport Beach Brewing Co., Newport Beach, CA
BRONZE: Imperial Stout, Moylan's Brewery and Restaurant, Novato, CA

OTHER STRONG ALES

GOLD: Samuel Adams Triple Bock, The Samuel Adams Brew House, Philadelphia, PA
SILVER: Crazy D's Thunder Ale, Cooper-Smith's Pub & Brewing, Ft. Collins, CO
BRONZE: Dremo Tibetan Sasquatch, Bardo Rodeo, Arlington, VA

BARLEY WINE

GOLD: Bearded Pat's Barley Wine, Bluegrass Brewing Co., Louisville, KY
SILVER: Sierra Nevada Bigfoot Barley-Wine, Sierra Nevada Brewing Co., Chico, CA
BRONZE: Old Foghorn Barley Wine, Anchor Brewing Co., San Francisco, CA

BELGIAN-STYLE ALES

GOLD: Abbey Belgian Style Ale, New Belgium Brewery, Fort Collins, CO
SILVER: Celis Grand Cru Ale, Celis Brewery, Austin, TX
BRONZE: Mephistopheles' Metamorphosis, Brew Works at the Party Source, Covington, KY

BELGIAN-STYLE SPECIALTY ALES

GOLD: Gucuze Lambic, Diamond-back Brewing Co., Cleveland, OH
SILVER: KAZ Lambic, Fremont Brewing Co., Fremont, CA
BRONZE: Blanche de Brooklyn, Brooklyn Brewery, Brooklyn, NY

PILSENER

GOLD: Stoudt's Pils, Stoudt Brewing Co., Adamstown, PA
SILVER: Atwater Pilsener, Atwater Block Brewery, Detroit, MI
BRONZE: Bavarian Pilsener, Bavarian Brewing Co., Ltd., Mammee, OH

BOHEMIAN-STYLE PILSENER

GOLD: Peck's Pilsner, The Great Dane Pub & Brewing Co., Madison, WI
SILVER: Red Ass Pegasass Pilsener, Red Ass Brewing Co., Fort Collins, CO
BRONZE: Golden Bear Lager, Golden Pacific Brewing Co., Berkeley, CA

MÜNCHENER HELLES AND EXPORT

GOLD: Lodestone Lager, Iron Hill Brewery & Restaurant, Newark, DE
SILVER: Meridian Street Lager, Oaken Barrel Brewing Co., Greenwood, IN
BRONZE: BrewMecca Munich Helles, Brew Works at the Party Source, Covington, KY

DORTMUNDER/ EUROPEAN-STYLE EXPORT

GOLD: Dominion Lager, Old Dominion Brewing Co., Ashburn, VA
SILVER: Ybor Gold, Ybor City Brewing Co., Tampa, FL
BRONZE: Berghoff Original Lager Beer, Joseph Huber Brewing Co., Monroe, WI

AMERICAN-STYLE LIGHT LAGER

GOLD: Old Milwaukee Light, The Stroh Brewery Co., Detroit, MI
SILVER: Southpaw Light, Plank Road Brewery, Milwaukee, WI
BRONZE: Coors Light, Coors Brewing Co., Golden, CO

AMERICAN-STYLE LAGER

GOLD: Drummond Bros. Lager, Evansville Brewing Co., Inc., Evansville, IN
SILVER: Busch, Anheuser-Busch, Inc., St. Louis, MO
BRONZE: Old Milwaukee, The Stroh Brewery Co., Detroit, MI

AMERICAN-STYLE PREMIUM LAGER

GOLD: Stroh's, The Stroh Brewery Co., Detroit, MI
SILVER: Miller Genuine Draft, Miller Brewing Co., Milwaukee, WI
BRONZE: Miss Liberty Lager, Liberty Steakhouse and Brewery, Myrtle Beach, SC

AMERICAN-STYLE SPECIALTY LAGER

GOLD: Olde English Malt Liquor, Pabst Brewing Co., Tumwater, WA
SILVER: Laser Malt Liquor, Falstaff Brewing Co., Tumwater, WA
BRONZE: Schlitz Malt Liquor, St. Ides Brewing Co., Detroit, MI

VIENNA-STYLE LAGER

GOLD: Vienna Lager, Salt Lake Brewing Co., Salt Lake City, UT
SILVER: Copper Tank Vienna Lager, Copper Tank Brewing Co.-Dallas, Dallas, TX
BRONZE: Devil's Lake Red Lager, The Great Dane Pub & Brewing Co., Madison, WI

AMERICAN-STYLE AMBER LAGER

GOLD: Steamworks Steam, Steamworks Brewing Co., Durango, CO
SILVER: Killian's Irish Red, Coors Brewing Co., Golden, CO
BRONZE: Red Wolf, Specialty Brewing Group of Anheuser Busch, Inc., St. Louis, MO

MÄRZEN/OKTOBERFEST

GOLD: Samuel Adams Oktoberfest, The Boston Beer Co., Boston, MA
SILVER: Thomas Kemper Oktoberfest, Thomas Kemper Lagers, Seattle, WA
BRONZE: Tabernash Oktoberfest, Tabernash Brewing Co., Denver, CO

EUROPEAN-STYLE DARK/ MÜNCHENER DUNKEL

GOLD: Tabernash Munich Dark Lager, Tabernash Brewing Co., Denver, CO
SILVER: Three Finger Jack Hefedunkel, Saxer Brewing Co., Lake Oswego, OR
BRONZE: Garten Brau Dark, Capital Brewery Co., Inc., Middleton, WI

AMERICAN-STYLE DARK LAGER

GOLD: Ziegenbock, Specialty Brewing Group of Anheuser Busch, Inc., St. Louis, MO
SILVER: Rushmore Bock, USA Cafe/USA Brewing Co., Fort Worth, TX
BRONZE: Point Classic Amber, Stevens Point Brewery, Stevens Point, WI

GERMAN-STYLE SCHWARTZBIER

GOLD: King's Peak, Uinta Brewing Co., Salt Lake City, UT
SILVER: Uncle Dunkel Lager, Southend Brewery and Smokehouse, Charleston, SC
BRONZE: Nor'Easter Schwarzbier, North East Brewing Co., Boston, MA

BOCK

GOLD: Maibock, H.C. Berger Brewing Co., Ft. Collins, CO
SILVER: Smith Rock Bock, Nor'Wester Brewing Co., Portland, OR
BRONZE: Saxer Spring Bock, Saxer Brewing Co., Lake Oswego, OR

DOPPELBOCK

GOLD: Samuel Adams Double Bock, The Boston Beer Co., Boston, MA
SILVER: Butthead Bock, Tommyknocker Brewery & Pub, Idaho Springs, CO
BRONZE: BBBC Wheat Bock, Back Bay Brewing Co., Ltd., Boston, MA

AMERICAN-STYLE LAGER/ ALE OR CREAM ALE

GOLD: Lodgepole Light, Prescott Brewing Co., Prescott, AZ
SILVER: Uncle Sam's Gold, USA Cafe/USA Brewing Co., Forth Worth, TX
BRONZE: Mt. Uncanoonuc Golden Cream Ale, Stark Mill Brewery & Restaurant, Manchester, NH

AMERICAN-STYLE WHEAT ALE OR LAGER

GOLD: William Jones Wheat Beer, El Toro Brewing Co., Morgan Hill, CA
SILVER: Lucknow American Wheat, Castle Springs Brewing Co., Moultonborough, NH
BRONZE: Western Reserve American Wheat, Western Reserve Brewing, Cleveland, OH

FRUIT BEERS

GOLD: Belgian Red, New Glarus Brewing Co., New Glarus, WI
SILVER: Black Cherry Stout, Main Street Station's Triple 7 Brewpub, Las Vegas, NV
BRONZE: Apple Ale, New Glarus Brewing Co., New Glarus, WI

HERB/SPICE BEERS

GOLD: Cerveza Chilibesito, Great Basin Brewing Co., Sparks, NV
SILVER: Hoppy Claus Holiday Ale, Hoppy Brewing Co., Inc., San Jose, CA
BRONZE: Hempen Ale, Frederick Brewing Co., Frederick, MD

SPECIALTY

GOLD: Boundary Waters Wild Rice, James Page Brewing Co., Minneapolis, MN
SILVER: RedHook Double Black Coffee Stout, RedHook Ale Brewery, Seattle, WA
BRONZE: Pullman Nut Brown, Flossmoor Station Brewing Co., Flossmoor, IL

SPECIALTY HONEY ALES OR LAGERS

GOLD: Killian's Irish Honey, Coors Brewing Co., Golden, CO
SILVER: Fall Fest Honey Rye Ale, Copper Tank Brewing Co.-Dallas, Dallas, TX
BRONZE: Palmetto Pale Ale, Sanibel Brewpub, Sanibel Island, FL

SMOKE-FLAVORED BEERS

GOLD: Smoke, Rogue Ales, Newport, OR
SILVER: Alaskan Smoked Porter, Alaskan Brewing Co., Juneau, AK
BRONZE: J.T.'s Smokin Ale, J.T. Whitney's Brewpub & Eatery, Madison, WI

NON-ALCOHOLIC MALT BEVERAGES

GOLD: Pabst NA, Pabst Brewing Co., Tumwater, WA
SILVER: Pigs Eye N.A., Minnesota Brewing Co., St. Paul, MN
BRONZE: Amber O'Doul's, Specialty Brewing Group of Anheuser Busch, Inc., St. Louis, MO

Professional Panel Blind Tasting judges award medals to excellent examples of a particular style. If the judges believe no beer in a category meets the quality and style-accuracy criteria, they may elect not to award medals. For example, judges may recognize a beer with a silver or a bronze medal and not award a gold medal. For information about the Great American Beer Festival call the Association of Brewers at (303) 447-0816, or write PO Box 1679, Boulder, CO 80306-1679, or <http://beertown.org> on the Web.

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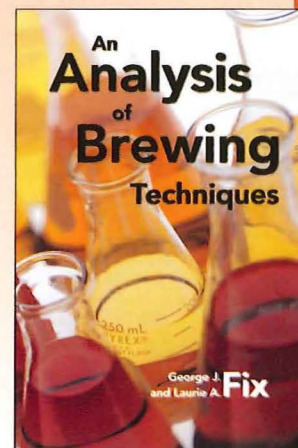
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T H E B E S T F R O M KITS

Dan Rabin

Whip Up a Cream Ale

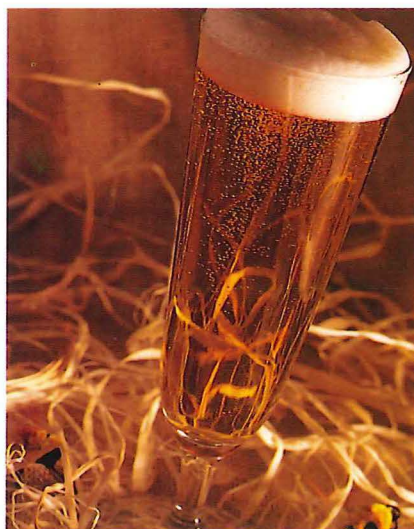
Let's face it, cream ale is not the most popular beer style among homebrewers. Why? By definition, cream ales are pale-colored, thin-bodied, mild-flavored, and minimally hopped. Doesn't this sound like the type of beer you stopped drinking when you became a homebrewer?

So when I agreed to do an evaluation of cream ale kits, the first thing I asked myself was, "Why would a homebrewer want to brew a cream ale, especially in the cooler months?"

In search of answers, I sampled a few commercial examples, looked over the style guidelines, and came up with the following four reasons:

- 1) In any season, a tasty, quaffable, light beer ("light" meaning toward the low end of maltiness, body and hoppiness) can be refreshing after strenuous physical activity such as cross-country skiing (or cleaning up after a boilover).
- 2) Sometimes, you need to have a beer around that your in-laws will drink when they come over to watch football games on Sunday afternoons.
- 3) Light beers, more than other styles, are an excellent test of your brewing skills. With light beers, you can't hide off-flavors behind roasted grains, and you can't hide off-aromas behind spicy hops. So lighten up already!

I evaluated three cream ale kits: the Premier Reserve Gold Label Cream Ale Kit from Premier Malt Products, the Better Brew Cream Ale Kit from Vinothèque USA, and the Honey Cream Ale Kit from The Home



Brewery. I followed the brewing instructions provided with the kits fairly closely with two notable exceptions. First, I discarded the dry yeast that came with each kit and substituted a vial of White Labs Pitchable California Ale Yeast. While good yeast won't save a poorly crafted beer, poor-quality yeast will always degrade an otherwise well-made beer. In seven years of homebrewing, I've found that liquid yeast is far more dependable in terms of viability, purity, and overall quality than its dry counterpart.

Second, after fermenting these beers at room temperature, I cold-lagered (i.e. aged) them at 50 degrees F (10 degrees C) for about a week. Cream ales actually resemble lagers more than they do ales. Cold-aging enhances the clean, lager-like quality and also helps to clear the beer.

Premier Reserve Gold Label Cream Ale

The Premier kit is a very simple beginner kit containing two, four-pound (1.8 kg) cans of hopped malt extract syrup (includes corn) and dry yeast. The instructions state to add one can of the extract to boiling water. You are then offered a choice of adding either corn sugar (2.5 lbs.), dry malt extract (amount unspecified), or the second can of malt extract syrup to this mixture. There is no explanation of why you would choose one over another. I opted for the second can of malt because it was included with the kit.

The wort was boiled, per instructions, for 15 minutes, then chilled. I added enough water to produce an initial gravity in the mid-40's, which yielded about six gallons of wort.

The finished beer is an attractive golden-amber color, though on the dark end of the scale for a cream ale. This beer finished with a surprisingly high final gravity and has noticeable residual sweetness and somewhat worty aroma. It finishes with a slight lingering bitterness. For beginning brewers, this kit produces satisfactory results for minimal effort.

- Original specific gravity: 1.046
- Final specific gravity: 1.020



The Vinothèque Better Brew Cream Ale Kit



When I opened the box containing this intermediate kit, I was impressed by the sheer quantity of "stuff" it contained. Included was a four-pound can of Ironmaster malt extract syrup, dry malt extract, crushed grain, a grain bag, two packages of hop pellets, gypsum, Irish moss, dry yeast, corn sugar for priming and bottle caps.

Following the instructions, I poured the crushed grains into the grain bag and placed it in the brewpot with cold water. I slowly raised the water temperature to 160 degrees and held it for 10 minutes, then removed the grains. While heating, I was surprised at how dark the brewing water became as the grains steeped. The grains were listed as 1/2 lb. UK light carastan (14-17L) and 1/4 lb. Canadian 6-row barley. But judging from

the un-cream ale-ish amber wort this kit produced, I suspect some darker forces, ...er...grains were at work. Subtract a few style points here.

After removing the grains, I added the malt extracts (both dry and syrup), brought the mixture to a boil, then added the bittering hops. Though the list of ingredients specified Cluster hops for bittering and Cascade hops for aroma, the two hop packages included with the kit were both labeled "Cascade."

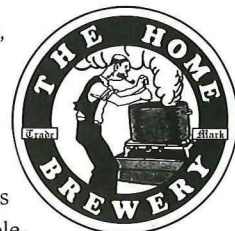
After 30 minutes of boiling, Irish moss was added. Then, after 40 minutes, the finishing hops were added. The heat was turned off, and the hops were steeped for two minutes before the wort was chilled. It strikes me as strange that there should be a late hop addition in a beer style where hop aroma is usually absent. While finishing hops may produce a more interesting beer, if your goal is to produce an authentic cream ale, consider leaving them out.

Obviously, something is amiss with this kit. The finished beer is reddish-amber, and smells and tastes of roasted barley. I'm nearly certain that the grains packaged with the kit

were not those that were listed or intended. If you can get past the graininess, there is a light-bodied, dry beer present. Leave out the grains and this beer might be right on target.

- Original specific gravity: 1.040
- Final specific gravity: 1.010

The Home Brewery Honey Cream Ale Kit



Like the Vinothèque kit, the cream ale kit from The Home Brewery is intended for intermediate brewers. Dry malt extract—pre-mixed with bittering hops—comes neatly packaged in a reusable-lidded plastic tub. The kit also contains crushed grain (Victory malt), a grain bag, Irish moss, finishing hops, dry yeast, corn sugar and a one-pound jar of honey.

The brewing procedure for this kit is similar to the Vinothèque kit, though the total boiling time is 60 minutes rather than 40. The honey and finishing hops are added for the final five minutes. As noted with the Vinothèque kit, the late hop addition is questionable for a true cream ale; if this concerns you, save these hops for another brew. Personally, I'd add the finishing hops (I did), enjoy the added character they impart and not sweat the style parameters.

This kit produced a golden-colored beer with a faint honey aroma that is rather pleasant. The beer is light-bodied, dry, and has a clean, quick finish. A bit more malt would perk up this beer, but as it is, there are few faults.

- Original specific gravity: 1.036
- Final specific gravity: 1.010

May your winter be filled with good libations, and may your homebrew be la creme de la creme. For me, I've got a few homebrews chilling and a pot of chili simmering; my skis are waxed up, and I'm heading for the hills.

Dan Rabin is a freelance writer from Boulder, Colorado, has been homebrewing for seven years and is active with the Hop Barley & the Alers homebrew club.

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The ballad of Papazian



First Place

By William Butler Yeast

Come and listen to my story 'bout a man named Charlie
Brewed a tasty beer using hops and waited barley
The very first day that he sampled what he brewed
The amber colored liquid caused a really nice mood.
Buzz, that is.
Liquid gold. Hops heaven.

Well before too long Charlie brews a batch a day
Kinfolk said, "Chuck, why not make it pay?"
Said, "AHA is the place you oughta be."
So he reckoned they were right, and he started *Zymurgy*.
Magazine, that is.
Good features. Member discounts.

Several years down the road he's a real celebrity
Wrote a bunch of books, he's as famous can be.
Judges competitions all around the USA
But he still produces homebrew in the old fashioned way.
Five gallons, that is.
Plastic siphons. Sticky floors.

Paul Baker, Evansville, WI

Blood and Beer

Honorable Mention

When I tell people I brew beer at home
their eyes gleam greedy
and they chuckle "Oh ho!"
and dream of raucous parties.
They do not know that beer and blood are one.

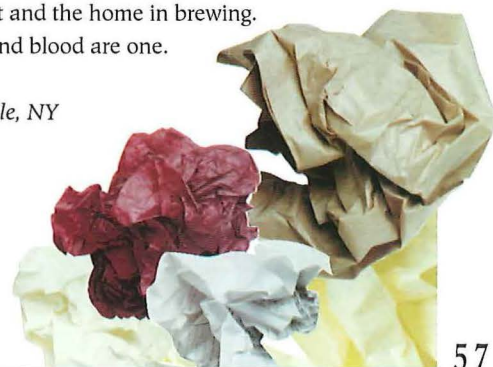
When my lady swelled large with love's lesson
it was Peerless Progeny Ale
I prepared and laid away
for when the waters broke,
joining tears and blood in life's pouring out.

When we gathered with friends to long for our homes
across the deep Atlantic
wide separation from grandmother's arms,
grandfather's graves, hearths long lost,
it was stout, and bitters, to join salt and make all sweet.

When my mother died, and true to our word
she was sent to Ireland
to be laid in her native soil
there was no money for me to go, grieving.
What was there but prayer, and a full glass raised?

I will tell you of homebrew, and good food, and fun,
but do not miss the alchemical depth,
the magery of malt and yeast and hops,
the power of the heart and the home in brewing.
Do not miss it: beer and blood are one.

Nick Hogan, Shortsville, NY



Yertle the Turtle

Honorable Mention

Yertle the Turtle likes really good beer,
But Yertle the Turtle has a very big fear-
That plain little turtles of ordinary behavior
should ever drink beer of extraordinary flavor.
So Yertle decides that his brew is too good,
for the turtles on whose backs the King stood.

But Mack, the plainest of all the plain turtles,
does not like the new edict of old turtle King Yertle.
So Mack brews a beer half between lager and ale,
and serves all the turtles in the stack from a pail.

They all drink a lot, but to Yertle's dismay,
They all drink too much, and the stack starts to sway.
And into the pond head-first Yertle does fall.
And at Yertle the turtles start laughing, one and all!

So Yertle the turtle has a new edict that's smart,
Drink all that you like of this fine beer to start.
And never again stack up turtles in piles,
and Sal-ma-sond steam beer brings lots of smiles!

Ken D. Krafft, North Royalton, OH



amber waves

Honorable Mention

one clear real beer

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a hundred bottles

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light "beer"

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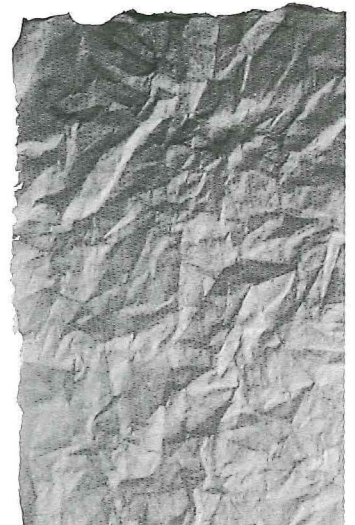
the counter pressure.

say,

who turned out the light?

eeeeee plummings

(Richard K. McLaughlin, San Diego, CA)



FOR THE BEGINNER

Amahl Turczyn

Wassail the Fuss About? Brewing with Fruit and Spices

There is virtually no limit on the variety of fruits, spices and herbs that will complement homebrew, but a few practical considerations may be useful. First of all, in regard to spices, some definitely work better than others. The best thing to remember when adding spices to beer for the first time is moderation. Like salt, spice is easily added, but its removal is a different story. Sometimes a little experimentation can be carried out by testing a measured amount of the spice in a pint of beer similar to the style you want to create. Give the test batch a few days in the refrigerator so the spice can release its flavor, then taste and adjust the amount accordingly. Then you'll have an idea of how much to add, and if you've erred on the heavy side, you won't be wasting an entire batch.

Among the more popular spices are cinnamon, coriander, spruce, juniper, spruce, orange peel, ginger, bog myrtle and nutmeg. These have all been used as brewing ingredients in conjunction with, or instead of hops—many, in fact, pre-date the use of hops to bitter or mask off-flavors in more ancient styles of beer. Less commonly used are black pepper, grains of paradise, chiles, vanilla, mace, curry, heather, rosemary, yarrow, cardamom, coffee and chocolate.

Some herbs and spices, like bog myrtle, yarrow and St. John's wort, were added by brewers to intensify the intoxicating effect of the brew rather than to add a pleasant flavor or aroma. These should be used with caution, as should those spices like cloves,



ginger and chiles, whose presence even in small amounts can be overpowering.

As for fruit varieties, the most popular include raspberries, cherries, blueberries, marion berries, choke cherries, peaches, apricots, strawberries, grapes, kiwis and black currants. Fruits like persimmons, papayas and mangoes may sound like they'd be good, but often the more subtle flavored fruits don't make much impact on the beer flavor-wise. It ends up tasting like you just added sugar. Fruits like bananas, pineapples or pears may not be the best choice either, since they tend to mimic esters generally thought of as off-flavors. On

the other hand, far be it from me to stifle creativity—after all, it's your beer!

Freezing Fruit

To maximize and expedite the absorption of fruit flavors from fresh fruit, it's a good idea to freeze it first—this tends to rupture the cell structure of fruit, making the juices more readily accessible.

So what about using fruit from the frozen section of the supermarket? That will of course save you a lot of trouble—just make sure you read the ingredients before you buy

it. Often, frozen food companies will add sugar or preservatives, both of which can have unexpected and potentially negative results in your beer.

Hot or Cold Additions

A major concern when adding fruit and spices, particularly fruit, is sanitation. The first defense against introducing harmful bacteria on fruit is a good, thorough washing. Cut out any soft or dark spots which may be harboring unwanted bacteria, then sanitize the fruit and freeze it.

Once thawed and pureed, you have the choice of adding the puree to the hot wort to heat sanitize it. As long as the fruit is subjected to temperatures of 170 degrees F (77 degrees C), you can be fairly certain that most harmful bacteria will be killed. Boiling the fruit for several minutes is a safer bet, but depending of the type of fruit, this is not recommended because of the haze problems. Pectin in the fruit will set when the beer is cooled, which is a purely cosmetic problem, but one which can be avoided. Another problem with adding the fruit at this stage is that your blow-off will contain chunks of fruit pulp, which may block the escape of CO₂. Take the extra precautions of allowing adequate ventilation, and/or leaving an extra gallon of head space in your fermenters.

Another option is to rack the beer onto the puree in your secondary fermenter. The advantage of this method is that you avoid the loss of volatile aromas, which can "burn off" in the presence of heat, or be "scrubbed out" by CO₂ evolution during the primary ferment. For those who are leery of adding possibly unsanitary fruit to their beer (remember, freezing doesn't kill bacteria, it just slows them down for a while) it is good brewing practice to suspend it in a sanitizer solution before freezing. Bleach and iodine are undesirable for this purpose for obvious reasons, but rinsing the fruit with a small amount of an acid-based, low taste-threshold sanitizer like Star-San (diluted, of course) is a good way to kill the majority of microbes. According to Five-Star, makers of Star-San, a solution of 25 parts per million will sanitize the fruit in about 30 seconds. The basic procedure is as follows:

- Wash and pick through the fruit, removing stems, skin (optional) and any dark spots. Remember: the fresher the fruit, the better.
- Rinse or soak the fruit in sanitizer solution. One ounce per 5 gallons of water is the correct ratio if using Star-San.
- Weigh the fruit in measured amounts and freeze in freezer bags until needed.
- Thaw the fruit before you are ready to rack.
- Clean and sanitize your blender jar.
- Fill the blender jar with CO₂ (if you have it).
- Add fruit. Puree.
- Clean and sanitize your secondary fermentation vessel.
- Fill vessel with CO₂ (if you have it).
- Add your thawed fruit puree.
- Rack the beer on to the fruit, making sure it mixes evenly.

You should see signs of renewed fermentation within a few hours. Don't worry too much about oxidation, but be aware of it. The blender will inject lots of air into the puree, but much of this will be metabolized by the yeast during secondary. If you have a CO₂ system, you can take steps as indicated to minimize the amount of oxygen uptake. After secondary fermentation is complete, rack the beer off the fruit pulp and into another clean, sanitized CO₂-filled container for clarification. You are apt to lose some beer that's mixed in with the pulp, but that's all part of brewing with fruit.

The same procedure can be used with herbs and spices. Many herbs and spices have their own anti-bacterial properties, so adding them to the secondary is less risky a venture as with fruit. A spice or coffee grinder, or a mortar and pestle, may be used to crush the herbs and spices before addition. I like to use whole spices, rather than pre-crushed, if I can get them, as the flavors are much more intense.

To use whole or coarsely-ground spices, soak them in boiling water for at least 15 minutes, then strain the resulting tea through a fine sieve. Simply rack the beer on to the finished tea for a proper mix, and you're done.

In any case, despite the obvious risks, secondary addition of fruits and spices has always been my preferred method, because the flavors come out stronger and are generally more complex.

Attenuation and Balance

Attenuation is the degree to which a yeast strain can metabolize sugars into alcohol. As fructose, or fruit sugar, is one of the more fermentable sugars, fruit beers tend to have fairly low finishing gravities. Brewing with highly attenuative strains will leave you with too much alcohol and not enough fruit or malt flavor, so use a moderately attenuative, neutral strain. For all-grain brewers, a good rule of thumb is to mash a little hot—155 degrees F (68 degrees C) or so. This will guarantee a sweeter, more balanced finish.

Hopping Fruit and Spice Beers

Bittering rates for fruit and spice beers are typically on the low side. Few spices and very few varieties of fruit are well-complemented by a strong blast of bitterness. I find ginger, juniper and spruce beers can complement hop flavor and aroma fairly well, but most spice beers will work better with less hop character. Flavor and aroma hops, notably "noble-type" hops are best to use in fruit and spice beers, as their bitterness isn't as harsh. I find that hop aroma is often intriguing in fruit beers, as long as it doesn't dominate. For example, dry-hopping with a small amount of Tettnang or Saaz seems to really work well with berry aromas, such as blue, boysen, black, etc.

Fresh Fruit vs. Extracts

Pre-packaged purees and extracts will save you a lot of time and energy, since they are usually sterile and easy to use. There is also a large variety of them on the market. Their only drawback is that even the ones which claim to be 100% real fruit can leave a slightly metallic or bitter taste in the beer. With all the work that goes into using real fruit, though, it's no surprise that this is still a popular way to go.

Amahl Turczyn, a homebrewer since 1985 and professional brewer since 1995, and is now AHA project coordinator.

WORLD OF WORTS

Charlie Papazian

Christmas Cinderella Double Brown Ale

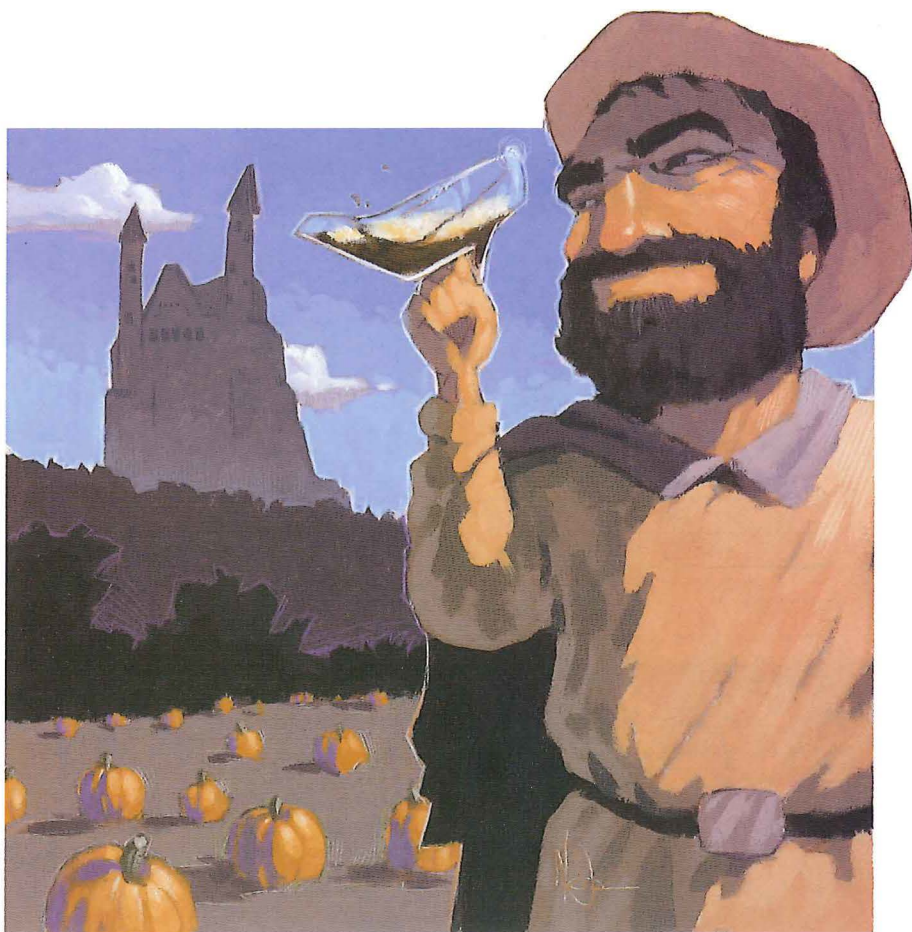
Brewing to style? Well hell yes, I know about beer styles. I've been studying them, helping refine the definitions for nearly two decades and having the utmost respect for the traditions that the classic and not-so-classic styles represent. For me, beer styles have become a language of their own, relying on the consideration of every one of our senses. Come to think of it, the language of beer styles and its implementation is unique, isn't it? It's all about interpretation, research, translation, words, taste, sight, feel, aroma, impression, attitude, compassion, discipline. I wonder if anyone has ever done a psychological study on beer styles as a language. It certainly would be worthy of study considering all the passion inspired by beer styles.

For me, brewing to style is a wonderful challenge and quite satisfying when I get close to being right. But I'm my own worst critic. I'm hardly ever perfectly satisfied; a hop nuance that's off, a touch of fruitiness that shouldn't be, a bitterness that isn't the right kind. OK, sometimes I do get it right and when I do, I'm caught between a rock and a hard place—maybe you've been there. The beer is so good you want it to last forever. When you drink it you feel guilty (just a little bit) that the reserve is being depleted, but it tastes so good you want to drink it all the time. My reaction is to brew the same recipe again. Sometimes I do, but homebrewing is homebrewing and batches vary, and well, the second time around never seems to be quite as perfect. Oh well, drinking and

enjoying the imperfections are one of the joys of homebrewing.

I do brew to style every so often, but more often I brew the beer I think I'd like. Having studied and sampled so many of the classic brewing styles, I can recall all the character and subtleties of these beers. What gets me jazzed about homebrewing is being able to take all this information

and tinker with the nuances to create new beer experiences for myself. I don't have intentions of championing new creations as future styles, though if the marketplace and homebrewers latch onto ideas, do a little creative adjustment themselves, I sure am tickled to see things such as honey lagers and raspberry wheats being poured from taps across the country.



A recent creation of mine is another successful essay on the brewing theme I call "Double Brown Ale." The original version appears in my book, *Home Brewer's Companion* (Avon 1996), called Buzzdigh Moog Brown Ale. It's not quite your classic English brown ale, but having an alcohol content of 6.2 percent, what else could I call it? It has the smooth, sweet, caramel malt character of an English-style brown ale perfectly balanced with the flavor and aromatic character of chocolate malt. Wheat, special roast and Belgian aromat-

ic malts combine to contribute a rich, toasty, biscuitlike aroma and flavor, while the small addition of black malt adds color and assertiveness to balance the higher profile of alcohol.

Hopping harmonizes with bitterness, flavor and aroma in the American tradition of medium-strength ales, while not being excessively bitter. The Thames variety of ale yeast, normally producing quite a fruity profile, works well with this higher-gravity ale. The strength of the sweet and roasted malts and higher alcohol tend to suppress

the perception of excessive fruitiness. This overall result is accented when temperatures are controlled at the lower end of the ale fermentation range. What results is a rich, luscious, satisfying double brown ale you may want to drink out of a glass slipper. It is perfect for the holidays, but also presents itself nicely at any homebrewed occasion. (One of the neat things about this beer is that you get to drink more of it, because there isn't a category for it in most homebrew competitions.)

So let's cut the shuck and jive and get on with the partial mash and malt extract recipe.

Ingredients for 6 U.S. gal (23 L)

- 2 3.3-lb cans EDME Maris Otter malt extract (3 kg total)
- 2 1/2 lb Maris Otter pale malt (1.13 kg)
- 1 lb 75 °L English crystal malt (0.45 kg)
- 3/4 lb wheat malt (340 g)
- 1/2 lb special roast malt (225 g)
- 1/3 lb black patent malt (150 g)
- 1/3 lb chocolate malt (150 g)
- 1/3 lb Belgian aromatic malt (150 g)
- 1/2 oz English Kent Golding whole hops, 2.5 HBU/71 MBU (14 g) (60 min.)
- 1 oz American Willamette hop pellets, 5 HBU/142 MBU (28 g) (60 min.)
- 3/5 oz American Cascade hop pellets (3 HBU/85 MBU) (17 g) (20 min.)
- 1/4 tsp powdered Irish moss (1.2 mL) (10 min.)
- 1 oz American Cascade whole hops, 5 HBU/142 MBU, (28 g) (steep after boiling for three min.)
- Wyeast No. 1275 Thames Valley ale yeast
- 1 cup corn sugar/glucose (237 mL) (to prime)
- Original specific gravity: 1.060 to 1.064 (15 to 16 °B)
- Final specific gravity: 1.013 to 1.017 (3.5 to 4.5 °B)
- IBUs: about 25
- Approximate color: 32 SRM (16 EBC)
- Alcohol: 6.2 percent by volume
- Apparent yeast attenuation: about 75 percent

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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:

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

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

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

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

Use a single-step infusion mash for the 5 3/4 pounds (2.6 kg) of grain. Add six quarts (5.7 L) of 172 degree F (78 degree C) water to the crushed grain, stir, stabilize and hold the temperature at 156 degrees F (69 degrees C) for 60 minutes.

After conversion, raise temperature to 167 degrees F (75 degrees C), sparge with 2 1/2 gallons (9.5 L) of 170 degree F (77 degree C) water. You should have about 3 1/2 gallons (13.3 L) of sweet wort. Add malt extract, English Kent Golding and Willamette hops then bring to a full and vigorous boil.

Boil for 75 minutes. When 20 minutes remain add Cascade hops. When 10 minutes remain add Irish moss. Turn off heat, add one ounce (28 g) Cascade aroma hops and steep for three to five minutes. Strain and rinse hops and direct the hot wort into a sanitized fermenter to which two gallons (7.6 L) of cold water have been added. If necessary add more cold water to achieve a

six-gallon (23-L) batch size. Add a starter culture of yeast when wort temperature is between 60 and 70 degrees F (16 and 21 degrees C). Ferment between 63 and 65 degrees F (17 and 18 degrees C) for 10 to 14 days. For best results cellar or age at 50 degrees F (10 degrees C) for two to five weeks. Bottle with corn sugar. Age and condition at temperatures between 60 and 70

degrees F (16 and 21 degrees C) until clear (about one week).

Charlie Papazian is the founding president of the Association of Brewers and author of *The New Complete Joy of Home Brewing* (Avon 1984, 1991), *The Home Brewer's Companion* (Avon 1994), and *Home Brewer's Gold* (Avon 1997), a book of prize-winning recipes from the 1996 World Beer Cup Competition.

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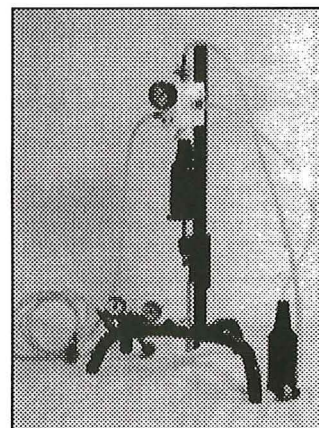
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NEW FOR THE 1998 COMPETITION

- * Simplified first-round entry form
- * Lower entry fee
- * Recipe form required for second-round brewers
- * Category sponsored prizes for first-place winners in the second round
- * Improved style descriptions

HOW TO ENTER THIS COMPETITION

1. How do I enter?

Mail the attached postcard to the AHA to receive a full rules and regulations booklet including an entry form, 1998 category descriptions and award descriptions. Competition information and forms will also be available to download from our web site at <http://beertown.org>.

2. What kind of bottles are required?

Every bottle must be 10 to 14 ounces in volume, brown or green glass, and be free of raised-glass or inked brand-name lettering and paper labels. Raised "No Deposit" or bottle manufacturing codes (i.e. p m 00 H 4328) are acceptable. Obliterate any lettering or graphics on the cap with a permanent black marker. Bottles with Grolsch-type swing tops are not allowed. Corked bottles meeting the above restrictions are acceptable; however, you must crimp a crown cap over the cork. Bottles not meeting these requirements will be disqualified.

3. How many bottles do I need?

Send one (1) bottle for each BEER and MEAD entry competing in the first round. Reserve a total of four (4) bottles of each entry: one (1) for the first round of the Competition and three (3) for competing in the second round of the Competition should your beer or mead advance. For CIDER, send all at once, three (3) bottles for each entry by the first-round deadline.

4. What are the entry fees?

AHA members pay \$8 per entry. Non-members pay \$12 per entry. Make checks payable (in U.S. funds) to the American Homebrewers Association (or AHA) and include your membership number (if applicable) on the check. This year, for Canadian entrants, CABA's Great Canadian Homebrew Competition will act as the first round for the AHA's National Competition. Canadian entrants who proceed to the second round must include a check for \$4 U.S. per qualifying second round entry payable to the AHA. This arrangement is for Canadian entrants only!

5. When are the entry deadlines?

First round entries must be received at the appropriate site between Monday, May 4, and 5 p.m. on Friday, May 15, 1998. Second round entries must be received at the appropriate site between Monday, July 13, and 5 p.m. on Friday, July 17, 1998. Notification will be mailed by June 17 with additional instructions if your entry advances to the second round.

6. Which category do I enter?

It is entirely your decision. You should try to enter your brew in the category and subcategory in which you feel it will perform best. Judges do not see your entry form. Judges or organizers will not classify or reclassify your beer. Your entry will not be disqualified if it falls outside of a category's parameters – the descriptions are guidelines to help you enter your beer. Judges use the guidelines to help them judge your beer.

7. Are there entry limitations?

- (a) You may not submit more than one entry per subcategory.
- (b) Your homebrew must not have been brewed at any place that brews beverages for any commercial purpose, whether for commercial research, production or any other purpose, including brew-on-premise establishments.
- (c) You must give the names of all brewers who helped in the brewing.

THE FINE PRINT

A. General

This Competition is open to all homebrewers, AHA members and non-members. No employee of the Association of Brewers may enter. Persons under contract and/or persons volunteering their services to the Association of Brewers are eligible. First-round registrars, site directors and judge directors who enter must enter at a site other than the one they host. Judges may not judge a category they have entered. Applicable entry fees and limitations shall apply.

It is the sole responsibility of the entrant to complete all registration and recipe forms, enclose the proper entry fee and designate the category and subcategory in which he/she wishes his/her entry to be judged. Under no circumstances will registrars, judges or directors categorize entries.

Beer, mead and cider will be judged only in terms of the categories and subcategories listed in the Category Descriptions. Entries must be referred to by category NUMBER and subcategory LETTER. Dry, medium, sweet or very sweet must be designated for all mead and cider entries.

If a category does not have at least 20 entries in 1998, it will not be included in the 1999 Competition.

B. Judging

- (1) First-round judging of all beer and mead entries will be done in closed sessions at the AHA National Homebrew Competition first-round sites on May 23 and 24, and May 30 and 31, 1998.
- (2) Second-round judging of qualifying beer and mead entries will be done at the AHA National Homebrewers Conference in Portland, Ore., July 22, 1998.
- (3) Best-of-show judging of qualifying beer and mead entries will be done at the AHA National Homebrewers Conference in Portland, Ore., July 23, 1998.
- (4) All rounds of judging for cider entries will be completed at the appropriate National Homebrew Competition site May 23-24 and/or 30-31, 1998.
- (5) Judges and stewards are needed for first and second rounds. Qualified and interested individuals are encouraged to contact the AHA after March 1, 1998.
- (6) All decisions by Competition organizers are final.

C. AHA Membership

Non-members can join the AHA today by calling toll free (888) UCAN-BREW and qualify for discounted entry forms.

D. Recipe Requirement

A recipe is not required to enter the first round. However, if your entry advances to the second round you must submit a recipe. Upon entering this Competition, entrants agree to allow (at no cost) publication of their recipe by the Association of Brewers or any of its divisions in any AOB/BP publication. Entrant will receive all due credit.

E. Information and Fees Requirement

All entry fees, names of competitors, address, phone number, category and subcategory entered, and recipes must accompany entries when submitted. No entries will be returned whether received late or otherwise. All entries become property of the AHA.

F. Disqualifications

At the discretion of the AHA and volunteer Competition organizers, entries will be disqualified for eligibility or entry requirement infractions. These entries may still be judged, but will be ineligible for awards or prizes.

G. Results and Qualifying for Second Round

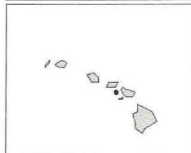
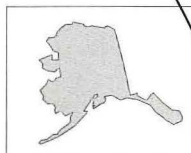
All entrants will receive the score sheets with judges' comments for his/her entries. Results will be mailed via first-class mail by June 19, 1998. The first-, second- and third-place winners in each category from each first-round site will advance to the second round of the Competition. If your beer or mead qualifies for the second-round judging, the AHA will mail you notice by June 17, 1998. You will be instructed on how, when and where to send three (3) additional bottles for judging, to be received in the Portland area between Monday, July 13, and 5 p.m. Friday, July 17, 1998. Contestants are advised to refrigerate or properly store potential second-round entries to minimize changes in character. Second-round brewers must also submit a recipe form with their entries.



NHC '98
F.H. Steinbart Co.
234 S.E. 12th
Portland, Ore. 97214

NHC '98
Goose Island Brewery
(The microbrewery, **not** the brewpub!)
1800 W. Fulton
Chicago, Ill. 60612

NHC '98/CABA



NHC '98
Sierra Moonshine
Homebrew Supply
10122 Olympia Park Road
Grass Valley, Calif. 95945

NHC '98
Colorado Brewing Co.
12160 Pennsylvania St.
Thornton, Colo. 80241

NHC '98
Bacchus & Barlycorn Ltd.
6633 Nieman Road
Shawnee, Kan. 66203

NHC '98
Sweetwater Brewing Co.
900 Wendell Ct.
Atlanta, GA 33036

NHC '98
Mill City Brewery Co.
199 Cabot St.
Lowell, Mass. 01854

1998 SITE LOCATOR GUIDE

CIDER

All cider entries should be sent to Newton regardless of where you live:

NHC '98 CIDER
c/o Paul Correnty
Barley Malt & Vine
26 Elliot St.
Newton, Mass. 02161

**DO NOT SEND BEER OR
MEAD ENTRIES TO NEWTON!**

CANADIAN BEER & MEAD

All Canadian beer and mead entries should be sent to Ontario.

NHC '98/CABA
Magnotta Brewery Ltd.
2555 Dixie Road
Mississauga, Ont. L4Y 2A1
Canada

OR

NHC '98/CABA
Magnotta Brewery Ltd.
1760 Midland Ave.
Scarborough, Ont. M1P 3C2
Canada

INTERNATIONAL BEER & MEAD

Please send international beer and mead entries, other than Canadian entries, to:

NHC '98
Colorado Brewing Co.
12160 Pennsylvania St.
Thornton, Colo. 80241

WINNERS

C I R C L E

Amahl Turczyn

For the holidays, when colder weather settles in and homebrewers spend more time with friends and family, darker and stronger styles of beer are favored for brewing. There's nothing like a well-seasoned barley wine to warm the soul, or a big creamy stout. Or how about a bright, cold glass of melomel to remind us of the summer's fruit and honey harvest? Now that the new hop crop is available, it's a good time to brew a style showcasing hop character and freshness—Pilsener. As long as the weather is right for lagering, you might as well get started on a dark, malty Munich dunkel for the coming spring.

The following recipes come from the champions of homebrewing—the medal winners of the AHA 1997 National Homebrew Competition. Try your hand at brewing their cream-of-the-crop recipes. Let's face it, we're now deep in the heart of the brewing season—take advantage of it, and keep those fermenters topped off!



FRUIT AND VEGETABLE MEAD



BRONZE MEDAL
AHA 1997 NATIONAL HOMEBREW COMPETITION
Gunther Jensen
Pacoima, California
"Arabian Nights"
Still Melomel

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

- 18 lb raw orange blossom honey (8.17 kg)
- 20 oz pomegranate juice (0.56 L)
- 1 stick cinnamon
- 5 whole cloves
- 5 allspice berries
- 7 peppercorns
- 4 tsp acid blend (19.7 mL)
- 1/3 tsp sodium metabisulphite (1.5 mL)
- Red Star Champagne yeast

- Original specific gravity: 1.125
- Final specific gravity: 1.030
- Boiling time: none
- Primary fermentation: three months at 75 to 80 degrees F (24 to 27 degrees C) in glass
- Secondary fermentation: five months at 75 to 80 degrees F (24 to 27 degrees C)
- Age when judged (since bottling): 16 months

Brewer's Specifics

Add spices and juice to secondary.

Judges' Comments

"Big fruit flavor followed by spice, then honey nicely balanced. Clean, dry, cleansing finish."

"Beautiful melomel. Great fruit/spice combo."

"Very interesting flavors—spices parade across the tongue."

Brewer's Comments

Not available.

BARLEY WINE



SILVER MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Chuck Boyce

Cincinnati, Ohio

"Boobs Barley Wine"

American-style Barley Wine

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

- 6 lb light malt extract (2.72 kg)
- 5 lb Hugh Baird pale malt (2.27 kg)
- 3 lb amber malt extract (1.36 kg)
- 1 lb honey malt (0.45 kg)
- 1 lb aromatic malt (0.45 kg)
- 1 lb 40 °L crystal malt (0.45 kg)
- 1 oz Columbus whole hops, 15.8% alpha acid (28 g) (60 min.)
- 2 oz Cascade whole hops, 4.9% alpha acid (57 g) (60 min.)
- 2 oz Mount Hood whole hops, 4.6% alpha acid (57 g) (60 min.)
- 1 oz Willamette whole hops, 4.7% alpha acid (28 g) (15 min.)
- 3 oz Cascade whole hops, 6.2% alpha acid (85 g) (finish)
- 2 oz Cascade whole hops, 4.9% alpha acid (57g) (dry)
- Wyeast No. 1056 American ale yeast
- CO₂ to force carbonate

- Original specific gravity: 1.108
- Final specific gravity: 1.103
- Boiling time: 90 min.
- Primary fermentation: four weeks at 70 degrees F (21 degrees C) in glass
- Secondary fermentation: eight weeks at 65 degrees F (18 degrees C) in glass
- Age when judged (since bottling): eight months

Brewer's Specifics

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

Judges' Comments

"Good balance of malt and hops. Sweet esters and malt are nice. Finish has good balance also."

"A very nice barley wine. Malt might be slightly big in regard to balance, but this one is at its prime. Outstanding effort!"

"Alcohol, esters and hops all explode from glass. Some caramel flavor and wood flavor in the finish. Nice balance of hops, esters, caramel and alcohol—send me a six-pack!"

Brewer's Comments

Not available.

PORTER



BRONZE MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

David W. Ham

Hill AFB, Utah

"Black Widow Porter"

Robust Porter

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

- 5 lb Gambrinus two-row malt (2.27 kg)
- 2 lb Teleford's light malt extract (0.91 kg)
- 1 lb Briess Munich malt (0.45 kg)
- 1 lb Briess 80 °L crystal malt (0.45 kg)
- 1/2 lb Briess 120 °L crystal malt (0.23 kg)
- 1/4 lb chocolate malt (0.11 kg)
- 1/4 lb black patent malt (0.11 kg)
- 1/2 lb Karaffe malt (0.23 kg)
- 1 oz Centennial hop pellets, 10.3% alpha acid (28 g) (60 min.)
- 2 oz Cascade hop pellets, 5.4% alpha acid (57 g) (20 min.)
- Wyeast No. 1272 American Ale II yeast
- 1/2 cup corn sugar (118 mL) (to prime)

- Original specific gravity: 1.068
- Final specific gravity: 1.018
- Boiling time: 60 min.
- Primary fermentation: four days at 70 degrees F (21 degrees C) in plastic
- Secondary fermentation: 10 days at 70 degrees F (21 degrees C) in glass
- Age when judged (since bottling): 10 months

Brewer's Specifics

Mash grains at 130 degrees F (54 degrees C) for 30 minutes. Raise temperature to 157 degrees F (69 degrees C) for 45 minutes. Mash-out at 167 degrees F (75 degrees C) for five minutes.

Judges' Comments

"Complex coffee and chocolate malt flavors."

"Malt flavors nicely balanced. Loved the aroma of the complex malt flavors."

"Nice drinkable beer."

Brewer's Comments

"When I originally brewed 'Black Widow Porter' I was trying to make something similar to Anchor Porter. It came fairly close, but next time I'll probably use less caramel and chocolate malts and more black patent malt."

STOUT



BRONZE MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Charles Hessom

Redwood Valley, California

"Kitchen Sink Stout"

Foreign-style Stout

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

- 3 1/2 lb light dry malt extract (1.59 kg)
- 1 1/2 lb crystal malt (0.68 kg)
 - 1 lb pale malt (0.45 kg)
 - 1 lb roasted barley (0.45 kg)
- 3/4 lb U.S. six-row malt (0.34 kg)
- 1/2 lb U.S. two-row malt (0.23 kg)
- 1/2 lb CaraPils malt (0.23 kg)
 - 1 lb rice syrup (0.45 kg)
- 3/4 lb corn sugar (0.34 kg)
- 1 3/4 oz Perle hop pellets, 7.3% alpha acid (50 g) (60 min.)
- 3/4 oz Spalt hop pellets, 4% alpha acid (21 g) (60 min.)
- Wyeast No. 1084 Irish ale yeast
- 5 oz corn sugar (142 g) (to prime)

- Original specific gravity: 1.077
- Final specific gravity: 1.026
- Boiling time: 105 min.
- Primary fermentation: 10 days at 65 degrees F (18 degrees C) in glass
- Secondary fermentation: 14 days at 65 degrees F (18 degrees C) in glass
- Age when judged (since bottling): 17 months

Brewer's Specifics

Mash grains at 123 degrees F (51 degrees C) for 20 minutes. Raise to 156 degrees F (69 degrees C) for 60 minutes. Mash-out at 170 degrees F (77 degrees C).

Judges' Comments

"Nice sweet, malty flavor with a good dry finish."

"Big malt flavor which is appropriate for the style. Very clean. Really stands out in this category!"

"Nice roasty aroma with some dry fruit tones (prunes). Hints of chocolate in aroma."

"Nice rich malt flavors."

"Really nice drinkable beer."

Brewer's Comments

"One look at the grain bill explains the name—I was trying to clean out my grain cupboard! I had originally intended to enter this stout in the AHA 1996 Nationals, but the extra year of aging settled gracefully on this big beer's shoulders."

GERMAN DARK LAGER



BRONZE MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Thomas M. Plunkard

Warren, Michigan

"Freundschaft"

Munich Dunkel

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

- 11 lb Munich malt (4.9 kg)
- 1/4 lb chocolate malt (0.11 kg)
- 1 oz Tettnanger whole hops, 4.3% alpha acid (28 g) (60 min.)
- 1/2 oz Tettnanger whole hops, 4.3% alpha acid (14 g) (30 min.)
- 1/3 oz Tettnanger whole hops, 4.3% alpha acid (12 g) (5 min.)
- Yeast Lab Bavarian lager yeast
- CO₂ to force carbonate

- Original specific gravity: 1.056
- Final specific gravity: 1.018
- Boiling time: 60 min.
- Primary fermentation: seven days at 45 degrees F (7 degrees C) in glass
- Secondary fermentation: three days at 55 degrees F (13 degrees C) in glass
- Tertiary fermentation: 60 days at 35 degrees F (2 degrees C) in steel
- Age when judged (since bottling): five months

Brewer's Specifics

Mash grains at 122 degrees F (50 degrees C) for 25 minutes. Raise mash to 140 degrees F (60 degrees C) for 25 minutes. Raise to 157 degrees F (69 degrees C) for 60 minutes. Mash-out at 168 degrees F (76 degrees C) for 10 minutes.

Judges' Comments

"Dark brown with mahogany tint, excellent clarity and head retention."

"Evidently well-conditioned."

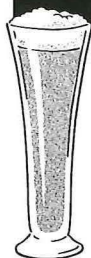
"Starts with a firm maltiness. The melanoidins in the finish are also bocklike and intense. Good dryness and balance."

"Excellent beer whose primary flaw is too big and aggressive for the style. The alcohol is apparent, which is unexpected for an everyday beer."

Brewer's Comments

"The name means 'friendship' in German. My good friend Rich helped me name and drink it. It's named after all my friends who celebrate good beer including the club I'm a member of, the Ann Arbor Brewer's Guild. If I had to name three people who most inspired me, they would be my wife, Deb, for letting me mess up the kitchen; Dan McConnell and his Yeast Culture Kit Co. and my mentor, Jeff Renner."

CLASSIC PILSENER



BRONZE MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Dave Shaffer

Lafayette, Colorado

"Lizard Head Lager"

Bohemian-style Pilsener

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

- 12 lb Durst Pilsner malt (5.44 kg)
- 6 lb Great Western two-row malt (2.72 kg)
- 2 lb CaraPils malt (0.91 kg)
- 2 lb Munich malt (0.91 kg)
- 1 lb Victory malt (0.45 kg)
- 1 lb wheat malt (0.45 kg)
- 1 3/4 oz Saaz hop pellets, 3.5% alpha acid (50 g) (75 min.)
- 1 oz Tettnanger hop pellets, 4.8% alpha acid (28 g) (75 min.)
- 2 oz Saaz hop plugs, 3.5% alpha acid (57 g) (20 min.)
- 2 oz Saaz hop pellets, 3.5% alpha acid (57 g) (5 min.)
- 2 oz Saaz hop pellets, 3.5% alpha acid (57 g) (dry)
- Wyeast No. 2007 Pilsener lager yeast
- CO₂ to force carbonate

- Original specific gravity: 1.051
- Final specific gravity: 1.018
- Boiling time: 90 min.
- Primary fermentation: 21 days at 45 degrees F (7 degrees C) in glass
- Secondary fermentation: 46 days at 46 degrees F (8 degrees C) in glass
- Age when judged: five months

Brewer's Specifics

Mash grains at 130 degrees F (54 degrees C) for 35 minutes. Raise mash temperature to 155 degrees F (68 degrees C) for 75 minutes. Mash-out at 167 degrees F (75 degrees C) for five minutes.

Judges' Comments

"Pleasant malt flavor. Lightly sweet. Some hop flavor with bitterness in finish. Citrusy."

"Good example of style. Well done."

"Hop flavor up front with pretty good support from malt."

"Terrific Bohemian pale. Hop aroma seems a bit 'American' but otherwise I can't complain. Nice job."

Brewer's Comments

Not available.

VIENNA/MÄRZEN/ OKTOBERFEST



BRONZE MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

John Watson

Bridgefield, Connecticut

"Marz Fest"

Märzen/Oktoberfest

Ingredients for 15 U.S. gal (56.8 L)

- 20 lb Durst Munich malt (9 kg)
- 14 lb Briess two-row malt (6 kg)
- 3/4 lb wheat malt (0.34 kg)
- 2 lb CaraPils malt (0.91 kg)
- 1/4 lb CaraMunich malt (0.11 kg)
- 3 oz Saaz whole hops, 3.5% alpha acid (85 g) (45 min.)
- 2 oz Saaz whole hops, 3.5% alpha acid (57 g) (15 min.)
- 2 oz Hallertauer whole hops, 6.2% alpha acid (57 g) (5 min.)
- Wyeast No. 2308 Munich lager yeast
- CO₂ to force carbonate

- Original specific gravity: 1.055
- Final specific gravity: 1.018
- Boiling time: 65 min.
- Primary fermentation: 14 days at 45 degrees F (7 degrees C) in plastic
- Secondary fermentation: 40 days at 40 degrees F (4 degrees C) in glass
- Age when judged (since bottling): three months

Brewer's Specifics

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

Judges' Comments

"Good grain bill and use of hops. Good balance of malt/bitterness."

"Nice malty flavor."

"Finishes well. Good balance."

"Good effort. Add a pinch of wheat malt for head retention. Use more malt for aroma."

Brewer's Comments

"The best way to brew this beer is with fresh noble hops, a good sturdy grain bill and a clean lager yeast strain. The key is to lager at a consistent temperature of 40 degrees F (4 degrees C) during all of the fermentation. The result is a clean brew with a malty sweetness and a subtle hop finish."

EXTRACT EXTRAVAGANZA CLUB-ONLY COMPETITION WINNER



David Adkins
Carlsbad, California
Representing the Quality Ale
and Fermentation Fraternity
(Untitled)
India Pale Ale

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

- 8 lb Alexander light malt extract (3.63 kg)
- 1 lb 60 °L crystal malt (0.45 kg)
- 1/2 lb dextrin malt (0.23 kg)
- 1 oz Centennial hops, 11% alpha acid (28 g) (60 min.)
- 1/2 oz Centennial hops, 10.2% alpha acid (14 g) (30 min.)
- Wyeast No. 1056 American ale yeast
- 3/4 cup corn sugar (177 mL) (to prime)

- Original specific gravity: 1.056
- Final specific gravity: 1.014
- Boiling time: 60 min.
- Primary fermentation: 14 days at 72 degrees F (22 degrees C) in plastic
- Age when judged (since bottling): six months

Brewer's Specifics

Steep grain in cold water; heat until boil is achieved, then remove grain and add extract.

Judges' Comments

"Great hop aroma! No off-aromas. Nice hop character in flavor. Bitterness at the upper edge."

"Great job! Excellent IPA."

"Very good balance of malt and higher hop rate. Very fresh. Best beer yet. We have a winner. This beer exemplifies the style perfectly."

Brewer's Comments

This is Adkins' standard recipe for amber ale, one he normally brews using all grain. This particular batch came out a bit on the light side using extract, and with his typically liberal use of hops, it made the perfect IPA.

BOCK IS BEST CLUB-ONLY COMPETITION WINNER



Patrick John Schmidt Jr.
Shepherd, Montana
Representing the MT Bocks Society
"Inspirator"
Doppelbock

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

- 13 lb Munton's light liquid malt (5.9 kg)
- 2 lb crystal malt (0.91 kg)
- 1/4 lb chocolate malt (0.11 kg)
- 1/4 lb roasted barley (0.11 kg)
- 2 oz Tettnanger pellet hops, 5.7% alpha acid (57 g) (60 min.)
- 1 oz Spalt pellet hops, 7% alpha acid (28 g) (30 min.)
- 1 oz Spalt pellet hops, 7% alpha acid (28 g) (5 min.)
- Wyeast No. 2206 Bavarian lager yeast
- 3/4 cup corn sugar (177 mL) (to prime)

- Original specific gravity: 1.078
- Final specific gravity: 1.024
- Boiling time: 60 min.
- Primary fermentation: five days at 72 degrees F (22 degrees C) in plastic
- Secondary fermentation: 40 days at 40 degrees F (4 degrees C) in glass
- Age when judged: nine months

Brewer's Specifics

Steep grain at 170 degrees F (77 degrees C) for 45 minutes. Boil wort for 60 minutes.

Judges' Comments

"Wow! Delightful aroma, clean. Attractive dark-ruby color. Rich, malty flavor, a bit of a 'roasted' profile."

"Give me another! This is a fine beer. Good alcohol warming, pleasant mouth feel. Send me the recipe!"

"Everything is right on target. Has some roasted character. Hop balance is nice. Substitute a dark crystal malt for roasted."

Brewers' Comments

Not available.

Every gold-medal-winning recipe from the AHA 1997 National Homebrew Competition was published in *Zymurgy* Special Issue 1997 (Vol. 20, No. 4).



Amahl Turczyn has been homebrewing since 1985 and professionally brewing since 1995. He compiled *A Year of Beer* (Brewers Publications, 1997) and is AHA project coordinator.

FEED BACK

Your responses to the following questions will help make **Zymurgy** and the AHA even better. Please take the time to write your answers, remove the page, fold and mail it, or fax your response to (303) 447-2825. You can also fill out the survey in the AHA members-only area on the web (<http://beertown.org>). Thank you!

Cheers,



Jim Parker

Director, American Homebrews Association

Are you an AHA member?

☐ yes

☐ no

membership number _____ (optional)

How long have you been an AHA member?

☐ less than one year

☐ 1-2 years

☐ 2-3 years

☐ 3-4 years

☐ 4+ years

PLEASE RATE THE FEATURES IN THIS ISSUE.

"Make Mine Barley Wine"

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Not Useful Very Useful

"Tips and Gadgets"

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"Where There's Smoke There's Beer"

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"For the Beginner"

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"Another Trek Into Beer Universe"

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"World of Worts"

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"The Beer's in the Mail"

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"Best from Kits"

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Not Useful Very Useful

"Homebrew Cooking"

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1 5 10
Not Useful Very Useful

Do you brew beer professionally?

☐ yes

☐ no

Any article suggestions?

*Please do not staple closed.

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Zymurgy/AHA Questionnaire

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DEAR

P R O F E S S O R

Hopajuana – NOT!

Dear Professor Surfeit,

A few weeks ago I bought a bottle of Swiss *hanf*-beer in a beer shop. The label intrigued me. I know hops and hemp are related, but this was the first time I noticed hemp in beer. Do you think it is possible that any hallucinogen will be left in this beer? The beer tasted very good. I think other herbs were used as well. Would it be possible to sell this beer in the United States?

Sincerely,
Hans Aikema
The Netherlands

Dear Hans,

Hemp must have had a good year in 1997. I know of three commercial breweries producing beer with hemp as an ingredient: Hanf Vollbier brewed by Wädi Bräu in Switzerland, "turn." [sic] produced by The Bier Co. in Berlin and Hempen Ale produced by Frederick Brewing Co. in Frederick, Md.

The first two use the flowers as an ingredient while Frederick Brewing Co. uses hemp seeds. Yes, hops and marijuana, or as in these cases, hops and hemp, are related in the plant world. I recall in the late 1970s there was considerable interest—and many rumors—about the possibility of grafting the hop vine to the root of the marijuana plant. The hypothetical result was to grow a "hopajuana" plant that would produce hops with the drug THC (which produces a high, but is not a hallucinogen). To the best of my knowledge

this was all a bunch of hooley. It can't be done (at least not yet).

Getting back to your question, there's no need to be concerned about tripping out over these legal commercial hemp beers. The vari-

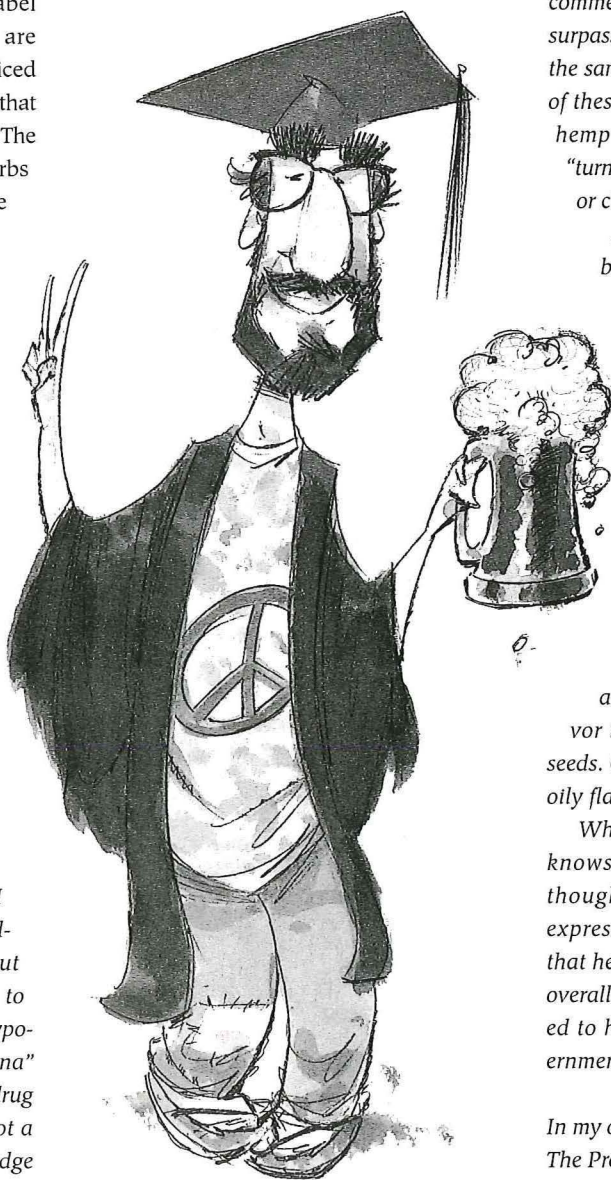
ety of hemp used in these beers does not contain any THC. These varieties are grown in many parts of the world for their beneficial use as a high-grade fiber in producing cloth, paper, rope and many other materials. The commercial yield from one acre of hemp far surpasses the economics of growing trees for the same purposes. This is one reason some of these brewers have focused attention on hemp as an ingredient in beer (as with "turn," which is a play on "turn. your mind" or change your thinking).

Ecological philosophy aside, one can begin to taste the character of the hemp flower in these beers, but it's pretty subtle. The character, to me, is similar in some respects to Cascade hops, and indeed these are the hops used in the Berlin version of hemp beer.

Want to experiment? Use varieties that do not contain the THC compound and keep it legal. There are a lot of oils and resins in hemp flowers. The seeds contain oils. If you use them in amounts that are going to have a flavor impact, use freshly dried buds and seeds. Old product may contribute a rancid oily flavor.

What is the effect on the beer? No one knows the chemical interactions yet, though some hop companies have expressed initial interest in the potential that hemp may contribute positively to the overall character of beer, because it is related to hops. The jury is still out and governments are needlessly worried.

In my opinion,
The Professor, Hb.D.



When the World Falls Out of Your Bottom

Dear Professor,

I am not relaxed and I've already drunk too much homebrew. I just lost two batches I worked very hard on and were destined for the 1997 Nationals. The situation was this: I had a rich porter and a generously hopped pale ale that had finished fermenting. I racked them from their secondary fermenters into other glass carboys with 5

grams of Polyclar® and 8 grams silica gel, then put them in a basement closet. I checked them at 24 hours and all was well.

When I looked again at 48 hours I noticed the light-colored carpet was dark around the porter carboy. I grabbed the carboy by the neck and lifted it to get a closer look. The carboy came up but its bottom didn't. To add insult to injury the malt aroma was heavenly; the porter, along with my hopes and dreams, ran across the carpet. I checked the pale ale carboy that was sitting next to the porter and it was fine. I

put the pale out in the garage and started the cleanup. A few hours later I checked on the pale ale and it was half gone. The same thing had happened—a neat crack around the carboy bottom.

What gives? The carboys always were treated well, no big temperature changes or banging around. The only thing different from what I've always done was using the silica finings. Have I angered the beer gods? (I know my wife is none too happy.) I'm afraid to brew again until I know what happened.

Dean LaPlante
Bloomington, Ind.

Dear Dean,

Oh, woe is you! Man, I couldn't figure out what was going on in your part of the vortex. Interestingly, Charlie Papazian read aloud your plight at the National Homebrewers Conference in Cleveland. He tells me several people came up to him afterward to offer the possible cause. A tip of the hat to Charlie Olchowski of The Frozen Wort in Greenfield, Mass., who seemed to pinpoint the probable cause. If you rinse a cool carboy with very hot water or vice versa you may have produced a hairline crack around the bottom. You didn't notice it because there was no reason to. But when the weight stress of the beer worked its black magic on the crack, voilà, you had gallons of beer flushed onto your floor. It's kind of like that hairline crack that creeps across your car's windshield as the stresses of wind and motion eventually take their toll.

Take extra care with glass,
The Professor, Hb.D.

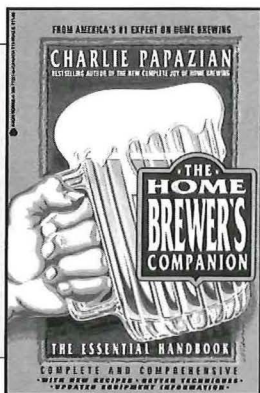
Malting Barley—Use the Right Stuff

Dear Professor,

I read with some consternation the plight of Mr. O'Connell of Montana and his home-grown grist (*Zymurgy* Spring 1997 Vol. 20, No. 1). While his malting procedure was near flawless, his choice of barley was extremely unfortunate. The only comment I have on his process is to make sure that when he makes the (continued on page 88)

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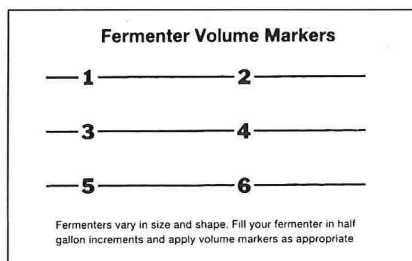
Munton's p.l.c. has released a new line of "no boil" ingredient kits in the Premium Gold range. The kits are made from the highest quality brewing malts using a grist formulation designed to give a true English ale color with balanced aromatic and bittering hops. Two kits are available now, with plans for more in the future. The Smugglers Special Premium Ale Beer kit has a light, malty flavor; the Old Conkerwood Black Ale Beer Kit is a black-colored aromatic and hoppy beer. Both of the beer kits in the Premium Gold range brew beers of 5% abv., and with both kits it is essential not to boil the wort. The production process used to manufacture these kits is unique, and boiling will destroy the aromatic hop character and adversely affect the careful balance of hop and malt flavors of the beer.

Munton's has also released a Super Light Malt Extract. The Super Light extract is manufactured out of 100% pure UK two-row barley malt, malted by Munton's, without the use of any glucose, corn syrup, barley syrup or other inferior adjuncts. Careful process control has ensured that color pick up is kept to an absolute minimum. Super

Light Malt Extract is available to retailers in a variety of packaging, including 308 kg plastic drums, 297 kg steel drums, 80 kg steel drums, 25 kg steel pails and 15 kg plastic jerry cans.

Munton's no boil Premium Gold kits retail for about \$15 each. The Super Light Malt Extract retails for approximately \$2.25 per pound. For a retailer near you, contact L.D. Carlson Co. at (800) 321-0315.

Fermeter Volume Markers



Tkach Enterprises, the maker of the Ferrometer, has introduced a peel-and-stick fermenter volume marker. The markers are designed to mark volumes in half-gallon increments on glass and plastic fermenters. The markers have easy to read black on white graphics, are reverse printed on mylar and come with a pressure-sensitive adhesive. The graphics will not scratch off and the markers are waterproof.

The manufacturer's suggested retail price is \$1.99 and is available at homebrew supply shops. For a retailer near you, contact F.H. Steinbart at (800) 735-8793 or Brewmaster at (800) 288-8922. For more information, Tkach Enterprises can be reached at (303) 660-2297.

Beer Flavors Standards Kit



FlavorActiV has released their innovative flavorfiles as a kit to support in-house training of beer flavor assessors. Each kit comes with 16 different flavorfiles. The kit stabilizes a number of authentic food-grade beer flavors, including diacetyl, dimethyl sulphide, metallic, catty, hydrogen sulphide, mercaptan, hoppy and phenolic characters. The flavors are supplied in a robust carrying case, pre-weighed, in color-coded capsules. The contents of each capsule can be used to "spike" beers with precise amounts of each flavor. For more information contact FlavorActiV Limited, Cara House, Wiremill Lane, Lingfield, Surrey RH7 6HJ, UK; Tel: +44(0)1342 833 823; Fax: +44(0)1342 836 061.

Czech Pils Malt

Just as Bohemia, eastern Czech Republic, is famed for its Saaz hops and roots of Pilsner, so is Moravia, western Czech Republic, renowned for its barley malt. St. Patrick's of Texas Brewers Sup-

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On the equipment side, St. Patrick's has introduced 66-inch-long tubing brushes for 3/16-, 1/4- and 3/8-inch I.D. tubing. St. Patrick's has also manufactured a stainless steel sparging ring made for use in three-tier brewing systems. The spiral-shaped sparging ring attaches by compression fitting to the sparge water valve and sprinkles sparge water onto the mash in a uniform manner.

The suggested retail prices for the tubing brushes are \$3.75 for the 3/16- and 1/4-inch sizes and \$4.75 for the 3/8-inch size. The manufacturer's suggested retail price for the sparging ring is \$25. For more information contact St. Patrick's of Texas Brewers Supply, 12922 Staton Dr, Austin, TX 78727; (800) 448-4224; www.stpats.com.

Video Hops

Odd Moment Productions has released a "how-to" video entitled "Secrets of Growing Your Own Hops." Long-time hop grower and homebrewer Patrick D'Luzansky produced, directed, played the music for and hosts the two-hour video. The video reviews the basics of hop plant anatomy, growth habits and life cycle. D'Luzansky presents hopyard layout alternatives, methods of site selection and trellising. He also covers soil composition, fertility, pH requirements, plant nutrition and fertilizer varieties and their strategic uses. The video offers methods of hop cultivation and propagation, including underground forays into the root system and microscopic views of the lupulin glands. A brief history of hop growing in the U.S. rounds out the production, along with a survey of hop ailments and their remedies and methods of picking, drying and storage.

"Secrets of Growing Your Own Hops" is available in VHS format for \$19.95 plus \$4.95 shipping and handling by calling (888) GRO-HOPS. All profits from the sale of this video go toward the care of Ethel D'Luzansky, who suffered a spinal cord injury. Wholesale and institutional inquiries are invited.

Homebrew Imprinting



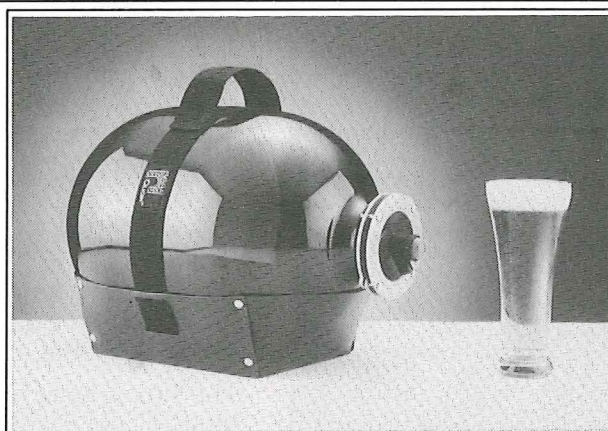
Quality Time has made available a personalized imprinting service to homebrewers. Your name, graphic or logo can be printed on 22-ounce pilsner glasses or 15-ounce tankard mugs. Color choices are white, black, blue, red, green or gold ink. There is no minimum order; and shipment is usually within a week.

The suggested retail price is \$5.49 for the pilsner glass and \$5.29 for the tankard mug for one-color, one-side imprint. There is a one-time set-up fee of \$25 for one color. Quantity discounts are available. For more information, contact Quality Time, 216 E. Highway 50, Suite 12, Winter Garden, FL 34787; (800) 585-9917.

Spigot Carboys

The Yard Company, Inc. has created a carboy with a coffee urn-type spigot. The spigot allows the brewer to ferment in glass without needing to siphon, which reduces the potential for bacterial contamination. Unlike other no-siphon systems, Yard's carboy sits upright. The system includes the spigot, gaskets and two replacement washers and is easily disassembled for cleaning. For more information, contact L.D. Carlson at (800) 321-0315; Brewmaster at (800)288-8922; or F.H. Steinbart at (800) 735-8793.

Compiled by Paul Gatza, homebrewer, part-owner and manager of What's Brewin' Homebrew Supply in Boulder, Colorado, treasurer for the American Mead Association, and president of vice for Hop Barley and the Alers.



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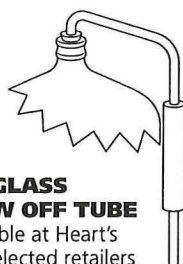
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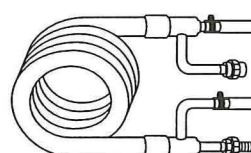
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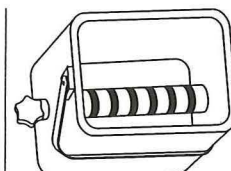
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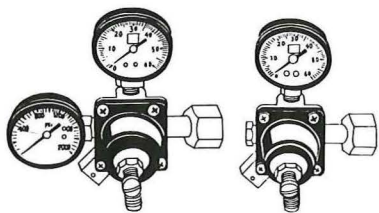
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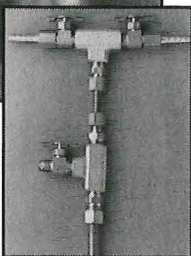
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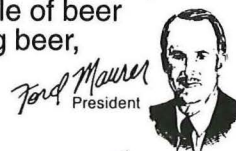
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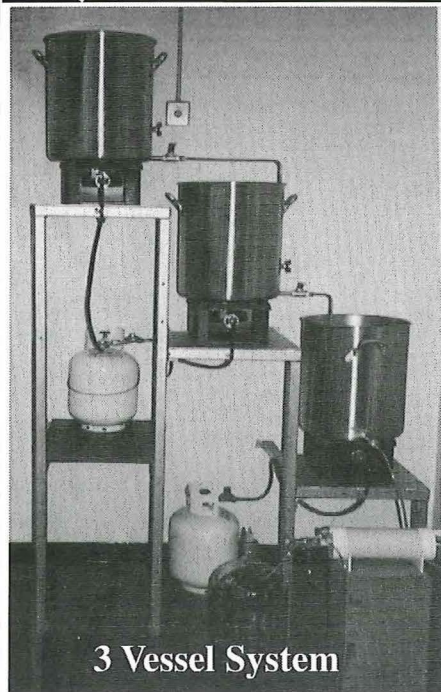
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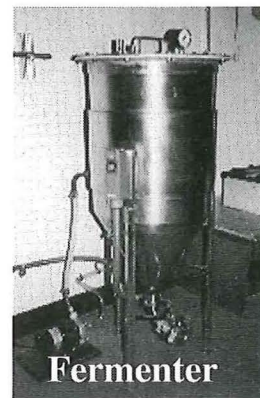
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REVIEWS

The opinions of individual reviewers do not necessarily represent the opinions of the American Homebrewers Association or *Zymurgy*.

The Bottle Clamp Counterpressure Bottle Filler



The Bottle Clamp is a midprice counterpressure bottle filler for home use. The unit is fairly large and bulky, and takes some practice to use efficiently. It has four valves, three keg fittings and two separate purge tubes. If you have the time to work slowly and patiently this filler can give you total control over the bottle filling operation.

Instructions are simple and straightforward, giving you a fairly sparse checklist for setup and operation. The diagrams provided are easy to follow. If anything, the one-page sheet is a little too simple. For example, no instructions are given on how to sanitize the equipment. I dunked the entire thing in sanitizing solution, then ran solution through all the wet hoses and valves, repeating this procedure for cleanup. I suppose this should

be obvious, as is avoiding getting fluids in its gas lines, but for novice hobbyists it may have been wise to include a few tips on sanitizing in the instructions. Some procedural suggestions on cleaning the unit and what types of cleaners/sanitizers are best to use also would help.

Materials are, for the most part, of high quality. The main unit is stainless steel and brass, and the main valves are of various construction quality, depending on their importance. For example, the purge and CO₂ valves are standard on/off ball valves, but the flow rate is controlled with a needle valve of high enough quality for fine-tuning the amount of pressure in the bottle as it filled.

Other parts aren't of comparable quality. Some of the clamps are of the permanent variety, which can't be removed for proper cleaning. I had to pirate parts from a tap assembly and from my CO₂ tank setup to make everything work. It would have been nice to include those parts so you could keep everything together for bottling sessions, but I understand that anyone using this device would have those things on hand anyway. Apart from this minor setback, everything else was included and set up perfectly.

Operation was a little slow at first. Once you learn what's going on, and why valve A needs to be opened before valve B, everything runs smoothly, especially once the unit chills down to beer temperature. You tend to get a lot of foaming until then. There was surprisingly little blowout foam. I finished with less than two bottles worth of wasted beer, including the first bottle of beer/sanitizer mix.

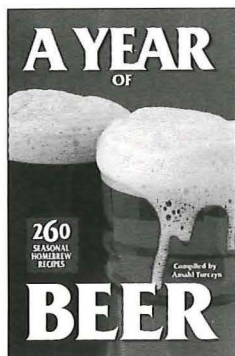
I had no problems keeping the bottle in place. The spring bar, or bottle clamp, worked without a hitch. The unit is adjustable for bottles of different heights, but the manufacturer chose to use a very small, unwieldy and hard-to-reach adjustment bolt. Even a wing nut would have saved the trouble of fiddling around with needle-nosed pliers to tighten the thing. On the positive side, I really like that the unit allows you to purge the CO₂ from bottles quickly, and with a separate valve from the one you use to adjust flow rate.

One problem arose with the stability of the filler. The assembly is supposed to mount on a Cornelius keg (or on the wall, an option I couldn't fathom). Keg placement works well enough, though tightening the slack out of the strap they provide can be a little tricky. Also, once the keg is nearly empty, stability becomes a problem because of the weight of the filler on the top. I opted to immerse my refrigerated keg in a bucket filled with ice to keep the temperature as low as possible, minimizing the amount of CO₂ coming out of solution. Toward the end of the session this caused the keg to float in the ice water, which I had to remedy by jamming a couple of ice-cube trays in with the Corny keg. Some sort of provision against keg float should be provided.

Overall the unit was quite efficient and effective for its price. Save for a few minor glitches, I recommend this filler to homebrewers. If a little patience is exercised during the bottling session, the bottled beer will retain nearly all of its carbonation and be protected from oxidation. I plan to use the Bottle Clamp next time I bottle.

The Bottle Clamp is available for \$169 plus shipping from Lee Design, Placerville, Calif; (916) 626-9626; FAX (916) 642-1438; © 1997 Amahl Turczyn

A Year of Beer



A Year of Beer (Brewers Publications, 1997) is a 342-page collection of 260 beer (and some mead) recipes organized by the season in which the beer is traditionally brewed and served. A 10-page introduction explains a bit about the purpose of the book and goes into limited detail about seasonal brewing traditions of various countries and the beer styles that sprang from those traditions. A concise time line shows at a glance when each style was traditionally brewed, then served.

My first reaction upon opening *A Year of Beer* was, "Oh great, another recipe book organized by the seasons." Being an avid cook, I have a couple of cookbooks organized this way and, on all counts, find them awkward to use. Perhaps this initial impression, combined with a desire for more details on brewing traditions, were responsible for my initial dislike of the book.

However, the more I began to pore over *A Year of Beer* the more I began to realize that, as a collection of recipes, it most certainly was impressive. In fact, I slowly began to realize this is exactly how a good collection of recipes should be organized. Because a particular style is traditionally brewed only at a certain time of year, all the recipes for that style are collected in one place, which makes for quick and easy access to the recipes for beers of that style. So we have a book with 41 chapters, one for each style. Each chapter begins with a paragraph or two about the style. While none of this is out of the ordinary, this collection goes one step further and provides the information to brew the beers according to tradition, if we so desire. If not, we still have an excellent book in our hands.

The recipes (about two-thirds are all grain and one-third are extract) are collected from

the prize winners of the AHA National Homebrew Competitions and Club-Only Competitions of recent years, so there is no question that they are great recipes. In going through the book I found more than 20 that immediately appealed to me as something I'd like to brew soon, and twice that many I'd like to put on the back burner and brew at some other time. That's a pretty good average, as far as I'm concerned.

As for presentation and overall format, the book shines here as well. Each recipe is given an entire page—a feature I particularly like in any recipe book, be it on beer or food. The layout is attractive and easy to read and follow—another plus. The book supplies us with information about the brewer, including what prize he or she won for the entry. Another nice feature is that, in most cases, the brewers' notes and judges' comments also are given. This can be useful for the reader who may want to tweak the recipe to correct some of the things pointed out by the judges. The one thing I did miss here was a statement of the extraction efficiency achieved. Sure, it's easy enough to compute given the grain bill and original gravity, but it would have been nice to have it computed for us so we could adjust the grain bill according to the efficiency of our own systems.

Finally, the last few pages contain a sample brewing log, a few formulas and common conversions, glossary of common terms and a complete index. Aside from the glossary and index, I found most of this to be rather out of place, since the book isn't technical. The conversions and logs seem more at home in a book that talks about how beer actually is brewed, but it certainly doesn't hurt to have it here. All in all, *A Year of Beer* is a very good book and a worthwhile addition to your library. I'd especially recommend it to those who may want just one good recipe book, because you get the extra bits on seasonal brewing traditions that none of the others offer.

Reviewed by Alan McKay, a computer systems administrator at Nortel in Ottawa, Canada. He got interested in great beer after spending 2 years at university in Cologne, Germany, and has been brewing for 3 years.
©1997 Alan McKay

Michael Jackson's World Beer Hunter CD-ROM

Michael Jackson's World Beer Hunter CD-ROM covers much the same material as his books. Like *Michael Jackson's Beer Companion* (Running Press 1993), the CD-ROM details the history and ingredients of beer, the brewing process and world beer styles. Reviews and ratings of beers read much like *The Simon & Schuster Pocket Guide to Beer* (1994). Descriptions of beers and stories about the breweries and brewers are in the style we expect from Jackson and are supplemented with information provided by breweries around the world. The strength of the CD-ROM is the ability to search for information and its use of World Guide Maps and links to allow the user to approach the material as they wish.

Beyond the maps there are text screens on brewing history, ingredients, process, beer styles, pubs, beer and breweries. The text screens can be searched by brewer, style, beer name or region, and printing is easy. The search function is convenient for tasks like finding all the beers in a style, but requires restarting the search after each visit to another page.

The brewery tour covers more than 400 breweries with text written by Jackson on 309 beers. This seems to be mostly information provided by the brewers, who were asked to give original gravity, final gravity, alcohol content, malt and hops. Original and final gravities for some beers are in degrees Plato, while others are in specific gravity.

In my opinion this CD-ROM is a good addition to any beer library. The material written by Jackson is of the nature and quality I've come to expect from him. The material provided by breweries; however, needs some editorial attention. With the search function and maps the CD-ROM can be very useful for research or planning a beer hunting trip. For sitting with a glass of beer, I would rather have the same material in book form.

Reviewed by Jim Homer, a National BJCP judge, of Boulder, Colo.
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Wailuku, HI 96793
(808) 244-6258 (MALT);
homebrew@maui.net

ILLINOIS

Beer In A Box
27W460 Beecher Ave.
Winfield, IL 60190
(630) 690-8150; (800) 506-BREW;
beerinab@mcs.com;
http://www.mcs.com/~beerinab/
beerhome.html

Bev Art Homebrew & Mead Making Supply
10033 S. Western Ave.
Chicago, IL 60643
(773) 233-7579; (773) BEER579

The Brewer's Coop
30W114 Butterfield Rd.
Warrenville, IL 60555
(630) 393-BEER;
FAX (630) 393-2323;
http://www.TheBrewersCoop.com

Chicagoland Winemakers Inc.
689 W. North Ave.
Elmhurst, IL 60126-2132
(708) 834-0507; (800) 226-BREW

Crystal Lake Health Food Store
25 E. Crystal Lake Ave.
Crystal Lake, IL 60014
(815) 459-7942

Evanston First Liquors Homebrewing
1019 W. Davis St.
Evanston, IL 60201
(708) 328-9651; FAX (708) 328-9664

Home Brew Shop
307 W. Main St.
St. Charles, IL 60174
(630) 377-1338

Lil' Olde Winemaking Shoppe Inc.
4 S. 245 Wiltshire Lane
Sugar Grove, IL 60554
(630) 557-2523;
http://www.elnet.com/~Lows

MALT-N-HOP STOP
505 E. Manchester Dr., Unit #A
Wheeling, IL 60090
(888) 420-BREW (Free Delivery);
(847) 520-9451;
http://www.mcs.net/~maltnhop/home.html; maltnhop@mcs.net

Old Town Liquors
514 S. Illinois Ave.
Carbondale, IL 62901
(618) 457-3513

River City Homebrewers
802 State St
Quincy, IL 62301
217-222-9813; (888) LETS BREW;
http://www.letsbrew.com

INDIANA

Beer & Wine by U
1456 N. Green River Rd.
Evansville, IN 47715
(812) 471-4352; (800) 845-1572

The Gourmet Brewer
PO Box 20688
Indianapolis, IN 46220-0688
(317) 924-0747; (800) 860-1200
(ext. 166739); gbrewer@iquest.net;
http://www.the-gourmet-brewer.com

Great Fermentations of Indiana
1712 East 86th St.
In the Northview Mall
Indianapolis, IN 46240-2360
(317) 848-6218; (888) HME-BREW
(463-2739)

Something's Brewing
847 N. Green St.
Brownsburg, IN 46112
(888) 858-1617; (317) 858-1617

Worm's Way Indiana
7850 N. Highway 37
Bloomington, IN 47404-9477
(800) 598-8158; (812) 876-6425;
http://www.wormsway.com

KANSAS

Bacchus & Barleycorn Ltd.
6633 Nieman Rd.
Shawnee, KS 66203
(913) 962-2501; FAX (913) 962-0008;
http://www.bacchus-barleycorn.com

Lawrence Brewers Supply
11 East 8th St.
Lawrence, KS 66044
(913) 749-3278 (Yeast);
(800) 464-1744

KENTUCKY

The Home Brewery
153 Mulberry
Bardstown, KY 40004
(800) 992-2739; (502) 349-1001;
103204.2322@compuserve.com

New Earth Homebrewing & Hydroponics
9810 Taylorsville Rd.
Louisville, KY 40299
(502) 261-0005; (800) 462-5953;
HYDROBREW@aol.com

Winemakers Supply & Pipe Shop
9477 Westport Rd.
Westport Plaza
Louisville, KY 40241
(502) 425-1692

LOUISIANA

Alfred's Brewing Supply
PO Box 5070
59125 Carroll Rd
Slidell, LA 70469-5070
(800) 641-3757; (504) 641-2545;
beer@slidell.com;
http://www.slidell.com/beer/

MARYLAND

Chesapeake Brewing Co.
1930 Lincoln Dr., Unit C
Annapolis, MD 21401
(410) 268-0450; (800) 324-0450;
FAX (410) 268-3705

The Flying Barrel
111 S. Carroll St.
Fredrick, MD 21701
(301) 663-4491

Happy Homebrewing Supply Co.
810 Beaglin Park Dr., Unit 8
Salisbury, MD 21804
(410) 543-9616

Maryland Homebrew
6770 Oak Hall Lane, Suite 115
Columbia, MD 21045
(410) 290-FROTH;
FAX (410) 290-6795;
(888) BREWNOW (toll free order line);
http://www.mdhb.com

Midnight Homebrew Supply
229 E. Main St.
Westminster, MD 21157
(410)-876-6999; FAX (410) 876-7954;
midnighthb@qis.net;
http://www.qis.net/~midnight

MASSACHUSETTS

Barleymalt and Vine
26 Elliot St.
Newton, MA 02161
(617) 630-1015; (800) 666-7026;
http://www.bm-v.com

Beer and Wine Hobby
180 New Boston St.
Woburn, MA 01801
(617) 933-8818; (800) 523-5423;
bdwh@tiac.net;
http://www.beer-wine.com

The Modern Brewer Co.
2304 Massachusetts Ave.
Cambridge, MA 02140
(617) 498-0400; FAX (617) 498-0444;
(800) SEND-ALE;
modernbrewer@modernbrewer.com;
http://modernbrewer.com

NFG Homebrew Supplies
72 Summer St.
Leominster, MA 01453
(508) 840-1955; FAX (508) 840-1955

Strange Brew Homebrew Supply
197 Main St.
Marlboro, MA 01752
(508) 460-5050; (800) 248-6823

Worm's Way Massachusetts
1200 Millbury St.
Worcester, MA 01607
(508) 797-1156; (800) 284-9676;
http://www.wormsway.com

MICHIGAN

Brew & Grow

33523 W. 8 Mile #F-5
Livonia, MI 48152
(313) 442-7939; (800) 734-4195

Brew-it Yourself Center

13262 Northline Rd.
Southgate, MI 48195
(313) 284-9529

Homebrew Shop At Music Express

5049 West Main
Kalamazoo, MI 49009
(616) 342-1239; FAX (616) 342-1588

Lake Superior Brewing Co.

7206 Rix St.
Ada, MI 49301-9189
(616) 682-0091; (800) 345-CORK

Michigan Homebrew Supply

PO Box 8244
Roseville, MI 48066-8244
(810) 774-5619; (800) 278-1311

Things Beer

100 E. Grand River
Williamston, MI 48895
(517) 655-6701; (800) 765-9435;
thingsbeer@voyager.net

Wine Barrel Plus

30303 Plymouth Rd.
Livonia, MI 48150
(313) 522-9463;
http://www.winebarrel.com

MINNESOTA

L.L. Kraemer Co.

9925 Lyndale Ave. S.
Bloomington, MN 55420
(612) 884-2039; (800) 200-3647;
FAX (612) 884-1065;
LLKraemer@aol.com;
http://www.LLKraemer.com

Von Klopp Brew Shop

Highway 52, Box 386
Pine Island, MN 55963-0386
(800) 596-2739; FAX (800) 320-5432;
vonklopp@means.net;
http://www.hps.com/vonklopp

WindRiver Brewing Co. Inc.

7212 Washington Ave. S.
Eden Prairie, MN 55344
(612) 942-0589; (800) 266-HOPS;
FAX (612) 942-0635;
windrvr@bitstream.net;
http://www.windriverbrew.com

MISSOURI

The Home Brewery

South Old Highway 65
PO Box 730
Ozark, MO 65721
(417) 485-0963;
(800) 321-BREW(2739);
FAX (417) 485-0965;
homebrew@dialnet.net

St. Louis Wine & Beermaking

251 Lamp & Lantern Village
St. Louis, MO 63017
(314) 230-8277; FAX (314) 527-5413

St. Louis Wine & Beermaking

9979 Lin Ferry Dr.
St. Louis, MO 63123
(314) 843-9463

Winemaker's Market

4386 N. Essex Ave.
Springfield, MO 65803
(417) 833-4145; FAX (417) 833-8949

Worm's Way Missouri

2063 Concourse
St. Louis, MO 63146
(314) 994-3900; (800) 285-9676;
http://www.wormsway.com

MONTANA

Billings Homebrew Supply

1916 3rd Ave. N.
Billings, MT 59101
(406) 256-0261

NEBRASKA

Carter's BYOB, Inc.

1921-23rd St.
Columbus, NE 68601
(402) 562-6266;
hwcarte@megavision.com

Kirk's Do-It-Yourself Brew

1150 Cornhusker Hwy.
Lincoln, NE 68521
(402) 476-7414

NEVADA

Mr. Radz Homebrew Supply Shop

4972 S. Maryland Pkwy. #4
Las Vegas, NV 89119
(702) 736-8504; Outside NV; (800) 465-4723; FAX (702) 736-7942;
mrradzhb@aol.com

NEW HAMPSHIRE

Beer Essentials

611 Front St.
Manchester, NH 03102
(603) 624-1080; (800) 608-BEER

Hops & Dreams

PO Box 914
Atkinson, NH 03811
(888) BREW-BY-U;
http://www.de-inc.com/~hdreams

Hops & Things

122 E. Main St.
Tilton, NH 03276-5125
(603) 286-7209;
brewmaster@cyberportal.net

NEW JERSEY

BEERCRAFTERS Inc.

110A Greentree Rd.
Turnersville, NJ 08012
(609) 2 BREW IT

Cherry Hill Homebrew Supply

1845 Route 70 East
Cherry Hill, NJ 08003
(609) 424-3636;
NJHOMEBREW@compuserve.com

NEW JERSEY

Cumberland Brew Works

1101 N. 2nd St., Reema Plaza
Millville, NJ 08332
(609) 825-0040

Hop & Vine

11 DeHart St.
Morristown, NJ 07960
(973) 993-3191; FAX (973) 993-3193;
(800) 414-BREW;
http://www.hopandvine.com

The Keg & Barrel

535 Vaughn Ave.
Forked River, NJ 08731
(888) BRU-BEER;
aleman@webspan.net

Princeton Homebrew

82 Nassau St., Suite 20
Princeton, NJ 08542
(609) 252-1800; FAX (609) 252-1800;
schd@pluto.njcc.com

Red Bank Brewing Supply

111 Oakland St.
Red Bank, NJ 07701
(908) 842-7507

U-Brew Corp..

319 1/2 Millburn Ave.
Millburn, NJ 07041
(973) 376-0973; (973) 376-0493;
DJBrew@AOL.COM;
http://www.kzed.com/brew

NEW YORK

At Home Warehouse Distributors

PO BOX 185
Clarence, NY 14031
(800) 210-8585 (Mail Order/Retail);
FAX (716) 681-0284;
AHWD@ag.net;
http://WWW.AHWD.COM

Beer Necessities

71 Dove St.
Albany, NY 12210
(518) 434-0381;
homebrew@albany.net;
http://www.albany.net/~homebrew

The Brew Shop @ Cornell's

310 White Plains Rd.
Eastchester, NY 10707
(800) 961-BREW; FAX (914) 961-8443;
brewshop@cornells.com;
http://www.cornells.com

Brewers Den

24 Bellemeade Ave.
Smithtown, NY 11787
(516) 979-3438; (800) 499-BREW

The Brews Brothers at KEDCO - Beer & Wine Supply Store

564 Smith St.
Farmingdale, L.I., NY 11735-1168
(516) 454-7800; (800) 654-9988
(outside N.Y. only);
FAX (516) 454-4876

D.P. Homebrew Supply

1998 E. Main St., Route 6
PO Box 625
Mohegan Lake, NY 10547
(914) 528-6219

E.J. Wren Homebrewer Inc.

Ponderosa Plaza (behind Heids)
off Old Liverpool Rd.
Liverpool, NY 13088
(315) 457-2282; (800) 724-6875

Heller's Homebrew Supplies Inc.

120 Milton Ave.
Syracuse, NY 13204
(315) 426-1044

Homebrew and Grow-East Coast Hydroponics Inc.

439 Castleton Ave.
Staten Island, NY 10301
(718) 727-9300;
FAX (718) 727-9313

The Homebrew Experience

110 Fairview
Kingston, NY 12401
(888) BREW-GUYS (toll free);
brewguys@brewguys.com;
http://www.brewguys.com

Homebrew Shop at Karp's

#2 Larkfield Rd.,
Inside Karp's Hardware
East Northport, NY 11731
(516) 261-1235;
FAX (516) 261-1573;
alannnt@aol.com;
http://members.aol.com/kimlgt/beer.html

Mighty Niagara Brewer

744 Elmwood Ave.
Buffalo, NY 14222
(716) 883-1040

New York Homebrew

221 Old Country Rd.
Carle Place, NY 11514
(800) YOO-BREW;
FAX (516) 294-1872

Niagara Tradition Homebrew

1296 Sheridan Drive
Tonawanda, NY 14217
(716) 877-8767; (800) 283-4418;
FAX (716) 877-6274

Party Creations

RD 2 Box 35 Rokeby Rd.
Red Hook, NY 12571
(914) 758-0661

NORTH CAROLINA

Alternative Beverage

114-0 Freeland Lane
Charlotte, NC 28217
(704) 527-9643; (800) 365-BREW

Brew Better Supply

10207 C Chapel Hill Rd.
Morrisville, NC 27560
(919) 467-8934; (800) 915-BREW;
BREW BETTER @AOL.COM

City Beverage Homebrew Shop

915 Burke St.
Winston-Salem, NC 27101
(910) 722-2774; (910) 725-1481;
FAX (910) 725-1481

Homebrew Adventures
9240 Albermarle Rd.
Charlotte, NC 28227-2624
(704) 535-2277; (888) 785-7766;
FAX (704) 535-2060;
homebrew@homebrewadventures.com;
http://www.homebrewadventures.com

NORTH DAKOTA

Happy Harry's Bottle Shops
2051 32nd Ave. S.
Grand Forks, ND 58201
(800) 367-BREW;
(701) 780-0902;
FAX (701) 780-0905

OHIO

The Grape and Granary
1302 E. Tallmadge Ave.
Akron, OH 44310
(330) 633-7223; (800) 695-9870;
http://www.grapeandgranary.com

HoMade Brewing Supplies
505 Superior St.
Rossford, OH 43460-1246
(419) 666-9099; (888) 646-6233;
homade@primenet.com;
http://www.primenet.com/~homade

JC Homebrewing Co.
8306 State Route 43
East Springfield, OH 43925
(614) 543-4200; (800) 899-5180;
jcbrew@clover.net;
http://www.jchomebrew.com;

Portage Hills Vineyards
1420 Martin Rd.
Suffield, OH 44260
(800) 418-6493;
portage@ix.netcom.com;
http://www.portagehills.com/portage

Shreve Home Brewing and Wine Making Supply
299 Jones St.
PO Box 17
Shreve, OH 44676
(330) 567-2149 (free catalog);
bkr@bright.net

OREGON

Home Fermenter Center
123 Monroe St.
Eugene, OR 97402
(541) 485-6238;
FAX (541) 485-2220;
http://www.globalgecko.com/
homefermenter

Homebrew Heaven
1292 12th St. S.E.
Salem, OR 97302
(503) 375-3521

PENNSYLVANIA

Beer Unlimited
Routes 30 and 401
Great Valley Shopping Center
Malvern, PA 19355
(610) 889-0905; BrewIPA@aol.com

Bierhaus International
3723 W. 12th St.
Erie, PA 16505
(814) 833-7747; (814) 838-4090;
bierhaus@erie.net

Country Wines and Beer
3333 Babcock Blvd., Suite 2
Pittsburgh, PA 15237-2421
(412) 366-0151;
info@countrywines.com;
http://www.countrywines.com

The Flying Barrel
C/O Gettysburg Brewery & Pub
15 York St.
Gettysburg, PA 17325
(301) 663-4491

The Frothy Shoppe
4807 SR 103 North
Lewiston, PA 17044
(717) 242-8744;
FAX (717) 899-7723

Home Sweet Homebrew
2008 Sansom St.
Philadelphia, PA 19103
(215) 569-9469; FAX (215) 569-4633;
homsweet@voicenet.com

Keystone Homebrew Supply
779 Bethlehem Pike
Montgomeryville, PA 18936
(215) 855-0100; FAX (215) 855-4567;
keystonehb@juno.com

Mr. Steve's Homebrew Supplies-East
1027 Dillerville Rd.
Lancaster, PA 17603
(717) 391-9655;
brewmutt@aol.com;
http://www.netresolve.com/mrsteve

Mr. Steve's Homebrew Supplies-West
4342 N. George St.
Manchester, PA 17345
(717) 266-5954; (800) 815-9599;
FAX (717) 266-1566;
brewmutt@aol.com;
http://www.netresolve.com/mrsteve

Triangle Homebrewing Supply
2821 Penn Ave.
Pittsburgh, PA 15222
(412) 434-8333;
FAX (412) 434-8330;
delbrew@compuserve.com

The Wine & Beer Barrel
The Olde Ridge Village Shoppes
Chadds Ford, PA 19317
(610) 558-2337 (BEER);
FAX (610) 358-3752;
http://www.cmc3375.com

RHODE ISLAND

Brew Horizons
150 Wood St.
Coventry, RI 02816
(401) 826-3500; (800) 589-BREW;
brewhorizons@ids.net;
http://www.brewhorizons.com

SOUTH CAROLINA

U-BREW
1207 HWY 17 S.
N. Myrtle Beach, SC 29582
(803) 361-0092; (800) 845-4441

TENNESSEE

Allen Biermakens
4111 Martin Mill Pike
Knoxville, TN 37920
(615) 577-2430; (800) 873-6258

New Earth Homebrewing & Hydroponics
139 Northcreek Blvd.
Metro Nashville, TN 37072
(615) 859-5330; (800) 982-4769;
HYDROBREW@aol.com

TEXAS

Brew Masters
426 Butternut
Abilene, TX 79602
(915) 677-1233; FAX (915) 690-1205;
prisg@camalott.com

Canada Homebrew Supply
1998 C. Industrial Blvd.
Abilene, TX 79602
(915) 698-4744; FAX (915) 698-4744;
(888) 839-2739 (Toll Free)

Classic Fermentations
3307 Canyon Dr.
Amarillo, TX 79110
(806) 342-9930; (888) 838-BREW
(2739); classicferm@fia.net;
http://home.fia.net/~classicferm

DeFalco's Home Wine & Beer Supplies
2415 Robinhood
Houston, TX 77005
(713) 523-8154; FAX (713) 523-5284;
(800) 216-2739

The Home Brewery
PO Box 308
3800 Colleyville Blvd.
Colleyville, TX 76034
(817) 281-7252;
(800) 817-7369 (orders);
FAX (817) 581-4335;
foremans@worldnet.att.net

Homebrew Headquarters
2810 Greenville
Dallas, TX 75206
(214) 821-7444;
Order lines: (800) 966-4144,
(800) 862-7474

Homebrew Headquarters — North
1335 Promenade, Suite 1335
Richardson, TX 75080
(214) 234-4411; (214) 699-1439

Homebrew Headquarters — West
900 E. Copeland, Suite 120
Arlington, TX 76011
(817) 792-3940; (800) 862-7474

Homebrew Supply of Dallas
777 South Central Expwy.
Richardson, TX 75080
(972) 234-5922; (800) 270-5922;
FAX (972) 234-5922;
jmorgan@primaview.com;
http://www.primaview.com/
homebrew/

Lubbock Homebrew Supply
1718 Buddy Holly Ave.
Lubbock, TX 79401
(800) 742-BREW; (806) 763-7480;
lubbock.homebrew@door.net;
http://door.net/homebrew/

St. Patrick's at Waterloo Brewing
401A Guadalupe St.
Austin, TX 78701
(512) 499-8544; FAX (512) 499-8621;
stpats@wixer.bga.com;
http://www.stpats.com

St. Patrick's of Texas Brewers Supply
12922 Staton Dr.
Austin, TX 78727
(512) 832-9045; (800) 448-4224;
FAX (512) 832-8552;
stpats@wixer.bga.com;
http://www.stpats.com

The Winemaker Shop
5356 W. Vickery Blvd.
Fort Worth, TX 76107
(817) 377-4488; (800) IT BREWS;
FAX (817) 732-4327;
brewsome@Onramp.NET;
http://winemakershop.com;

UTAH

The Beer Nut Inc.
1200 S. State
Salt Lake City, UT 84111
(801) 531-8182; FAX (801) 531-8605;
(800) 626-2739;
sales@beernut.com;
http://www.xmission.com/~beernut

VIRGINIA

The Brewmeister
1215G George Washington
Memorial Hwy.
Yorktown, VA 23693
(757) 595-HOPS;
FAX (757) 596-1034

Pints O' Plenty
Lower Level of Peddler Antiques
RT 854 At RT 221
Forest, VA 24551
(804) 385-0077

Rocktown Brewers
52 E. Market St.
Harrisonburg, VA 22801
(540) 432-6799; furges@rica.net;
http://home.rica.net/furges

The Week-End Brewer Home Brew Shop
4205 West Hundred Rd.
Chester, VA 23831
(804) 796-9760; FAX (804) 796-9561;
wkendbr@erols.com

Vintage Cellar
1313 S. Main St.
Blacksburg, VA 24060
(540) 953-CORK;
(800) 672-WINE;
sales@vintagecellar.com;
http://www.vintagecellar.com

WASHINGTON

Alchemy Brew & Wine
104 S. 4th Ave.
Pasco, WA 99301
(509) 545-4605; wesa1@gte.net

The Beer Essentials
15219 Pacific Ave. S.
Tacoma, WA 98444
(206) 536-8840;
(800) 685-2739;
robn2beer@aol.com

Brewers Warehouse
4520 Union Bay Place N.E.
Seattle, WA 98105
(206) 527-5047;
http://www.brewerswarehouse.com

The Cellar Homebrew
14411 Greenwood N.
Seattle, WA 98133
(206) 365-7660; (800) 342-1871;
homebrew@aa.net;
http://www.cellar-homebrew.com/
indexzr.html

The Home Brewery
9109 Evergreen Way
Everett, WA 98204
(425) 355-8865; FAX (425) 290-8336;
(800) 850-2739 order line;
HmBrewery@aol.com;
http://www.homebrewery.com

Kim's Place
Smokey Point Plaza
3405 172nd St. N.E.
Arlington, WA 98223
(360) 658-9577; (888) 658-9577;
kimsplace@tgi.net

Larry's Brewing Supply
7405 S. 212th St. #103
Kent, WA 98032
(206) 872-6846; (800) 441-BREW;
jtrent@aa.net;
http://www.brewingnw.com/larrys;

Liberty Malt Supply Co.
1419 First Ave.
Seattle, WA 98101
(206) 622-1880; (800) 990-MALT
(6258); FAX (206) 322-5185;
liberty@mdv-beer.com

Northwest Brewers Supply
316 Commercial Ave.
Anacortes, WA 98221
(800) 460-7095; FAX (360) 293-4904;
nwbs@fidalgo.net

Peninsula Brewing Supplies
6820 Kimball Dr., Suite A4
Gig Harbor, WA 98335
(206) 851-9265

WEST VIRGINIA

Tent Church Vineyard
RD 1, Box 218
Colliers, WV 26035
(304) 527-3916; (800) 336-2915

WISCONSIN

Galaxy Science + Hobby Center
1607 N. Richmond St.
Appleton, WI 54911
(414) 730-9220

Homebrew Market
520 E. Wisconsin Ave.
Appleton, WI 54911
(920) 733-4294; (800) 261-2337;
FAX (920) 733-4173;
http://www.homebrewmarket.com

The Hops Shop
230 Broad St.
Menasha, WI 54952
(414) 722-6281

Life Tools Adventure Outfitter
1035 Main St.
Green Bay, WI 54301
(414) 432-7399

The Market Basket Homebrew & Wine Supplies
14835 W. Lisbon Rd.
Brookfield, WI 53005-1510
(414) 783-5233; FAX (414) 783-5203;
http://www.glaci.com/market/
brewing/homepage.html

North Brewery Supplies
9009 S. 29th St.
Franklin, WI 53132
(414) 761-1018;
(800) 4UDRAFT;
FAX (414) 761-7360;
briannbs@execpc.com;
http://www.execpc.com/~briannbs/
index.html;

WYOMING

Brew's Brothers Home Brew Supply
2214 A Upland St.
Rock Springs, WY 82901
(800) 216-2502

CANADA

ONTARIO

Marcon Filters
120 Woodstream Blvd., Unit 1
Woodbridge, ON L4L 7Z1
(905) 264-1494;
FAX (905) 264-1495;
http://www3.sympatico.ca/marcon.
filters/

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CALENDAR



NOVEMBER

- 1** Orchid Isle Alers Octoberfest Homebrew Competition, **AHA Sanc. Comp.**, Hilo, Hawaii. Entries due Oct 25. Contact Bob Culnan at (808) 964-5267 or earl@hgea.org.
- 1** Brews Brothers Novemberfest, **AHA Sanc. Comp.**, Seattle, Wash. Entries due Oct. 29. Contact Jim Hinken at (425) 483-9324 or jhinken@accessone.com.
- 1** Trub Nine from Outer Space Homebrew Competition, **AHA Sanc. Comp.**, Durham, N.C. Entries due Oct. 29. Contact Bruce Pimer or Gary Clayton at (919) 383-4891 or trub9@mindspring.com.
- 7** Harvest Festival Homebrew Competition, **AHA Sanc. Comp.**, Stamford, Conn. Entries due Nov. 6. Contact Cindy Pucci at (203) 323-0124.
- 9** Barley Creek Brewing Company Homebrew Competition, **AHA Sanc. Comp.**, Tannersville, Pa. Entries due Oct. 9. Contact Jon Manzo at (717) 629-9399 or bcbci@usenetway.com.
- 16** Best of Philly Homebrew Competition, **AHA Sanc. Comp.**, Philadelphia, Pa. Entries due Nov. 7. Contact Steve George at (215) 822-2187.
- 22** Humpty's Big Fish Homebrew Competition, **AHA Sanc. Comp.**, Anchorage, Alaska. Entries due Nov. 21. Contact Jason Ditsworth at (907) 243-5354 or gambit@alaska.net.

DECEMBER

- 1-8** Germany-Austria Beer and Christmas Tour. Contact Beer Lovers Travel at (888) 277-2379.
- 5-7** Holiday Ale Festival, Portland, Ore. Beers from 20 regional breweries, food, crafts. Admission free, tasting mug \$2, 14-ounce samples \$3. Contact 503-228-3119.
- 6** Bitter Mania Club-Only Competition, **AHA Sanc. Comp.**, Boulder, Colo. Entries due Dec. 1. Contact Brian Rezac at (303) 447-0816 ext. 121 or brian@aob.org.
- 6** BJCP Exam, Princeton, N.J. Contact Bruce Hammell at (609) 393-2946 or lhammell@aol.com.
- 6** 1997 Adelaide Hills Homebrewers Competition Open Competition, **AHA Sanc. Comp.**, Stirling, South Australia. Entries due Dec. 1. Contact Doug Stewart at (618) 83708340 or sue4doug@gist.net.au.
- 6** New England Fall Regional Homemade Beer Competition, **AHA Sanc. Comp.**, Greenfield, Mass. Entries due Dec. 1. Contact Charlie Olchowski at (413) 773-5920 or mgryska@javanet.com.
- 7** Le Premier Spectacle de Houblon du Monde Homebrew Competition (The Hoppiest Place on Earth), **AHA Sanc. Comp.**, Princeton, New Jersey. Entries due Dec. 1. Contact Bruce Hammell at (609) 393-2946 or Lhammell@AOL.com.
- 12** 1997 Happy Holidays Homebrew Competition, **AHA Sanc. Comp.**, St. Louis, Mo. Entries due Dec. 6. Contact Bob Boland at (314) 725-6668 or rboland@aol.com.

JANUARY

- 15** The Great Alaska Beer Festival, **AHA Sanc. Comp.**, Anchorage, Alaska. Entries due Jan 14. Contact Tom Condon at (907) 562-9911.
- 17** The Big Bend Brew-Off, **AHA Sanc. Comp.**, Tallahassee, Fla. Entries due Jan 14. Contact Ned Roberts at (904) 562-7105.
- 17** Arthritis Foundation/HoMade Brewing Supplies Homebrew Competition, **AHA Sanc. Comp.**, Toledo, Ohio. Entries due Jan 10. Contact David Miller at (419) 666-9099 or homade@primenet.com.
- 17** War of the Worts, **AHA Sanc. Comp.**, Warrington, Pa. Entries due Dec. 26. Contact Alan Folsom, Jr. at (215) 343-0840 or folsom@ix.netcom.com.
- 18** Growlers Pub's 2nd Semi Annual Homebrewers Contest, **AHA Sanc. Comp.**, St. Charles, Mo. Entries due Jan 13. Contact Mark Naski at (314) 275-4965 or (314) 692-5838.
- 24** Eastern Connecticut 1st Annual Homebrew Competition, **AHA Sanc. Comp.**, Andover, Conn. Entries due Jan 24. Contact Paul Zocco at (860) 742-7879 or (860) 666-6951.
- 30** Emerald Coast Homebrew Competition, **AHA Sanc. Comp.**, Destin, Fla. Entries due Jan. 10. Contact Gary Essex at (850) 897-0165 or brewer@beachlife.net.

FEBRUARY

- 7** Ninth Annual Reggale and Dreadhop, **AHA Sanc. Comp.**, Boulder, Colo. Entries due Jan Contact Caroline Duncker at (303) 939-9174 or hopbarley@aol.com.
- 7** Bay Area Brew-Off, **AHA Sanc. Comp.**, Oakland, Calif. Entries due Jan 24. Contact Bryan Gros at (510) 601-6780 or gros@bigfoot.com.
- 9** 1998 Florida State Fair Homebrewing Competition, **AHA Sanc. Comp.**, Tampa, Fla. Entries due Feb. 9. Contact Jeff Gladish at (813) 238-0403 or Mark Stober at (813) 977-0141 or marksto@aol.com.
- 15** Febfest/Brewers on the Bluff, **AHA Sanc. Comp.**, Mundelein, Ohio. Entries due Feb 13. Contact Andy Patrick at (815) 363-1166 or (847) 970-9737.
- 17** Fur Rondy Winter Carnival, **AHA Sanc. Comp.**, Anchorage, Alaska. Entries due Feb. 16. Contact Mark Ryan at (907) 297-3234.
- 20** Kansas City Bier Meisters 15th Annual Homebrew Competition, **AHA Sanc. Comp.**, Olathe, Kan. Entries due Feb 7. Contact Steve Ford at (913) 962-2501 or (913) 621-7075.
- 21** NetWort III, **AHA Sanc. Comp.**, Cincinnati, Ohio. Competition takes place over the internet, but the drop-off location is in Cincinnati. Entries due Feb 7. Contact Rick Theiner at (919) 353-7176 or 73261.132@compuserve.com.
- 21** The 3rd Annual MASH Homebrew Competition, **AHA Sanc. Comp.**, San Rafael, Calif. Entries due Feb 7. Contact Mike Riddle at (415) 472-3390 or mjri@chevron.com.

- 21** The 4th Annual Commander Saaz Interplanetary Homebrew Blast-Off, Cape Canaveral, Fla. Entries due Feb 16. Contact Lynn Seelos at (407) 633-6605 or LSeelos@aol.com.

MARCH

- 7** The 5th Annual America's Finest City Homebrew Competition, **AHA Sanc. Comp.**, San Diego, Calif. Entries due March 3. Contact Greg Lorton at (760) 943-8280 or (619) 592-7707.
- 14** Heart of Dixie Brew-Off Homebrew Competition, **AHA Sanc. Comp.**, Birmingham, Ala. Entries due March 7. Contact John Rhymes at (205) 941-3288 or jwrhymes@mindspring.com.
- 22** 7th Annual New York City Spring Regional Homebrew Competition, **AHA Sanc. Comp.**, Staten Island, N.Y. Entries due March 19. Contact Ken Johnsen at (718) 982-7202 or KBJohns@PeakAccess.net.

APRIL

- 4** 12th Annual Gem State Regional Homebrew Competition, **AHA Sanc. Comp.**, Boise, Idaho. Entries due March 27. Contact Loren Carter at (208) 342-4775 or LCarter@claven.idbsu.edu.
- 11** Bluff City Brewers 10th Annual Homebrew Extravaganza, **AHA Sanc. Comp.**, Memphis, Tenn. Entries due April 4. Contact Patrick Rohrbacher at (901) 683-6080 or FTMK71BC@Prodigy.com.
- 25** U.S. Open, **AHA Sanc. Comp.**, Charlotte, N.C. Entries due April 20. Contact John Mitchell at (704) 864-3450 or jlmitch@charlotte.infi.net.

MAY

- 2** Green Mountain Homebrew Competition, **AHA Sanc. Comp.**, Burlington, Vt. Entries due April 17. Contact Dave Gannon at (802) 879-1304 or dgannon@zoo.uvm.edu.

- 6-8** Beer Camp XIII, Ft. Mitchell, Ky. Friday evening through Sunday noon. Admission \$369. Contact: 800-323-4917.

- 14** Classic City Brew-Fest, Athens, Ga. 2-7 p.m. at Classic Center. Admission \$18 advance, \$20 at the door. Contact: 706-546-MALT or www.negia.net/~brew.

JUNE

- 7** Nation's Capital "Spirit of Free Beer" Homebrew Competition, **AHA Sanc. Comp.**, Washington, D.C. Entries due June 1. Contact Mark Stevens at (540) 822-4537 or stevens@burp.org.

- 28** The Bay Area Mashers 4th Annual World Cup of Beer, **AHA Sanc. Comp.**, Berkeley, Calif. Contact Doug Ashcraft at (510) 339-1816 or ashcraftmd@aol.com.

JULY

- 18** Ohio State Fair Homebrewed Beer Contest, **AHA Sanc. Comp.**, Columbus, Ohio. Form for entries due June 20. Contact Brett Chance at (614) 644-4126 or www.ohioexpoenter.com.



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 http://beertown.org on the web.

To list events, send information to **Zymurgy** Calendar of Events. To be listed in Spring Issue (Vol. 21, No. 1), information must be received by Jan. 20, 1998. Competition organizers wishing to apply for AHA Sanctioning must do so at least two months prior to the event. Contact Amahl Turczyn at amahl@aob.org; (303) 447-0816 ext. 116; FAX (303) 447-2825; PO Box 1679, Boulder, CO 80306-1679.

AMERICAN HOMEBREWERS ASSOCIATION • KUDOS • SANCTIONED COMPETITION PROGRAM

• APRIL 1997 •

GREATER WICHITA HOMEBREW COMPETITION
Wichita, Kan., 150 entries — Chuck and Nancy Stiner of Belle Plaine, Kan., won best of show.

UNYHA 19TH ANNUAL COMPETITION AND EIGHTH EMPIRE STATE OPEN
Rochester, N.Y., 161 entries — John Zelazny of Webster, N.Y., won best of show.

NEW YORK CITY HOMEBREWERS COMPETITION
New York, N.Y., 161 entries — Tom Cahalane of Marlboro, N.J., won best of show.

GEM STATE HOMEBREW COMPETITION
Boise, Idaho, 81 entries — Bob Ring of Caldwell, Idaho, won best of show.

NINTH ANNUAL BLUFF CITY BREWERS HOMEBREW EXTRAVAGANZA
Memphis, Tenn., 186 entries — Chip Upsul of Mountain View, Mo., won best of show.

SNOW GOOSE BREAK UP HOMEBREW COMPETITION
Anchorage, Alaska, 31 entries — Jason Ditsworth and Larry Williamson of Anchorage won best of show.

WESTERN NEW YORK HOMEBREW COMPETITION
Buffalo, N.Y., 116 entries — Gordon Diffenderfer of Olean, N.Y., won best of show.

FIRST ANNUAL B.E.E.R. BREW-OFF
Ronkonkoma, N.Y., 134 entries — Bruce Daniels of East Hampton, N.Y., won best of show.

IOWA CITY HOMEBREW CLASSIC
Iowa City, Iowa, 137 entries — John Denny of Cedar Rapids, Iowa, won best of show.

• MAY 1997 •

EIGHTH ANNUAL SUNSHINE CHALLENGE
Orlando, Fla., 504 entries — Russ Bee of Rockwall, Texas, won best of show.

ST. PAUL BREWING COMPETITION
St. Paul, Minn., 249 entries — Robson and Michelle Snyder of Eagan, Minn., won best of show.

GREEN MOUNTAIN HOMEBREW COMPETITION
Burlington, Vt., 219 entries — Paul Hale of Burlington, Vt., won best of show.

NEW ENGLAND HOME BREWING COMPETITION
South Norwalk, Conn., 73 entries — George DePiro of Nyack, N.Y., won best of show.

15TH ANNUAL OREGON HOMEBREWERS' COMPETITION AND FESTIVAL
Albany, Ore., 236 entries — Doug Faynor of Woodburn, Ore., won best of show.

THE GREAT ALASKAN CRAFT BEER AND HOMEBREW FESTIVAL
Haines, Ala., 99 entries — Paul Wheeler of Haines won best of show.

CELTIC BREWS TEXAS SCOTTISH FESTIVAL
Arlington, Texas, 54 entries — Bill Burks of Venus, Texas, won best of show.

NOR'WESTER BREWING CO'S FIRST HOMEBREWERS CONTEST
Portland, Ore., 300 entries — Matthew Juniper of Portland, Ore., won best of show.

• JUNE 1997 •

1997 NATION'S CAPITAL "SPIRIT OF FREE BEER"
Washington, D.C., 401 entries — Alan Folsom, Jr. of Warrington, Pa., won best of show.

DOMINION CUP 1997

Richmond, Va., 115 entries — Ken Lemelin and Brian Astroth of Midlothian, Va., won best of show.

KGB "BIG BATCH BREW BASH"
Houston, Texas, 48 entries — Thomas Irven of Bellaire, Texas, won best of show.

THE THIRD ANNUAL B.U.Z.Z. BONE YARD BREW-OFF
Champaign, Ill., 223 entries — Dennis Watson of Indianapolis, Ind., won best of show.

EIGHT SECONDS OF FROTH
Cheyenne, Wyo., 52 entries — Bob Lewis of Cheyenne, Wyo., won best of show.

BUZZ-OFF
Downingtown, Pa., 440 entries — Jay White of Wilmington, Del., won best of show.

10TH ANNUAL SOUTHERN CALIFORNIA REGIONAL HOMEBREW CHAMPIONSHIPS
Riverside, Calif., 211 entries — J.D. Eichman and Lisa Cook of Yucaipa, Calif., took best of show.

E'VILLE TRIPLE THREAT
Ellicottville, N.Y., 57 entries — Vince Oliverio of Ellicottville, N.Y., won best of show.

GREAT NORTHERN CHALLENGE
Fargo, N.D., 100 entries — Arlin Karger of Moorhead, Minn., won best of show.

ORANGE COUNTY FAIR HOMEBREW COMPETITION
Costa Mesa, Calif., 97 entries — Dan Taylor of Huntington Beach, Calif., won best of show.

TUOLUMNE COUNTY FAIR HOMEBREW COMPETITION
Sonora, Calif., 23 entries — Alan Lemke of Sonora, Calif., won best of show.

• JULY 1997 •

BLUES, BREWS AND BARBEQUE IV
Lexington, Ky., 33 entries — Jeff Boggess of Hurricane, W.Va., won best of show.

ARMANETT'S/HEARTLAND HYDROPONICS HOMEBREW COMPETITION
Mundelein, Ill., 33 entries — Ryan Clooney of Wildwood, Ill., won best of show.

SUMMER CAP-OFF 1997
Ceres, Calif., 56 entries — Mike Sawyer and Scott Turner of Waterford, Calif., won best of show.

OHIO STATE FAIR HOMEBREW COMPETITION
Columbus, Ohio, 93 entries — Gordon Strong of Beavercreek, Ohio, won best of show.

OREGON STATE FAIR AMATEUR BEER
Salem, Ore., 167 entries — Warren Steenson of Portland, Ore., won best of show.

• AUGUST 1997 •

NORTH WEST FLORIDA HOMEBREWERS COMPETITION
Pensacola, Fla., 19 entries — Dennis Britten and Ken Smith of Wyoming, Mich., won best of show.

IOWA STATE FAIR AMATEUR OENOLOGY
Des Moines, Iowa, 167 entries — Brian Karn of Des Moines, Iowa, won best of show.

JOSEPHINE COUNTY FAIR AMATEUR BEERS COMPETITION
Grants Pass, Ore., 46 entries — Richard Doffing of Grants Pass, Ore. won best of show.

Dear Zymurgy (from page 8)

Yeast Clarifications

Dear **Zymurgy**,

I'd like to point out a number of significant errors in the For the Beginner article, "Yeast at Work" that appeared in the Summer 1997 issue of **Zymurgy**. Generally speaking, the entire text of page 46 is wrong.

Firstly, glycogen is used during lag, not created. Glycogen stores are actually increased by the yeast when sugar levels in the wort begin to decline. If you pitch yeast that is low in glycogen (for example, a yeast starter that has been sitting around for a long time and therefore the starved yeast have had to resort to using their glycogen to sustain life), then lag times can be unreasonably long and researchers have even found that production of acetaldehyde and some sulfur compounds is excessive. [Pickerell, Hwang, and Axcell, Impact of Yeast Handling Procedures on Beer Flavor During Fermentation, American Society of Brewing Chemists (ASBC) Journal, Vol 49:2, 1991, pp. 87-92].

An important fact that many brewers (home and professional) miss is that high krausen is actually when the yeast have the lowest level of stored glycogen. When fermentation begins, the yeast have used up all their glycogen and are just beginning to build it back up. The stationary phase (when reproduction has leveled off, cell counts are essentially constant and the yeast are fermenting the wort and generating CO₂ at a constant rate) is when glycogen stores are rapidly increasing and the best time to pitch the yeast starter, not at high krausen as most books suggest. [Monk, Practical Yeast Management, Brewery Operations Volume #6, Brewers Publications, Boulder, CO]

Secondly, brewers' yeast respire only under very specific conditions. When glucose levels are higher than 0.4% (not 1% as the article said), *Saccharomyces cerevisiae* exhibit the Crabtree Effect in which respiration is suppressed and the yeast go straight to fermentation, despite having oxygen available. Other sugars, such as maltose, also induce the Crabtree Effect, but to a lesser extent than glucose. The bottom line really is, that normal brewers' wort contains enough to the right sugars to induce the Crabtree Effect and therefore, under

normal conditions, *S. cerevisiae* will not respire. [Waiting and Brewing Science, Volume II]

This does not mean that the yeast do not have a use for oxygen. Yeast eagerly consume oxygen when it is available. As the article said, they use it to create sterols which are used to build cell membranes. This is NOT respiration. "Respiration" is the use of oxygen to gain energy from the sugars the yeast are eating. The article confuses "respiration" with "oxygen uptake" and incorrectly states that "only during the respiration step can the yeast make sterols." It is also wrong to say that the yeast require oxygen to create sterols. The yeast can and do use various compounds that are found in cold break as building blocks for sterol synthesis. Therefore, a little cold break can help your yeast out if you don't provide enough oxygen for then.

The article says, that "by adding glucose to your wort you can [induce the Crabtree Effect] and make yeast without worrying about oxygen." This is the most incorrect and damaging statement in the whole article. There are more than enough sugars in normal wort to induce the Crabtree Effect. You need not add any sugars to get this to happen. Either oxygen or cold break should be provided to the yeast for sterol synthesis, but it is not mandatory. Yeast will go ahead and ferment your wort without any oxygen or cold break at all, however they will have lower alcohol tolerance and you stand a much higher risk of a stuck fermentation. Underpitching makes this even more of a problem. The article incorrectly suggests adding glucose to your wort to minimize the need for oxygen. This couldn't be further from the truth!

Finally, the sidebar incorrectly says that sterols are "essential nutrients." While sterols are important for healthy cell membranes (and therefore alcohol tolerance), the yeast can synthesize them, so it is not "essential" that they be in the wort.

The bottom line, which the author did point out (although it was hidden amidst some misconceptions about yeast metabolism), is that lots of oxygen in the cooled wort, a big, fresh starter, and making sure you don't pitch starved yeast are important to making great beer, especially as the original gravity of the wort increases.

Al Korzonas,
Palos Hills, IL

Dear Professor (from page 74) jump to the curing stage of kilning (170 degrees F or 77 degrees C) he needs to make sure the uncured malt is below about eight to 10 percent moisture, or he could lose a good quantity of his diastatic capability. Commercial maltsters generally use curing temperatures of 170 to 190 degrees F (77 to 88 degrees C) for two to five hours. Without this curing phase the malt will lack character.

It is unfortunate that many farmers (and others I'm sure) still do not realize that malt for brewing purposes cannot be made from just any barley. While Baroness has perhaps the best agronomics of any two-row barley grown in the United States (and parts of Europe) it is still only a feed variety, both here and in Europe. On a scale of one to 10 for maltability where one is granite and 10 would be Harrington or Morex or Alexis (any really good barley variety), Baroness malts little better than limestone! Malt made from Baroness would be lacking in diastatic enzymes to convert a mash and have very little soluble nitrogen for yeast metabolism. I would be very surprised if it would laut well at all. This, I suspect, is Mr. O'Connell's problem. Homebrewers wishing to produce their own malt should be directed to the list of recommended malting barley varieties published on a yearly basis from the American Malting Barley Association, (414) 272-4640.

Sincerely,
Dr. Bruce R. Sebree
Technical Director, ADM Malt

Dear Bruce,

Thanks for the great insight on malting barley.

*Steeped,
The Professor, Hb.D.*

Send your homebrewing questions to "Dear Professor," PO Box 1679, Boulder, CO 80306-1679; FAX (303) 447-0816 or professor@aob.org via e-mail.



ALEMENDMENTS

Mark Snyder

Since 1978, when then-President Jimmy Carter signed legislation legalizing the home manufacture of beer, homebrewers for the most part have enjoyed the privilege of making beer and the opportunity to showcase their creations at homebrew events.

The federal government, however, allows each state to adopt their own policy on the issue of homebrewing. Even with the repeal of the prohibition and the federal statute that recognizes homebrewing, homebrewers in some states are making beer in the shadow of laws that do not fully recognize the right to homebrew.

There have been some recent legal problems with homebrewing.

Many states have not addressed the issue of homebrewed beer being transported from the home to a homebrew event. Many states classify transportation of a product as an act of selling. If the transportation of homebrew is not specifically permitted by state law, then it might be considered "to sell." The controlling state liquor board might take the position that a homebrewer must be licensed, just as if the beer came from a commercial brewery.

For example, last year in Massachusetts, the Cape Cod Lager & Alemakers, a homebrew club, in conjunction with the local chamber of commerce, had organized a public event that included a homebrew demonstration. The liquor control board threatened to arrest the organizers and to close down the event if it had proceeded. It was never held. The main issue was transportation. Transportation in Massachusetts is considered "to sell," and a commercial license is needed.

Another issue is that while the federal statute allows for the home production of beer for personal or family use, the liquor control boards in some states have stated that homebrew events are public events, not family or personal events, as provided in the federal statute.

Earlier this year in Delaware, a homebrew event was threatened with shut down and the arrest of the organizers. The liquor control board in Delaware said flatly that the home manufacture of beer was illegal. Thanks to concerned homebrewers, state legislators and great media coverage, the liquor control board retracted their position and agreed the law didn't pertain to homebrewing. The AHA is currently working with interested Delaware homebrewers to get their state to statutorily recognize homebrewing and to have this in writing on the law books.

Some states do not recognize homebrewing at all, which could pose problems for the homebrewer if the liquor control board decided to enforce the law.

This is why we need your help. The American Homebrewers Association wants all states to statutorily recognize homebrewing and to allow for homebrew events. Even in states where homebrewing is statutorily recognized, hosting an event can be considered illegal.

We need your help! Although some sessions will start after Christmas, the legislative session in most states has already started. Now is the time to organize and let your voice be heard.

The AHA is currently in the process of finding people interested in changing the laws in your state. We are also looking for

legislators to sponsor a bill to make homebrewing statutorily recognized.

The American Homebrewers Association uses the Florida statute as our model statute. It provides an excellent guideline for changing and/or adding homebrew statutes because:

- it provides clear and concise wording
- it follows the federal statute
- it includes provisions for removing homebrew from the home for homebrew contests, festivals, and homebrew club meetings.

It's important that homebrewing becomes statutorily recognized in each state. *Can we count on you?* Please contact me, and I will put you in touch with other homebrewers in your state. The AHA will help with mass mailings, faxes and e-mail updates. We will even contact the legislators telling them about this campaign, but the noise has to come from you. It must be a grassroots effort, where homebrewers come together and take a positive, proactive approach to this issue.

We need to address these issues before a crisis happens.

I look forward to working with you. I can be contacted by phone: (303) 447-0816, extension 137, by fax: (303) 447-2825 or by e-mail: marks@aob.org.

Mark Snyder is the American Homebrewers Association's Legalization Administrator.

For information on your state's laws please check out our web site at <http://www.beertown.org>, click on the "City Hall" icon and this will take you to our legalization page, which includes a listing of all the states' homebrewing laws and the federal statute. If you do not have access to our web site, please contact me and I will send you the information concerning homebrewing in your state.

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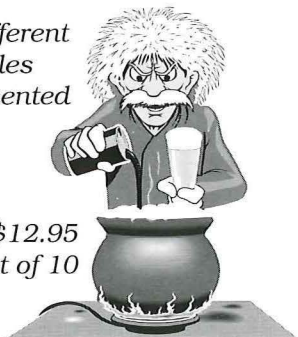
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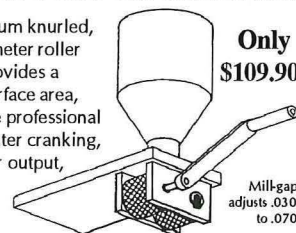
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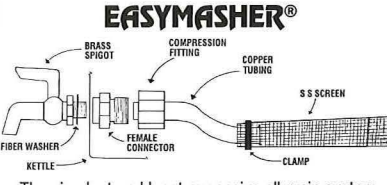
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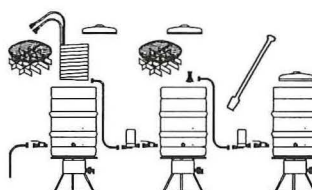
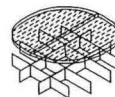
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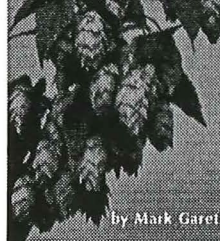
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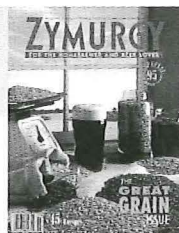
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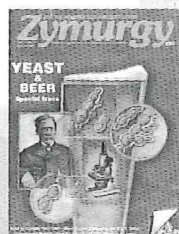
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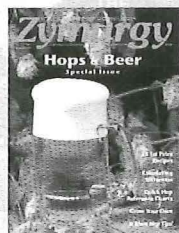
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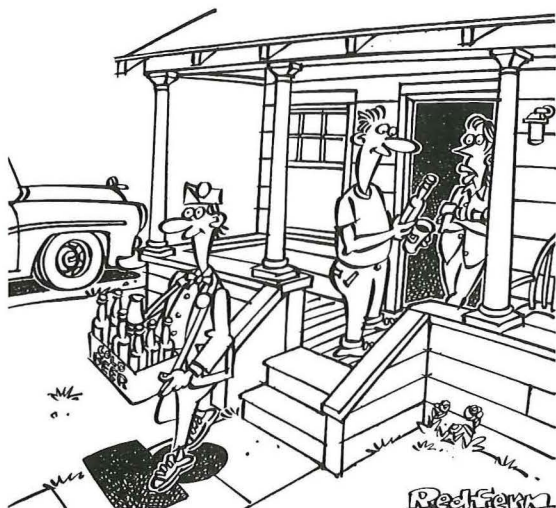
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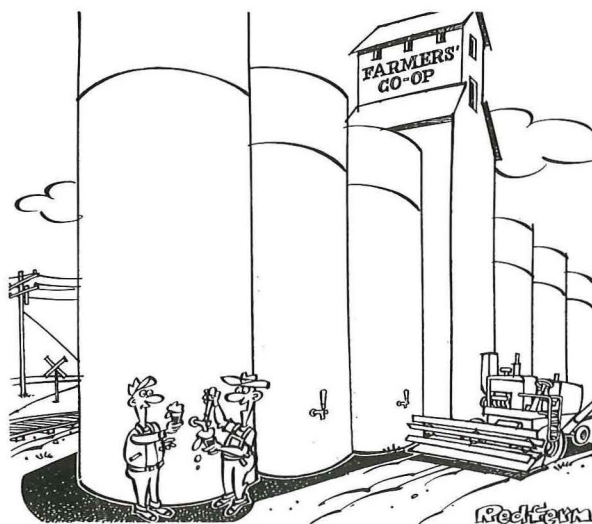
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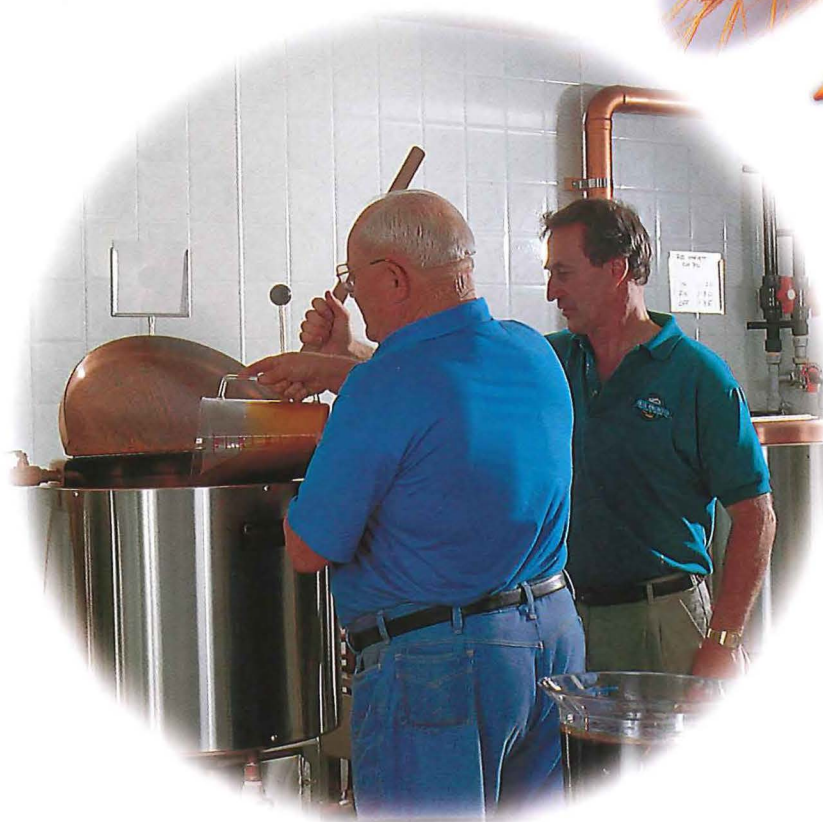


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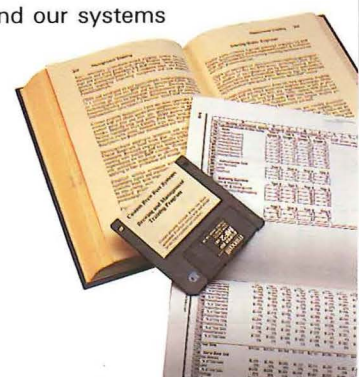
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