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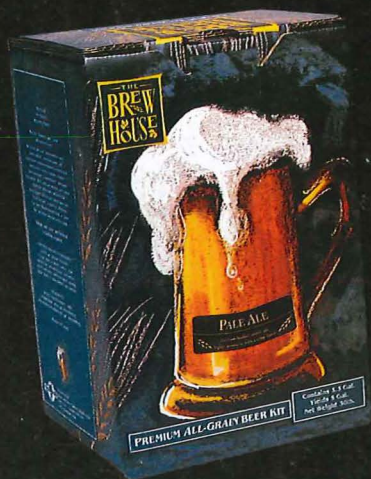
3. Remove and discard grains and boil
for 20 minutes. At the end of the boil, add
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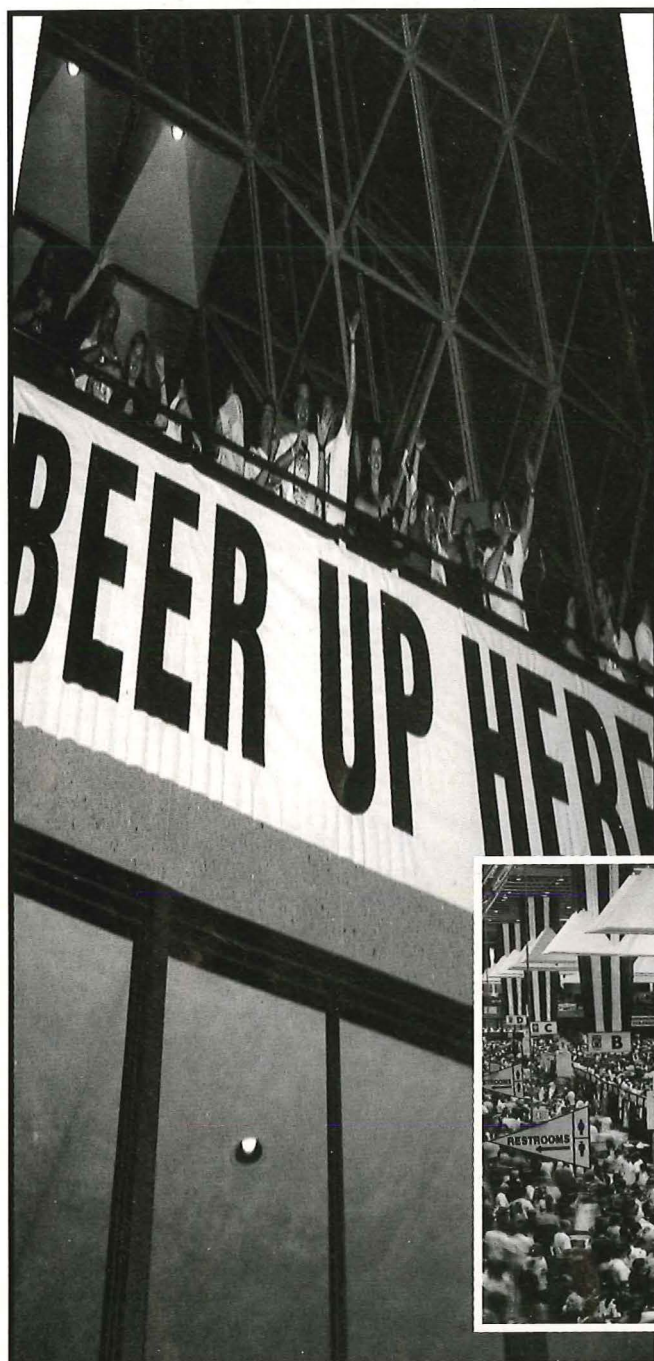
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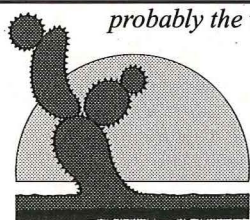
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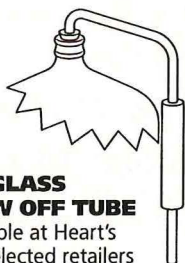
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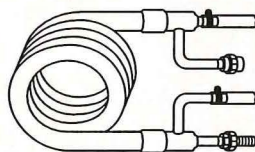
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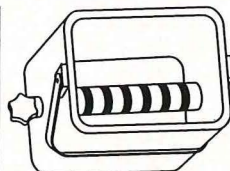
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Technical Editors — Paul Gatzza,
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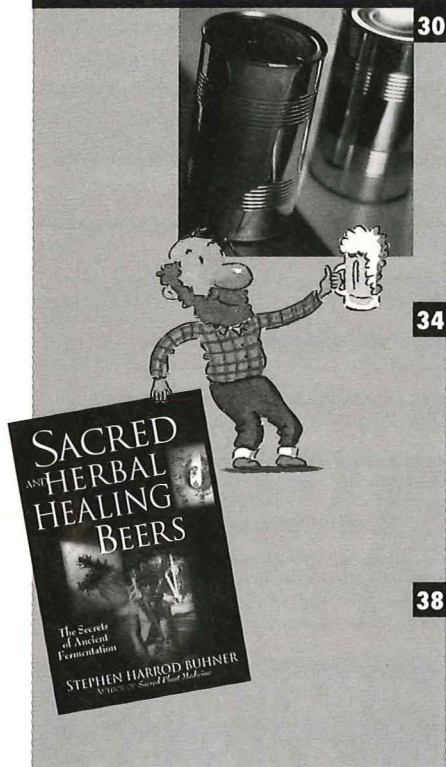
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IT'S THE BEER TALKING

Michael Bane

First, the really cool news:

Zymurgy is going to six issues a year!

Adding another issue is a direct result of your input. One of the most consistent comments we get here at **Zymurgy World Headquarters** is that you, the AHA member, are just like that little vampire girl in the *Interview With A Vampire* movie—you want *m...o...o...r...r...e...e*. Well, after several months of juggling numbers, arm-twisting and some outright whining, we've figured out a way to add an additional **Zymurgy** to your mailbox each year. That means more great recipes, more in-depth articles, more answers to your homebrewing questions.

It also gives us a little larger palette to work from, which will allow us to convert even more of your survey suggestions into reality. Bear with us through the changes—you'll be glad you did.

In other news from World Headquarters, AHA Director Jim Parker and AHA Project Coordinator Amahl Turczyn have sneaked away from us to take over the Wolf Tongue Brewery in Nederland, CO. As you may remember from various news of the weird columns, Nederland was previous best known as the town where a fellow kept his frozen grandfather in a shed in the backyard. Nederland now has very strict laws about keeping frozen relatives—or even complete strangers—around the house. The Eagles also once recorded there, and that music is cryogenically preserved on "*The Best Old Days Of Your Miserable Lives!!!*" radio stations around the country.


Anyhow, if you're visiting World Headquarters, we'll show you the way to



Bane takes a stroll up Pico de Orizaba (18,851') in Mexico.

Nederland for some excellent beer (try to talk Jim out of some of his award-winning barley wine). And don't be surprised if Jim and Amahl keep showing up, much like bad pennies, in the pages of **Zymurgy**.

By the way, the same guy who kept his grandfather frozen also founded the local Polar Bear Club, which involves running naked into freezing water in the dead of winter. While we wish Amahl and Jim luck, we also suggest keeping some cloves of garlic and a few silver bullets handy, just in case.

While Jim Parker is slipping out the door, another old friend is slipping in. Paul Gatzka, owner of What's Brewin' in Boulder, CO, longtime contributor to **Zymurgy** and general all-around Brew Guy, will be taking over the helm of the AHA (and, hopefully, this column!). Welcome aboard, Paul. Does this mean we get a discount at What's Brewin'? 

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DEAR

Z Y M U R G Y

Our Readers

The King's English

Dear *Zymurgy*,

Our local newspaper published an article on cask-conditioned ale. In the article they said: "...America will need a dense network of brew pubs, it seems, each with a full complement of firkins, spiles, shives, bungs and keystones." What is a keystone? None of my English acquaintances could give me a clue.

Thanks for your help,
Patrick A. Bobalik
via the Internet

We believe that the entire American Revolution had something to do with firkins and shives. And let's not even get into the issue of bungs and spiles. Still, we asked Brian Rezac about your problem, and he said the keystone is the little thingie dooflachie that goes into the barrel to allow the tap to be inserted.

Delivery Default

Dear *Zymurgy*,

Based on James Slaton's article in *Zymurgy's* Winter 1997 issue (Vol. 20, No. 5), my wife got a three-month gift subscription to Ale in the Mail for me for Christmas. For two months the beers were delivered, and lived up to your endorsement in all regards.

But now it appears they are no longer willing to do business with people with two income families. The problem? They ship UPS, which does not deliver on Saturday, and they are now refusing to leave the pack-



age without the signature of an adult. The beer was great. But it wasn't great enough for either my wife or me to take a day off work to wait patiently for UPS, or to risk relationships by having it delivered where we're working at client offices. So I will not be renewing the subscription, and I will be looking for a refund of the third month's brew if I'm not able to figure out an alternative method of getting it into my door.

Given the large number of two income families these days, this absurd requirement on their part totally defeats the original business concept of helping people have a convenient way of experiencing different microbrews. In future reviews of beer by mail clubs, I'm hoping that you track this key customer requirement.

Charles Drier
via the Internet

The whole common carrier issue is one that the AHA is constantly working on, but—as you've seen—it's an uphill fight. We'll keep you informed.

Zym to the Rescue

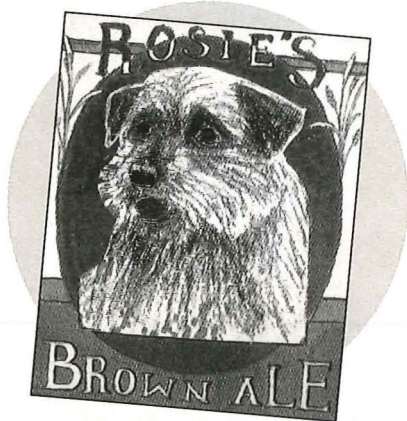
Dear *Zymurgy*,

My name is Peter Wegner, age 25, and about a year or so ago I began brewing my own beer. This last weekend I was talking to my next door neighbor (my senior of about five years) and his wife and we discovered that we had yet another mutual interest—brewing beer. Well, after a bit of discussion he informed me that he had a stack of magazines his boss had given him regarding homebrewing.

Lo and behold, minutes later I found myself in the possession of about 15 issues of *Zymurgy* magazine from 1994-1995. My comment is this: FUN and informative! I have three 5-gallon batches fermenting right now (a lemon coriander wheat, an ESB, and a Belgian white beer). As I flipped through the pages, I gained numerous ideas that (hopefully) have added to the quality of these beers.

I still am doing extract brewing with added grains, but plan to begin all-grain brewing soon. I have hesitated simply because I wish to get some sort of control over the variables involved in extract brewing. Simply put, thank you for the wonderful information that fell into my lap as a result of my neighbor and you guys and gals. A special thanks to Charlie Papazian and his two books, which I own. They have provided necessary, sometimes even urgent, last minute guidance when I am brewing.

Cheers,
Peter J. Wegner
Minneapolis, MN



We try not to let Charlie get too many compliments, lest it all go to his head. Still, we'll pass on the good words. Lemon coriander wheat sounds great!

Lighten Up!

Dear *Zymurgy*,

I've enjoyed reading the homebrew cooking recipes published in *Zymurgy* over the past few years. But reading is all I've done. For health reasons my wife refuses to try any of them. Why? Because of the high fat content. Tim Schafer starts his article (Winter 1997, Vol. 20, No. 5) "It's truly exciting to be part of the wonderful 're-revolution' of new microbreweries and brew pubs. . ." Well, if Tim is truly a chef, hasn't he noticed the "low-fat" revolution as well? I'd like to be around to enjoy my homebrews over the latest *Zymurgy* for years to come. While the fat does help with the texture and flavor, it's just not worth it. So, what do you say, homebrew chefs--lighten' up!

Michael W. Pelter, Ph.D.
Crown Point, IN

So we suspect you're not very excited about our upcoming Lardbier recipe...Since our *Zymurgy* editor was recently named the Second Most Fit Fat Guy in America by Men's Health Magazine, we'll be taking your suggestions to heart!

Hopping Mad

Dear *Zymurgy*,

I obtained a copy of the Special 1997 edition of *Zymurgy*, which deals largely with hops.

Included with this issue was a foldout by Randy Mosher which describes many different hop varieties. To my utter amazement I found some quality data listed for Nugget which are hard to believe!

In our experience and judging from comments by many growers, dealers and processors, Nugget rarely gives less than 13% alpha and often exceeds 15% on a dry weight basis. Where Randy Mosher got the range of 9-10.5 is a mystery to me.

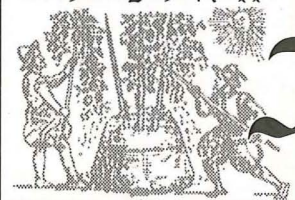
The total U.S. production of Nugget in 1997 was 17,901,000 lbs, far surpassing

the second-place Galena (13,786,800 lbs), ranking it number one among all U.S.-grown hops. Were it not for the superior alpha-acid content, storage stability and great yield potential, this hop would have not achieved the rank it presently holds.

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Classics Redefined

Hi *Zymurgy*,

I just got the two new additions to the Classic Beer Style Series in the mail. As usual the information and quality are great. When I put them on the shelf next to the last 10 of the series, I saw they were obvi-

ously a different size. This looks kind of funny for a series. I hope future printings or additions to the series can be in the standard size. I've enjoyed *Zymurgy* for years, you guys do good work for all of us homebrewers.

Randy L. Reid
via the Internet



Generally, we're afraid to walk down the hall to the Brewers Publications office, because heaven knows what goes on in there. An acceptable alternative is to blame everything on Horst Dornbusch and German beer.

Liquid Bread

Dear *Zymurgy*,
Liquid bread, flowing gold
or red, or even brown
I pause to ponder, patiently
before I pour you down.
What malt and hops under bottle tops
await my close inspection?
And just what balance can be shown
to aspire towards perfection?
Will your body be quite firm
or will it come off flaccid?
Will your hops assault my nose
or hang back, calm and placid?
Is your sweetness just as subtle
as the catcalls of a trucker?
Or is your brash and acid mein
another cause to pucker?
What caring hands brought forth your birth,
what master of the kettle?
And which fine yeast fermented you
before it sought to settle?
Were you filtered, pasteurized,
or were you handled lightly?
Carbonation barely there,
or dancing, brisk and brightly?
In the glass, you beckon me,
and I, of course, will hear.
For all you may or may not be,
you are so much more than beer.

Michael Kaperick
via the Internet

We stand in awe of anyone who can rhyme flaccid and placid, trucker and pucker and inspection and perfection. Get in a pickup truck or two, and you've got a perfect country song.

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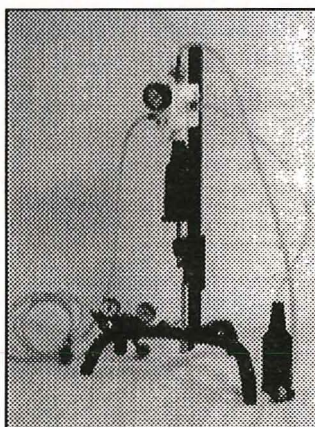
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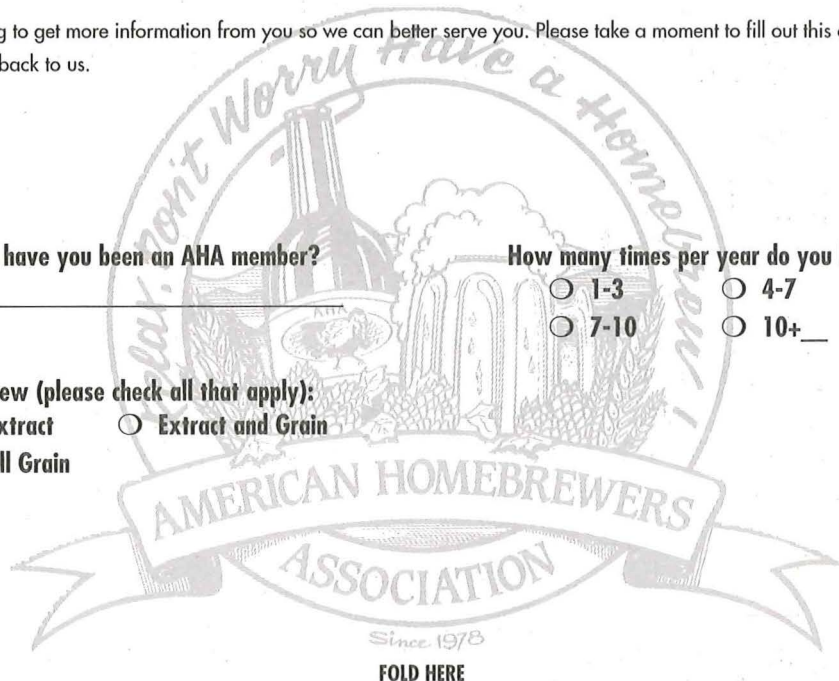
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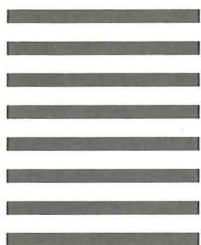


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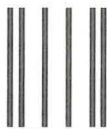
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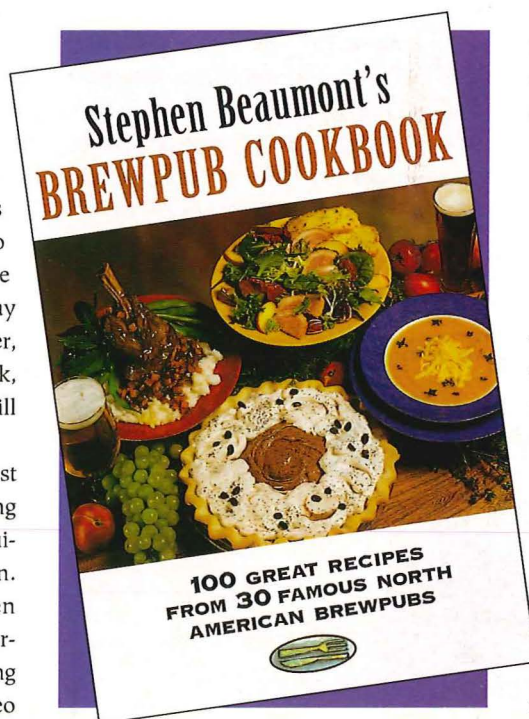
Stephen Beaumont

Beer for Every Occasion

Of all the beverages in the world, it is my contention that none other can equal beer's aptitude as a drink for any time and any occasion. Think of any time or any place or any celebration, and I will suggest a beer that is ideally suited in flavor, taste or attitude to complement the circumstances ideally. Be it a 50th birthday party or a lazy Sunday brunch, a music festival or a formal dinner, there exists a beer that will not only look, smell and taste right for the time, but will also feel right.

To further this belief, I have in the past written numerous stories about matching beer to everything from fine art to fine cuisine, and much of what lies in between. While some of these articles have been rather frivolous—even I don't bother worrying about whether the beer I'm drinking matches the music I'm playing or the video movie I'm watching—they do serve to illustrate the idea that beer is a supremely socially flexible and accommodating drink. Quite simply, beer can do it all.

It is in the kitchen and at the table, however, that beer reaches its zenith of perfection. To my mind, there does not exist a beverage more suited to cooking or dining than beer—not milk, not spirits, not even wine. The only unfortunate part of this equation is that beer's aptitude in these fields continues to pass unacknowledged in many, if not most, gastronomic circles. It is my hope that this cookbook will go at least a small way towards ameliorating that oversight.



Beer in the Kitchen

As a cooking liquid, beer is second only to water in its versatility. You may argue that milk has its strengths in that department, and it does, but would you use milk in a chili? Probably not. Wine certainly has its uses in the kitchen, but could you imagine blending wine with chocolate ice cream to make a dessert shake? The mere idea is enough to make a person cringe! And while cream has a role to play, its very nature, its creaminess, by definition disqualifies it from

many diverse applications. No, for general cooking utility, it is very hard to compare anything with beer.

Red Wine = Ale
White Wine = Lager

Because so many people are familiar with the somewhat flawed but nonetheless useful dictate of "red wine, with meat, white wine with fish and poultry," a convenient way to begin matching beer with your food is to think of ale as you would red wine, and lager as white. Although like the wine rule, it is fraught with loopholes, as a general guide, it does provide a safe place to start.

In many instances, ale behaves with food in much the same way as would red wine. Thus, if you had a rare to medium roast beef and were thinking about serving a good Côtes du Rhône with it, you would get equally favorable results by substituting a full-bodied brown ale or a malty Scottish ale. Similarly, a hamburger tastes that much better when accompanied by a pint of best bitter, lamb is raised to new gastronomic heights by a glass of strong, malty ale and a piece of good Stilton tastes heavenly beside a snifter of barley wine.

On the flip side, lager will most often fill the role of a white wine most ably, frequently producing results superior to those of the wine. With a delicate piece of pan-fried whitefish, for example, a lightish German-

style pilsner would provide a stunning accompaniment. So it also goes with chicken, where a Bohemian pilsner can deliciously fill the role of a Chablis, and the seemingly endless controversy over whether to serve white or red wine with roast pork can be resolved by offering instead a good märzen.

There are, however, rather severe limits to this relationship. To begin with, where the red and white descriptives do cover most wines, taken in their narrow stylistic definition, lager and ale leave out entire classes of beer such as wheats, stouts and bocks. Also, as with the wine rule, such a myopic view of food and beverage pairing excludes a good many wonderful relationships which, while on the surface may look odd or even bizarre, are actually quite satisfying and delicious. Just one such example from the beer world is the exquisite way in which stout and smoked salmon complement one another, making a heavenly match that would never be permitted within the boundaries of the above rule.



Glazed Breast of Chicken

**From: The Mendocino Brewing Company
Hopland, California, USA
Created by Chef Megan Glassy**

This dish combines two of my favorite ways of preparing chicken—marinated and glazed—and elicits a spicy-sweet taste sensation.

Beermate: The sweetness of the honey and the flavor and spice of the hot pepper sauce and soy sauce mean that this dish needs a beermate with some fruity sweetness and a touch of the hop. I'd recommend finding that combination in a brown ale such as the Red Tail Ale or Gritstone Ale.

Before You Begin: Using fresh herbs rather than dried ones will increase the fragrance of your marinade and make for an even nicer dish, but remember to triple the quantities.

- 1.5 cup brown ale (355 mL)
- A pinch each oregano, tarragon, cayenne pepper and paprika
- 1 tsp rosemary (5 mL)
- 1 tbs olive oil (15 mL)
- 4 tsp soy sauce (20 mL)
- 4 boneless skinless chicken breasts
- .5 cup honey (118 mL)
- Hot pepper sauce to taste

In a large bowl, combine the beer, oregano, tarragon, cayenne, paprika, rosemary, olive oil and half the soy sauce and mix well. Add the chicken breasts, making sure that each breast is well coated with the marinade. Cover and allow to marinate overnight in the refrigerator.

Remove the breasts and place them in a deep baking dish. Drizzle approximately 1 tbs of the marinade over each breast and sprinkle with extra rosemary and paprika if desired. Place the dish in a 350 degrees F oven and bake for 40 minutes. While the chicken is cooking, combine in a bowl the remaining 2 tsp of soy sauce, the honey and hot pepper sauce and set aside. When the 40 minutes are up, glaze the chicken breasts with the honey mixture and return to the oven for 5 minutes or until done.

Serves 4

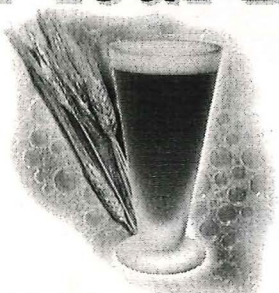
Black Bean Zydeco Veggie Chili

**From: The Twenty Tank Brewery
San Francisco, California
Created by Kelleigh Trowbridge**

For all of those chili skeptics who would never believe that a low-fat, vegetarian chili could taste good, here it is!

Beermate: The amount of hot sauce called for in this recipe gives you a good indication of how spicy it is—very! An American pale ale is perfect for this kind of

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heat, something like a Sierra Nevada Pale Ale or a Fish Tale Pale Ale.

Before You Begin: Ancho chili powder is made from smoked poblanos and adds a marvelous fragrance and flavor to this dish. If you cannot find it, use regular chili powder and add a drop of liquid smoke when you add the other spices.

- 2 lb dried black beans (.9 kg)
- 1 tbsp canola oil (15 mL)
- 1 cup diced green pepper (237 mL)
- 1 cup diced red pepper (237 mL)
- 1 cup finely diced yellow onion (237 mL)
- 4 tbsp minced garlic (59 mL)
- 1 bay leaf
- .5 tbsp cumin (7.4 mL)
- .5 tbsp cayenne pepper (7.4 mL)
- 1 tbsp ancho chili powder (15 mL)
- .33 cup red hot sauce, or to taste (79 mL)
- .5 tbsp sage (7.4 mL)
- 28 oz can tomatoes with juice (793 g)
- Salt and pepper to taste

Soak the beans overnight in water. The next day, drain them, place the beans in boiling water and cook until they are tender. Drain and set aside.

In a large pot on medium heat, add the canola oil, green and red peppers and onion. Stirring occasionally, sauté for about five minutes and add the garlic. Continue to sauté for 10 minutes, still stirring occasionally, before adding the bay leaf, all of the spices and the tomatoes. Mix well, breaking up the tomatoes with the back of the spoon. Add the beans and mix again. If more liquid is necessary at this point, add some brown ale, porter or water. Cool for 40 minutes.

Before serving, add salt and pepper to taste and adjust seasonings if necessary.

Serves 6 to 8



Jalapeño Beer Bread

From: Pepperwood Bistro,
Burlington, Ontario, Canada
Created by Chef Tina Dine

Whatever it is that links hot peppers to beer, in the immortal words of Martha Stewart, it's a good thing. This easy-to-make, no-rise bread is a simple and tasty addition to any party platter, but I like to keep it for myself.

Beermate: The frying of the jalapeño takes away much of its heat, so its role in this bread is more for flavor than spice. As such, a lightly hoppy cream ale like Sleeman Cream Ale or a hoppy Vienna lager such as the Brooklyn Lager will make a fine partner.

Before You Begin: It's a good idea to sauté the jalapeño first and let it cool on a paper towel while you are assembling the other ingredients.

Place the flour, baking powder, sugar and salt in a large bowl and mix well. Add the beer, cheese and pepper and blend together thoroughly. Pour the batter into a greased 9 x 5-inch loaf pan and bake in a 350 degrees F oven for 1 hour. Butter the top of the while it is warm and serve.

Makes 1 loaf

- 3 cup all-purpose flour (710 mL)
- 5 tsp baking powder (25 mL)
- 3 tbsp white sugar (44 mL)
- 1.5 tsp salt (7.4 mL)
- 1.5 cup abbey-style Belgian ale (355 mL)
- .5 cup shredded medium cheddar or Monterey Jack cheese (118 mL)
- 1 small jalapeño, minced and sautéed

Stephen Beaumont is the author of *Great Canadian Beer Guide* and *A Taste for Beer*. This article is excerpted with permission from *Stephen Beaumont's Brewpub Cookbook*, 1998, Siris Books, an imprint of Brewers Publications, Boulder, CO.

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BREW NEWS

Staff

Big Brew '98 a National Success

On May 2, 1998, America brewed!

Big Brew '98, the twenty-first annual celebration of homebrewing nationally, exceeded everyone's expectations, says, AHA Administrator Brian Rezac.

"We had an estimated 1005 homebrewers at 105 sites join us in brewing," Rezac said, "which guarantees us a slot in the Guinness Book of Records."

"For this year's Big Brew, we decided upon a barley wine, because so many of homebrewers contacted us in search of this award-winning recipe," says former AHA Director Jim Parker. "We also wanted it to be, literally, a 'big brew,' and nothing says big like a good, strong barley wine."

The recipe was based on Little Apple Brewing Company's "Big 12" Barley Wine, created and brewed by Rob Moline and the Gold Medal winner in the Barley Wine category at the 1996 Great American Beer Festival (GABF). The barley wine was renamed "Big 10/20 Barley Wine" in honor of Big Brew '98 and the 20th Anniversary of the AHA.

"We even converted the original all-grain recipe to an extract-based version so brewers of all levels could participate," adds Parker.

For those of you who missed Big Brew '98, here are the award-winning recipes. And watch for our announcement of Big Brew '99, your last chance to participate in a National Homebrew Day this century!

Pub Closing Times Raise Ire of Irish Publicans

According to *The Irish Times*, several interest groups representing Irish publicans (pub operators) are proposing changes to

Big "10/20" Barley Wine The First Annual Big Brew All-Grain version

Ingredients for 5 gal (19 L)

- 17 lb two-row pale malt (7.71 kg)
- 5 lb crystal malt 20-40 °L (2.27 kg)
- 1.5 oz Galena pellet hops, 11.2% alpha acid (43 g) (60 minutes)
- 2 oz Cascade pellet hops, 5.5% alpha acid (57 g) (60 minutes)
- 2 oz Willamette pellet hops, 4.7% alpha acid (57 g) (end of boil)
- English ale yeast
- Champagne yeast

Mash: 90 minutes at 152 degrees F (67 degrees C)

Boil: 1.5 hours

- Original specific gravity: 1.096 (24 °P)
- Final specific gravity: 1.016.5 (4.1 °P)
- IBUs: 63
- ABV: 10.4%
- Fermentation temperature: 68 degrees F (20 degrees C)
- English ale yeast fermentation: 1-2 weeks
- Champagne yeast added at the end of ale yeast fermentation
- Aging (prior to bottling): minimum of 4 months



Members of the F.O.R.D. Homebrew Club (<http://hbd.org/ford/>) join Big Brew at Merchants Fine Wine Warehouse, Dearborn, MI.



Jeff Kenton and Robbie Moline at the Ames, Iowa Big Brew site.

Big "10/20" Barley Wine The First Annual Big Brew Extract/Steeped-Grain version

Ingredients for 5 gal (19 L)

- 10 lb pale malt extract (4.54 kg)
- 4 lb amber malt extract (1.81 kg)
- 3 lb crystal malt 20-40 °L (1.36 kg)
- 1.5 oz Galena pellet hops, 11.2% alpha acid (43 g) (60 minutes)
- 2 oz Cascade pellet hops, 5.5% alpha acid (57 g) (60 minutes)
- 2 oz Willamette pellet hops, 4.7% alpha acid (57 g) (end of boil)
- English ale yeast
- Champagne yeast

Mash: 90 minutes at 152 degrees F (67 degrees C)

Boil: 1.5 hours

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regulations governing the closing time of pubs. Organizations including the Licensed Vintners' Association and the Vintners' Federation of Ireland have put forth proposals to change laws that, according to Labour's Law Reform spokesman, Mr. Pat Upton, are "obsolete and antiquated."

Under current Irish law, closing time for pubs is 11 p.m. in winter, and 11:30 p.m. in summer. Pubs must also close from 2-4 p.m. on Sundays in observance of "holy hour." Additionally, pubs must remain closed on Good Friday and Christmas.

Among the changes proposed to the current regulations are an extension of closing time, abolishing the difference between summer and winter drinking time, abolish-

ing the 2-4 p.m. "holy hour" closing period on Sunday, and treating Good Friday as a normal day.

A counselor with ACCORD, the Catholic Marriage Counseling Service, had mixed views on the subject of extending pub hours. The counselor expressed concern that extending pub hours could be dangerous for individuals with an addiction. "On the other hand," the counselor said, "it's important for couples to spend time together and if that means having a drink and a


chat, the extension of public house hours might help them to do that." (*The Irish Times*, Saturday, March 28, 1998)

Beverage Testing Institute Names Top Ten Breweries of 1997

The results of the 1997 World Beer Championships, an annual competition that selects the world's top ten breweries,

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has been announced by the sponsoring organization, the Beverage Testing Institute (BTI). The BTI is a professional, independent beer, wine and spirits review program. The 1997 competition evaluated 802 beers in 60 styles from 25 countries in six bimonthly tastings. To qualify for honors in the 1997 competition, a brewery must have had at least four beers evaluated throughout the year.

Beers in the competition are rated on a 100-point scale by judges having a professional affiliation with the beer industry. At the end of the year, the scores for the beers

from each brewery are averaged, and breweries with the top ten scores are named Breweries of the Year. The winners for 1997 are as follows:

Anderson Valley Brewing Co., Boonville, California
Brasserie d'Achouffe, Belgium
Brasserie Dupont, Belgium
Brouwerij Frank Boon, Lembeek, Belgium
Lindemans, Vlezenbeek, Belgium
Pike Brewing, Seattle, Washington
Privatbrauerei Aying, Aying, Germany

Privatbrauerei Erdinger, Germany
Samuel Smith, The Old Brewery, Tadcaster, England
Wild Goose Brewery, Maryland

(World Beer Championships website, http://www.fdn.com/BeerChamps.COM/97_Best_Breweries.html)

Take Only Pictures, Leave Only Footprints

Don't you hate it when you're hiking along, enjoying the wonders of nature, and you come upon a pile of empty beer bottles that some inconsiderate slobbs have left behind? According to a report by Japan's Kyodo News Service, this problem is particularly bad in the Khumbu region of Nepal, where more than 60,000 empty beer bottles have accumulated at the foot of Mt. Everest. Removal costs for the bottles, estimated to weigh more than 20 tons, will be over \$48,000. In the future, bottles will be banned from the area, with only canned beverages permitted. (BrewsGram, May 14, 1998)

Tough Sell

If you think craft brewing is a tough business in North America, consider the obstacles faced by Nadim Khoury. Khoury opened the first Palestinian microbrewery several years ago in his hometown of Taybeh (TAH-ee-beh), about 20 miles north of Jerusalem.

Among the more daunting challenges faced by Khoury is brewing for a population that is 97% Muslim. Strict Islamists are forbidden to drink alcohol. Khoury must also deal with steep surcharges, imposed by Israeli ports, on his Belgian malt and Bavarian hops.

Plans to sell beer in nearby Jordan were abandoned because of a 181% import tax. And



(continued on page 60)

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TIPS & GADGETS

Paul Zocco

Counterpressure Bottling *Just Got Easier!*

You've switched to kegging most of your beer but you still bottle some for competition, to share with neighbors, or for gifts to friends and family. You've considered buying or building a counterpressure bottling (CPB) system, but you're daunted by learning and remembering the sequence of the manual operation of the three valves. Images of good beer spewing all over the kitchen table and horror stories (most likely exaggerated) related by your brew club members of their experiences with CPB fill your mind.

I've designed and fabricated an electrically controlled counterpressure bottler that, once a bottle is in place, can be controlled with one hand, leaving the other hand free to hold a pint of your favorite homebrew. My system uses three normally closed solenoid valves in place of the usual manually

operated valves. These solenoid valves are readily available. A short list of suppliers is provided at the end of this article. Choose valves that are either stainless steel or brass (beer will corrode other metals and alloys). Additionally, for safety's sake, I chose low-voltage valves. I use 24-volt AC solenoid valves and a voltage adapter (110 volts AC to 24 volts AC) readily available from electronics stores such as Radio Shack. The rest of the components—copper tubing, fittings, stoppers, electric switches, wire and tie-wraps—are available at any good hardware or home improvement store.

The stand and slide mechanism can be fabricated from readily available materials. The photograph of my CPB system illustrates the components and their arrangement. Use your imagination on a stand system.

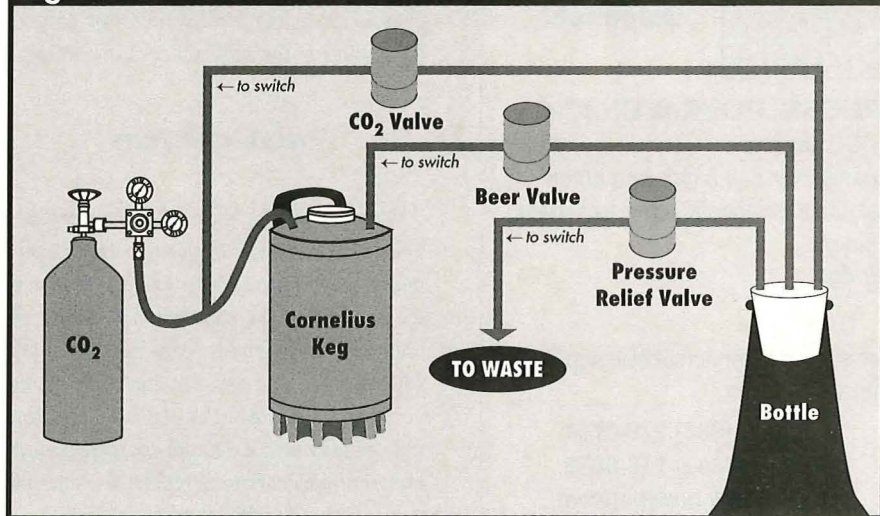
The opening and closing of the three solenoid valves are controlled by three push buttons grouped together in such a way that they can be operated in one hand. I use spring-release push-button switches that are normally *off* when the switch is not held closed. Because the solenoid valves are normally closed when no electricity is applied to them, the flow of beer, CO₂ or pressure release stops immediately when your thumb or finger is removed from the switch.

It's In The Setup

Setting up and learning to use the system is quick and easy. The necessary CO₂ and beer connections are shown in Figure 1. CO₂ is supplied to both the keg and the counterpressure bottler through an ordinary barbed Y connector. The beer supply line also is connected to the CPB system.

Once a bottle is in place and a seal is made between the bottle and the stopper, CO₂ is introduced into the bottle by actuating the appropriate switch. The other two valves are closed. In a second or two the air that was occupying the bottle is replaced by the incoming CO₂. The pressure release switch is now tapped to allow this to occur. You now have an oxygen-free environment. The beer supply switch is now actuated, allowing the appropriate valve to open, introducing prepressurized beer into the bottle. This beer will flow without foaming. The incoming flow will increase the pressure in the bottle until it reaches the keg pressure.

Figure 1



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Bill of Materials

Parts, such as solenoids, their accompanying coils, electric adapters and plumbing pieces can be bought at places like Grainger Supply, Radio Shack, Home Depot or your local hardware store.

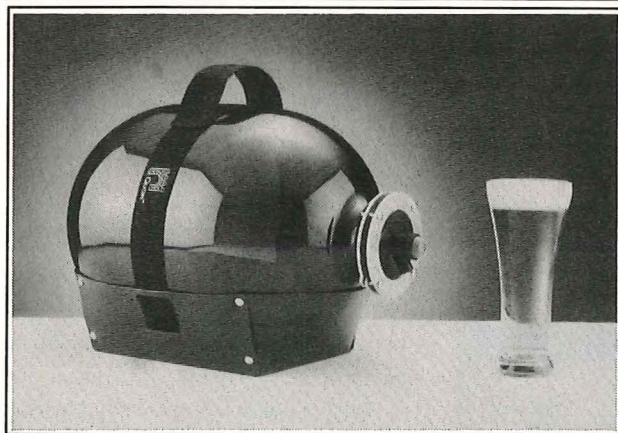
ITEM	QUANTITY
1/8-in. brass or stainless-steel solenoid valves, normally closed, and accompanying electric coils	2
1/4-in. brass or stainless-steel solenoid valve normally closed, and accompanying electric coil	1
1/4-in. copper tubing	*
1/8-in. copper tubing	*
1/8-in. and 1/4-in. ferrule fittings (brass)	3
spring-release push-button switches, normally open off	3
gas and beer supply tubing (plastic)	*
rubber stopper, beer bottle neck size	1
silicon sealant, room temperature curing tube	1
step-down transformer, or AC/DC converter; voltage proper to valves	1
scrap and miscellaneous parts for stand hose clamps, etc.	*
Teflon tape	*
*as needed	

When this occurs, the flow will stop. You must tap the pressure release control to relieve the pressure, then continue.

This rocking between the pressure release valve and the beer supply valve may

have to be repeated many times, depending on the keg pressure and beer supply pressure. My method is to hold the beer switch open and tap the pressure switch until the bottle is full.

A little practice and you'll quickly master perfectly filled bottles of clear, properly carbonated beer. You may have to reduce the CO₂ pressure below the pressure you normally maintain on your kegs to prevent foaming—my system works best at 5 or 6 psi. Keep the keg and the bottles as cold as possible. For any counterpressure bottling it's good practice to chill the keg-carbonated beer well below its normal serving temperature. This maintains the CO₂ in solution and allows bottling to be done at low CO₂ pressures. I pressurize in keg at around 15 or 16 psi, depending on the style of beer I'm bottling.



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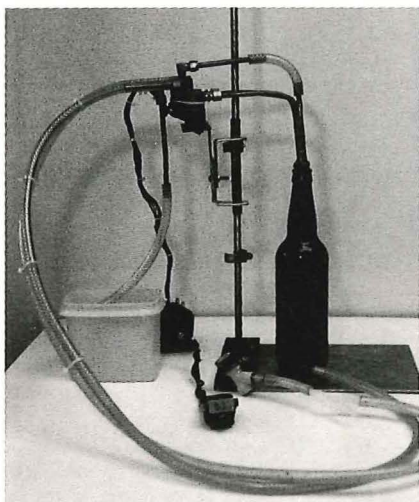
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Fabrication

Fabricating the system is straightforward. The system will cost slightly more than a manual counterpressure bottler, but it's worth it in the ease of use. The photograph and diagram are provided as guides: your own creativity will likely produce a system that better meets your own circumstances. For example, you may already own a manual counterpressure bottler and will choose to replace the manual valves with solenoid valves.



Here's an example of a counterpressure system setup.

I used a 1/4-inch line for the beer supply and 1/8-inch lines for both the CO₂ and pressure relief lines. Use Teflon tape, found in the plumbing section of your hardware store, at all threaded gas beer fittings.

Cut a 3/8-inch hole in an undrilled rubber bottle stopper to allow passage for the three copper lines. I accomplished this by heating a small piece of 3/8-inch copper tubing to red hot and slowly burning a hole through the rubber stopper. You may have another, simpler way. However, this approach works well. Once the stopper and copper supply lines are aligned, the hole can be sealed with silicon RTV, also found in the plumbing section of any hardware store. Set the beer supply line to just clear the bottom of the shortest bottle you normally use. If you use the taller 22-ounce bottles, simply add a short length of plastic tubing to the end of the bottle filling tube.

If you're worried about any oxidation that may happen with the initial small splash of the incoming beer, remember that the bottle is filled with CO₂. Oxidation cannot happen. Any resulting foam will be dissipated immediately by the counter gas pressure in the bottle.

Counterpressure bottling won't make your beer taste better, but combined with kegging your beer, it will be more fun and less time-consuming. That leaves more time to relax, not worry and have a homebrew!

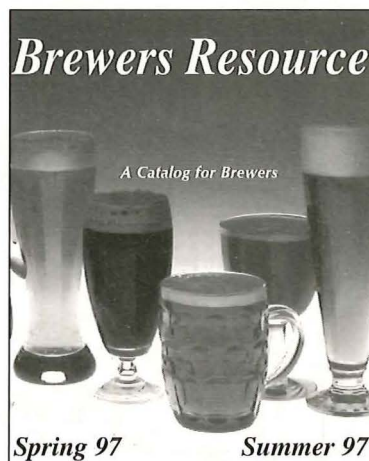
Paul Zocco is an award-winning homebrewer, Certified beer judge, member of Connecticut's Hop River Brewers Club and a master gadgeteer.



PHOTO COURTESY OF PAUL ZOCCO

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CALENDAR



August

- 1** Buffalo County Fair; open to Buffalo, Hall, Dawson, Custer, Sherman, Kearney, Phelps, Adams & Howard county residents of Nebraska only, **AHA SCP**, Kearney, NE. Sponsored by Kearney Area Brewers. Entries due 7/29/98 with a \$2.50/entry fee. Contact Harlan Nilsen at (308) 234-9624, e-mail: hnilsen@digitalis.net.
- 8** Cornish Fair Preservation Days Homebrew Competition, **AHA SCP**, Cornish, ME. Entries due 8/6/98 with a \$2/entry fee. Contact Randy Metcalf at (207) 625-4617.
- 8-9** North Texas State Fair Homebrew Competition, **AHA SCP**, Denton, TX. Entries due 8/1/98 with a \$5/entry fee. Late entries \$7 ea. Contact Kevin Harvill at (972) 355-3230, e-mail: harvill@gte.net.
- 8-9** Amateur Oenology Iowa State Fair, **AHA SCP**, Des Moines, IA. Sponsored by Raccoon River Brewers Association. Entries due 7/15/98 with a \$3.50/2 bottle entry fee. Contact Greg Helton at (515) 279-1061 (h) or (515) 274-1561 ext.5351.
- 8-10** Buckeye Brewer of the Year at the Ashtabula County Fair, **AHA SCP**, Jefferson, OH. Entries due 8/3/98 with a \$13 fee for 1 to 3 entries. Contact Richard Longden at (440) 964-8654.
- 9-29** Michigan State Fair, **AHA SCP**, Plymouth, MI. Entries due 8/7/98 with a \$12/entry fee. Contact Stephen Klump at (313) 207-7570 (h) or (313) 446-2033 (w), e-mail: stephenklump@compuserve.com.
- 15** 10th Annual Beer & Sweat, **AHA SCP**, Cincinnati, OH. Sponsored by Bloatarian Brewing League. World's largest all-keg homebrew competition. Contact Robert Pinkerton at 513-459-1046 (w), e-mail: robertp@cinti.net.

15 Josephine County Fair, **AHA SCP**, Grants Pass, OR. Entries due 8/13/98 before 1pm. Contact Michael Maas at (541) 476-0737.

15-16 Evergreen State Fair Beer Brewing Competition, **AHA SCP**, Monroe, Wash. Entries due 8/8/98 through 8/10/98. Contact Steve Titterness at (360) 653-5168 (h) or (360) 658-9577 (w), e-mail: kimsplace@tgi.net.

16 Kentucky State Fair Homebrew Competition, **AHA SCP**, Louisville, KY. Sponsored by LAGERS. Entries due 7/1/98 (forms) 8/15/98 (bottles). Contact Bob Reed at (502) 222-7439 (h) or (502) 222-1581 (w), e-mail: mherbert@mail.state.ky.us.

22 3rd Annual Montgomery County Fair Homebrew Competition **AHA SCP**, Gaithersburg, MD. Entries due 8/12/98 with a \$5/3 bottle entry. Contact Bill Lawrence at (301) 963-9314, e-mail: billyl@erols.com.

29-Sept. 6 1998 Colorado State Fair Homebrew Competition, **AHA SCP**, Colorado Springs and Pueblo, CO. Sponsored by Deep Wort Home Brew Club. Entries due 8/21/98. Contact John Landreman at (719) 579-6977 (h) or (719) 540-1786 (w), e-mail: jcl3@aol.com.

30 Western Washington Amateur Beer Competition, **AHA SCP**, Puyallup, WA. Sponsored by Western Washington Fair. Entries due 8/22/98 with a \$4 fee. Contact Grace Nilsson at (253) 845-9791 (h), e-mail: Ngregory@thefair.com.

September

12 3rd Dayton Beerfest, **AHA SCP**, Dayton, Ohio. Sponsored by DRAFT. Entries due 9/4/98 with a \$5/entry fee. Contact Robert Bateman at (937) 845-0572, e-mail: batman@erinet.com.

19 Barley Literate Oktoberfest, **AHA SCP**, San Marcos, Calif. Entries due 9/12/98 with a \$5/entry fee. Contact Don Bennett at (760) 740-8684 (h) or (619) 233-4755 (w), e-mail: dbenman@hotmail.com.

19 West Hundred Open, **AHA SCP**, Chester, VA. Entries due 9/11/98 with a \$6 fee 1st entry, \$5 each add'l entry. Contact Brian Dueweke at (804) 276-4669 (h), e-mail: wkendbr@erols.com.

19 A Firkin Festival, **AHA SCP**, Williamston, Mich. Sponsored by Firkin Homerackers Guild. Entries due 9/8/98 to 9/15/98. Contact Fred Clinton at (517) 623-6073 or (517) 655-6701

26 Derby Brew Club 5th Annual Homebrew Competition, **AHA SCP**, Derby, Kan. Entries due 9/11/98 with a \$5/entry fee. Contact Chuck Stiner at (316) 488-2659, e-mail: cnstiner@feist.com.

29 Mid South Fair Oenology and Beer Making Competition **AHA SCP**, Memphis, Tenn. Entries due 9/23/98. Contact Jim Malone at (901) 758-1794 (h) or (901) 795-0065 (w), e-mail: Jiminmem@juno.com.

October

10 Oktobersbest, **AHA SCP**, Cincinnati, OH. Sponsored by Zinzinnati Homebrew Competition. Entries due 10/1/98 with a \$5/1st entry fee, \$3/ ea. add'l. Contact Jeff Seeley at (513) 231-6062 (h) or (513) 627-5005 (w), e-mail: seeley.ja@pg.com.

17-18 Farmers Fair Homebrew Competition, **AHA SCP**, Perris, CA. Entries due 10/1/98 with a \$5/entry fee. Contact Bill Satmary at 909-767-0950 or 800-741-8387 ext.1726, e-mail: satmary@pe.net.

24 Pacific Cup, **AHA SCP**, Long Beach, CA. Sponsored by Long Beach Homebrewers. Entries due 10/16/98 with a \$5/entry fee. Contact Robert Wise at (526) 425-4477 (h) or (526) 435-6188 (w), e-mail: NOBUDDRKB@AOL.COM.

24 3rd Annual Music City Brew-Off, **AHA SCP**, Nashville, TN. Entries due 10/12/98 with a \$5/entry fee, \$4/entry each add'l. Contact Steve Johnson at (615) 327-4100, e-mail: johnsons@uansv5.vanderbilt.edu.

24-25 Taste of the Great Lakes, **AHA SCP**, Frankenmuth, MI. Entries due 10/20/98. \$7/1 entry, \$6/2, \$5/3 or more. Contact Robert Schmidt at (517) 892-7577, e-mail: brownjsf@concentric.net.

31 Trub X 10th Annual Competition, **AHA SCP**, Durham, NC. Sponsored by Triangle Unabashed Homebrewers Competition. Entries due 10/27/98 with a \$6/1st entry fee, \$5/ each add'l entry. Contact Gary Clayton at 919-471-4996 (6-10pm EST), e-mail: trubx@mindspring.com.

November

8-15 1st Annual Mexican Riviera Brew Cruise with Fred Eckhardt **AHA SCP**, Sponsored by Imperial Tour & Travel, Inc. \$1299 per person, includes beer competition, seminars, tastings, pub crawls. Contact Imperial Tour & Travel at (503) 224-8300 or (800) 888-2887.

14 San Joaquin Beer Festival Competition, **AHA SCP**, Stockton, CA. Entries due 10/31/98 with a \$5/entry fee. Contact Rick Stanton at (209) 957-2764 (h) or (209) 957-4549 (w), e-mail: ruudrick@aol.com.

February

20 4th Annual MASH Homebrew Competition, **AHA SCP**, San Rafael, Calif. Entries due 2/6/99 with a \$6/entry fee. Contact Mike Riddle at (415) 472-3390 (h), e-mail: jadeeds@sonic.net.

March

13 4th Annual Hurricane Blowoff Homebrew Competition, AHA SCP, West Palm Beach, FL. Sponsored by The Palm Beach Draughtsmen. Entries due 3/6/99 with a \$6/entry fee. Contact Mel Thompson at (561) 471-2634, e-mail: Melvpb@aol.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://beer-town.org> on the web.

To list events, send information to **Zymurgy** Calendar of Events. To be listed in the November/December Issue (Vol. 21, No. 4), information must be received by Aug. 20, 1998. Competition organizers wishing to apply for AHA Sanctioning must do so at least two months prior to the event. Contact Brian Rezac at brian@aob.org; (303) 447-0816 ext. 121; FAX (303) 447-2825; PO Box 1679, Boulder, CO 80306-1679.

AMERICAN HOMEBREWERS ASSOCIATION • KUDOS • SANCTIONED COMPETITION PROGRAM

• March •

3rd Annual Kona Brewers Festival Homebrew Competition
Kailua-Kona, HI, 83 entries—Rod Romanak of Kailua-Kona, HI won best of show.

Heart of Dixie Brew-Off
Homewood, AL, 155 entries—Douglas McCullough of Indian Springs, AL won best of show.

7th Annual New York City Spring Regional Homebrew Competition
Staten Island, NY, 326 entries—Ken Johnsen of Staten Island, NY won best of show.

The 2nd Annual Karps Homebrew Competition
E. Northport, NY, 70 entries—Bruce Daniels of East Hampton, NY won best of show.

Steel City Homebrew Competition
Pittsburgh, PA, 300 entries—Bob Joseph of Elizabeth, PA won best of show.

• April •

Slurp and Burp Open
Newberg, OR, 97 entries—Doug Faynor of Woodburn, OR won best of show.

Fireworks 1st Annual Homebrew Competition

White Plains, NY, 57 entries—Chris LaVoie of Glenmont, NY won best of show.

1998 Crescent City Competition

Metairie, LA, 370 entries—Jim Layton of Howe, TX won best of show.

Snow Goose Break Up Homebrew Competition
Anchorage, AK, 36 entries—Alan Murfitt of Anchorage, AK won best of show.

Northern Brewfest
St. Paul, MN, 331 entries—Chris Stomberg of Minneapolis, MN won best of show.

U.S. Open Homebrew Competition
Gastonia, NC, 132 entries—Mark Bailey of Huntersville, NC won best of show.

High Desert Brewers "Spring Thing"
Firth, ID, 54 entries—Alan B. Crockett of Idaho Falls, ID won best of show.

Bluff City Brewers 10th Annual Homebrewers Extravaganza
Memphis, TN, 183 entries—Dave Justice of Fayetteville, AR won best of show.

• May •

The 5-Bs Eastern Panhandle Home Brew Competition
Charlestown, WV, 75 entries—Mark Cassells of Frederick, MD won best of show.

May Fest
Tacoma, WA, 36 entries—John E. Lauer of Tacoma, WA won best of show.

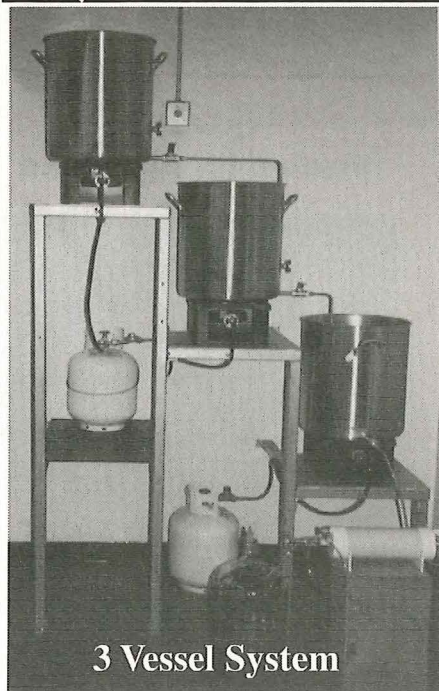
Oregon Homebrewers' Competition and Festival
Corvallis, OR, 290 entries—Lester Lewis of Salem, OR won best of show.

2nd Annual St. Vrain Spring Runoff
Longmont, CO, 67 entries—Bryan Tway of Longmont, CO won best of show.

Great Alaskan Craft Beer & Homebrew Festival
Haines, AK, 88 entries—Joe Teter of Petersburg, AK won best of show.



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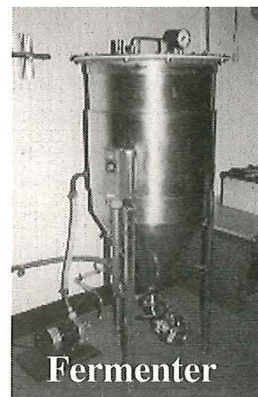
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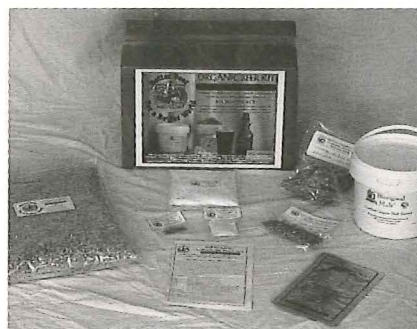
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Get Organic Right Now

If you've worked hard to keep your lifestyle totally organic, Seven Bridges Cooperative Microbrewery has just made your life easier.

The company is now offering a first—a complete line of totally organic beer kits. The organic kits currently available include American Pale Ale, India Pale Ale, Oatmeal Stout, Oktoberfest, Pilsner and Robust Porter. One hundred percent of the barley malt extracts, malted grains, hops and adjuncts included in the kits are organically grown. The kits also contain yeast and optional corn sugar for bottling, and minerals and Irish moss (which are not organic). If the kit is brewed with the optional non-organic materials, the finished beer will still be 95% organic.

The kits are offered in two versions: a malt-extract kit, which includes malt extract, whole grains and malts, aimed at the begin-

ner to intermediate market, and an all-grain version for the advanced homebrewer. Prices range from \$23.95 to \$32.95 for the extract kits, to \$15.95 to \$23.95 for the all-grain kits.

The Seven Bridges Cooperative Microbrewery was founded in 1996 to produce organic beer and mead. For more details, contact Seven Bridges at (408) 454-9665, or check out the website at www.josephson-ent/7bridges.

What's Old is New Again

The first microbrewers on the North American continent were the Aztecs, who made their brew from the sweet juice of the Blue Agave plant. Most of us are familiar with the plant through its use in everyone's favorite distilled beverage, tequila. Agave is, however, also used in a non-distilled fermented beverage called *pulque*, still available in many areas of Mexico.

Since homebrewers are always looking for that little something different, Stein Fillers, Inc. is now offering Agave Nectar, a 75 Brix amber syrup that can be mixed with barley, wheat or other ingredients to create a modern pulque. Agave Nectar is available wholesale in drums to breweries and brew pubs. Homebrewers might keep their eyes on the trial-size 5-gallon pail, available for \$95. For more information, contact Stein Fillers at (562) 425-0588.

Just the Right Temperature

All of us are concerned with keeping just the right temperature during brewing. ThermoWorks recently released a high-end pocket thermometer for food processing uses that would give a lifetime of service for the homebrewer. A stainless steel probe resists corrosion and is specially pointed for ease of use. The probe folds back into the meter for safe storage and transportation.

There's also an auto-shutoff for those of us who are switch-challenged. The LCD display digits are a full 1/2 inch tall. Also included is a wrist lanyard to keep the Professional Pocket Thermometer from becoming a part of the wort. Price is \$59 each. For more information, call ThermoWorks at (801) 756-7705.

Squeeze, Squeeze, Squeeze



When you're on the road without a handy bottle of CO₂, what can you do to get the homebrew out of the keg? Well, MG Products has an equally handy solution. Called the Original Hand Pump Home Brew Extractor, MG's hand pump when attached

to a Cornelius keg allows you to manually build up enough pressure to get the beer out.

It's small, light and, at \$24.95 + \$4.95 shipping and handling, inexpensive, and is available in pin or ball-lock fittings. For more information, contact MG at (978) 524-8851, or P.O. Box 478, Beverly, MA 01915.

Keep 'Em Rolling



One thing all homebrewers have far too much experience in is back pain from hauling all those carboys and kegs around. A.K.O. Products has come to the rescue with the Brew Dolly, a heavy-duty plastic roller with five swivel wheels for smooth, easy rolling.

The Dolly can support up to 200 pounds, is stackable and can attach to your keg or carboy with three rubber-ended thumbscrews, allowing you to lift the keg with the Dolly attached. The Brew Dolly retails for under \$30 and comes in six bright colors. For information, call A.K.O. at (800) 350-7014.

St. Patrick's of Texas Expanding

St. Patrick's of Texas Brewers Supply broke ground in May on their retail/warehouse expansion in north Austin. Phase I, a 3000 square foot retail store, is scheduled for completion in early August. Phase II, an additional warehouse, will be completed around October/November. The entire facility, including the existing warehouse, will cover over 10,000 square feet. St. Patrick's recently shipped homebrew supplies to Egypt, marking the 50th country on 6 continents to be 'colonized' by St. Pat's customers. Check out their website (www.stpats.com) to view a complete list of these 50 countries. 🍀



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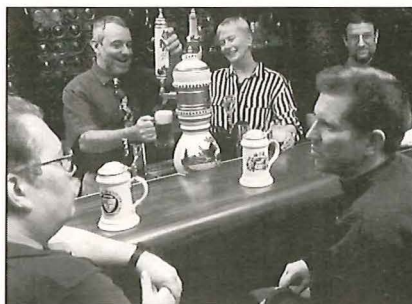
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FOR THE BEGINNER

James Slaton

Comings and Goings:

The Ins and Outs of Shipping To and From

It may seem laughable, but women are attracted to the UPS man. At least that seems to be the message of the TV commercials.

It's not that the cut of the clothes accents the physique, or that the uniform's muddy brown color highlights the eyes. I think, rather, it's a simple psychological case of stimulus and reward. The suit means you're getting something. The UPS man always comes bearing gifts.

Who doesn't like getting stuff?

Therein lies the single best thing about mail-ordering brewing supplies, you get a visit from the brown-shirted Santas. Other than that, I can't find much good to say about it.

I unconditionally believe in supporting my local brew store. I also accept the reality that, unfortunately, every small town in America doesn't have that feature. Several years ago I turned to mail order because I had moved to a town that was not within reasonable driving distance of a brewing supply store. I pulled out the brewing publications and ordered about a dozen catalogs, not really having much more guidance than how slick their ads looked. My assumption was the fancier the ad the more likely the vendor was a professional and reputable company.

Style and Substance

Upon receiving the catalogs I found that they were all pretty similar, differing mainly in design skill. Two stood out, one for a very pro-

fessional catalog and another for an impressive selection. I placed an order with the slick company first, we'll call them Company A, and requested second day air delivery because I had planned to brew that weekend.

Several days passed and no delivery man. By Thursday I became nervous that I wouldn't get to brew over the weekend. I had promised beer to friends coming from out of town in just four weeks. This did not look good.

Company A confirmed that my order had been shipped. I got a tracking number. We tracked the package. It had gotten delayed. They would refund my second day charge, but my beer would not be brewed that week. I didn't want the money back, I wanted my beer.

Lesson No. 1: If you want it then or need it by a certain date, you cannot count on mail order. Packages get lost, misdirected and generally screwed up. If something



can go wrong, be sure it will—usually en route to your house.

So I turned to Company B for the next order. I was impressed with their wide selection of ingredients, kits, equipment and even pub glasses and barware. I ordered a beer kit and several pint glasses, which were quite a bargain.

Mail order does typically provide a much better selection than your local brew store. There are many reasons why they can do this, reasons retailers understand but few other people care about. Suffice it to say, though, specialty equipment is nearly always bought through the mail, and that goes for brewing too. You can find the ingredients you want in a catalog, no more substitutions.

A Lust for Showrooms

What mail order does not provide, however, is a showroom and a guide to help you make your selection. It's strictly caveat emptor, baby.

When my pint glasses arrived, for example, one had such a deformed base that it wouldn't sit flat on a table. It just sort of rolled around on its glass hump, wobbling and sloshing its contents like a listing ship. That's what the drinker is supposed to do, not the glass.

I lucked out. I called the company, told them about the problem and they shipped a new glass out to me. They didn't ask for the old one back (I still have it). That's rare service, and it's the reason I still occasionally mail order something from them if I can't find it locally. Most of you will not be that lucky.

Lesson No. 2: Buying without looking can cost you. Typically, mail order companies require you to send unwanted merchandise back at your own expense. You're either going to take it or pay to have it shipped back, and you won't end up happy either way.

Like I said at the beginning, I like seeing the delivery truck pull up in front of my house. That is, when I can see it. If you work, as most of us do, you might not always be home to merrily greet the man

Shipping It Out

Getting beer and beer supplies to you is one thing; getting homebrew to others is something else. Sooner or later you're going to want to send a sample of your homebrew to a friend, or enter your pride and joy in a competition. Things are going to get tough.

- ★ For the most part, it is very hard to mail beer legally. The U.S. Postal Service won't touch anything that has a higher alcohol content than .5 percent.
- ★ United Parcel Service will let you ship beer, but only on the condition that you live in California, Michigan, Illinois or New York and you're shipping it to someone who lives in your state. Interstate transport is against the rules. Federal Express doesn't do it for the average Joe either.
- ★ You might want to call your local shipping services and see if you have any better luck with a local or regional company that might be a little more relaxed.
- ★ If you do find someone to ship your beer, pack it carefully to protect the bottles from breakage during shipment. An easy, cheap and environmentally friendly material is popped, unsalted and unbuttered popcorn. Put your bottles in the box, fill it up with flavorless popcorn, tape it up, write "FRAGILE" in big letters and go.
- ★ I would not suggest messing with the mail or misrepresenting what you are shipping, because that would be illegal. I will say, however, that cookies and other things that are not beer are a lot simpler to mail.



and receive his gifts. And that could be the start of one of the most frustrating wild goose chases you'll ever embark upon.

I'm not simply picking on UPS either; they're all like this.

I lived in a downtown apartment complex in a converted warehouse building. The neighborhood wasn't bad per se, but it was somewhat urban. It wasn't the kind of place where you could—for example—leave a UPS package on the curb and expect it to be there later that afternoon.

The Dreaded Yellow Note

I came home one day shortly after ordering my supplies and found a yellow note pasted to the panel of apartment buzzers outside the complex. UPS had come by, but I wasn't home. Please call this number, etc.

I called the number and explained my living situation and said I'd like to just come and pick it up at the distribution place. The conversation went something like this:

"Well, we're already closed this afternoon, sir."

"OK, I'll drive by tomorrow and pick it up."

"It won't be here tomorrow because we've already loaded it on the truck for delivery."

"Why would you put it back on the truck if you left me a note saying to call and pick up my package?"

"It's already on the truck, sir. You can leave a message with me and I'll have them hold it tomorrow night."

"OK, does that mean I can pick it up tomorrow night?"

"No sir, because the truck won't be in before we close."

You get the picture. I ended up having my girlfriend stake out the apartment the next day. The UPS man drove by without stopping. She chased him down, made him stop and had him search through the packages until he came to mine. She's tough; that's one of the reasons I married her.

Lesson No. 3: The UPS system may work most of the time, but when it doesn't, it really doesn't. If you don't live in a house where they can safely leave packages on your doorstep, then have it shipped to your office. If that's not feasible because of office policies against receiving strange mail at work, have it shipped to a friend or neighbor's house.

New Orleans-based journalist James Slaton is a regular contributor to *Zymurgy*.

THE BEST FROM KITS

Tom Judd

Brewhouse Stout Gets Thumbs Up

Thank goodness I work for a small company where almost 100% of my co-workers are happy beer drinkers—more than a few homebrewers among them. So it wasn't a big deal when the editor of *Zymurgy* dropped off a Brewhouse Premium All-Grain Stout Kit at my office one busy afternoon, so I could, once again, attempt to put my thoughts about kits into the (comprehensible) written word.

The package was a hefty square cardboard box with three gallons of cold wort that needed only to have water (seven quarts), a "pH balancer" (provided) and an ale yeast (recommended) of my choice added to the fermenter. The guys down at our hometown brewstore, What's Brewin', were, as always, more than eager to help with the choice of a White Labs liquid California Ale yeast, this being the most common yeast used for stouts. My girlfriend/assistant brewmistress and I have used this yeast with 100% success in the past with our own creations, and I had no doubt about its efficacy in this undertaking.

The Brewhouse kit came with very lengthy and specific instructions that even I would have trouble screwing up. Only time would tell.

No Extracts

This kit was made from all-grain wort, not extracts, and more equipment than the first-time brewer would be likely to have—

a hydrometer, wine thief, flasks, etc.—is required. The plus for the time-conscious is that there was no heating or boiling—just sanitize your equipment, add the ingredients, have a homebrew and go.

The instructions were to check the pre-pitch specific gravity, which gave a reading of 1.045. The yeast was pitched, the bucket sealed, ferm-locked placed and set aside for five days (at most) before racking to a secondary fermenter, exactly per instructions.

This brew, as with every kit I've tried so far, maliciously attempted to hide the

fact that it had indeed fermented with no visible signs. I've been fooled before—apparently not hard to do—but this time I would

not tolerate any of that nonsense. I just waited it out. Sure enough, when I popped the lid, there was the Kraeusen ring (some evidence of fermentation). The gravity was checked again, per instructions of course, and with a specific gravity reading of 1.015, the sneaky wort had failed to fool me.

The evidence was in—it had fermented quite handily, despite its stealth qualities.

Now, the company I work for has a barbecue each year at the beginning of summer to herald a new and prosperous year and to generally have a good time. As I mentioned, this company has a majority of casual beer lovers, including its president and vice-president, the later two having sampled the previous evaluation beer kits at the Halloween party my brewmistress and I used for an exercise in house-cleaning (see *Zymurgy* Spring 1998 Vol. 21 No. 1.)

So it was no surprise that they would go for the idea of me kegging this kit and supplying our company barbecue with above average beverage, and me with an abundance of opinions on its finer points. Hey, I could write what I "personally" think about this or that, but I figured 25 opinions



would be an honorable sample for an experiment of this magnitude.

Besides all that, it seemed like a jolly good idea!

The Verdict, Please

The opinions are now in, and the overwhelming majority commented to the effect that "it has a very clean finish; nothing left behind" and "how much are we allowed to drink?"

Without exception, everyone liked this brew, regardless of their beer preferences. Most beer pros said it lacked the body of a true stout, saying things like, "it tastes great for a porter." Well, in truth, this matched my opinion of the precious liquid, but I could forgive any possible "stout" shortcomings because the beer was so good (and so popular).

Most stouts live up to their namesake, being very strong and heavy. They're not really suitable for all occasions and certainly not a daily swill. The Brewhouse stout is different. It has the flavor of a stout, without the lingering chewyness, even being light enough to drink everyday (or almost everyday). The head is very creamy and "Guinnesslike," but dissipates rapidly, which is okay with me since I'm into drinking the beer while happily bypassing the classic stout "froth-face."

Quite a few party people commented that this was more bitter than the rotgut they usually drank, and since the "bitter-beer-face" comments came from the occasional "light beer" drinking crowd, they were passed off as utter nonsense. By the way, did I mention I personally like to taste the hops in beer?

The beer professionals made no such comments, and I would concur with this



segment of the sample group. I have no bitterness problems with this beer and still think those who did needed to keep trying it until it was no longer bitter, then offer their opinion, thank you.

To me, this kit is neither bitter nor sweet (like some stouts I've tried), and I have to admit, I'll miss it when it's gone. I've brewed stouts before and one of my own creations, "Jake's Paw Stout" (named after my dog—don't ask!), is a creamy, heavy beer that, while an excellent stout, is not a daily drink. For the last three days I've had at least one glass of this Brewhouse stuff, and instead of being a heavy, tiring brew, it has grown on me more than I'd care to admit. One fault that could be found by those who expect more from their beer than great taste is that it's not a high alcohol content brew. So what? Go out and buy a barley wine, or one

of those wines with a train on the label, if you want alcohol content.

Purists Need Not Apply

In my opinion, this kit probably is not for the stout purists who furiously demand the chewyness and body of their stout to be approximately equivalent to an overdone chuck steak. On the other hand, the Brewhouse Premium All-Grain Stout Kit is an everyday drinkable concoction that strongly hints of a great stout, but with an "all night" drinkability of a light porter.

So, as with most stories of pleasant things, I'll conclude with a "bully" to the Brewhouse for an unusual brew kit used to make an unusual stout (Jake's opinion is still out, but, hey, he's a dog).

Tom Judd is a veteran homebrewer, target shooter and alleged software engineer in Boulder, CO. He is actually talking about buying another Brewhouse Stout kit, "in case of emergencies."



Contact Information

Brew House Stout
\$32.99

Spagnol's Wine and Beer Making Supplies Ltd.
1325 Derwent Way
Delta, B.C. Canada V3M 5V9
(604) 524-9463
(800) 663-0954
www.spagnols.com

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American Homebrewers Association 1998 National Homebrew Competition Second-Round Brewers

Brewer(s) (category/place)

ATLANTA, GA REGION

Jay Adams (15/2nd, 16/1st)
James Albright (23/3rd)
John Allen (6/3rd)
Andy Anderson (2/2nd)
Gary Arnold (10/2nd)
Marc Battreall (18/1st)
Scott Boeke (19/3rd)
Jeff Boggess (9/1st)
Barry Browne (9/2nd)
Brian Buckowski (1/1st, 6/2nd)
Bobby Bush (21/3rd, 22/3rd)
Anthony Capocelli (21/1st)
Andrew Christie (24/1st)
Brian Cole (13/1st, 18/2nd, 24/3rd)
Ed Cosgrove (26/2nd)
Woody Drake (27/3rd)
Scott Eagleton (14/2nd)
David Fabry (12/3rd)
Gerard Fillicko (7/3rd)
Paul Fiorino (7/1st)
Peter Fullen (11/3rd)
Stephen Gale (12/1st)
John Gayer (20/Adm)
Paul Gennrich (20/2nd)
Jeff Gladish (20/3rd)
Robert Gordash (11/1st)
John & Valerie Greer (14/1st)
Drew & Tiffany Griffin (26/3rd)
Michael Hauert (19/1st)
Keith Houck (20/1st)
Joseph Hughes (4/1st)
Wes Hughson (11/2nd)
Marlon Hurst (4/3rd)
Douglas John (12/2nd)
Richard Koch (14/3rd, 17/1st)
Evan Kraus (1/2nd, 16/3rd)
Kenny Lefkowitz (5/1st)
Steve Lineweaver (2/3rd)
Paul Minzer & John Castorina (24/2nd)
Frank Mitchell & Tom Flanagan (5/3rd)
Steve Nance (17/3rd)
John Nanci & Penelope Jacob (26/1st)
Tom Paffrath (13/3rd, 15/3rd)
David Pappas (23/1st)
Arnold & Ingrid Pederson (8/1st)
Steve Peeler (2/1st, 13/2nd)
Roland Pena (5/2nd, 20/Adm, 23/2nd)
Chris & Shari Peterson (17/2nd)
Ron Raike (1/3rd, 3/1st, 3/2nd)
Ray Renner (20/Adm)
Scott Ross (8/3rd)
Wes Sampson (8/2nd, 9/3rd, 18/3rd, 19/1st)
Richard Schwartz (15/1st, 22/2nd)
Jim Skolka (3/3rd)
John Slusher (27/2nd)
Randy Smith (4/2nd)
Kevin Stiles (25/2nd, 25/1st, 27/1st)
Kevin Stiles, Paul Layman & John McMacken (10/3rd)
John & Susan Tantillo (7/2nd, 16/2nd)
Steve Vallancourt (10/1st)
Dennis & Paul Waltman (21/2nd, 22/1st)
Virgil Wasko (6/1st)
Richard Weiss (25/3rd)
David Zalewski (20/Adm)

CANADA REGION

Joanne Anderson (7/2nd)
Mike Aylward (21/2nd)
Denis Barsalo (15/1st, 15/2nd, 18/3rd)
Gordon Bowbrick (2/Adm, 2/1st)
Brian Brooks (3/3rd)
Phylliss Campbell (7/Adm)
Bob Daye (11/3rd)
Greg Ernst (5/3rd)

Gary P. Falkenstein (1/3rd, 2/2nd, 13/2nd)
John Ferguson (8/2nd, 20/Adm)
Chris Godwin (12/2nd)
Conrad Horvath (19/3rd)
Ian Johnson (12/2nd)
Gareth Jones (6/2nd)
Rob Jones (21/3rd)
Sean King (24/3rd)
Jean-Sebastien Morisset (11/Adm)
Dan Morley (4/1st, 6/1st)
Adam Mueller (3/2nd, 3/1st)
Darryl Newbury (11/1st)
Ken D. Nyback (1/2nd, 5/2nd)
Glenn Payzant (11/1st)
Gerald Peters (7/1st, 9/3rd)
Gerald Peters & All of FARTS (9/3rd)
Mike Peters (4/3rd)
Tim Peters (18/2nd)
Ross Reynolds (17/1st, 23/1st)
Lorne Romano (3/1st, 11/Adm)
Walter Scott (18/1st)
Bruce Taylor (4/2nd, 9/Adm, 23/3rd)
John Tyler (5/1st, 7/3rd, 26/1st)
Tim Vandergrift (13/3rd, 15/3rd, 19/2nd)
Harry Wagner (9/1st)
Dean Watson (6/1st)
Robert West (11/2nd, 15/Adm)

CHICAGO, IL REGION

John R. Applegarth (2/2nd)
Jeff Carlson (7/1st, 11/2nd, 17/1st)
Randy Charles (14/3rd)
Jim Connors (27/2nd)
Charles Cope (8/1st)
Michael Cotiguala (8/2nd)
Larry Deliefde (15/1st)
George Dietrich (12/3rd)
Peter Eipers (16/2nd)
Joe Formanek (1/3rd, 6/1st, 7/3rd, 11/3rd)
Mike Frost & Mike Kowal (11/1st)
Sandra M Golen (9/2nd)
Tim Gooldy (21/2nd)
Jay Grabowski (20/3rd)
Philip Gravel (24/1st)
Steve Grousd (6/3rd)
Greg Gutierrez (3/3rd)
Darwin Harting (13/1st)
Jim Hodge (3/2nd, 24/2nd)
Mark G. Humphries (4/3rd, 5/3rd, 6/2nd)
David Johnson (2/3rd)
Russell Johnson (19/3rd)
Jim Johnston (23/3rd)
Dan Kasen (21/1st, 22/1st)
Steven P. Klump (4/1st, 17/Adm, 20/2nd, 20/1st)
Al Korzonas (1/2nd, 2/1st, 10/3rd, 18/1st, 25/1st, 26/3rd)
Greg Lawrence (3/1st, 25/3rd)
Kathleen Lotz (27/1st)
Edward Marsh (5/2nd)
Edward Marsh & Mark Thompson (22/2nd)
Paul Martinez (12/1st, 19/2nd)
Bradley A. Maxfield (10/2nd, 23/1st)
Steve Mc Kenna (1/1st)
Bruce Ortenburger (14/2nd)
Alan Pearlstein (13/2nd)
Bill Pfeiffer (26/2nd, 26/1st, 27/3rd)
Thomas Plunkard (15/2nd, 16/1st)
Joel Plutchak (4/2nd)
Gerald Poss (7/2nd)
Steve Rice (12/2nd)
Terry Richardson (8/3rd)
Mike Rivard (9/1st, 22/3rd)
Allan J. Rose (15/3rd)
Tom & Lorie Sanville (18/2nd)

Denzil Scheckler (10/1st)
Ted Schenkenberg & Laz Sipaos (17/2nd)
Dan Schlosser (4/Adm)
Ken Schramm & Dan McConnell (25/2nd)
Martin Schwan (17/3rd)
Richard Scott (24/3rd)
Gerry D. Steele (21/3rd)
Tom Stelman (9/3rd, 23/2nd)
Eric Stockinger (14/1st)
Joseph Styke & Thomas Stawarz (5/1st, 19/1st)
Robert Wilber (13/3rd)
Michael Winnie (18/3rd)
Bert Zelten (16/3rd)

DENVER, CO REGION

John Adkisson (7/1st)
Gene Almquist (6/2nd)
Mark Alston (15/2nd)
John Aramovich (7/3rd)
Bret Arnett & Mike Westcott (20/3rd)
Dave Bahler (17/1st)
Russ Bee (6/1st, 8/1st, 15/3rd, 16/1st, 17/3rd)
Tom Bell (19/3rd)
Scott Bickham (4/3rd)
Noel Blake (23/3rd)
William Canada (16/3rd)
John Carlson, Jr (2/1st, 2/2nd)
Vern Creamer (21/1st)
Tony De Marse (3/1st)
Sean & Lisa Darning (8/2nd)
Randy Drwina (20/2nd, 20/1st)
Terry & Gary Durant (9/1st, 11/2nd, 16/2nd)
Dean Fikar (18/2nd)
George Fix (14/2nd, 15/1st)
Pilar Flores & John Binford (23/2nd)
Tom Forgey (10/1st)
Ichiri Fujiura (23/1st)
Leroy Gibbins (26/1st)
Charlie Gottenkiency (3/3rd, 3/2nd)
Brett Hampton (22/3rd, 26/3rd)
Zachary Hilgers (22/1st, 25/2nd)
William Irvin (7/2nd, 25/1st)
Ken Jones (27/2nd)
Ross Kahn (1/1st)
Bob Kauffman (19/2nd, 26/2nd)
Caroline Kauffman (27/1st)
Michael Knutson (10/2nd, 13/3rd, 19/1st)
Leon Krzmarzick (21/3rd)
Harumi Kumagai (24/3rd)
John Landreman (5/1st, 24/2nd)
Cubby Lash (24/1st)
J. T. Lawler (5/3rd)
Lewis Linthicum (4/Adm)
Davo Mahaffey (12/2nd)
Jim Martella & Bill Taylor (9/3rd)
Jeff Niggemeyer (13/2nd, 14/3rd, 18/3rd)
Gordon Olson (25/3rd)
Tim Paine (17/2nd)
John Pepin (1/3rd)
Ben Pollard (11/3rd)
David Porter (4/2nd)
Ken Schwartz (10/3rd)
Dave Shaffer (4/1st, 5/2nd, 6/3rd, 13/1st, 14/1st, 18/1st)
Darrell Simon (12/1st)
Matthew Smith & Troy Hageman (8/3rd)
Jim Steward (27/3rd)
Jeffrey Swearingin (9/2nd)
Glen & David Taul (11/1st, 12/3rd)
Barry Tingleff (22/2nd)
Mark Tomusaik (2/3rd)
Brian Vannierop (21/2nd)
Michael Westcott & Bret Arnett (1/2nd)
Dave Askey (15/2nd)

GRASS VALLEY, CA REGION

Dave Askey (17/2nd)
Ron Badley (26/3rd)
Tom Baldwin (25/1st)
Martin Beran (9/2nd)
Brian Bliss (1/3rd, 3/2nd)
Dirk Bridgedale (10/3rd, 13/3rd)
Ken Brown (6/1st)
Rick Burnside & Jerry Davis (16/1st)
Dave Cowie (1/2nd, 11/2nd)
Greg Distefano (2/3rd, 27/2nd)
Theo Drushell & Mike Martin (20/1st)
Robert Ethington (13/3rd, 19/3rd)
Tod Fitzsimmons (15/1st)
Jim Fortes (6/3rd, 22/1st)
Richard Fox (12/2nd)
Ross Frederiksen (9/3rd, 14/2nd, 14/3rd, 23/1st)
Raymond & Edi Frisby (2/2nd)
Harrison Gibbs (8/1st, 26/1st)
Harold Gulbransen (20/3rd)
Tyce Heldenbrand (1/1st, 13/1st, 21/3rd)
James Helmich (11/3rd)
Charles Hesson (13/2nd)
Gunther Jensen (25/2nd, 27/1st)
Jim Johnson (2/1st, 17/3rd)
Peter Johnson (20/2nd)
Pat Kennealy (18/1st)
Jeff Lannon (8/2nd, 22/3rd)
Jeff Lannon, Dennis Johnson & Eric Schenk (19/2nd)
Craig Lauxman (25/3rd)
Ray Lewis (26/2nd)
Greg & Liz Lorton (10/2nd, 18/2nd)
Gerard Luticken (5/2nd)
Patrick McKee (7/3rd, 11/1st, 16/3rd, 24/3rd)
Barbara Melrose (21/1st)
Tom Morrow (23/2nd)
Randy Norman (14/1st)
Todd Peterson (4/2nd, 17/1st)
George Proper (16/2nd, 23/3rd)
Mike Riddle (4/3rd, 18/3rd)
Charles Silva (3/3rd)
Dave Teesdale (19/1st)
Steve Tefitt (12/3rd)
Patrick Thalken (12/1st, 21/2nd)
Bob Thompson (5/3rd, 24/2nd)
Keith Weerts (3/1st)
James Weiner (4/1st, 7/2nd, 9/1st, 24/1st)
David Welch (5/1st, 6/2nd)
Paul Wright (7/1st, 8/3rd)
Peter Zien (10/1st, 15/3rd, 22/2nd)

LOWELL, MA REGION

Scott D. Anderson & Peter Rega (1/1st)
John R. Austin (10/1st)
John B. Avar, D.C., Chris Columbus, Matthew W. Goody & Paul D. Hallock (2/2nd, 7/3rd, 8/2nd, 22/3rd, 23/2nd, 25/3rd)
Pat Bannon (12/1st, 19/1st)
Ed Bardsley & Kurt Helstaedt (24/2nd)
Brian Beckmann (17/3rd)
Edward Bloom (2/1st)
Kent Brehm & Bruce Hammell (9/1st)
Tom Cahalane (15/1st)
Mark Deorio (11/3rd)
Mark Duffley & Horst Gewtew (23/1st)
Will Fields (7/1st)
Russell Fischer (6/Adm)
Alan L. Folsom, Jr. (11/2nd, 19/2nd)
Peter Garofalo (10/3rd)
Steven Gingrich (17/2nd)
John Grana (16/1st)
Al Hazan (26/1st)
Jon Hazilla (21/2nd)
Thomas Henry (16/3rd)

Tim Holland (9/3rd)
 Christopher Huestis (20/2nd)
 Tom Ierardi (24/1st)
 Ben Jankowski (25/2nd)
 Bob Johnson (20/1st, 5/2nd)
 Rob Johnson (2/3rd, 6/3rd, 9/2nd, 19/3rd, 22/1st)
 Ted Johnston (11/1st, 18/1st, 24/3rd)
 Scott Keohane (1/2nd)
 Vladymar Kopeck (6/2nd)
 Lawrence & Rachel Rubin Ladutke (23/3rd, 26/1st)
 R.B. Laurence & Brigitte Laurence (7/2nd)
 Chris Lavoie (4/2nd, 4/3rd, 6/1st)
 Tony Maciag (4/1st, 21/1st)
 Keith Macneal (21/3rd)
 Thomas A. Miklinevich (18/2nd, 18/3rd)
 Brian S. Newton (15/2nd)
 Thomas J. O'Connor III M.D. (5/3rd, 8/1st, 17/1st, 26/3rd, 27/1st)
 Jim Post (13/3rd)
 Peter Rega (14/1st)
 Richard Rosen (15/3rd)
 Al Schichler (5/1st, 16/2nd)
 Vince Shumski (10/2nd)
 Bruce Stott (12/3rd, 13/2nd, 26/2nd)
 Steve Stutman (22/2nd)
 John Syms (1/3rd)
 Tom Thompson & Al Rickett (3/1st)
 Ron Vavruska (13/1st)
 Bryan Ward (3/2nd)
 Michael White (25/1st)
 John M. Zelazny (12/2nd)
PORTLAND, OR REGION
 David Archambeau (16/1st)
 Grant Baumgartner (19/2nd)
 Tom Berntson (21/2nd)
 Lys Buck (20/3rd)

Cory Buening (17/3rd)
 Mark Builder (22/1st)
 Bill Clark & Steven Olson (7/3rd)
 Robert Craig (5/1st)
 Jim Crane (9/2nd)
 Dan Diana (23/2nd, 24/2nd)
 Richard & Manda Doffing (2/2nd)
 Robert Douglas (10/3rd, 19/1st)
 Douglas Faynor (3/1st, 3/2nd)
 Gerry Feldkamp (18/3rd)
 James Gebhardt (27/3rd)
 Brian Grosklos (8/2nd)
 Ron Hall (21/3rd)
 David Harder (6/2nd)
 Brad Hart (4/2nd)
 Curt Hausam (4/1st, 7/1st, 11/3rd, 15/2nd, 17/1st, 22/3rd)
 Guy Johnson (14/2nd, 14/3rd, 15/3rd)
 Vanessa Keitges & Hal Harding (21/1st)
 Michael Kiker (12/1st, 16/2nd, 24/3rd)
 Nate Kowash (9/1st)
 Mark Langlois (11/2nd, 18/1st, 19/3rd)
 John Lauer (1/1st)
 Lester Lewis (7/2nd, 10/2nd)
 Ted Manahan (2/1st, 23/1st, 27/2nd)
 Matt Maples (26/3rd)
 James Marthaler (11/1st)
 Bob McClintock (8/1st)
 Tony Miller (24/1st)
 Deb & Frank Nelson (10/1st, 22/2nd)
 Mark Norbury (13/1st, 15/1st)
 Steve Platz (3/3rd, 25/1st, 27/1st)
 Brent Rea (2/3rd)
 Robert Ring (25/3rd)
 Dan Ritter (17/2nd)
 Rod Romanak (20/2nd)
 Susan Ruud (25/2nd)
 Susan Ruud & Ray Taylor (8/3rd)
 Steve Schmitt (20/1st)

Lee Smith (5/2nd, 13/2nd)
 Steve Stovall (26/2nd)
 Tom Strand (12/3rd, 14/1st)
 Ray Taylor (23/3rd)
 Ray Taylor & Gene Pribula (1/2nd)
 Ray Taylor, Gene Pribula, Don Kaspari, Mark & Holly Griffin and Tim & Sharm Schulz (4/3rd)
 Ray Taylor & Neil Gudmestad (12/2nd)
 Tom Townsend (26/1st)
 Pete Vickers (13/3rd, 16/3rd)
 Gary Westman (5/3rd, 6/1st)
 Martin Wilde (1/3rd)
 David Wrigley (6/3rd, 9/3rd, 18/2nd)
SHAWNEE, KS REGION
 David Allaben (22/1st)
 Art Beall (12/3rd, 13/1st, 19/3rd)
 Rocky Bennett (27/3rd)
 Jim Browne & Ron Houck II (22/2nd)
 Jim Burge (7/1st)
 Guy Burgess (12/2nd, 23/3rd)
 Charles Burry (19/2nd)
 Bob Carbone (9/2nd)
 Roger Clark (8/1st)
 Russ Clayton (27/2nd)
 Kenneth (Rob) Clucas, Randy Meharg & Madeline Burns (22/3rd, 23/1st)
 Dan Davis (16/2nd)
 Richard Dwenger (14/3rd)
 Mark Granner & Stacy Tschannen (3/2nd)
 David Gray (10/1st)
 Tim Hamilton (2/3rd)
 Fred Hartwig (2/1st, 6/2nd, 12/1st, 20/3rd)
 David Hedding (24/3rd)
 Ross Herrold (17/3rd, 25/1st)
 George Huhtanen (24/1st)
 Kip Innes (26/2nd)
 Dave Justice (8/2nd, 10/2nd, 14/1st)

Dennis Karian (1/3rd)
 Steve Kelley & Ron Dunbar (5/2nd)
 Mike Kilian (8/3rd)
 Keith Kost (1/1st)
 Andrew Kramer (18/3rd, 24/2nd)
 Fred Lederer (15/1st)
 Robert Lewis (3/1st)
 Garrett Luedloff & Tim Moran (21/1st)
 Rob Meinzer (15/3rd)
 Mark Messmer (5/3rd, 11/3rd)
 Edward Meyer (21/3rd)
 Charlie Milan (17/1st)
 Ed Miles (13/3rd)
 Jerry Mitchell & John Sullivan (14/2nd)
 Jerry Mitchell, John Sullivan, Scot Tams & Rex Clingan (10/3rd)
 Jim Moening (16/3rd)
 Ed Morris & Mike Fitzpatrick (6/1st)
 Michael Pelter (25/3rd, 26/1st)
 Phillip & Hollis Curtis Perdan (9/3rd)
 Christopher Peterson (18/1st, 19/1st, 23/2nd)
 Bill Pierce (16/1st)
 Mike Porter (5/1st, 6/3rd)
 Jeremy Price (18/2nd)
 Jackie Rager (7/3rd, 25/2nd)
 Bradley Reeg (2/2nd)
 Michael Richard (20/2nd)
 Judy & Jim Schaumberg (11/2nd)
 Paul Shick (20/1st)
 Brian Smith (4/2nd)
 Chuck & Nancy Stiner (27/1st)
 Jack Sykes (4/1st)
 Darren Underwood (9/1st)
 Dan & Lani Valas (4/3rd, 21/2nd)
 Michael Weaver (15/2nd)
 Robert Wikstrom (7/2nd, 11/1st, 26/3rd)
 Jack Willis (13/2nd)
 Chris Woodall (1/2nd, 17/2nd)



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Professor Surfeit

DEAR

P R O F E S S O R

Breaking the (Purity) Law

Dear Professor Surfeit,

If the *Reinheitsgebot* purity law only allows beer to be made from barley malt, hops, yeast and water, how come they've allowed wheat beer for so long?

Lost My Wits

Dear Lost Your Wits,

The Reinheitsgebot isn't as sacred as a lot of people think. Nor does it benefit the beer lover and brewer all the time. Fact is, the original law only recognized malt, hops and water. Yeast had not been discovered in the year 1516. They came up with the law likely because there were a lot of unscrupulous brewers who were making cheap and lousy beer. People got fed up with being ripped off so they adopted the law. In one sense it helped assure quality beer, but it also legislated creative brewing and a lot of antique German brewing traditions to a screeching halt. If one delves into the history of German brewing it's not difficult to discover that there was quite a creative variety of traditional beers being brewed throughout Germany with other things in addition to malted barley, hops and water.

The law is somewhat controversial, even in the country of beer

itself—Germany. There is somewhat of a board of people who govern and interpret the Reinheitsgebot. Some are very happy with the regulations, while others get quite frustrated with the interpretation. For example, if you want to use wheat malt in a lager beer—you can't call it beer! Outrageous? But true. Only

ales can use wheat malt under current interpretation by those in control. You can brew it but you cannot call it beer. Do you want to dry hop? That's a sticky question. Under some interpretations this is not allowed. If you do it you may not get permission to call your brew "beer." Now if this strikes you as silly, then you'll be hysterical to know that if you are German and have your beer brewed outside Germany using, for example, wheat malt with a lager yeast, then you can label the product as beer because it is imported and not brewed in Germany.

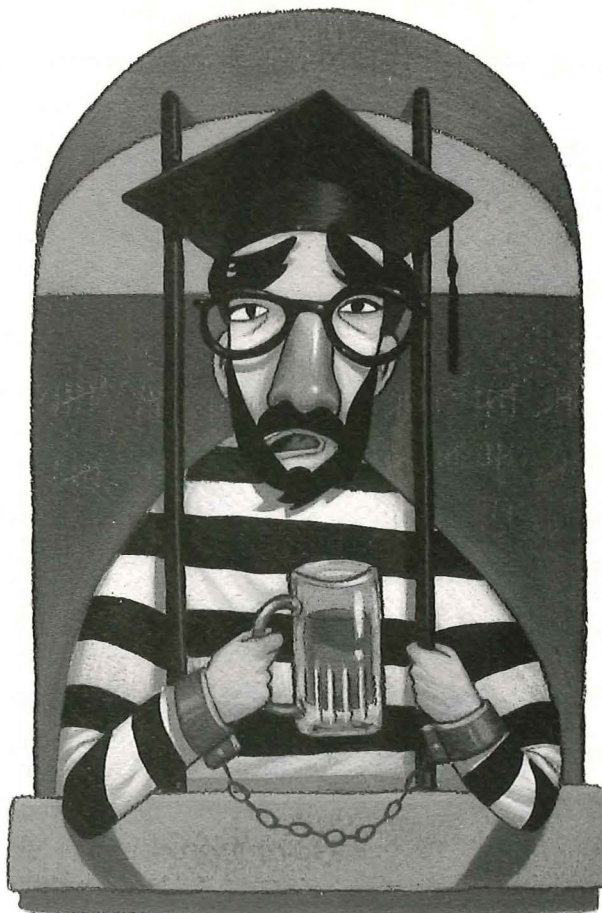
Now let's say you want to brew wheat beer but use an English ale yeast to create something unique and not so much in the Bavarian style. This is a problem because it is different and you'll have to pass the scrutiny of those who control the law.

I may sound a bit cynical about the Reinheitsgebot law. That's because I am. It seems to strike me as a protectionist kind of law these days and does not allow for creativity or even revisiting some old authentic German traditions, mostly lost to antiquity. The law has protected a proud heritage, but the pride sometimes, to me, has turned into a control issue and not a true cultural issue. In the end I think it'll be the German brewers who will suffer the most.

I love all-malt Reinheitsgebot beer. I also love a lot of other beers.

*Always in a state of flux,
The Professor, Hb.D.*

PURITY JAIL



Stumped in Spruce Creek

Dear Professor Surfeit,

I'm moving soon and I'm going from one well water system to another. My current well has great water for brewing; however, when we tested the water for the new house it came back quite hard with coliform bacteria. We're getting a second test for the bacteria, but the recommendation from the testing company is to put a water softener system and a UV light—of course they want to sell you something—on the water line to take care of the hardness and the bacteria. My question is, what effect will this have on the quality of the water for brewing? If the water softener will adversely affect the water quality for brewing, will it help if I bypass the softener?

Stumped in Spruce Creek,
John Hewett

Dear John,

A water softener isn't going to help your brewing water. You may be softening your water, but you're also going to be adding a lot of sodium salts. Not good for balanced brewing water. You certainly don't want to be drinking or brewing with water contaminated with coliform bacteria. That can be nasty stuff just in general, though it won't survive in beer once it has alcohol and has fermented. But the flavors it may produce preceding the fermentation could get nasty.

Read a good homebrewing book about water. You may have the kind of hard water that is not permanent. You may be able to brew some reasonable beer with the water you have if treated properly. As far as the bacteria is concerned—yeuch. I'd recommend a sink-top water filter that can supply purified water on demand. That's simple and effective.

*Don't get soft on water,
The Professor, Hb.D.*

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



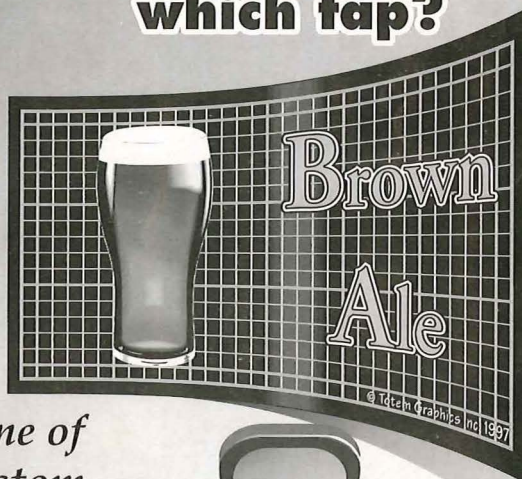
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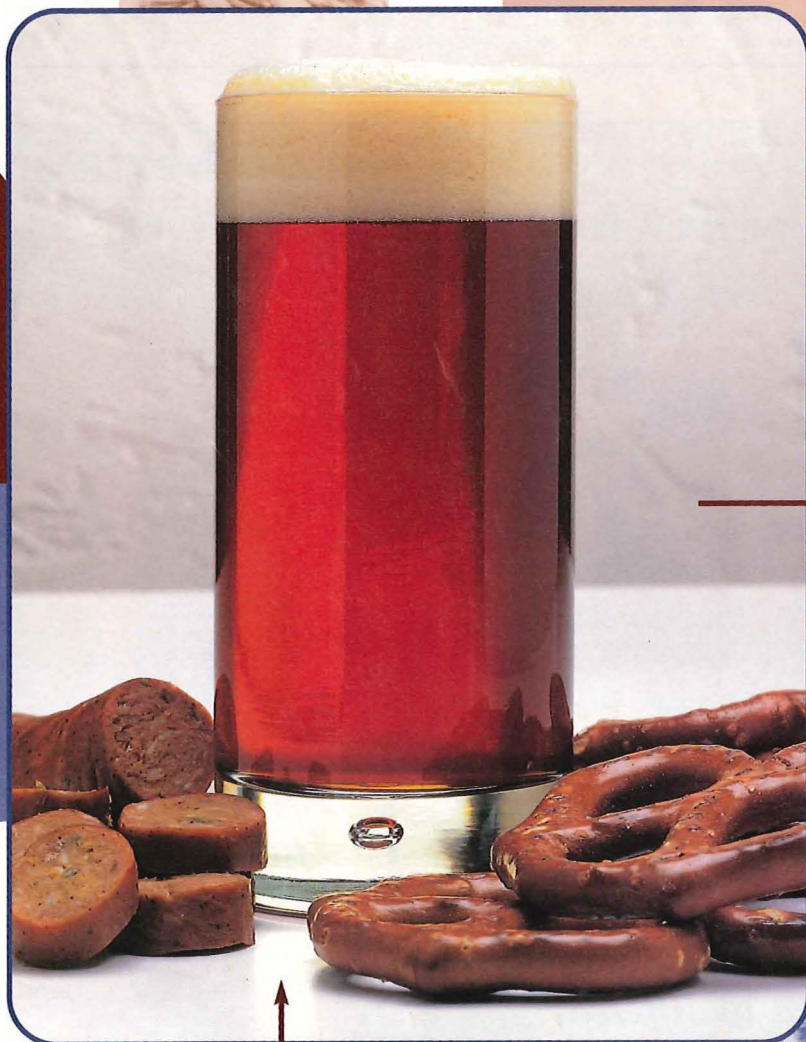
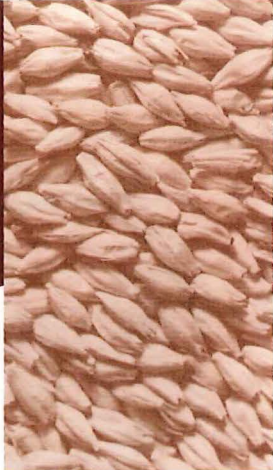
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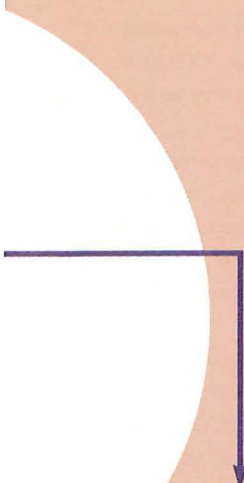


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Düsseldorf



Alterior Motives

Alt beer, the German lagered ale, is unfortunately a very rare bird in North America. The German originals, mostly brewed in Düsseldorf, the city in the Rhineland that defined the modern alt beer style about 150 years ago, generally are not imported. The few alt beers made by North American craft breweries generally are not distributed widely or reliably.

If you live in the New World and want to taste an authentic alt, you either have to travel to Germany or brew it yourself. Since many homebrewers rely on canned extract for most of their wort, the question arises, how do you faithfully duplicate this Düsseldorf-style brew in your own kitchen?

Making top-quality extract beers with authentic flavor, texture and color is not a problem in most beer styles. There are now malt extracts available for pale ales, amber ales, brown ales, dark ales, English bitters, IPAs, porters, stouts, light lagers, amber lagers, Pilseners and wheat beers. But there is no ready-made alt extract.

The challenge for the home alt maker is to backtrack from the beer's specifications and to come up with a set of ingredients and processes that are appropriate for the homebrew environment, but still produce an authentic result.

To accomplish this, we must first understand what makes an alt an alt. Here (page 33) are the specifications of a typical alt—formulated for five gallons (18.9 L) of extract brew—with the style characteristics of a beer that might be served in the old town of Düsseldorf.

PHOTOS CLOCKWISE FROM TOP LEFT:
AOB FILE PHOTO, BOB GOLDMAN, GERMAN
INFORMATION CENTER, SIDELIGHT STUDIOS

By Horst D. Dornbusch



A Düsseldorf street scene—and an alt-lover's paradise.

A Beer with Body

The original gravity of an alt typically is in the vicinity of 11 to 12 °Plato (OG 1.044 to 1.048), with some alt gravities as high as 14 °Plato (OG 1.056). If the copper-colored alt were a British beer, it would rank on the flavor spectrum somewhere between a brown and a dark ale. As a German brew, however, it has a few distinctly continental characteristics. It is generally fuller bodied than a typical British ale. When made from all grain, alt beer is always multi-step-mashed, either by partial decoction, by infusion or by a combination of the two methods. An alt grain bed must be taken through all three temperature ranges required to activate the three crucial enzymes in brewing: proteolytic enzymes, beta amylase and alpha amylase.

Proteolytic enzymes convert large, heavy proteins in the grain into smaller, lighter ones. Beta amylase converts grain starches into simple, fermentable sugars such as maltose. Alpha amylase converts grain starches into complex, unfermentable sugars such as dextrins. Brewers yeast turns the simple sugars (produced by beta amylase) into alcohol, but it cannot break down

proteins and dextrins. These stay in the finished alt. They are completely tasteless to humans. Texture, not flavor or alcoholic strength, is their most important function. They add body and mouthfeel to brews that might otherwise be perceived as too thin and weak.

Proteins and dextrins also form an invisible web in the alt through which carbon dioxide bubbles must work their way slowly to the surface. They remain smaller and do not combine into large pockets of burpy gas as happens in carbonated mineral water, for instance. As a result, full-bodied beers remain effervescent longer than thinner ones. Once the carbon dioxide bubbles reach the surface, they drag part of the invisible web out of the brew, where it forms a rich, creamy, long-lasting head—one of the defining characteristics of an alt as opposed to a British ale.

Malt Specifications

Extract is nothing but concentrated brewer's wort. The extract we choose for alt, therefore, must come from a German-style wort. Extracts made for British-style ales are generally not suited for an alt brew. Authentic alt beers are made mostly from continental-European light (blonde) Pils malt (*helles malz*), Vienna malt (*Wiener malz*), and Munich malt (dark, *dunkel, Münchener malz*). Higher-Lovibond malts such as caramel and crystal (*farbmaltz*) or chocolate and black (*röstmalz*) are used only sparingly by alt beer brewers, if at all. A pronounced, almost slightly sweet malt flavor complements the rich texture of the alt, but without roasty overtones. This maltiness balances the alt's moderate up-front bitterness and noble hop finish. The result is a bittersweet to nutty brew with a lingering, but never cloying, aftertaste.

The foundation grain of alt beer brewing, as of German brewing in general, is a pale Pils-style malt (*helles malz*), usually made from two-row summer barley. Summer grains tend to have higher protein levels than do winter grains. During malting, the barley for Pils malt is allowed to germinate at or slightly below room temperature for up to seven days. It is then dried gently for one

to three days. The result of this rather slow drying cycle is a malt that is considered fairly pale (usually below 2 °L) by North American standards.

In Europe, Vienna malts (*Wiener malz*) are made from the same barley as Pils malts, but are a shade darker, because they undergo longer kilning at slightly higher temperatures. The result is a slightly amber, but not roasted, malt ideally suited to add darker notes to an alt. German Vienna malt has a color rating of approximately 2 °L to 3 °L, while the rating for North American Vienna malt usually is 1 °L higher.

Munich malts (dark, *dunkel, Münchener malz*) are darker yet and often contribute a slight sweetness, in addition to color, to the alt. They are dried even longer and at a higher temperature. The result is a slightly roasted, but never burned, grain. In many alts the coppery color stems from Munich malts with a color rating of about 3.5 °L to 8 °L. North American Munich malts often have a color rating of to 8 °L to 12 °L.

The true color malts—caramel, crystal, chocolate and black—often are lightly to severely roasted or even burned. Their use is common in dark British-style ales such as stouts, porters or Scotch ales, but they are used extremely sparingly or not at all in alt beers. While dark British-style ales, also brewed from a foundation of pale malt, require plenty of highly kilned malts to achieve their opaque appearance and sometimes coffee-like taste, German ales, by contrast, get most of their color from a greater addition of Munich and Vienna malts. But it is possible to compose an authentic alt with color malts at a Lovibond rating of 60°.

The key variable is how the maltster achieved the grain's dark color: fast, at a higher temperature, or slowly, at a lower temperature. Consider both color and flavor in your formulation. Always remember, if you can taste roasted notes in your brew, it is not an authentic alt, even if the color is a perfect deep copper. When in doubt, err on the side of less crystal, caramel, chocolate or black malts in favor of more Munich and Vienna malts for color. At the low end of the color scale, the coppery alt may start at 13° SRM. At the high end of the scale, it may have a color rating of 20° SRM. A few specialty alts are even darker.

The Extract Challenge

Since there is no premixed alt extract on the market, we can substitute only those portions of the grain bill with an appropriate amount of canned extract for which there is a suitable equivalent available. The grains that cannot be substituted by extract need to be added somehow to the wort to impart their all-important flavor and color characteristics. The objective is to reverse engineer the alt. Once we understand the finished product, we must create a blueprint that tells us how it can be put together authentically in a homebrew extract environment.

Replace the two-row, pale or Pils foundation grist of the all-grain brewer with *unhopped* light or extralight Pils-type malt

extract. The average canned extract contains about 20% water and 80% sugar and one pound (.45 kg) of extract yields the rough sugar equivalent of 1.3 pounds (.59 kg) of milled, two-row malted grain. Conversely, one pound (.45 kg) of two-row grist can be substituted with .77 pound (.35 kg) of extract. Extracts often come in cans of 1.5 or 3 kilograms. Three kilograms (6.6 lbs) of extract, therefore, is the equivalent of about 3.9 kilograms (8.5 lbs) of two-row malt.

Either use the precise quantities of extract needed for five gallons (18.9 L) of beer or, if your kettle and fermenter volumes are sufficient, increase the amounts of specialty grains proportionally and brew as much beer as can be made with the full amount contained in your cans. In this case you must also adjust the amounts of hops

proportionally. If you have left-over malt extract, transfer it from the can into a plastic container, pour a thin layer of vodka over it, seal and store in the refrigerator. The alcohol in the vodka will prevent mold from growing on the extract surface.

Your best bet is to look for Pils-type extracts imported from Germany or one of its neighboring countries, where full-bodied beers also are the norm. Among the commonly available extract brands that are good candidates for an alt beer foundation malt are Ireks, BierKeller and Laaglander. Always choose the palest of the pale malts available from your supplier. Remember, you can always darken your wort by adding higher Lovibond specialty malts, but you can never remove wort color once it is there.

Because of the need for body and texture, always buy a *lager* malt, even though the alt is an ale!

For best results, buy cans of unhopped malt. Add your own hops to the kettle instead of relying on the often unspecified and not necessarily appropriate hops chosen by the extract manufacturer. Also, if you get your extract from a kit, do not use the yeast supplied with the kit!

Malt

	Amounts
Light or extralight Pils malt extract (<i>unhopped</i>)	5 lb (2.3 kg)*
Munich (<i>grain</i>)	1.5 lb (.68 kg)
Vienna (<i>grain</i>)	1.5 lb (.68 kg)
Crystal 60 °L (<i>grain</i>)	1 lb (.45 kg)

**If you mashed this alt from all grain, replace the extract with 6 pounds (2.7 kg) of pale 2-row malt.*

Hops

	Amounts
Bittering hops	.089 ÷ %AAoz
Flavor hops	1.5 oz (14 g)
Aroma hops	1 oz (28 g)

Hop Additions

	Types
Bittering (15 minutes into boil)	Hallertauer Mt. Hood, Perle or Spalt
Flavor (at shutdown, after 90 min.)	Hallertauer, Mt. Hood, Perle or Spalt
Aroma (after shutdown)	Spalt or Tettnanger (or Saaz for a more aromatic finish)

Steeping Specialty Grains

The authenticity of your extract alt improves if you steep a certain amount of specialty grains, such as Vienna and Munich and, perhaps, a smidgen of caramel, crystal or even black malts, in your brewing liquor. It is usually not possible to substitute these specialty grains reliably with canned extract products, since the outcome would be too unpredictable and not yield an authentic alt. You also may wish to adjust the amount of steeped specialty grains upwards or downwards depending on the—usually undisclosed—color value of your foundation extract.

For alt color and flavor, steep the specialty grains in the brewing liquor in your kettle *before* adding the canned lager extract. Use the same amounts of specialty grains for steeping as you would for mashing the same beer from grain. By the standards of conventional extract brewing, the amount of (continued on page 61)

Alt Specifications

Yeast	Wyeast 1007 (or equivalent)
IBU	40*
SRM	18*
OG	12 °P (1.048)*
FG	2.5 °P (1.010)*
ABV	4.8%*

**Nominal values. Actual values may differ, depending on your ingredients and processes.*

Winemaking 101

How to guarantee your first wine
is not also your last...





By Alan Moen

I made my first wine over 20 years ago from the humblest of fruits: blackberries that grew along a country road. I'd heard stories about wretched homemade wines and put them in the same class as my aunt's mouth-puckering pickled asparagus. Worth trying once, but once was probably enough. So I picked up a simple recipe from a homebrew shop, and soon my hands were purple with berry juice. Whether it was a great vintage year for blackberries or just my dumb luck, the resulting wine was more than merely palatable. In fact, it was downright good! Each year since, my hands get purple once again.

Everyone can make wine, but winemaking is not for everyone. The process is relatively simple when compared to brewing, but there is a requirement of winemakers that most brewers seem to possess in short supply: *patience*.

Wine takes time. Even the simplest fruit wines take several months to make, and grape wines may take years. At almost every stage wine requires more time than most beers. While preparing the must (crushing or extracting the fruit juice used for wine) might only take an hour or so, primary fermentation normally requires 7-10 days for most table wines, somewhat similar to lager beers.

After the wine is racked to carboy or barrel for secondary fermentation, it will need two or three weeks more. This process can even take a few extra months (especially with grape wines.) And wine almost always will benefit from further aging before bottling, sometimes more than two years. It is a rare wine that is really ready to drink in less than six months.

The Alcohol Connection

There are many reasons for this. First of all, wine simply has much more alcohol than beer and needs more time to ferment out. The average table wine is about 10-13% alcohol by volume—roughly twice the strength of most beers. Even the lightest berry wine usually is more alcoholic than all but the very beefiest of brews, such as barley wines or eisbocks.

Another reason is the composition of wine itself. While beer is made with malt sugars in grain that are converted by yeast into alcohol, wine is made from fruit juices that contain two other compounds only nominally present in beer: acids and tannins. Fruit normally contains several acids, primarily citric (as in oranges, lemons and grapefruit) and malic (apples, pears, grapes.) As a result, fruit juice is normally much more acidic than malt extract, with a total acidity of about .4-.8 g/L as compared to under .2 g/L for beer. Acids inhibit oxidation as well as yeast activity and even act as a preservative—high concentrations of acids will inhibit or even prevent fermentation.

Tannins, on the other hand, usually are present in the skins of fruits. Take a thick-skinned red apple such as Red Delicious. Peel it and taste the peeled fruit. Now eat some of the skin only. That dry, mouth-puckering taste you notice is tannin (along with fruit pectins and other compounds). Even relatively soft-skinned fruits like

grapes and peaches have tannins in their skins, which will get into the wines made from them. Like acids, tannins also act as a preservative, and require time for their effects to soften.

Nowhere is this more obvious than red wines made from grapes. While white wines are made from grape juice immediately fermented after it is pressed from the grapes following harvest, red wines are fermented "on the skins." In other words, they are simply crushed into a pulp, called a must, and fermented en masse. Red wines are not pressed to separate skins from juice until after fermentation. As a result, the natural tannins present in the grape skins (as well as the color) become part of the wine. In all those scenes we've seen of barefoot peasants treading grapes in huge vats, they were only crushing the grapes. Pressing is the second part of the operation, either immediately in the case of white wines, after some skin contact for rose wines, or after primary fermentation for reds.

Other tannins in wines come from the wooden barrels, usually made from oak, the wine often is stored in. These flavors are considered highly undesirable in nearly all beers, but can be an important part of the appeal of wines. But using barrels requires considerable caution for many reasons. Not only do you risk having your wine taste like

a lumberyard, but a barrel also is an ideal breeding ground for many undesirable bacteria that can infect your wine with some truly nasty flavors, from barnyard smells to vinegar. Oak chips can be used instead, but they usually are a poor substitute. It is better for beginning winemakers to avoid cooperage altogether.

Wines made from berries or soft fruits are easiest for the beginner. Most of these will be ready to drink in six months or less, and can keep over a year. Don't use fruit concentrates or extracts! The fresher the fruit is, the better for winemaking (even frozen fruit is preferable to a concentrate.)

For your first wine, I suggest using blackberries, raspberries, cherries or plums. When you have succeeded at these, it's time to move on to grapes. I suggest making a minimum of five gallons—with the time that wine takes, it's crazy to make it in smaller quantities. Because most fruits have excess acid and insufficient sugar to make table wine, corn or cane sugar and water will have to be added. This will require 20-30 pounds (9.08-13.62 kg) of fruit, and 5-10 pounds (2.27-4.54 kg) of sugar per batch. Grapes are the ideal fruit for winemaking because vinifera varieties normally possess an abundance of both acid and sugar and do not require as much adjustment of the must.

Red Grape Wine

- 75-100 lb fresh grapes; preferably a vinifera variety such as Merlot (34.05-45.4 kg)**
- 2 tsp pectic enzyme (9.9 mL)**
 - .25 tsp potassium metabisulfite (1.2 mL) or 5 Campden tablets**
 - 2 tbs yeast nutrient (9.9 mL)**
 - 2 packets of Pasteur Champagne yeast**

Procedure:

Crush grapes, removing stems, into the primary fermenter. Add prepared sulfite solution and pectic enzyme and leave loosely covered at room temperature for 12 hours. Rehydrate yeast in 1 cup (237 mL) of 95 degree F (35 degrees C) sterilized water and stir into must. Fermentation should start in 12 hours.

Punch down cap twice daily, keeping temperature of must between 75-85 degrees F (24-29 degrees C)—cool down or heat with electric blanket as necessary. After 7-10 days, when cap has fallen or Brix is less than 1 degree, press the must in a wine press, separating free run (the first runoff through the press) from the press wine. Pour into carboys and/or jugs, no more than four inches from top and attach airlocks. Rack again in 3-4 weeks or when wine is stable. Do not add more sulfite until the second racking, no more than .125 tsp (0.6 mL), or 2 Campden tablets. Continue to rack every 3-4 weeks without aeration. Blend in press wine to taste. Bottle in six months to one year.

Basic Winemaking Supplies

- A 6-10 gallon (5.68-9.46 L) container for fermentation, preferably with a good lid and made from food-grade plastic.
- Two 5-gallon (4.73 L) carboys
- A large stainless steel spoon
- Six feet (2 m) of plastic siphon hose with a clamp
- A racking wand or cane
- A nylon strainer bag with a fine mesh
- A large carboy funnel
- Two fermentation locks (airlock) and drilled #6 1/2 or #7 stopper
- An acid-testing kit
- Two or more glass one gallon (3.79 L) jugs with lids or stoppers
- A bottle brush and carboy brush
- A hydrometer (saccharometer) and testing jar
- A good instant-read steel thermometer
- A corker and clean new wine corks
- Wine labels!



Equipment

Winemaking requires very little equipment. In more primitive times, grapes were simply crushed and put into a container that wouldn't leak, covered to keep the bugs (and perhaps barflies) out, and the yeasts present on grape skins did their work with no further human assistance. Of course, the quality of the wine produced was highly variable, like beer made before the discovery of yeast,

stainless steel and the ability to control the temperature of fermentation.

In some places, wine still is made that way. I've had similar wines, called *vino de cosechero* in Northern Spain, which were actually quite good, no doubt because they were fairly fresh.

But winemaking has made some notable improvements over the past hundred years or so, and you should start out with a few simple supplies to give yourself a technological edge on more primitive winemakers. Following is a list of basic winemaking supplies. If you are a homebrewer, you probably have many of these

items already, and some can be used for both wine and beer. However, plastic containers will absorb odors and can be difficult to clean, so if you use them for fermentation, I recommend separate equipment for beer and wine. I would also recommend glass containers for secondary fermentation. Of course, glass and stainless steel can be readily sanitized and are suitable for both. Other metals like copper or iron will react with the acids in wine and should be avoided like the plague!

Speaking of sanitation, wine is not nearly as finicky as beer, but all equipment should be rinsed (*continued on page 63*)

Blow 'Em Away Blackberry Wine

- 20-25 lb fresh blackberries
(9.08-11.35 kg)
- .25 tsp potassium metabisulfite
(1.2 mL) or 5 Campden tablets
- 10 lb corn sugar (4.54 kg)
Pasteur Champagne dry wine
yeast (2 packets)
- 2 tbs yeast nutrient (29.6 mL)
- 2 tbs pectic enzyme (29.6 mL)
- 2-3 gallons chlorine-free fresh water
(7.57-11.36 L)

Procedure:

Mash berries with a wooden or stainless steel spoon in primary fermenter. Mix metabisulfite in a little warm water and stir in. Add pectic enzyme. Heat two gallons (7.57 L) of water and dissolve corn sugar. Pour over fruit, cover and allow to cool, loosely covered, to 70 degrees F (21 degrees C) for 12-24 hours. Take must sample and test for total acidity. Adjust with tartaric acid or dilute if necessary to attain a total acidity of .5-.6 g/L for 5 1/2 gallons (20.82 L) of must. Take hydrometer reading and adjust with sugar or water as necessary to 21-23 degrees Brix on your hydrometer scale. Prepare yeast starter by boiling 1 cup (237 mL) of water for five minutes and allow it to cool to 95 degrees F (35 degrees C). Add yeast and stir. Wait

10-15 minutes until yeast "puffs up." Add to fermenter, stir in well and cover with lid. Fermentation should begin within 12 hours. "Punch down" cap of pulp with spoon, stirring it back into must twice daily until fermentation ceases (7-10 days), or when Brix is below 2.

Strain must through nylon bag and funnel into carboy. Leave at least four inches of head space (save any extra wine in spare gallon jugs). Attach airlock and wait for fermentation to subside. Check every 2-3 days, taking a hydrometer reading each week. When wine is below 1.0 Brix or is stable (reading stays the same), rack (siphon carefully off sediment) into second carboy with aeration, allowing wine to flow down the side of the carboy. Fill within two inches of top and attach airlock.

Continue to rack the wine without aeration (siphon directly into bottom of carboy) every 3 to 4 weeks, at least three more times before bottling. Add sulfite again at the rate of .125 tsp (0.6 mL) or 2 Campden tablets per 5 gallons water on the second racking. Finings may be added at the last racking if the wine is not clear.

Bottle by siphoning into clean, sterilized bottles, allowing approximately two inches of air space in each before corking. Leave bottles upright overnight, then store overnight in a cool, dark place on their sides or inverted so the wine is in contact with the cork. Drink in six months to one year.



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MELANOIDIN MALT
WHEAT MALT:
PALE - DARK - ROASTED
Caramel Wheat Malt
SMOKED MALT
ACIDULATED MALT

Caramelized Malt:

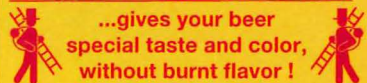
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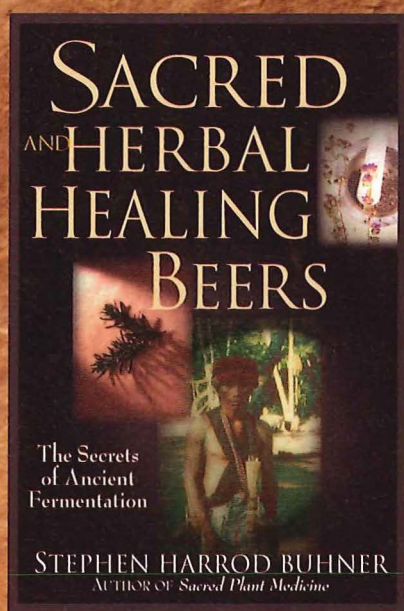
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SACRED AND HERBAL HEALING BEERS

BY STEPHEN HARROD BUHNER

Here give me leave to tell you, that there are a great number of brave Herbs and Vegetations that will do the business of brewing, as well as hops, and for many Constitutions much better; for 'tis Custom more than their real virtues that renders Hops of general Use and Esteem; they are an excellent Herb, and would be much better, if they were or could be dried in the Sun. Some other Herbs I shall here mention, for to be made use of in Drinks.

—THOMAS TRYON, 1691

As homebrewers, we already know mankind has a long and complex history with fermented beverages. In fact, there's one school of thought that contends the reason early man shifted from a nomadic existence of hunting and gathering to a more settled life of farming had more to do with grain for beer than grain for bread.

Author Stephen Harrod Buhner decided to delve even deeper into that complex relationship with his book, *Sacred and Herbal Healing Beers*. What he found was a whole world of previously forgotten beers and ales, swept away in the increasing industrialization—and standardization—of the world. Some of these beverages were created not just for drinking pleasure, but to heal. Here, for your homebrew edification, are just a few of those finds. We suggest you use caution in delving into homebrewing's past (that's why these recipes aren't in our standard format). We've also included a little bit about the herbs themselves, and what herbalist-brewers of the past used them for.

So let's turn back to clock a few millennium and see how—and what—our ancestors drank...

—Ed.

DANDELION BEER

The dried Dandelion leaves are also employed as an ingredient in many digestive or diet drinks, and herb beers. Dandelion Beer is a rustic fermented drink common in many parts of the country and made also in Canada. Workmen in the furnaces and potteries of the industrial towns of the Midlands have frequent resource to many of the tonic Herb Beers, finding them cheaper and less intoxicating than ordinary beer, and Dandelion stout ranks as a favourite. An agreeable and wholesome fermented drink is made from Dandelions, Nettles, and yellow Dock.

—MAUDE GRIEVE, 1931

Another early Spring plant, dandelion is also used as a traditional Spring food and tonic herb. In spite of dandelion being an introduced species the American Indians quickly recognized its medicinal value and developed wide ranging uses for it.

Although the flowers are still made into wine in some parts of the country, dandelion is now rarely used to make herbal beers in America.

MAUDE GRIEVE'S RECIPE FOR DANDELION BEER—1931

INGREDIENTS

2 OZ DRIED DANDELION HERB
2 OZ DRIED NETTLE HERB
1 OZ DRIED YELLOW DOCK ROOT
1 GALLON WATER
2 POUNDS SUGAR
2 TABLESPOONS DRIED POWDERED
GINGER
YEAST

Take two oz. each of dried Dandelion and Nettle herbs and 1 oz. Yellow Dock. Boil in 1 gallon of water for 15 minutes and then strain the liquor while hot on 2 lbs of sugar, on the top of which is sprinkled 2 tablespoons of powdered Ginger. Leave till milk-warm, then add boiled water gone cold to bring the quantity up to 2 gallons. The temperature must then not be above 75 degrees

F. Now dissolve 1/2 oz. solid yeast in a little of the liquid and stir into the bulk. Allow to ferment 24 hours, skim and bottle, and it will be ready for use in a day or two.

SUSUN WEED'S DANDELION BEER—1989

INGREDIENTS

1 POUND SUGAR
1 OZ CREAM OF TARTAR
1/2 OUNCE GINGER
1/2 POUND DANDELION
5 QUARTS WATER
1 CAKE OR 1 TBS YEAST

Wash well a large non-metal fermentation vessel. Put sugar and cream of tartar into vessel. Wash dandelion (use any mix of roots and leaves) and chop coarsely. Boil 10 minutes with grated ginger and water. Strain through cloth into fermenting vessel. Stir well until sugar is completely dissolved. When cooled to blood temperature brew is ready for yeast. Dissolve yeast in water and add to vessel. Cover the lot with a clean cloth and let it ferment for three days. Siphon off into sterile bottles and cap. Store bottles on their sides for a week before opening. Tastes best well chilled.

ABOUT DANDELION *Taraxacum officinale*

Dandelion, like the other herbs in nettle beer acts primarily as a blood purifier. As Daniel Mowrey comments, it acts "by straining and filtering toxins and wastes from the blood stream." Dandelion is an example of a plant whose parts offer different, and specific, effects. The root is a powerful liver herb, the leaf is a powerful diuretic. Several studies have shown that dandelion root corrects chronic liver congestion, is effective in treating hepatitis, swelling of the liver, jaundice, and dyspepsia with deficient bile secretion. Some evidence exists that use of dandelion stimulates the flow of bile to the same extent that injections of bile into the liver also accomplish. Dandelion reduces bile duct inflammation and gall

stone formation. Severe gall stone problems have been alleviated with the use of preparations containing dandelion and detailed studies have shown that it increases the concentration and secretion of bilirubin in the duodenum. A number of clinical trials have shown dandelion to be effective in treating pneumonia, bronchitis, and upper respiratory infections. A number of herbalists also note its calming effects as a tea, commenting that it has a slight (minimal) narcotic effect. It combats uric acid accumulation in the body and is thus effective in the treatment of gout.

Dandelion is a bitter (like hops) and stimulates digestion. While the leaf is one of the best diuretics available it also contains large amounts of potassium (which the root does not). Excessive urination depletes the body of potassium which is why many physicians prescribe potassium supplements with any diuretics they dispense. Dandelion leaf replaces all the potassium that is lost through its diuretic action.

WILD SARSAPARILLA ALE

*The roots are also nutritious . . .
a kind of beer can be made with them.
The berries give a fine flavor to beer,
and a wine similar to elder wine
can be made with them.*

—C. S. RAFINESQUE, 1828

The following recipe is adapted from the Canadian Pharmaceutical Journal of 1876. It was known as "New Orleans Mead." The original recipe was a "root" beer and may have been referring to Smilax and not wild sarsaparilla as I am using it here. Smilax was also called sarsaparilla. However, the plant I am using here, wild sarsaparilla, has identical actions to Smilax even though it is an entirely different species of plant. Wild Sarsaparilla was, however, used extensively in root beers of that time and is a quite delicious and highly medicinal herb. (For another recipe, see nettles.)

(continued on page 66)

HOMEBREWING.

Ground Control to Major Homebrewer

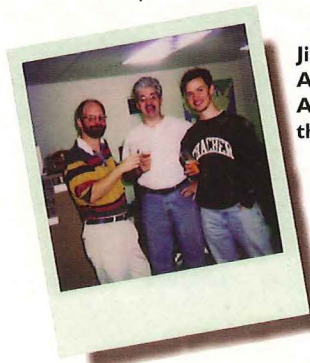
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The Guys in the Lab Wouldn't Leave Well Enough Alone

If you haven't taken a close look at AHA in recent months, now is the time. AHA members asked for more benefits, and the guys in our lab delivered. In each issue of *Zymurgy*® magazine — yours **FREE** when you become a member of AHA — we ask for your opinions on each homebrewing article. We also ask you for ideas on how we can do a better job of supporting you in your homebrewing quest. Then we do our best to give you what you want. (The guys in the lab wouldn't have it any other way.) Here's what we came up with...



Jim, Brian and Amahl: our AHA "guys in the lab."

How to Avoid Alien Encounters

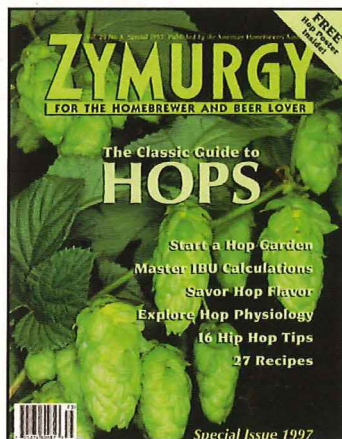


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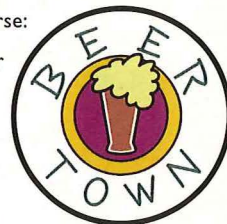
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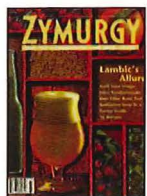
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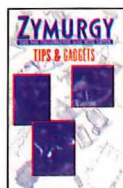
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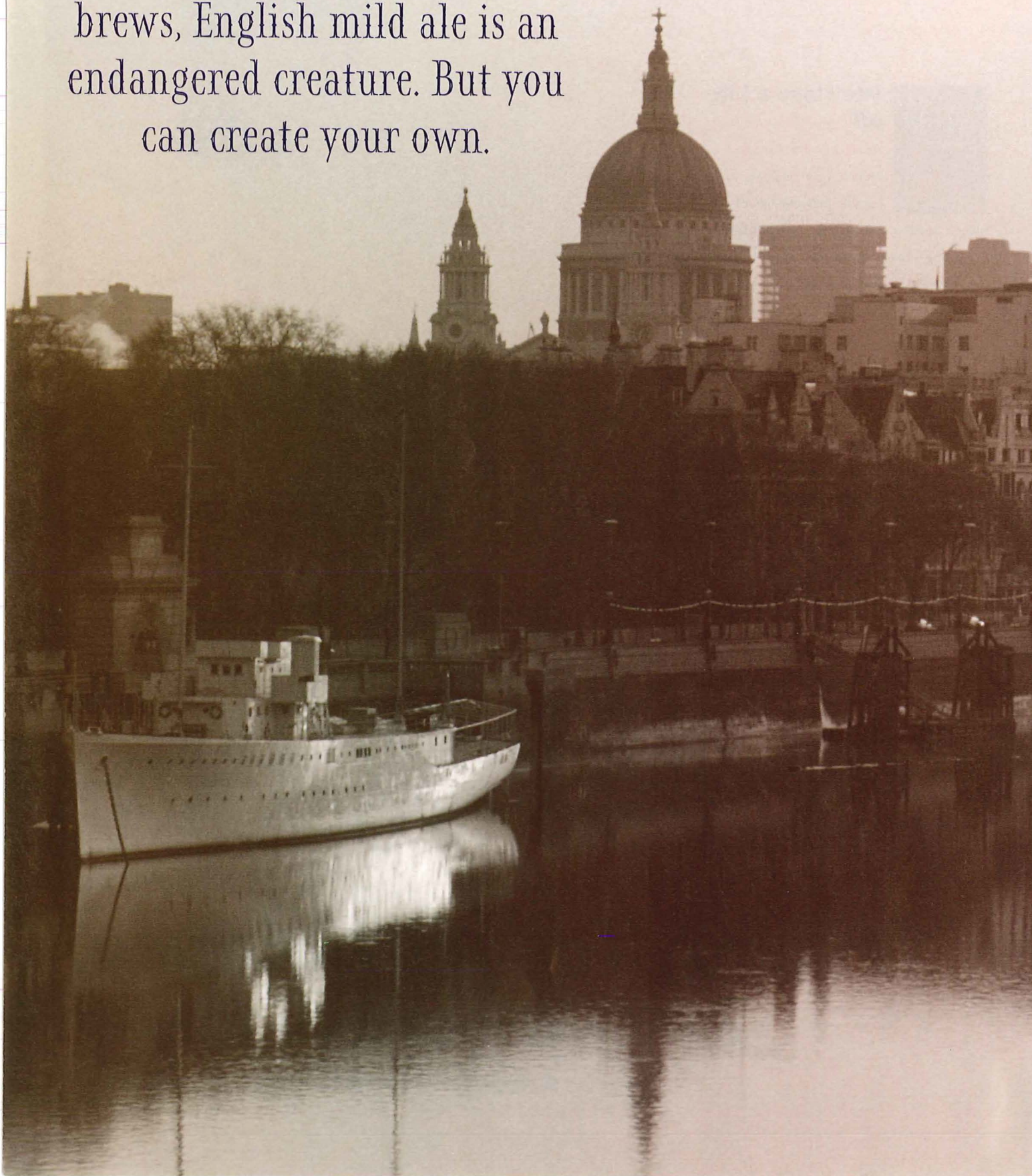
It isn't Rocket Science.

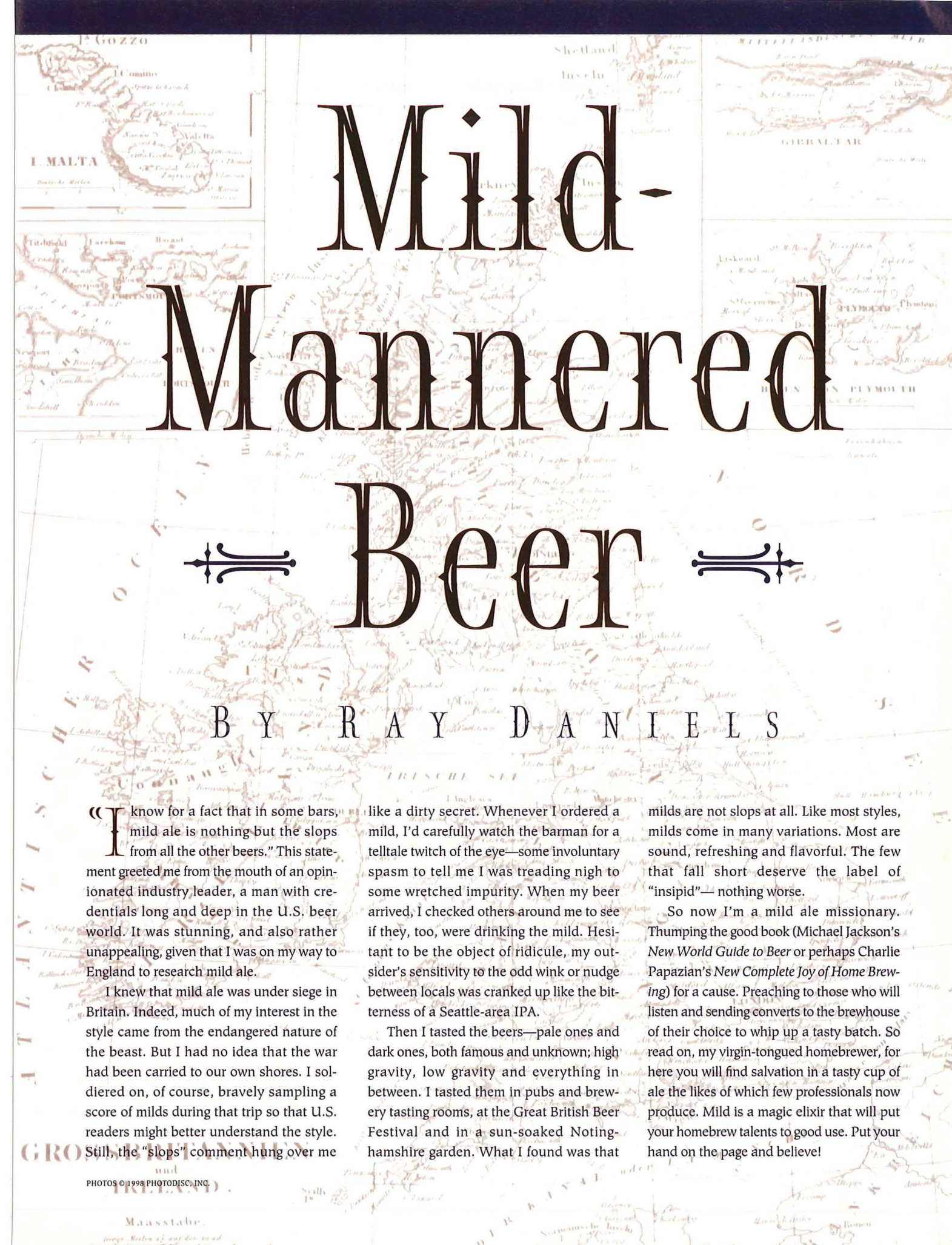


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In a world of big, brutish
brews, English mild ale is an
endangered creature. But you
can create your own.





Mild-Mannered Beer

BY RAY DANIELS

"I know for a fact that in some bars, mild ale is nothing but the slops from all the other beers." This statement greeted me from the mouth of an opinionated industry leader, a man with credentials long and deep in the U.S. beer world. It was stunning, and also rather unappealing, given that I was on my way to England to research mild ale.

I knew that mild ale was under siege in Britain. Indeed, much of my interest in the style came from the endangered nature of the beast. But I had no idea that the war had been carried to our own shores. I soldiered on, of course, bravely sampling a score of milds during that trip so that U.S. readers might better understand the style. Still, the "slops" comment hung over me

like a dirty secret. Whenever I ordered a mild, I'd carefully watch the barman for a telltale twitch of the eye—some involuntary spasm to tell me I was treading nigh to some wretched impurity. When my beer arrived, I checked others around me to see if they, too, were drinking the mild. Hesitant to be the object of ridicule, my outsider's sensitivity to the odd wink or nudge between locals was cranked up like the bitterness of a Seattle-area IPA.

Then I tasted the beers—pale ones and dark ones, both famous and unknown; high gravity, low gravity and everything in between. I tasted them in pubs and brewery tasting rooms, at the Great British Beer Festival and in a sun-soaked Notinghamshire garden. What I found was that

milds are not slops at all. Like most styles, milds come in many variations. Most are sound, refreshing and flavorful. The few that fall short deserve the label of "insipid"—nothing worse.

So now I'm a mild ale missionary. Thumping the good book (Michael Jackson's *New World Guide to Beer* or perhaps Charlie Papazian's *New Complete Joy of Home Brewing*) for a cause. Preaching to those who will listen and sending converts to the brewhouse of their choice to whip up a tasty batch. So read on, my virgin-tongued homebrewer, for here you will find salvation in a tasty cup of ale the likes of which few professionals now produce. Mild is a magic elixir that will put your homebrew talents to good use. Put your hand on the page and believe!

That Cloth Cap Crap

In his *Beer Companion*, Jackson reports that in Britain today, mild ale is seen as “old fashioned,” and that it carries a “cloth cap” image. Given Britain’s incredible love for tradition, I can’t help but wonder how anything comes to be regarded as out-of-date. Still, Jackson’s observation is confirmed both by other sources and by the dwindling supply of mild in England.

The cloth cap or “flat cap” associated with drinkers of this style is anathema to most Britons. In the U.S., you’ll see the same sort of hat (worn backwards, of course) on the 20-something crowd these days as a sort of offbeat alternative to the baseball cap. Still, in Britain people apparently avoid these hats like the plague—and mild ale, as well.

I can only imagine that among the socially conscious of the U.K., mild ale has an image that is something akin to our view of malt liquor or Thunderbird wine. That would make it potent, cheap and lacking in worthwhile flavor—in short, a workingman’s inebriate. But a rational review shows that the classic 20th century mild is nothing of the kind.

For starters, mild ales are low in alcohol. For most brewers, mild occupies the bottom rung of the alcohol-content ladder, clocking in at 2.5-3.6% alcohol by volume. Compared to the main Bud-Miller-Coors products at 4.8% and malt liquors that can be as high as 7.5%, mild looks positively pedestrian.

Despite low alcohol levels, mild ales can be rewardingly flavorful. The traditional dark examples include darker malts such as “mild,” chocolate, black and crystal. As a result, these beers offer toasted, nutty flavors sometimes accented by a touch of caramel sweetness. Ranging from understated brown ales to lightweight stouts, these tasty dark examples still flow from a range of British breweries, including Bate-man’s, Highgate, King & Barnes, Kimberly and Home.

As a counterpoint, pale milds have become quite popular, especially in the West Midlands. Amber colored, the new milds strike a slightly drier balance. With a light body and mouthfeel, these pale examples often remind me of iced tea. Their light

Twentieth Century Mild

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

Grist Composition: (assuming 70% mash efficiency)

- 6 lb English pale ale malt (2.72 kg)*
 - 0.5 lb crystal malt, 50-80 °L (.23 kg)
 - 0.5 lb chocolate malt (.23 kg)
 - 0.125 lb roast barley (.06 kg)
- Single infusion mash at 145-147 degrees F (63-64 degrees C)
East Kent Goldings, Fuggle or Willamette for all hop additions.

60 minutes before end, add:

- 5 alpha-acid units of hop pellets OR
- 6 alpha-acid units of whole hops

10 minutes before end, add:

- 0.25 oz hops (7 g)

Use an Irish ale or Thames Valley yeast.

- Original specific gravity: 1.036 (9.5 °P)
- Final specific gravity: 1.008 (2.0 °P)
- IBUs: approximately 23
- Color: deep brown to black

*For an extract version of this recipe, substitute 3.5 pounds (1.59 kg) of pale or light dry malt extract or 4 pounds (1.81 kg) of pale or light malt extract syrup for the pale ale malt. Use a grain bag to soak the remaining grains in your brew water (temperature about 150 degrees F; 66 degrees C) for 30 to 45 minutes. Remove grains, add extract and begin boiling. Dry English ale yeast can be used.

tanninlike balance quenches thirst without overwhelming the taste buds. The tastiest examples display a subtle hop aroma or a hint of hop flavor, although few American craft-beer drinkers would ever describe them as “hoppy.”

The irony of pale mild comes in its sometimes striking resemblance to many of the

bitters produced in the West Midlands. Bitter ales made by “Black Country” brewers are less assertively hopped than those from other parts of England. Thus when mild ales are made paler, their overall profile can be strikingly similar to an ordinary bitter from the same brewery.

It is true that milds are cheaper than most other pints in the average pub. Pricing schemes in Britain are far more rational than those employed in the U.S. There, beers are priced based on what it costs to produce them. Thus, the lower gravity mild uses less malt, fewer hops and—because of the low alcohol content—pays less tax. Being the decent folk that they are, the brewers and pub owners pass those savings along to the consumer in the form of lower prices.

When considered for what it really is, one wonders why mild has trouble in Britain and why it isn’t more popular over here. I can’t help but wonder if the whole objection to mild has as much to do with the name as with the product itself. Perhaps this pleasant style would do better if not saddled with a label that conjures up images of Casper Milquetoast and 98-pound weaklings. To understand the origins of this term—and the style itself—let’s take a brief look at the history of mild.

History of Mild

Although they probably were known just as “ale,” the earliest of English beers are believed to have been brown beers that were related to what today we call mild ale. The beverage of Robin Hood and Mary Queen of Scots would have been made from a malt that was brown and, in fact, smoky as the result of kilning over a hardwood fire. It was not until the development of coke (or coal) fires that this smoky flavor was removed. The smokiness, derived from oak, beech or hornbeam, was itself a prized characteristic of the day, just as smoked hams and other foods are often favored today.

One of the first definitive references to mild comes from exploring the history of porter. Developed in the early 1700s, the early porters were mixtures known as “three threads” and consisted of “a mixture of stale, mild and pale ales.”

This distinction between mild and stale occurs commonly in the 18th and 19th centuries. In those days, some beers were kept for as long as a year before sale, bringing on further attenuation and an acidic flavor. By contrast, mild was sold fresh, without aging and thus no doubt tasted sweeter—and milder—than aged, or stale, beers. While the term “mild” now defines a specific beer style, there have been times when it was merely a modifier that could be applied to any beer to indicate the fresh, unaged version of the product.

In the 19th century, the term mild ale can be found describing a number of products with gravities ranging from 1.055 to 1.080. But by 1900 we find a fuller description of mild as a style from the *Handy-Book of Brewing*:

“The mild beers are distinguished from the stock beers by a more sweetish (mild) taste, containing more unfermented malto-dextrin and less acid...Mild ales are usually brewed of a darker color than old ales, with less original gravity and less hops.”

Contemporary with this, mild ales of more modest gravity were still being sold in England as the following examples illustrate.

Twentieth Century Mild

Since the start of the 20th century, the average gravity of the mild style has dropped dramatically. The well-known English brewing author H. Loyd Hind offers mild recipes circa 1950 with gravities of 1.040 and 1.045. Today, the typical mild runs about 1.030 to 1.036. In general, hop levels are quite low, making these beers “mild” in comparison to the bitters of similar gravity often produced by the same brewery.

For much of this century, mild has been associated with a heavy-industrial region of England centered in the West Midlands. During the Industrial Revolution, the “black gold” of England was coal. Large supplies of this precious ore were found in the ground of

The Milds of Britain

To taste authentic mild ale, you still have to travel. A few can be found in London, with more available as you travel north and west through England. Some typical examples are described here:

Highgate Dark Mild: (3.2% ABV) Surrounded by a soft fruitiness, this classic dark mild beer displays hints of chocolate and caramel in the aroma and flavor. The caramel lingers briefly in the palate before a counterpunch of flowery hop flavor and a nice closing bitterness. Full-bodied for the style, it suggests the lushness of a bigger beer.

Home Mild: (3.6% ABV) Slight sulfur note, definite black malt note with roast malt dryness in the finish. A lot like a light stout. Light to medium with a cool, smooth mouthfeel make it enjoyably refreshing. Home was just taken over by Scottish and Newcastle.

Bateman's Dark Mild: (3.0% ABV) This beer hails from the east of England, well outside traditional mild territory, but it captured first place mild honors at the Great British Beer Festival in 1997. It attracts the drinker with a faint fruity, molasses aroma and then delivers a big toasty black malt flavor. Despite a clear emphasis on malt, it avoids sweetness and finishes with a pleasant bitterness.

King & Barnes Sussex Mild: (3.5% ABV) Full brown, not quite opaque. Bit of sulfur, but good and dark with malt flavor. Dry finish, just a bit of sweetness in palate. Mild chocolate/dark character.

Banks's: (3.5% ABV) The flagship product of a large regional brewery in the heart of mild country, this beer no longer goes by the name of “mild.” Amber colored, it presents a fresh yeasty aroma. The balanced palate gives the nod to malt with a touch of caramel flavor. Clean bitter finish and never sweet.

Whim Magic Mushroom Mild: (3.8% ABV) Tea-like balance, just a touch of caramel sweetness. Ruby red with little dark malt flavor and generous sweetness. Medium bodied.

northwest England between Birmingham and Manchester. In addition, the area offered a network of rivers and canals more extensive than that of Venice, Italy. Given the ready supply of fuel and easy transportation, the area soon hosted extensive facilities for coal mining and coke production, the smelting of iron and steel and the fabrication of locks, keys, nails, chains and ship anchors.

The heavy smoke and soot that clogged the sky and blanketed large portions of the West Midlands soon earned it the title of “The Black Country.” To sate the thirst of those who labored in this hellish industrial paradise, mild ale won out.

Fortunately or unfortunately, depending on one's point of view, the last 50 years have brought the decline and virtual disappearance of heavy industry in the West Midlands. As a result, the Black Country is no longer black. Perhaps in sympathy, mild has evolved as well.

Today in the Black Country and other nearby regions, beer drinkers find a variety

of milds. Across these examples one still finds the traditional dark-malt flavors of the classic. But more commonly, beer drinkers see the pale offspring of the style that now dominates. Our sidebar of British milds illustrates the breadth of character represented by this little known style.

Enjoying Mild Ale

If you travel to England, you might get a chance to sample some mild ales. Still, you'll have to hunt a bit, unless you travel to the West Midlands or Nottinghamshire.

In the U.S., the situation is worse. Few milds are produced, and most are seasonal specialties on brewpub menus. Finding them is a rare treat.

So what does a homebrewer do when (s)he wants to enjoy a particular type of beer that is not readily available? Brew your own, of course! I developed the recipe listed below to celebrate the 20th anniversary of the Chicago Beer Society in 1997. It was brewed as the 100th batch of beer at the nearby Flatlander's Brewpub. The 20th anniversary/100th batch took on the name of “Twentieth Century (continued on page 69)

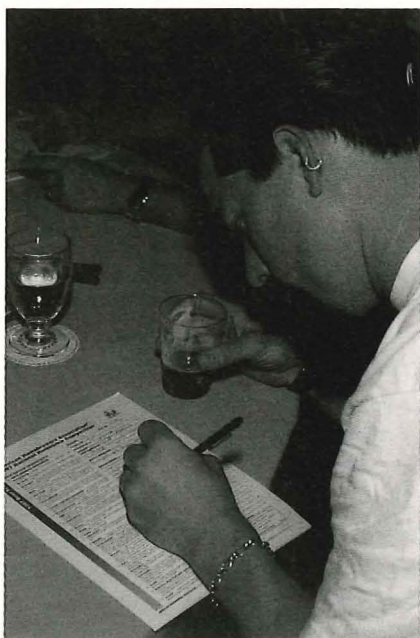
Style	°P (OG)	lbs hops/Am bbl of wort
Burton Mild Ale:	14 - 15 (1.056 - 1.060)	1.5 - 2
London Four Ale (mild):	13 - 14 (1.052 - 1.056)	0.8 - 1.25

WINNERS

C I R C L E

Amahl Turczyn

This is the final installment for the winners of the 1997 National Homebrew Competition. Many of these brewers are veterans of this contest, and it shows from the number of awards they have won. For example, Thomas O'Connor III, M.D. won a medal in the '97 NHC for a cider, a mead and for the delicious peach ale featured in this Winner's Circle. Bruce Stott placed twice with a Dunkel and with his "3rd Alt" recipe. Daniel Darnell also took two medals, not only for this Scottish heavy ale, but also for his strong Scotch ale. And Ted Johnston took a medal for his "Henley Bear" English bitter, and then went on to win the 1997 Invitational Brew-Off at the Homebrew Rendezvous conference in Cleveland, Ohio. These guys are serious about their brewing, and with the following recipes, you can brew like the best.



Classic Style Fruit & Vegetable Beer



BRONZE MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Thomas J. O'Connor III M.D.

Rockport, ME

"J. Duck's Peach American Wheat Ale"

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

- 5 lb pale malt (2.27 kg)
- 2 lb flaked wheat (.91 kg)
- 1 lb carafoam malt (.45 kg)
- 1 oz Tettnanger whole hops, 4.5% alpha acid (28 g) (60 min.)
- Wyeast No. 1056 American ale yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.042
- Final specific gravity: 1.007
- Boiling time: 60 min.
- Primary fermentation: 34 days at 68 degrees F (20 degrees C) in glass
- Secondary fermentation: 7 days at 32 degrees F (0 degrees C)
- Age when judged: 1 month

Brewer's Specifics

Mash grains for 30 min at 131 degrees F (55 degrees C). Raise mash temperature to 152 degrees F (67 degrees C) and hold for 120 min.

Judges' Comments

"...Nice peach beer. Wheat style evident in texture and head. A pinch more acidity might brighten up peach flavor."

"Well done. Good peach expression. Clean finish."

German-Style Dusseldorf Alt



BRONZE MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Bruce Stott

Rockville, CT

"3rd Alt"

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

- 6 lb pale malt (2.7 kg)
- 2 lb Munich malt (.91 kg)
- 1 lb Vienna malt (.45 kg)
- .75 lb aromatic malt (.34 kg)
- .5 lb Cara-Vienne malt (.23 kg)
- .25 lb Special B malt (.11 kg)
- .19 lb black patent malt (.08 kg)
- 1.25 oz Northern Brewer hop pellets, 8.5% alpha acid (35 g) (60 min.)
- 1 oz Hallertauer hop pellets, 4.2% alpha acid (28 g) (45 min.)
- Wyeast No. 1007 London ale yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.055
- Final specific gravity: 1.011
- Boiling time: 60 min.
- Primary fermentation: 18 days at 52 degrees F (11 degrees C) in glass
- Secondary fermentation: 40 days at 52 degrees F (11 degrees C) in glass
- Age when judged: 6 months

Brewer's Specifics

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

Classic Style Smoked Beer



SILVER MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Brian Beckmann

Andover, N.J.

"Smoked Porter"

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

- 8 lb pale malt (3.63 kg)
- 1 lb German Munich malt (.45 kg)
- .5 lb crystal malt (.23 kg)
- .5 lb chocolate malt (.23 kg)
- .5 lb black patent malt (.23 kg)
- 1.5 oz Kent Goldings hop pellets,
5.3% alpha acid (43 g) (60 min.)
- .5 oz Kent Goldings hop pellets,
5.3% alpha acid (14 g) (60 min.)
- 1 oz Kent Goldings hop pellets,
5.3% alpha acid (28 g) (2 min.)
- Wyeast No. 1084 Irish ale yeast
- .75 cup dextrose (177 mL) to prime

- Original specific gravity: unknown
- Final specific gravity: 1.016
- Boiling time: 75 min.
- Primary fermentation: 7 days at 68 degrees F (20 degrees C) in glass
- Secondary fermentation: 2 months at 68 degrees F (20 degrees C) in glass
- Age when judged: 1 month

Brewer's Specifics

Smoke grains with apple wood smoke. Begin mash with a protein rest at 130 degrees F (54 degrees C) for 45 min. Raise to 153 degrees F (67 degrees C) and hold for 55 min.

Judges' Comments

"Smokiness is dominant flavor. Could have more malt and hops. Would be better to identify as robust or brown porter."

"Rich, creamy brown head lingers. Clean."



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

American Brown Ale



SILVER MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

David Hartwig

Lone Jack, MO

"Dave's Bitter Brown"

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

- 8 lb pale malt (3.6 kg)
- 1 lb Special B malt (.45 kg)
- .5 lb chocolate malt (.23 kg)
- .25 lb wheat malt (.11 kg)
- 1 oz Northern Brewer hop plugs,
7.8% alpha acid (28 g) (60 min.)
- 1 oz Cascade hop plugs, 5.8% alpha acid (28 g) (30 min.)
- 1 oz Cascade hop pellets, 5.5% alpha acid (28 g) (10 min.)
- .5 oz Hallertauer hop pellets, 3.6% alpha acid (14 g) (steep)
- .25 oz Fuggles hop pellets, 4.4% alpha acid (7 g) (steep)
- 1 oz Willamette whole hops, 5% alpha acid (28 g) (dry)
- Wyeast No. 1056 American ale yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.057
- Final specific gravity: 1.015
- Boiling time: 60 min.
- Primary fermentation: 14 days at 58-60 degrees F (14-16 degrees C) in glass
- Secondary fermentation: 8 days at 58-60 degrees F (14-16 degrees C) in glass
- Tertiary fermentation: 40 days at 32 degrees F (0 degrees C) in stainless steel
- Age when judged: 2 months

Brewer's Specifics

Mash grains at 152 degrees F (67 degrees C) for 90 min.

Judges' Comments

"Malty, sweet flavor. Lacks the bitterness promised by the aroma. Clean."

"Well hopped...great balance. Good, rich beer."

Munich Helles



SILVER MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Harrison Gibbs

Los Angeles, CA

"My Munich"

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

- 8 lb pale malt (3.6 kg)
- 1 lb 8 °L Munich malt (.45 kg)
- 1.2 oz Spalt whole hops, 1.8% alpha acid (31 g) (75 min.)
- .3 oz Hallertauer whole hops, 5.6% alpha acid (9 g) (45 min.)
- .4 oz Tettnanger pellet hops, 4.3% alpha acid (12 g) (30 min.)
- .4 oz Tettnanger pellet hops, 4.3% alpha acid (12 g) (5 min.)
- .2 oz Hallertauer whole hops, 5.6% alpha acid (5 g) (5 min.)
- Wyeast No. 2308 Munich lager yeast
- .75 cup dextrose (177 mL) to prime

- Original specific gravity: 1.050
- Final specific gravity: 1.010
- Boiling time: 90 min.
- Primary fermentation: 18 days at 50 degrees F (10 degrees C) in glass
- Secondary fermentation: 38 days at 36 degrees F (2 degrees C) in glass
- Age when judged: 5 months

Brewer's Specifics

Toast malt at 350 degrees F for 20 min. Mash grains at 150 degrees F (66 degrees C) for 30 min. Raise mash to 152 degrees F (67 degrees C) for 60 min. Mash out at 170 degrees F (77 degrees C) for 10 min.

Judges' Comments

"Deep golden hue with good clarity and decent head. Attractive beer."

"Malt properly dominates balance, which includes a good bit of hop that's still in range. Malt lingers through finish, which is a tad too dry."

"A pretty, very well-made lager with lovely malt expression in aroma and flavor."

Scottish Heavy Ale



SILVER MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Daniel Darnell

Penn Valley, CA

"Leather and Lace"

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

- 8 lb pale malt (3.63 kg)
- 1 lb biscuit malt (.45 kg)
- 1 lb dry amber malt extract (.45 kg)
- .5 lb Cara-Munich malt (.23 kg)
- .25 lb 60 °L crystal malt (.11 kg)
- .25 lb 120 °L crystal malt (.11 kg)
- .25 lb peated malt (.11 kg)
- 1 oz roast barley (28 g)
- .75 oz Kent Goldings hop pellets, 4.9% alpha acid (21 g) (60 min.)
- .75 oz Kent Goldings hop pellets, 4.9% alpha acid (21 g) (30 min.)
- Wyeast No. 1728 Scottish ale yeast
- forced CO₂ to carbonate

- Original specific gravity: 1.045
- Final specific gravity: 1.010
- Boiling time: 60 min.
- Primary fermentation: 8 days at 65-70 degrees F (18-21 degrees C) in glass
- Secondary fermentation: 9 days at 68 degrees F (20 degrees C) in glass
- Tertiary fermentation: 27 days at 35 degrees F (2 degrees C) in stainless steel
- Age when judged: 6 months

Brewer's Specifics

Mash grains at 120 degrees F (49 degrees C) for 30 minutes. Raise mash temperature to 150 degrees F (66 degrees C) for 10 min. Raise temperature to 158 degrees F (70 degrees C) for 60 min. Mash out at 168 degrees F (76 degrees C) for 10 min.

Judges' Comments

"Very nice malt nose. Good malt sweetness. Very nice example of a Scottish heavy."

"Sweet with some bitterness. Coats the tongue a little. Needs more malt complexity."

English Best Bitter



BRONZE MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Ted Johnston

Phoenixville, PA

"Henley Bear Bitter"

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

- 7 lb pale malt (3.18 kg)
- .5 lb 60 °L crystal malt (.23 kg)
- .5 lb flaked maize (.34 kg)
- .5 lb Demerara sugar (.34 kg)
- .25 lb Cara-Pils malt (.11 kg)
- 2 oz Goldings hop plugs, 5% alpha acid (57 g) (60 min.)
- 1 oz Goldings hop plugs, 5% alpha acid (57 g) (10 min.)
- .25 oz Goldings hop plugs, 5% alpha acid (57 g) (0 min.)
- .5 oz Goldings hop plugs, 5% alpha acid (57 g) (dry, 14 days)
- Wyeast No. 1084 Irish ale yeast
- .25 cup dextrose (59 mL) to prime

- Original specific gravity: 1.050
- Final specific gravity: 1.013
- Boiling time: 90 min.
- Primary fermentation: 3 days at 67-70 degrees F (19-21 degrees C) in glass
- Secondary fermentation: 7 days at 66-68 degrees F (19-20 degrees C) in glass
- Tertiary fermentation: 19 days at 50-55 degrees F (10-13 degrees C) in glass
- Age when judged: 4 months

Brewer's Specifics

Mash grain at 151-156 degrees F (66-69 degrees C) for 90 min.

Judges' Comments

"Nice complexity of hop and malt. Slight alcohol, some diacetyl. Spicy."

"Nice balance. Mild fruitiness balanced with hop bitterness and some residual sweetness."

"Slight haze, low carbonation, as appropriate. Grainy, slightly astringent in middle [of] tongue and finish."

German Style Doppelbock



SILVER MEDAL

AHA 1997 NATIONAL HOMEBREW COMPETITION

Tom Estudillo

La Cañada, CA

"Accelerator"

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

- 13 lb light dry malt extract (5.9 kg)
- 3.5 lb pale malt (1.6 kg)
- 1.25 lb Cara-Vienne malt (.57 kg)
- 1 lb medium crystal malt (.45 kg)
- 2 oz Eroica hop pellets (57 g) (95 min.)
- 1 oz Tettnanger hop pellets (28 g) (10 min.)
- 1 oz Tettnanger hop pellets (28 g) (steep)
- Wyeast No. 2206 Bavarian lager yeast
- .66 cup dextrose (156 mL) to prime

- Original specific gravity: 1.106
- Final specific gravity: 1.044
- Boiling time: 95 min.
- Primary fermentation: 20 days at 55 degrees F (13 degrees C) in glass
- Secondary fermentation: 120 days at 49 degrees F (9 degrees C) in glass
- Tertiary fermentation: 90 days at 49 degrees F (9 degrees C) in glass
- Age when judged: 6 months

Brewer's Specifics

Mash grains at 159 degrees F (71 degrees C) for 60 min.

Judges' Comments

"Slight oxidized flavor, finishes well, hopping rate good, nice alcohol feeling."

"This is a really good beer, nice malt/hop balance, nice malt flavor."

Amahl Turczyn has been homebrewing since 1985 and professionally brewing since 1995. He compiled *A Year of Beer* (Brewers Publication, 1997) and is the AHA Project Coordinator.

WORLD OF WORTS

° Charlie Papazian

Charlie Snakes an IPA

When I'm in the mood—and often I am—a chilled glass of hoppy, bitter, light yet malty on the palate India pale ale is perfect for not only my thirst, but as an accompaniment to a meal.

Personally speaking, I don't seek out these special pale ales that are heavy on the Cascade, Centennial or a hybrid thereof. Frankly, I've become a bit oversaturated, almost bored, with the citruslike assault of these hops in many American India pale ales.

Now, don't get me wrong. I would never refuse a well-made, well-balanced IPA. What's well-balanced? For me, the assault of the hops should not be sharp and biting. Late hopping shouldn't be so overdone that the brew smells like a grassy, fresh bale of hops. Maltiness should be there, but not excessively caramel-sweet. Alcohol? Yes, there it should be evident, but only on the palate. I don't want to feel the heat. Well-balanced means all the elements that are important in an IPA are there, but the overall impression, the memory, is the balance, not one particular element. An IPA can be one of the most drinkable session beers if the alcohol is not overdone. It actually quenches the thirst. And like a friendly addiction, the hop bitterness bathes the senses. After the beer goes down and the aftertaste diminishes, your soul desires more of the same.

India pale ales—I love 'em. But one must remember that there is a degree of inspiration in every glass of homebrew and that inspiration often leads to diversions.

What if we took a few of the principles

of brewing a traditional India pale ale and switched them topsy-turvy? What if we used a lager yeast instead of an ale yeast? What if we cold fermented rather than ale fermented? What if we used the same malt ingredients and the same dose of bitterness, flavor and aroma hops, but used nontraditional IPA hops.

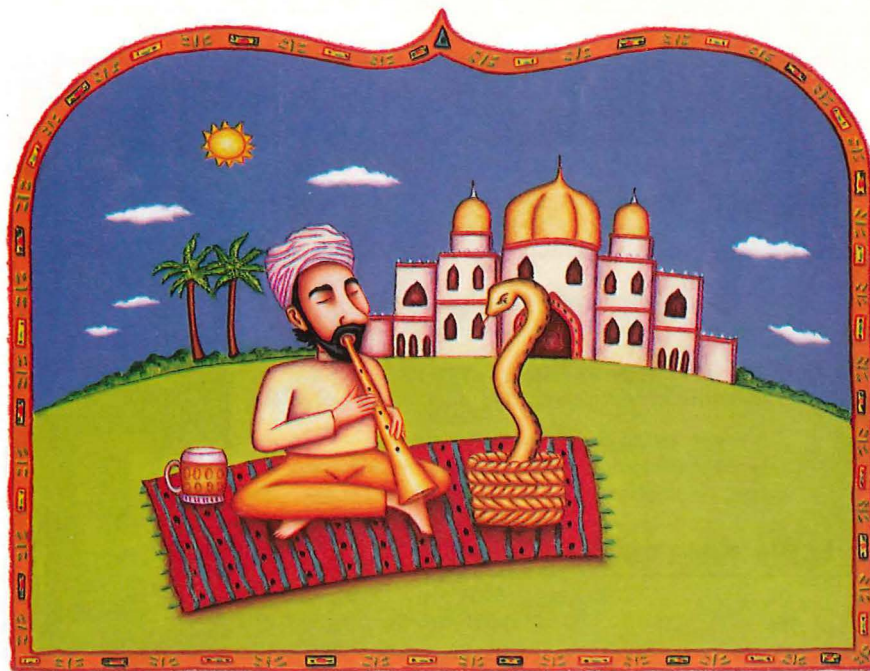
I always keep a good store of various malts, extracts, yeasts and hops ready for whatever whim guides me on my next brewing journey.

It's been quite some time since I experimented and shared with you my "Belgian Stout," a cross between an imperial stout and Belgian coriander-orange-witbier. I believe the phase of the moon and the alignment of the planets got me once

again. Also, having just judged the IPA category in a recent competition, it left me wondering if I could produce a beer with the balance I was looking for in a crisply bitter brew.

I've been yearning to try my stash of New Zealand hops, but not wanting to use them in my more traditional brews for fear of endangering the classic characters I've been able to reproduce in my German-style lagers and my English-style ales. With the notion of lager, smooth, crisp and not ale-fruity and these well-regarded, but untested by myself, New Zealand hops I was off with my formulation: an "EyePA."

A clean well-attenuating lager yeast is recommended, while cool fermentation and cold lagering are a must to get the maximum



anticipated smooth, lagered-crisp drinkability. I was still reminiscing about a classic IPA when I decided to add gypsum to the water, contributing to the perception of hop complexity. Plenty of hops in three charges give all the bitterness, flavor and aroma character sought in an India pale. Munich, crystal and wheat malts are used in small proportion to lend a balance toward maltiness yet not overwhelm. They become, rather, a suggestion and well-integrated into the overall impression and balance. The long cold lagering really helps soften the

bitterness "edge." The cold lagering and wheat malt also contribute greatly toward head retention and foam stability.

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

Ingredients and recipe for 5.25 gallons (20 L), final yield to secondary will be 5 gallons (19 L). This is an advanced brewing partial mash and malt extract recipe.

- 3.5 lb two-row or six-row pale malt (grain)(1.6 kg)
- 1.5 lb (0.7 kg) Munich malt

- 8 oz crystal malt (30 °L) (225 g)
- 8 oz wheat malt (225 g)
- 3.5 lb extra-light dried malt extract (1.6 kg)
- .8 oz New Zealand Super Alpha pellet hops (23 g) (an American and German cross for aroma and bitterness) (10 HBU/280 MBU) boil 60 min.
- .8 oz New Zealand Green Bullet (10 HBU/280 MBU) pellet hops (23 g) boil 60 min.
- 1 oz New Zealand Hallertauer Triploid pellet hops (28 g)(bred from Hallertauer Mittelfrüh) (7 HBU/196 MBU) boil 40 min.
- 1 oz New Zealand Hallertauer Triploid pellet hops (28 g)(bred from Hallertauer Mittelfrüh) (7 HBU/196 MBU) boil 3 min.
- 2 tsp gypsum
- 1 tsp powdered Irish moss
- .75 cup corn sugar/glucose (180 mL) (priming)
- liquid lager yeasts (Pilsener types with good attenuation)

- Original gravity: 1.056-1.060 (14-15 °B)
- Final gravity: 1.016-1.018 (4-4.5 °B)
- IBUs calculated to 87, but because of saturation/concentration factors and other losses, estimated to be in the mid-to-high 50s
- Approximate color: 9 SRM (18 EBC)
- Alcohol: 5.7% by volume, 4.5% by weight
- Apparent yeast attenuation: about 73%
HBU = % alpha acid rating of hops multiplied by ounces = Homebrew Bittering Units
MBU = % alpha acid rating of hops multiplied by grams = Metric Bittering Units

A step infusion mash is used to mash the grains. Add 6 quarts (5.7 L) of 136 degree F (56 degree C) water to the crushed grain, stir, stabilize and hold the temperature at 132 degrees F (53 degrees C) for 30

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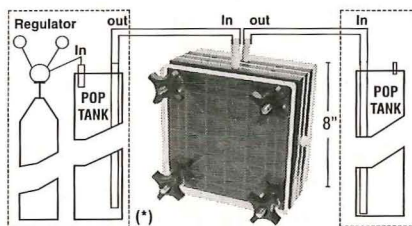
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minutes. Add 3 quarts (2.9 L) of boiling water and one teaspoon (4.9 mL) of gypsum and add heat to bring temperature up to 156 degrees F (69 degrees C) and hold for about 30 minutes.

After initial rest, raise temperature to 158 degrees F (70 degrees C) and maintain for another 30 minutes. Then raise temperature to 167 degrees F (75 degrees C), and sparge with 3 gallons (11.4 L) of 170 degree F (77 degree C) water to which you've added the remaining one teaspoon (4.9 mL) of gypsum. Collect about 3 gallons (11.4 L) of runoff and add the malt extract and bittering Super Alpha and Green Bullet hop pellets and bring to a full and vigorous boil.

The total boil time will be 60 minutes. When 40 minutes remain add 1 ounce (28 g) Hallertauer Triploid hop pellets. When 10 minutes remain add Irish moss. When 3 minutes remain add remaining 1 ounce (28 g) Hallertauer Triploid hop

pellets. After a total wort boil of 60 minutes turn off the heat. Then strain and sparge into a sanitized fermenter to which you've added 1.5 gallons (5.7 L) of water. It helps to prechill (33 degrees F or 1 degree C) the water added to the fermenter rather than simply adding warmer tap water. Top off with additional water as necessary to yield 5.25 gallons (20 L).

Pitch a good dose of healthy active lager yeast and primary ferment at temperatures between 50 and 55 degrees F (10

and 12.5 degrees C) and lager between 35 and 40 degrees F (2 and 4.5 degrees C) for one month.

Prime with sugar and bottle when fermentation is complete.

World Traveler Charlie Papazian is the founding president of the Association of Brewers and author of numerous best-selling books on homebrewing. His most recent is *Homebrewer's Gold* (Avon 1997), a collection of prize winning recipes from the 1996 World Beer Cup Competition.

HOMEBREW BITTERING UNITS

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

INTERNATIONAL BITTERNESS UNITS

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

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

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

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

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

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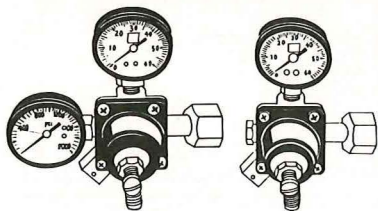
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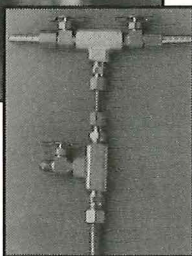
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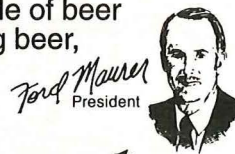
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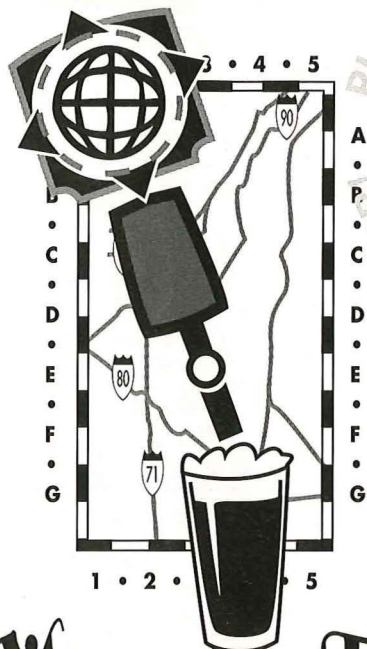
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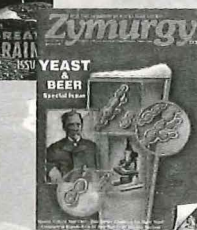
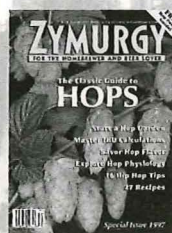
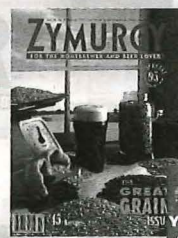
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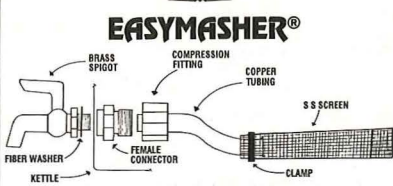
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Fellow Diner: The guy you're talking to is Pete.

Waitress: What?

Diner: Pete, as in the "Pete" in Pete's Wicked Ale.

Waitress: There is no "Pete." It's just a name.

Pete: No, I'm Pete.

Waitress: How can you be Pete?

Diner: A lot of us ask that question...

Beer for Pete's Sake: The Wicked Adventures of a Brewing Maverick conclusively answers the questions of how Pete can be Pete. The book is nominally the story of Pete Slosberg, the one-time financial analyst, homebrewer and wine snob who achieved a kind of liquid immortality as the Man Who Created Pete's Wicked Ale.

Pete's was, of course, one of the early nationally distributed microbrews and helped pave the way for the flood to follow. And Pete, following in the footsteps of ice-cream magnates Ben and Jerry and that grandfatherly guy who pitches Wendy's hamburgers, used himself as his primary

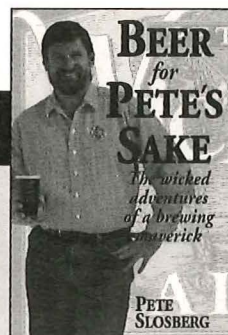
marketing tool.

Don't get the idea, however, that *Beer for Pete's Sake* is solely about the rise of Pete's Wicked—Pete doesn't have that kind of attention span. Instead, what we have here is a strange—interesting, involving, but clearly strange—book that covers everything from Pete's evolution from wine snob to winemaker to homebrewer; a complete, concise explanation of how beer is made; a huge collection of beer trivia; how Pete ended up on the Simpsons and at TOPGUN; a collection of debunked beer myths; favorite recipes (for food, not beer); how to really enjoy beer; the use of beer as a building material; Robert Burn's *John Barley Corn* poem and how it ended up a hit song by the early 1970s' group Traffic and a whole bunch of other strange things.

All this in 250 pages!

Rather than discuss the wisdom of trying to stuff everything in your psychic closet in a single book, let me say that I enjoyed *Beer for Pete's Sake* enormously, have recommended it to everyone even vaguely interested in beer and do the same here. This is a great book for homebrewers to give their parents, who suspect that their offspring have gone off the deep end.

—Michael Bane



Brew News (from page 14)

Khoury is not currently allowed to distribute his beer to Gaza, where he believes there is a potential market for Taybeh beer, despite the fact that the population is 99.5% Muslim.

The beer, which is described as golden and flavorful, has been favorably received among the Palestinians, Israelis and others who have tried it. It is also reported to be popular among U.S. diplomats in Tel Aviv. Future plans may include a special Taybeh beer for the year 2000. What will it be called? "We'll call it Bethlehem 2000," says Khoury. (*Detroit Free Press*, April 29, 1998)

Price of Duff Up Down Under

Duff Beer, the preferred brand of television's favorite animated couch potato, Homer Simpson, has reappeared for sale in classified advertisements in Australia—for a price. Duff was brewed by the South Australian Brewing Company until 1996, when it was banned after the makers of the popular cartoon series, *The Simpsons*, complained that the beer name had been stolen from their show. Sellers of the beer, which sold for around \$15 for a case of 24 cans in 1995, are now asking up to \$6,300 per case. (*Rocky Mountain News*, Monday, May 18, 1998)

Altior Motives (from page 33)

grain used with this technique is relatively large. But remember that alt is a copper-colored ale and that we get most of our alt characteristics out of the specialty grains, not out of the can. Steeping your specialty grains produces fewer sugars than does grain mashing and sparging; that is, it makes only a small contribution to your wort's gravity.

For this reason, you have to compensate for the relative loss in gravity by increasing the amount of pale malt extract—usually by about 10% to 20%—over and above the mathematically determined canned-extract equivalent of the two-row foundation grain only.

To prepare the specialty grains for steeping in the brewing liquor, place them first in a strong plastic bag and use a rolling pin or wine bottle to crack them. Do not fine-mill your specialty grains for steeping, as you do not want to leach phenols from the grain husks and unconverted starches into your brewing liquor.

After cracking, place the grains in one to three muslin bags—depending on quantity—and immerse them in about two gallons (7.8 L) of cold water. Heat the water slowly until you can detect bubbles rising in the kettle. This should take at least half an hour, at which point the brewing liquor should be about 190 degrees F (88 degrees C). Do not boil your specialty grains! Lift the muslin bag(s) out of the kettle and rinse each with about one-half to one cup (118-237 mL) of cold water. Do not squeeze the bag(s), since the moisture in the steeped grains is not good to the last drop!

The Kettle Process

After you remove the grains from the kettle, bring the now colored and flavored brewing liquor to a boil. Remove the kettle from the burner to add the extract. This will prevent scorching of the thick extract as it sinks to the bottom. Stir gently to distribute the extract evenly. Stir without splashing the wort to avoid hot-side aeration, which could impart a cardboardlike taste to the beer.

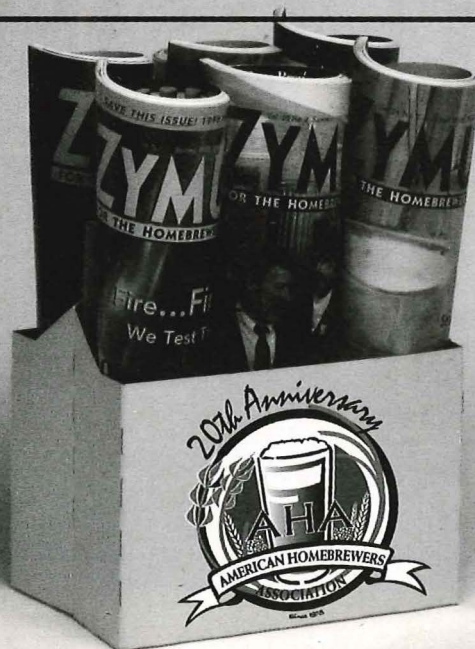
Next, bring the mixed wort to a boil. At this stage, be especially watchful for boil-overs because wort without hops is much foamier. Fifteen minutes into the boil, add

your bittering hops. Note the alpha acid rating of your bittering hops and calculate the required weight of the addition by using the formula listed in the specifications at the beginning of this article. This formula is already adjusted for a net kettle volume (after the boil) of five gallons (18.9 L). With bittering hops of 9.2% alpha acids, for instance, you need $.089 \div .092$ ounces (equal to about 1 ounce, or 27 grams). Boil your wort for another 75 minutes and shut off the burner. Add the flavor hops. Wait until the wort has

cooled (to about 180 degrees F, 82 degrees C), then add the aroma hops.

You can use Hallertauer (Mittelfrüh is best, North American-grown Hallertauer worst), Perle, Spalt or Mount Hood for bittering, flavor and aroma. You can use the same variety for all hops additions or select different hops for the different additions. German alt brewers are particularly partial to Hallertauer Mittelfrüh, Perle and Spalt. A good North American-grown substitute is Mount Hood. In addition, you can use Tet-

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tnanger (of both German or North American origin) as an aroma hop. Some alts give a more lingering finishing aroma with Saaz.

Fermentation and Lagering

Whirlpool the cooling wort with a spatula to accelerate the sedimentation of trub. Next, chill the wort to the alt's fermentation temperature of about 60 degrees F \pm 5 degrees (16 degrees C \pm 3 degrees) and pitch

the yeast into your primary fermenter. Selecting the right yeast is crucial to fermenting a true alt. Use Wyeast 1007, G.W. Kent A06 or an equivalent yeast only. Do not use British or American ale yeasts, nor German lager yeasts, as these do not produce an authentic alt flavor profile!

Transfer and aerate your alt wort, as you would with any other beer, but allow for about 33% head space in your primary fermenter, since alt yeast throws up an unusually thick, rocky head of foam. Use at least

a six-gallon carboy for a five-gallon batch, or use a firmly secured blow off tube. Leave the wort to ferment for about a week. During this slow, cool primary fermentation, the yeast releases relatively few off-flavors and trace elements, such as diacetyl, which come mostly from sulfuric and estery by-products of the yeast's metabolism.

Finally, rack the almost completely attenuated beer into a secondary vessel—a fresh five-gallon carboy or a Cornelius keg—for lagering (from the German word *lagern* for “to store”). During lagering, you should reduce the beer's temperature gradually by 2 degrees F (1 degree C) per day until your alt reaches a temperature of 32-40 degrees F (0-3 degrees C). A spare refrigerator works well for this purpose. Let the alt mature for a total of two weeks to two months on the yeast. Alt gets better with age. During the first two weeks of lagering, you should rack the beer once or twice off the sedimenting debris and dead yeast.

Lagering gives the alt its crispness and cleanliness of palate because it allows the yeast to reabsorb, through its cell membrane, many of the unpleasant-tasting by-products of fermentation. In a sense, the yeast “scrubs” the beer clean, which is the true miracle of beer maturation through lagering. An alt that has been lagered for about four to six weeks becomes clean, soft and mellow.

Alt yeast is slightly dusty and generally does not settle out easily. Therefore, if you want a clear beer and you have the equipment, filter (at about three microns) before packaging. Package it at as low a temperature as is possible with your setup. Some commercial breweries package their alt at a frigid 28 degrees F (-2 degrees C). If you condition your alt with CO₂ in a Cornelius keg, set the pressure to no more than 12 psi. Serve the alt at about 55 degrees F (13 degrees C).

A lot of effort? Sure. But definitely worth it!

German-born Horst D. Dornbusch, brewer, journalist and former book editor at *Reader's Digest*, is the founder and owner of Dornbusch Brewing Company, specializing in German-style microbrews (including an alt). He is the author of *PROST! The Story of German Beer* and *Altbier*, No. 12 of the *Classic Beer Style Series*. Both books are published by Brewers Publications, a Division of the Association of Brewers, Boulder, CO.



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Winemaking 101 (from page 37)
with a 5% solution of sulfur dioxide (SO₂) made by dissolving .25 cup (59 mL) of potassium (or sodium) metabisulfite in one gallon (.95 L) of water (add the powder to a quart or two of hot water first to dissolve it, then top up with cold water). Rinse all equipment again with cold tap water before using it.

What Can Go Wrong

Having judged homemade wines at many fairs and competitions, several typical flaws stand out above the rest. I'll list them in their usual order of appearance.

Oxidation

This is the number-one enemy of wine. Its sure signs are stale fruit smells or a sherryish, nutty or cooked aroma. Oxidation—exposing fermented wine to excess air after fermentation—is the gateway to all kinds of other maladies, such as volatility from acetic bacteria, which need air to work. Lighter colored wines show the same signs of browning with oxidation that occurs on a slice of apple exposed to the air. Unfortunately, there is no real cure for this in wine—it will only become more undrinkable. Avoid using it for cooking; bad wine is bad in food, too. Give it to your mother-in-law, your freeloading friends, or return it to the earth from whence it came (hopefully without passing it through yourself first.)

Acetification

In advanced stages of oxidation, as I've mentioned, airborne acetic bacteria attack wine and convert it to acetic acid—in other words, vinegar. This is called volatile acidity (v.a.) in winemaking. Sometimes these bacteria will form a kind of scum on the surface of a wine. Their growth can be inhibited by the use of sulfur dioxide, but not in every case. At its very worst, v.a. can result in wine that smells exactly like nail polish remover. Once a wine barrel becomes volatile, it must be discarded.

Sulfur

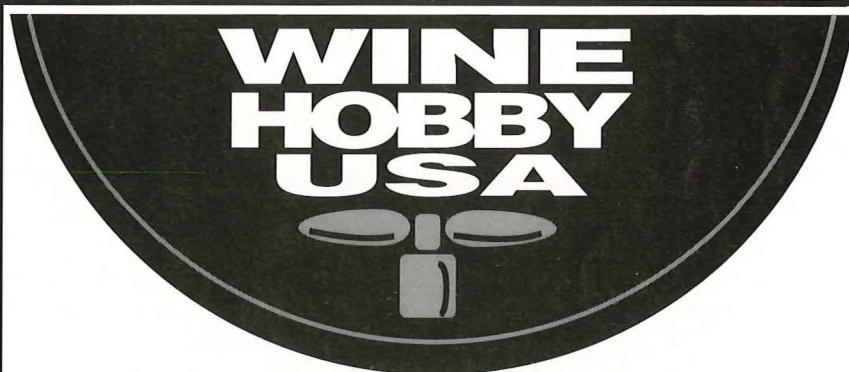
Some winemakers (and authors of wine-making books) throw sulfur around like bad chefs do with gravy. As an antioxidant, sulfur dioxide (made from combining potassium or sodium metabisulfite with water or wine) is very valuable in winemaking. It inhibits the growth of wild yeast and other undesirable bacteria. However, excessive use can be fatal to a wine, preventing normal fermentation and producing quite offensive odors on its own that attack the human respiratory system. Over-sulfured wines (with more than 50 ppm "free" sulfur) are every bit as bad as volatile ones, and there are many commercial examples.

Because sulfur prevents oxidation, high sulfur levels are more common in shorter-lived white wines than in reds. Some forms of sulfur actually are produced by wine yeasts themselves. Hydrogen sulfide, or H₂S, that unmistakable "rotten egg" odor, is one such compound. The infamous "all-purpose" dried wine yeast Montrachet (U.C. Davis strain 522) is notorious for creating H₂S. (That said,

I know one Washington State winemaker who uses it exclusively for his world-class barrel-fermented Chardonnays.) Beyond yeast selection, however, H₂S also can be created by insufficient nutrients in the must, which can be corrected, or the effects of reduction from lack of proper aeration during racking (or insufficient racking).


Sugar-Acid Balance

Another common flaw in winemaking is poor sugar-acid balance. Balance is a term wine critics use endlessly when evaluating wine. This is not mere snobbism; the sugar-to-acid ratio in a given wine usually is a major factor in determining its drinkability. Dry wines (wines with low residual sugar) are unpalatable if their acidity is too high. On the other hand, sweet wines without sufficient acidity taste like alcoholic soda pop. A wine with too much acid is astringent, "austere" or "tight;" one with too little is termed "flabby." In grape-growing regions with highly variable vintages like Bordeaux,



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"The bitterness of poor quality is remembered long after the sweetness of low price is forgotten"

Shortcut Winemaking Tips



By Byron Burch

I began making both wine and beer over a quarter century ago, but, living in Sonoma County, CA, I still look forward to the excitement of each grape harvest. I and my winemaking partners head out to a local vineyard, where we process our grapes through a stemmer-crusher, taking the "must" home to ferment in big plastic tubs. Most home winemaking around here is done during a six week period in the Fall.

What do you do, though, if you don't live in one of the world's most prestigious wine regions? Yet again, what do you do if you are here, but want to make wine in May, knowing that the first grapes won't be ripe until September?

For a long time, there were no really good answers if your only interest was in grape wines. It was certainly possible to make nice fruit wines or meads, either by following local ripening seasons or by keeping an eye on the produce department at the supermarket. Grape wines, however, were a problem.

Grape concentrates were available, of course, but quality can be problematic. Obviously, if you cook grape juice enough to reduce its volume by nearly two thirds, you will tend to destroy much of the fresh fruit character of any wine made from it.

To make matters worse, the instructions on the cans often suggested dilution with far more water than was originally cooked away. That meant the resulting product might be economical, but would tend to be thin and tasteless at best. In recent years, however, the situation has improved on two fronts.

The first is that one company, Brehm Vineyards in Albany, CA (510/527-3675), began several years ago to ship frozen grapes from premium growing regions in California, Oregon and Washington. The grapes arrive stemmed and crushed (for reds) or as crushed and pressed juice (for whites).

You simply pick up the winemaking process after the initial steps, which are

already done for you. Though there is variation from vintage to vintage, the wines tend to be very good indeed. The downside is that frozen grapes can be a relatively expensive way to go.

Another significant area of improvement in recent years has been in the quality of some of the wine kits available. Not all kits make top quality wine, and you still have to be relatively careful when choosing. You may want to ask your local supplier for advice. The best of these kits seem to feature either just juice, or a blend of juice with only a small amount of concentrate, so that only a small dilution is required.

Recently, I've been experimenting with a relatively new line of kits that seems to make quite respectable wines. They are marketed under the name, Selection (BrewKing; Port Coquitlam, Canada), and should be available throughout the country. I've tasted three of these wines so far, and they've ranged from "quite satisfactory" to "very good." There may be other brands as good out there, but I can only write from experience.

In any case, here are some things brewers becoming winemakers should be prepared to think about:

First, winemakers measure sugar content according to the "Brix" (also called "Balling") scale, rather than by the "Specific Gravity" most home brewers use. Note that the wine-making literature may use the terms "20% sugar" and "20° Brix" interchangeably.

If you're making wine from a kit, be prepared for the instructions to refer to either the Brix scale, or to Specific Gravity (S.G.). If your hydrometer only measures Specific Gravity, there's an easy rule of thumb to give you a quick Brix reading. Simply take the Specific Gravity and divide it by four.

For example, if you have a Specific Gravity of 48 (1.048), that is roughly equal to 12° Brix. The ratio is not absolutely precise, but it's close enough for just about any purpose.

Second, unlike most beers, which have a lot of unfermentables, most kit wines will ferment down to 0° Brix, or slightly below. That leaves them very dry, and lacking in viscosity. A good trick to remember is that a very slight sweetening with sugar syrup at bottling time will not only improve the viscosity a bit, but take the "edge" off many slightly tart wines.

This is simple if you want a sweet (or semi-sweet) wine. Just cook up a simple sugar syrup (one part water to two parts sugar). Add it to taste. However, note that even a dry wine can often benefit from a little sugar syrup, if the sweetening is very subtly done. It probably won't even give away the secret if you do it right. Sweeten just enough to make it smooth but not sweet.

Of course, whenever an unfortified wine is sweetened, any yeast cells present may cause it to ferment in the bottle. That means you have to mix in some potassium sorbate "wine stabilizer" to kill off any remaining yeast cells. Your normal bottling dose of sulfite should be added at the same time, but sulfite alone will not do the job.

Of course, if you really want to get sophisticated, you could also try using fruit flavorings to enhance some of the natural qualities of your wine. The theory is that winetasters frequently refer to "raspberry," or "blackberry," or "black currant" overtones in red wines, and sometimes say things like "apricot," etc., when describing whites.

Adding very tiny amounts of fruit flavorings at bottling time can add to a wine's complexity. Be very careful, however, not to overdo it so the flavors themselves become really detectable. Also, don't use fruit "wine bases" or purees. They will tend to mess up your clarity, something you don't want to do that late in the process.

Byron Burch is the owner of The Beverage People in Santa Rosa, CA, and the author of *Brewing Quality Beers*.

SURVEY Results

Zymurgy Feedback

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,



Michael Bane
Editor

Okay, **Zymurgy**-istas, things are picking up in the survey department, but that doesn't mean you can start slacking. On this next batch of surveys for this issue (Fall), we think we'll pick five cards at random and send those lucky folks...something. We're not sure what, but who knows what's kicking around the AHA offices? You wouldn't want to miss your chance of getting...whatever...so keep those survey cards coming.

You can see the averages for yourselves—not surprisingly, the biggest interests remain in our style features. Watch for some interesting additions there. In the meantime, watch the leaves change color and sip a little porter. Can barley wine season be far behind?

Here are the results from the survey in the Winter **Zymurgy** (before we started paying for the postage).

How long have you been an AHA Member?

Less than one year7%
1-2 years27%
2-3 years13%
3-4 years37%
4+ years17%

Please rate **Zymurgy's** features on a scale of 1 (not useful) to 10 (very useful):

"Make Mine Barley Wine"8
"Where There's Smoke There's Beer"6
"Another Trek Into Beer Universe"5
"The Beer's in the Mail"6
"Homebrew Cooking"6
"Tips and Gadgets"7
"For the Beginner"6
"World of Worts"6
"Best from Kits"5

Do you brew beer professionally?

Yes9% No91%

Continued on back.

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

FOLD HERE

PLEASE RATE THE FEATURES IN THIS ISSUE.

"Alterior Motives"

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

1 5 10
Not useful Very Useful

"Winemaking 101"

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

1 5 10
Not useful Very Useful

"Mild-Mannered Beer"

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

1 5 10
Not useful Very Useful

Excerpt from *Sacred Herbal and Healing Beers*

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

1 5 10
Not useful Very Useful

"Tips and Gadgets"

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Not useful Very Useful

"For the Beginner"

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1 5 10
Not useful Very Useful

Continued on back.

Survey Results....

Now it's your turn!

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"World of Words"

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

1 5 10

Not useful

Very Useful

"Best from Kits"

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

1 5 10

Not useful

Very Useful

"Homebrew Cooking"

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

1 5 10

Not useful

Very Useful

"Did you share this issue of Zymurgy with a friend?"

☐ yes ☐ no

Any article suggestions?

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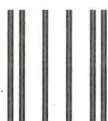
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Any article suggestions?

- Need more extract-only recipes. Many homebrewers don't have the time/equipment to do "the mash."

Roger Kocken

(Two of our best friends are veteran extract homebrewers with no desire whatsoever to do whole grain...We keep getting beaten to death with this one...Hope you notice the changes...Ed.)

- More cooking with ales, recipes and meal/beer combinations.

John Rutledge

(Check this issue, and start cooking...Ed.)

- More articles on individual homebrewers' brewing equipment, especially mashing septerns. More on European brewing (bitter, alts, dunkels). Different approaches to yeast starters and build-up starters. Frank Dabney

(On the way on all counts...Ed.)

- A review of schools where a degree in brewing or fermentation science is available. An advice column featuring brewers who have started brewpubs and micro's with advice to people interested in starting. Smith

- Conditioning-bottle is best. Malt Mixing Made Easy-an outline of individual malt characters. Converting Colleagues to the Craft Brewing Habit. J. Northcott

- More recipes, product comparison/evaluation, beer style revivals, brew techniques, yeast evaluations!

Brad Cate

(The YEAST Special is on the way, and we've got some really interesting "revivals" coming up as well!...Ed.)

- Let's have articles which keep us on the leading edge of homebrewery technology and techniques for 5-50 gallon batches. Clive Kneen

(Fifty gallons? We stand in awe of your kitchen...Ed.)

- Take a beer that has been judged in a competition and, based on the recipe, points, and judges' comments, discuss what could be done to produce a higher scoring beer. Thomas Strand
- (Watch for the new "Brew U" column!...Ed.)

wine makers often are tempted to pick their fruit for maximum sugar and not pay as much attention to acid levels in the fruit, which can be far too low in a hot year. Amateur winemakers need to learn to make adjustments in the acidity of their wines, just as brewers learn to use hops to balance their brews. Often, as in the case of a doppelbock, hops play a major role in balancing a beer without being a prominent part of its flavor. The same is true of wine acidity.

Alcohol

As I've said before, wine usually has more than twice the alcohol of beer. Because many fruit wines are diluted to reduce acidity and augmented with sugar to increase alcohol-to-table wine strength, it is easy to produce very alcoholic wine.

My advice is simple: don't. Wines in excess of 13% alcohol will have a warming effect in the mouth—it fact, they can get downright hot. This is rarely desirable. Higher alcohol needs a lot of fruit flavor, sweetness and body for balance, which is usually difficult to achieve. So-called "dessert" wines are fun to make, but need not be overly alcoholic. In fact, some of the very best in the world, German Trockenbeerenauslese, are usually only 8-9% ABV. We're not making brandy here! Don't let alcohol dominate your wines.

an opportunity to correct any problems that might arise along the way (and, of course, a good excuse to drink some of it, too!)

Celebrate What Makes Us Civilized

Wine, like beer, stems from the very beginning of human civilization. Learning to cultivate grapes and grow grain were key factors in changing human society from tribes of nomadic hunter-gatherers to com-

munities of settled farmers. By making wine, we participate in a process thousands of years old of humans gradually learning to understand and enjoy our small part of the universe. In an era when many of us feel increasingly alienated from both our world and ourselves, winemaking helps bring it all back home.

Alan Moen is a free-lance artist and writer who lives in Cashmere, WA. He has been both a winemaker and homebrewer since 1978. A Certified beer judge, he is a current board member of the BJCP.

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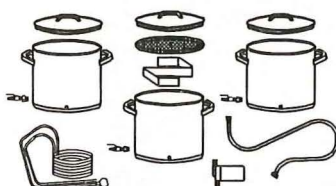
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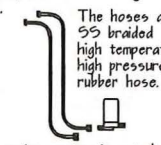
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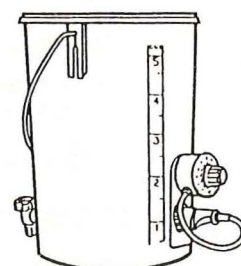
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Sacred Beers (from page 39)

INGREDIENTS

8 OZ FRESH SARSAPARILLA ROOT
8 OZ FRESH LICORICE ROOT
8 OZ FRESH CASSIA ROOT
8 OZ FRESH GINGER ROOT
2 OZ CLOVES
3 OZ CORIANDER SEED
12 PINTS CORN SUGAR SYRUP
4 PINTS HONEY
8 GALLONS WATER
YEAST

"Take 8 ozs. each of the contused roots of sarsaparilla, licorice, cassia, and ginger, 2 ozs. of cloves and 3 ozs. of coriander seeds. Boil for fifteen minutes in eight gallons of water; let it stand until cold . . . Then strain through flannel onto syrup 12 pints (thick sugar syrup) and honey 4 pints," stir until dissolved, heating again if necessary. Cool to 70 degrees F and pour into fermenter. Add yeast. Ferment until complete. Prime bottles, fill, and cap, ready to drink in 7 to 10 days.

ABOUT WILD SARSAPARILLA

Aralia nudicaulis

Wild Sarsaparilla, *Aralia nudicaulis*, is a member of the ginseng family and was commonly used, like *Smilax* species, during the latter part of the nineteenth century—a veritable herb-of-the-day, much as *Echinacea* is used now. Considered a blood tonic and system strengthening herb it was used in herbal medicines and "root" beers throughout America. Wild Sarsaparilla roots have a wonderful aromatic, almost balsamic odor and a familiar and pleasant ginseng taste, being somewhat sweet in flavor.

Wild Sarsaparilla is considered to be a reliable substitute for any of the *smilax* species. The root is alterative, was used in pulmonary complaints, as a general tonic, for lassitude, general debility, stomachaches, and as a wash for shingles and indolent ulcers of the skin in primary 19th century herbal practice. In folk practice it was used as a diuretic and blood purifier, for stomachaches, fevers, coughs, and to promote sweating. American Indians used it in virtually the same ways for hundreds of years.

CORIANDER ALE

For if we add but a few Coriander-Seeds, gently infused in a small quantity of Wort, and afterward wrought in the whole, it will make a drink like Chinay-Ale.

—DR. W. P. WORTH, 1692

There is one commercial ale on the market made similarly to this recipe. Called Belgian White Ale it is produced by Blue Moon Brewery in Denver, Colorado and is fairly easy to find. It has a wonderful floral taste that is the trademark of coriander seed.

INGREDIENTS

2 LBS MALTED GRAIN
1/4 OUNCE CORIANDER SEED
4 OZ HONEY
1/2 OZ ORANGE PEEL
1 GALLON WATER
YEAST

Pour water at 170 degrees F over malt. Let stand 90 minutes and sparge. Boil the

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coriander seed and orange peel in the wort for half an hour. Cool to 70 degrees F, pour into fermenter and add yeast. Ferment until complete. Prime bottles, fill and cap. Ready to drink in 7 to 10 days.

ABOUT CORIANDER
Coriandrum sativum

Coriander, a native of Italy, is an annual plant about 12 to 18 inches in height when mature. It now grows throughout Europe and Asia and is used primarily as a culinary spice. The seeds are carminative, aromatic, mucilaginous, and contain a volatile oil and tannin. It was used extensively in 19th century herbal practice as a carminative and stimulant. The volatile oil in coriander seed is only partially water soluble and is extracted more readily by alcohol. (Thus adding the seeds to the fermenting wort will extract more of it.) The volatile oil is carminative, aromatic, and anodyne and has been used in medical herbal practice for neuralgia, rheumatic pain, for flatulent colic and cramps. It aids in the production of digestive juices and stimulates the appetite. It was traditionally added to herbal compounds that were prescribed for constipation. Its action in the bowels as an antispasmodic herb to offset possible cramping from herbal laxatives, particularly senna.

MINT ALE

And also they add great strength and fragrancy, and makes brave, well tasted Drink, good to prevent and cure all, or most of those Diseases which the wise Ancients have appropriated that Herb unto. The like is to be understood of Mint, Tansie, Wormwood, Broom, Cardis, Centuary, Eye-bright, Betony, Sage, Dandelion, and good Hay; also many others, according to their Natures and Qualities, and for those Diseases to which they are respectively appropriated.

—Thomas Tryon, 1691

Mint is known primarily for its use in candies, iced tea, and that horrible jelly people use on lamb. It has, however, a long tradition of use in beers, primarily on the Russian Steppes.

A RICH DARK MINT ALE

INGREDIENTS

4 LBS MALT EXTRACT
1 1/2 LB MEDIUM DARK DRIED MALT EXTRACT
1/2 LB BLACK MALT
6 OZ DRIED PEPPERMINT HERB
4 GALLONS WATER
ALE YEAST

Place mint in small muslin bag. Bring one gallon water to boil, take from heat, and add mint bag. Cover and let stand overnight. Remove muslin bag, add remaining water and heat to 150 degrees. Add malt and malt extract. Cover and allow to cool naturally to 70 degrees F (several hours). Strain and pour into fermenter. Add yeast and allow to ferment to completion. Prime bottles, fill, and cap. Ready to drink in 7 to 10 days.

MINT KVASS

Kvass is a traditional Russian tribal beer. In actuality, the beer is allowed to ferment with the solids, then the whole thing consumed as a food/drink. It is very high in nutrients. For this recipe (and for bottling) the solids are removed.

INGREDIENTS

1/2 OZ DRIED PEPPERMINT HERB
12 OZ RYE FLOUR
1 OZ WHEAT FLOUR
4 OZ BARLEY MALT
ONE GALLON WATER
YEAST

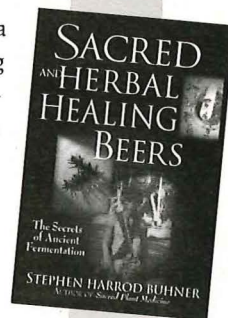
Heat 1/2 the water to 170 degrees F. When hot add malt and flours. Cover and allow to stand 90 minutes. While the malt and flours are standing combine mint and remaining water and bring to a boil then take from heat and cover. Allow to stand until malt and flours have been standing 90 minutes then combine both liquids (with solids) together. Cool to 70 degrees and add yeast. Allow to ferment until complete. Strain liquid from solids, prime bottles, fill and cap. Ready to drink in 7 to 10 days. Bertrand Remi, 1976 (252)

ABOUT MINT *Mentha piperita*

Above all mint is a diaphoretic and soothing stomach remedy. Peppermint is strongly effective as an anti-nausea herb and can quiet severe indigestion gently and surely. Peppermint's essential oil, of which the plant has an abundance, is

strongly anti-spasmodic. Medical researchers, trying to find something to quiet the cramping when inserting small optical cameras into the intestine tried a variety of drugs all of which proved ineffective or too toxic. A small amount of peppermint oil, coating their instruments, effectively stopped intestinal cramping. (They found the information in an old herbal text.) Pain from duodenal or stomach ulceration is helped almost immediately by peppermint, as is irritable bowel syndrome, stomach cramping, and any kind of nausea including motion and morning sickness. The pain of gall and kidney stones are often helped by the use of peppermint. In duodenal ulceration and irritable bowel syndrome peppermint is more effective if a small amount of the oil is mixed with marshmallow or slippery elm root and taken in capsule. This mucilaginous mass sits in the bottom of the stomach and drops down into the duodenum fairly intact and immediately soothes the affected area. As peppermint is safe for pregnancy it is of tremendous benefit for attendant nausea.

Like other herbs in the mint family (such as lemon balm and rosemary) peppermint contains many antioxidant compounds (see rosemary). These have shown effectiveness in treating Alzheimer's disease, senility, cancer, and heart disease. Peppermint also contains nine expectorant compounds; they help move mucous up and out of the lungs. Its main constituent, menthol, thins mucous, making the expectoration easier. Peppermint also contains antiseptic, antibacterial, antiviral, and antimicrobial compounds. For this reason it is used effectively in the treatment of gingivitis, colds and flus, and respiratory infections.



Mild-Mannered Beer (from page 45)

Ale." Of course, this version has been scaled for a five-gallon homebrew batch and notes are provided for making it as an extract beer, if you wish.

This beer should have a low original gravity, but plenty of dark malt character. All-grain brewers should use English pale ale malts if possible as they are generally a bit toastier than American two-row malts and will help ensure an authentic English flavor.

While many mild ale recipes use a greater proportion of crystal malt than what is shown here, most also use sugar to lighten the overall mouthfeel of the product. In order to achieve a light-bodied beer without the use of sugar, I've reduced the crystal malt content to just 4%. To help achieve the desired malt complexity, I've used a mixture of darker grains in small proportions.

A very low mash saccharification temperature will be required to achieve the level of fermentability desired in mild ales. My recommended rest temperature is 145-147 degrees F (63-64 degrees C).

This grist works well with most types of water, since the dark grains will help to neutralize the moderate- to high-carbonate levels that are the brewer's most frequent water chemistry problem. Calcium additions to the mash should be in the form of calcium chloride rather than calcium sulfate, if possible. This will help promote a smooth, rounded mouthfeel for the beer.

My first choice yeast for this beer would be the Wyeast Irish strain, fermented at 65 to 68 degrees F (18-20 degrees C). This yeast will not give much fruitiness, but will provide a low level of diacetyl as well as a generally smooth, soft effect that should enhance the drinkability of this beer.

As an alternative, the Thames Valley yeast available from several sources may prove to be a good choice. Brewers who are unfamiliar with liquid yeast can use any dry ale yeast for this recipe.

Ray Daniels is an internationally known expert on craft brewing and the organizer of the annual Real Ale Festival held each fall in Chicago. He writes about beer and brewing for a number of magazines and is the author of two books: *Designing Great Beers* and *101 Ideas for Homebrew Fun*. Daniels has been homebrewing since 1989.

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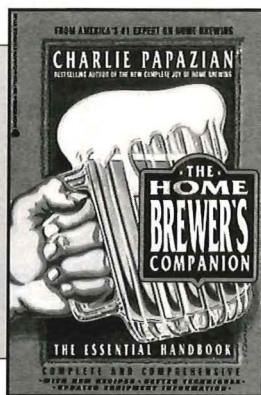


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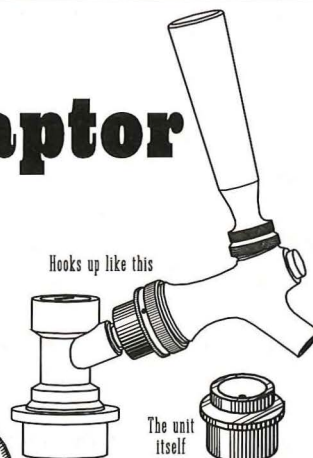
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Last Drop (from page 72)

of the six wound up being roasted rye and cara-wheat.

During the boil Barrett seemed to add hops every few minutes. At one point, he sent me to the hop cooler with a bowl. "Fill this with aroma hops," he said. "I don't care what kind."

When Barrett wasn't adding hops, he was slicing pounds of ginger into the kettle. When I pulled out the candy canes—and later some Japanese saké—he just smiled and waved me toward the kettle.

From these events, one gets the impression of Eccentric Ale as a constantly shifting mix of random ingredients. But Bell insists it has a solid foundation. And despite the sizable staff that now works for him at the brewery, he personally reviewed the recipe and procedures before brewing began. As things got rolling, he even helped with mash-in.

The system used for making Eccentric Ale is as manual as the most rudimentary homebrew system. Only the gas-fired kettle is permanently placed—the other vessels are on wheels. Buckets and pitchers move the grains around; a garden hose delivers mash and sparge water. In short, it is a system that most homebrewers would feel comfortable operating.

On party day, Bell plays eccentricity to the hilt. "This isn't Halloween," he insists, yet his own wardrobe indicates a special effort at shopping. His 1997 attire included just two solid-colored items: a forest green blazer and lemon yellow shoes. Everything else was a clash of colors not found in nature: wildly patterned elastic waistband pants, a shirt that must have come from the women's rack and a tie with dancing primary-colored popsicles. To top this all off, he wore an eight-colored baseball cap fitted with a beanie-type propeller. Finally, to give the day special meaning, he shaved off his customary beard creating a pink-cheeked visage that would pass muster at any Sunday school.

Chow Time

The centerpiece of Eccentric Day is the Eccentric Buffet: sixteen linear feet of pickled eggs and pigs knuckles, stinky Stilton and smoked salmon, caviar and crudites. The

To ensure that the beer will be suitable for consumption after a year's aging, it is brewed to extreme.

majority of the offerings come from Bell's own sources and is free to all comers. But it is a testament to the spirit of the day that others also contribute. This year's outside offerings included 20 pounds of smoked salmon, a batch of jalapeño-squash soup and fresh batch of Rocky Mountain oysters.

As a result of the spread and the beer, Bell has lots of friends on Eccentric Day.

They celebrate not only the spirit of the season, but also the spirit of craft beer that is shared by homebrewers and pros alike: both the fun and the fellowship of beer.

Eccentric Day 1998 is tentatively planned for December 18.

Ray Daniels is an internationally known expert on craft brewing and the organizer of the annual Real Ale Festival held each fall in Chicago. He writes about beer and brewing for a number of magazines and is also the author of two books: *Designing Great Beers* and *101 Ideas for Homebrew Fun*. Daniels has been homebrewing since 1989.

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LAST DROP

Ray Daniels

Brewing Up Fun at Eccentric Day

It's a homebrewer's dream: helping out on a commercial brew. But there is something wrong with this two-barrel batch. The candy cane I'm stirring the wort with keeps colliding with floating chunks of something—ginger, I suppose, or maybe juniper or coriander or one of the 15 other herbs and spices that go into this strange brew. I guess that's what you have to expect on Eccentric Day.

Any intelligent analysis of American craft brewing recognizes it for what it is: grown-up homebrewing. And in some cases, the "grown-up" part clearly means "bigger" rather than "more mature."

Case in point: the Kalamazoo Brewery in Michigan. The annual Eccentric Day brew-and-bash anchors the image of founder and brewer Larry Bell. And even though you pay as you go, both the beer and the party have more in common with homebrew than any commercial beer event I've ever attended.

Bell is one of the first and longest surviving Midwest microbrewers. Like many who began in the mid-1980s, Larry started as a homebrewer and his operation has never quite lost that feeling.

His first commercial brewery was little more than an oversized homebrew setup that turned out just two barrels per batch. For many years, he labored mightily with that small system, brewing daily or more to keep his beers in stock for those who had agreed to give him a chance. Today, the small two-barrel system is still in service—along with two larger ones that make 15 and 30 barrels at a time.



Author Daniels stirs the pot (top), while Larry Bell (middle) practices with his propeller beanie. Two happy bartenders (bottom) practice eccentricity.

For Eccentric Day, the two-barrel system leads the way. Its normal role as provider of unique beers for the on-premises bar and beer garden is on display with the likes of Java Stout, Maple Porter and cask-conditioned Black Rye Ale. But more importantly, it is the birthplace of Eccentric Ale: a simmering cauldron of wort-and-spice stew that will age into a magic elixir to haunt the dreams of all Bell's beer lovers.

At first, Eccentric Day was a just that, a day. But since the first brewing of Eccentric Ale in 1989 or 1990 (even Bell can't quite remember for sure), it has blossomed and grown and now consumes the better part of two days and three nights in mid-December.

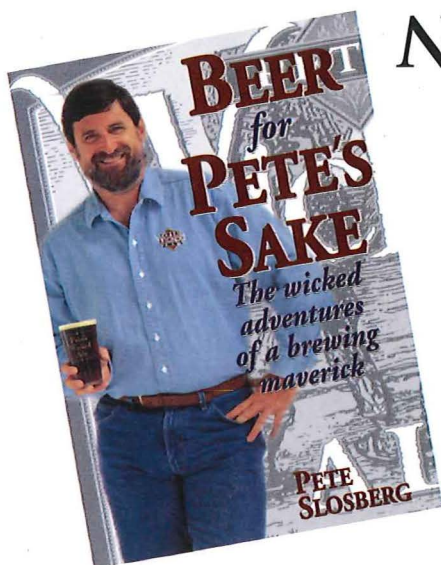
"We used to brew and party on the same day," says Bell, "but the brewing was getting a little out of control."

Drinking Commences

These days the brewing of Eccentric Ale happens on Thursday and the drinking of the previous year's batch commences on Friday. To ensure that the beer will be suitable for consumption after a year's aging, it is brewed to extreme. The target OG is 1.120 and vast quantities of hops are added for balance. But within that framework, there is room for some annual variation.

Specialty brewer Dan Barrett told me he used "about" six grains to make up the 300 pound grist for this year's brew. "But I didn't even look at the bags when I grabbed them," he said. Two (continued on page 71)

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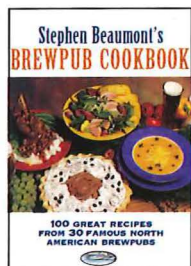
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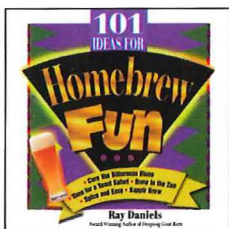
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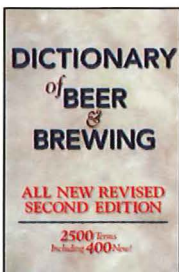


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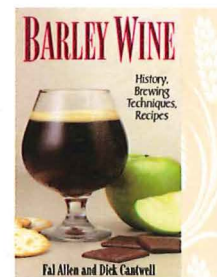
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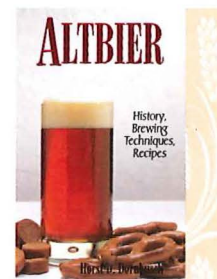


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