Vol. 37 ✻ No. 5 | September/October 2014

FOR THE HOMEBREWER & BEER LOVER

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The Journal of the American Homebrewers Association®

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by Jill Redding

Not Just a Homebrew Club

Congratulations to the Carolina BrewMasters homebrew club, the first recipient of the Radegast Club of the Year Award! What exactly is the Radegast Club of the Year Award, you might ask?

"To understand the Radegast award, you have to know its original name—The Awesome Club of Awesomeness Award," explained Drew Beechum, a member of the AHA governing committee who was instrumental in creating and implementing the new award. "We created the award when we realized that the strength of a club's competition entries was only a small measure of what clubs actually do."

The Carolina BrewMasters were honored on the grand banquet awards stage at the National Homebrewers Conference June 11-14 in Grand Rapids, Mich.

While many homebrew clubs are first and foremost an opportunity to gather with likeminded individuals, get feedback and brewing tips, and drink homebrew, there are many that go way beyond with goals of education and giving back to their communities.

More than 25 homebrew clubs from around the country submitted applications for the award in its inaugural year. A panel of judges comprised of veteran homebrewers and industry insiders reviewed and scored the club applications.

The Carolina BrewMasters caught the eye of the judges' panel in part due to their charitable works in correlation with the Charlotte Oktoberfest. The club has put on the event for 15 years with the help of about 300 volunteers, and has raised almost $500,000 for local charities. In 2013, the club donated $75,000 to Second Harvest Metrolina, Classroom Central, and Project Halo. This year's event is scheduled for September 27 and proceeds will again benefit three different charities.

"For us, winning the Radegast Award is further confirmation that the hours of work our volunteers put into club activities is worthwhile," commented Carolina BrewMasters VP of communications John Mays. "While having the opportunity to donate so much to charity through our Charlotte Oktoberfest festival is rewarding enough in its own right, being acknowledged by our peers in the homebrew community for having such an impact is an absolute honor and we couldn't be more proud to have won."

Along with a mash paddle award presented by sponsor HopUnion, the BrewMasters received $500 in prize money, and an additional $500 will be donated to the charity of their choice. From the $500 prize money, the BrewMasters decided to donate $250 toward the charity, and the remaining $250 will be spent toward the club's barrel brigade program, one of the many ways the BrewMasters stay active.

"Over the past year, we've really tried to grow our barrel program, and we even have a program to wrangle yeast strains from members' backyards," said Mays.

Submissions for the 2015 Radegast Club of the Year Award are due March 31. Go to HomebrewersAssociation.org under the Community dropdown menu.

Look for a report from the Radegast committee on what other clubs are doing around the country. "Another intent of the award was to share what awesome clubs do to be awesome so everyone else can be more awesome," Beechum added.

Jill Redding is editor-in-chief of *Zymurgy*.

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Cover art © Brewers Association

GET THERE!

BRECKENRIDGE OKTOBERFEST

Breckenridge, Colo.'s 20th annual Oktoberfest, set for September 12-14, includes a fun-filled weekend of fall foliage, great parties, Paulaner beer, local Breckenridge Brewery beer, German cuisine, collectible steins, and special accommodation packages. Don't miss the largest Oktoberfest in the Rocky Mountains.

Oktoberfest is where Munich meets Breckenridge, when Main Street closes and comes to life as a street party with traditional costumes, oompah and polka music, Bavarian dancers, children's activities, a keg-tapping ceremony, and a 5-kilometer run.

The Main Street Party features more than two dozen food vendors, lots of dancing, and a weekend of fun. For information, go to www.gobreck.com.

September 6
California Beer Festival
San Dimas, CA
Californiabeerfestival.com

September 12-14
Telluride Blues & Brews Festival
Telluride, CO
www.telluridebluesbrews.com

September 18-21
Addison Oktoberfest
Addison, TX
www.addisontexas.net

September 20
Nashville Beer Festival
Nashville, TN
www.nashvillebeerfestival.com

September 20-October 5
Oktoberfest
Munich, Germany
www.oktoberfest.de

September 27
Texas Craft Brewers Festival
Austin, TX
www.texascraftbrewersfestival.org

October 2-4
Great American Beer Festival®
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October 18
Lighthouse Beer Festival
Wilmington, NC
www.lighthousebeerfestival.com

October 18
Single, Fresh, Wet & Wild Harvest Festival
Chico, CA
www.sierranevada.com/SFWW

For more craft brewing events, go to CraftBeer.com

THE LIST: 3 NEW HOP VARIETIES

At the Craft Brewers Conference in Denver in March, USA Hops launched three new hop varieties during an educational seminar. Attendees of the seminar were able to try single hop beers brewed with the varieties, which included:

1. **CASHMERE:** Released by Washington State University in 2013. A daughter of Cascade, it includes Northern Brewer germplasm through the male parent. Strong aromas of melon, fruit (lemon, lime peel, pineapple), coconut, and spicy notes. 7.7-9.1% alpha acids

2. **TAHOMA:** Released by Washington State University in 2013. A daughter of Glacier. Aroma of citrus (lemon, grapefruit) along with cedar, pine, and spicy notes. 7.2-8.2% alpha acids

3. **TRIPLE PEARL:** Released by USDA-ARS in 2013. A daughter of Perle. Pleasant, mellow aroma reflecting citrus (orange rind/zest), melon, resin, pepper, and spicy notes. 10.25-11.2% alpha acids

Photos © Telluride Blues & Brews Festival, Thinkstock and Peter Anderson through a Creative Commons license

>> BREW NEWS:

HOMEBREW QUILT GARNERS OVER $1,000 FOR CHARITY

With the 2014 AHA National Homebrewers Conference coming to her home state of Michigan, Annie Zipser wanted to find a unique way to give back to the local community. An accomplished quilt maker as well as a member of the Ann Arbor Brewers Guild (AABG) homebrew club, Zipser hatched the idea to create a unique quilt and raffle it off at the conference held June 11-14 in Grand Rapids, with 100 percent of the proceeds going to charity.

Zipser reached out to other homebrew clubs in Michigan, seeking donations of club T-shirts. Her club reimbursed her for the materials, and Habitat for Humanity was chosen to receive the proceeds. Fellow AABG member Chris P. Frey helped with marketing, communications, and logistics. The goal was to raise at least $1,000 at the conference.

During the first day of the conference, AABG club members set up the quilt near the registration desk and sold tickets to raffle off Zipser's creation. Sewn into the tufting were mash paddles, Charlie Papazian's refrain "Relax, have a homebrew," and other "Easter eggs." At $1 each, ticket sales were brisk throughout the day.

At the Brewing Network's 9th Anniversary Party at Comstock Park in Grand Rapids, Justin Crossley pulled the winning name from the nearly 1,200 tickets…Annie Zipser! What are the odds? (OK, about 1 in 1,200.) Zipser quickly declined and a second ticket with Ann Stott's name was pulled. Stott was thrilled with the quilt, saying she had really hoped to win it.

In total, $1,168 was raised for a good cause. With the recent introduction of the Radegast Club of the Year Award (see the Editor's Desk for more), AHA members are encouraged to seek ways to do great things within and for their community. A tip of the hat to Annie Zipser and the Ann Arbor Brewers Guild for showcasing homebrewers in such a positive light.

>> YOU'VE GOTTA DRINK THIS

BALLAST POINT SCULPIN IPA

Delightfully bitter with lots of American hop aroma and flavor. What really sets it apart is the strong malt backbone and mouthfeel. Almost a graham cracker-like flavor that balances perfectly with the hops. However, I am not describing sweetness. This beer is wonderfully dry to showcase the hops. Probably one of the best IPAs of all time.

Reviewed by Michael Boitnott, Richmond, Va.

If you've had a beer you just have to tell the world about, send your description, in 150 words or fewer, to zymurgy@brewersassociation.org.

>> BEER QUOTE

"I was on a very bad path of self-destruction until I found homebrewing."

--Sam Calagione, founder of Dogfish Head Craft Brewery

>> GREAT NEW PRODUCT

WHAT'S NEW FROM WHITE LABS:

PUREPITCH™ YEAST PACKAGING

San Diego-based White Labs unveiled its PurePitch™ packaging for homebrewers at the National Homebrewers Conference in June.

Instead of growing yeast in traditional stainless steel fermenters, the patent-pending FlexCell process uses a flexible container to propagate the yeast and package it in the same material, reducing the risk of contamination to create yeast that has never been exposed to the environment. The new PurePitch homebrew-size packaging is made from a recyclable, flexible film allowing for increased breathability, reducing the chance of gas buildup, and maintaining an optimal environment for the yeast. The new packaging gradually appeared in retailer and customer orders starting in late summer.

"We know our customers love our homebrew vials, but with the new packaging we anticipate increased breathability, a longer shelf life for the yeast, and increased product consistency," said Chris White, president and CEO of White Labs. "The FlexCell technology also demonstrates our commitment to quality while being more sustainable since we've reduced the amount of water, electricity, cleaners, and plastic used in the propagation process."

White said the PurePitch packages will have a shelf life of approximately six months, compared to four months for traditional vials.

"Brewers like the fact that there's some innovation involved with yeast," said White. "The reaction has been really positive."

The PurePitch packages will be priced the same as White Labs' traditional vials. To learn more, go to whitelabs.com.

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The Country Malt group is the bagged malt and special product distribution arm of Great Western Malting Company and Canada Malting Company Ltd.

SPECIFICATIONS

Malt Type: Roasted

Grain Origin: Chile

Wort Color: 300-380 °Lovibond

Protein: 12.5% max.

Moisture: 5% max.

Extract (dry): 65.0% min.

Diastatic Power: 0 °Lintner

Usage: 15% max.

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Ask for Patagonia Black Pearl by name at your local homebrew shop. Cheers!

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By Gary Glass

Another Great Conference

Photos courtesy of American Homebrewers Association®

The 2014 AHA National Homebrewers Conference in Grand Rapids, Mich. brought together 2,800 homebrewers from around the globe. The combination of great homebrew with a great beer city made for a truly successful event. The city of Grand Rapids, with its amazing craft breweries, beer bars, and homebrew shops, pulled out all the stops to ensure attendees had a memorable experience in "Beer City USA."

With 55 different seminars to choose from—more than ever before—attendees had some hard choices to make about which seminars to sit in on. No need to worry about what was missed, though, because we have posted all of the seminar presentations in the members-only area of HomebrewersAssociation.org. Just click the Conference Seminars link in the Let's Brew section of the website to access this year's seminars along with those from the previous few years' conferences.

The conference wrapped up with the Grand Banquet and the announcement of this year's National Homebrew Competition award winners. Sean Paxton, the legendary "Homebrew Chef," helped design an incredible German/Austrian-themed menu for the dinner, paired with beers from banquet sponsor Samuel Adams. You can read more about the winners in this issue's Winners Circle, where all of the 28 gold medal recipes are available.

Congratulations to all of the winners! This year's competition judged more than 8,000 entries submitted by a record-breaking 3,181 entrants, meaning the National Homebrew Competition remains the world's largest beer competition. Those who won medals in the competition can pride themselves on knowing that they have made truly world-class beers, meads, and ciders.

AHA Governing Committee Meeting

Just prior to the start of the National Homebrewers Conference, the AHA Governing Committee held its annual in-person meeting. This year's five-hour meeting covered a wide range of topics, but focused primarily on core areas to address over the next three to five years. The main strategic topics of focus that the Governing Committee identified were improved communications with the AHA membership, support for homebrew clubs as well as local and regional

homebrewer organizations, broadening the diversity of the AHA membership and the homebrewing community in the United States, and expanding outreach to international homebrewers.

One of the administrative duties of this meeting was the election of new officers for the Governing Committee. Roxanne Westendorf was elected to chair the committee, Drew Beechum stayed on as vice chair, and Susan Ruud is the new secretary.

The core work done by the members of the Governing Committee happens on a subcommittee level that focuses on specific areas of the organization. During this year's Governing Committee annual meeting, some new subcommittees were formed and others expanded. The subcommittees are also a great way for members to directly get involved in the association. The subcommittees welcome suggestions from members, and some may be looking for AHA members with particular expertise to join their subcommittee. You can find the list of subcommittees, their members, and email contacts in the Membership section on HomebrewersAssociation.org.

Learn To Homebrew Day

November 1 is AHA Learn to Homebrew Day. Will you be doing your part to share your passion for homebrewing by inviting your non-brewing friends and family to learn how they can participate in this rewarding hobby?

Participating in Learn to Homebrew Day is easy! Check out the Events section of HomebrewersAssociation.org for information on how to celebrate Learn to Homebrew Day, register a site, and get copies of *Zymurgy: An Introduction to Homebrewing* to distribute to newbies-in-training. You can also find loads of resources for new homebrewers in the Let's Brew section of HomebrewersAssociation.org, including a simple how-to-homebrew video.

Legislative Update

On May 13, Minnesota Gov. Mark Dayton signed SF2336, which covered a wide range of gambling and alcohol beverage laws, including amendments

to the homebrew law. The new law went into effect the following day. The previous Minnesota homebrew law did not explicitly allow for homebrew to be served for anything other than "family use." The new law expands usage to "organized affairs, exhibitions, or competitions, including, but not limited to, homemaker's contests, tastings, or judging." The new law explicitly allows for "tastings" at public events and spells out specific requirements for how homebrew may be served at such events. The Boreal Brewers homebrew club of Grand Rapids, Minn. worked with Minnesota Rep. Tom Anzelc and Senator Tom Saxhaug to get this legislation passed.

By the time this issue hits your mailbox or digital device, California AB 2609 will likely have been voted on in the state Senate, and hopefully sent to Gov. Jerry Brown's office for his signature. Passage of this bill is critical for homebrewer organizations like the AHA and the California Homebrewers Association to once again host private events for homebrewers where homebrew is served, such as the National Homebrewers Conference and the Southern California Homebrewers Festival. The bill managed to get through the Assembly and Senate committee hearings without a single no vote, thanks in large part to the high volume of contacts between homebrewers and legislators. California's homebrewing community, through its direct action, made it possible for the bill to progress this far.

While homebrewing was finally made legal in all 50 states last year, it is currently illegal to homebrew in the Commonwealth of Puerto Rico, a territory of the United States. Puerto Rico Senate bill 776, with language very similar to the federal law on homebrewing, passed through the Senate, but has slowed in the House. Parts of the bill that call for lowering taxes on Puerto Rico's small craft breweries have proven somewhat controversial and are holding up the bill as of this writing.

Until next time, happy homebrewing!

Gary Glass is director of the American Homebrewers Association.

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by Our Readers

More Help with Hops

Dear ***Zymurgy***,
Thanks to Stan Hieronymus and ***Zymurgy*** for the May/June 2014 article "Getting the Most from Your Hops." I have been growing hops for a little over 22 years now—10 years in New Hampshire (long dormant season) and now 12 years in southwest Virginia. When I got here I was told "You can't grow hops here!" Well, you can and I grow Cascade, Mt. Hood, Sterling, and Columbus with success but I am still learning.

Around here, the first shoots could break ground from mid-February to mid-April. Three years ago, I started cutting down the first shoots and did not let any grow until early- to mid-May. I believe this has helped my plants and it was good to read that's what they're doing in North Carolina.

Harvesting has always been a time of questions. I have mostly gone by the "papery to the touch" method and never really thought that was a good way to decide. After reading what James Altwies of Gorst Valley Hops said in the article, I got some positive reinforcement.

I would like to try his dry matter calculations. Is he using ounces, grams, or pounds? Is there a chance you could print an actual example with figures? I've been a forestry technician for 35 years and I am not a mathematician!

Thanks again for another wonderful hop article!

"Hop Head Dave"
David H. Hrdlicka
Christiansburg, Va.

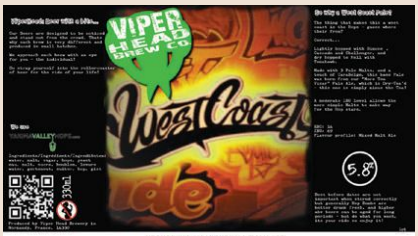
Article author Stan Hieronymus responds: I'm glad you enjoyed the article. I can provide a little detail on dry matter. What measure you use doesn't really matter since you will end up with a percentage. Here is an example in ounces:

Wet weight on scale: 84 ounces, minus 8 for container = 76
Dry weight on scale: 26 ounces, minus 8 for container = 18
18 divided by 76 x 100 = 23.6 dry matter.

I hope that makes sense. Prosit!

Clearing Things Up

Dear ***Zymurgy***,
In the January/February 2014 For Geeks Only article "An In-Depth Look at Chill Haze," author Rick Blankemeier stated that PVPP mimics polyphenols and will



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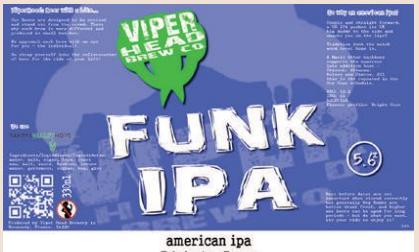
Fabriqué en France

Jasmin & Earl Gray Infused Pale Ale



american ipa
Fabriqué en France

Catching Up on Zymurgy

Dear ***Zymurgy***,
Due to my thirst for more homebrewing reading, I joined the AHA to gain access to ***Zymurgy***. After a couple of weeks entrenched in a dark room avidly reading 14 years' worth of your publication, I can't thank you enough.

In Europe we are starved for magazines and good homebrewing information. I have lived in France for nearly 10 years now (originally from the UK) and that makes worthwhile reading even more difficult to source.

I thought I would share a couple of my labels with you as the marketing and image side of brewing also interests me.

Lisle Wallace
Le Molay-Littry, France

complex with proteins, allowing them to be dropped out for the prevention of chill haze. My understanding is that it is actually the other half of the chill haze equation that is affected by PVPP as it binds to the polyphenols, not the proteins, dropping them out of solution. Since both polyphenols and proteins are needed to form chill haze, removing the majority of the active polyphenols or proteins would be sufficient to reduce or prevent chill haze.

Ryan Bell
Columbus, Ohio

Article author Rick Blankemeier responds: Ryan is right. I mistakenly substituted protein for polyphenol in that sentence. PVPP takes the place of proteins in chill haze formation and forms hydrogen bonds with polyphenols. PVPP isn't soluble in beer, so instead of hanging in solution like normal chill haze, PVPP will bind to polyphenols and drop out of solution to the bottom of the fermenter. Thanks for bringing it up!

Homebrew Supervisors

Dear ***Zymurgy***,
Here is my mash supervisor Charlie. He is a 2.5-year-old mix that I adopted from a kill shelter in North Carolina. He loves hanging out with me on brew day.

Jordan Williams
Schwenksville, Pa.

Dear ***Zymurgy***,
My dog Gus is such great company and help supervising the brew day that I've immortalized him on the cap. A lot of things besides the ingredients and process make up a good brew day, including friends, homebrew, playlist, and the essential brew dog.

Cheers,
Sue King
New York, N.Y.

Send your Dear *Zymurgy* letters and homebrew labels to zymurgy@brewersassociation.org. Letters may be edited for length and/or clarity.

by Professor Surfeit

Nitro and Off-Flavors

Photo © Michael Fajardo via Creative Commons license.

Dear Professor,
In response to Carlos Ojeda's question (May/June 2014) regarding metallic flavors when serving a special bitter on nitro: nitro is inert, which means it doesn't have an odor or a taste. Carlos should instead look at his setup and examine all the parts that come into contact with the beer. I would bet he will find chrome parts where the chrome has been worn away by the acid in the beer and cleaning chemicals, and the brass is exposed. As soon as beer comes into contact with brass, it will pick up metallic flavors. If he replaces any chrome parts with stainless steel—keg couplers, nipples, plungers—I'll bet the problem will magically disappear.

We recently had one of our customers complain about a metallic flavor in our porter. Sure enough, we discovered that the distributor who set up the system used less expensive chrome/brass parts. We had them change everything to stainless and the metallic flavors disappeared.

Don't skimp on stainless to save a few bucks. You will end up paying a lot more in the long run.

Good luck and better brew,
Trent Fargher
Shades of Pale Brewing Co.

Thanks Trent,
Maybe all those nitro beers I've had on draft had bad brass. I've had that metallic taste with draft nitro so much that I associate it with the nitrogen…and never ever order nitro beer on draft. I wonder if this is a rampant problem. If it is, then it is seriously hurting beer, sales, and beer drinkers. But I can't help but still think that nitro gas by its nature and physical sensation on the tongue lends itself to a mild metallic flavor.

Let's see if anyone else has some insight.

Awaiting another round of nitro,
The Professor, Hb.D.

Twist and Shout

Dear Professor,

I'm a brand-newbie here. Is there a way to use my collection of twist-off bottles from my past conquests? Will standard caps work?

Marty

Dear Marty,

That was one of the shortest questions I've ever received. Breweries who use twist-off bottles use a cap made from a slightly softer/pliable metal so that it seals better. If you can find twist-off bottle caps, that would be best. Generally, twist-off bottles don't seal as completely as a lipped bottle, so it's better to reuse classic-capped bottles.

My lips are sealed,

The Professor, Hb.D.

Send your questions to professor@brewersassociation.org.

By Amahl Turczyn Scheppach

Roggenbier

Rye is a sturdy, humble grain that's been harvested for centuries as a food product for bread making. Beer made with a significant proportion of the grain tends to take on a flavor and palate sensation often described as "spicy," though it's more than that. Michael Jackson added "minty" to the description, and that's definitely on target. Thanks to the sticky beta-glucans rye contributes, the mouthfeel of rye beer tends to share the same heaviness and thickness that wheat adds, but with a drier flavor and finish.

Russian *kvass* is one style that uses rye in the grain bill, though traditionally, *kvass* starts with rye bread. Finnish *sahti* is another traditional rye style that uses a smaller percentage in the grain bill and incorporates rustic evergreen essence from juniper branches. The style we will focus on, however, is the German take on rye beer: Roggenbier.

Like Dampfbier, this is a somewhat back-country, medieval dark brew born of necessity. In many areas of Europe, rye grew where barley and wheat did not, so it was more widely available for brewing, especially by the lower classes. Roggenbier became the rough, dark-hued counterpart to more aristocratic beers made from wheat and barley.

Rye was intentionally left out of the allowable list of brewing ingredients as outlined by the *Reinheitsgebot*, the Bavarian Purity Law of 1516. The law's lordly authors were concerned that in lean times, common people would prefer to brew beer with their rye harvest rather than make bread with it; they reasoned that since rye made better bread than barley, barley should be the exclusive brewing grain

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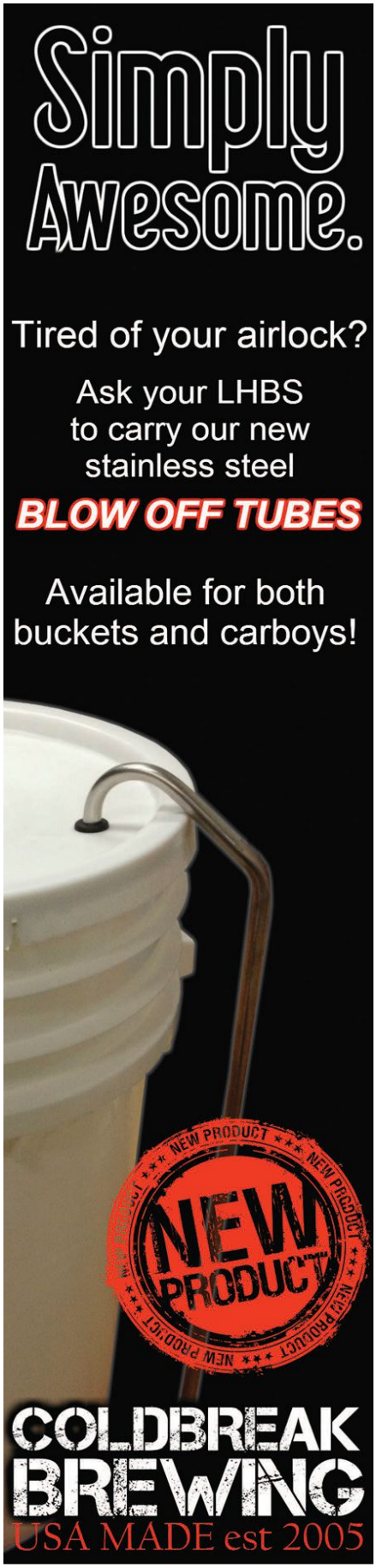


for the lower classes, and rye was to be eaten. Wheat became reserved for both purposes, but mainly for the upper classes that could afford it. Outside Germany, there were fewer restrictions, and in areas around the Baltics, Poland, Slovakia, and the Czech Republic, rye was popular for both bread and beer. But it's probable that the *Reinheitsgebot* helped to eventually remove preference for beer brewed with rye, just as it helped to enforce the preference for beer bittered with hops.

Today, led by the craft brewing movement in North America, brewers are once again turning out their own examples of rye beer, but these are mainly new, experimental efforts, like "Rye-PA." Commercial examples of "traditional" rye beer styles are few and far between. The only possible exception would be Roggenbier, the German descendant of medieval rye beers. Schierlinger Roggenbier was perhaps the most visible of this re-vamped style, but while the original Schierlinger

Roggenbier

INGREDIENTS

for 5.5 U.S. gallons (20.82 L)

6.0 lb	(2.72 kg) rye malt
5.0 lb	(2.27 kg) pilsner malt
8.0 oz	(227 g) Weyermann 45.5° L caramel wheat malt
8.0 oz	(227 g) 120° L crystal malt
4.0 oz	(113 g) Weyermann chocolate rye malt
1-2 lb	(0.45-0.9 kg) rice hulls (in mash)
0.75 oz	(21 g) Hallertauer Mittelfruh pellets, 4% a.a. (60 min)
1.0 oz	(28 g) Hallertauer Mittelfruh pellets, 4% a.a. (10 min)
WhirlFloc	(10 minutes, optional)
1.0 oz	(28 g) Hallertauer Mittelfruh pellets, 4% a.a. (whirlpool 10 min)
White Labs WLP 380 Hefeweizen IV ale yeast	

Original Gravity: 1.055 (13.5° P)
Final Gravity: 1.010 - 1.012 (2.5 – 3° P)
IBUs: 18
SRM: 16
ABV: 5.5%
Boil Time: 60 minutes

DIRECTIONS

Use at least a single decoction mash (double is better). Use rice hulls liberally when mashing in to avoid a stuck sparge. Begin with a protein rest at 122° F (50° C) and hold for 30 minutes. Remove 2.5 gallons of the thickest part of the mash, bring to a boil, stirring constantly, and boil 20 minutes. Add decoction back to the main mash; temperature should equalize at 154° F (68° C). Hold at this temperature for 45 minutes, then apply heat or boiling water to raise mash temperature to 168° F (76° C). Mashout is important to lower viscosity of rye wort prior to lautering. Sparge at 170° F (77° C) until runoff wort gravity reaches 1.008 (2 P) or pH 5.8 (whichever comes first). Boil 50 minutes. If you are kraeusening the beer, now is the time to remove the specified amount of hot wort from the kettle—can this *speise* in sealed mason jars, allow to it cool, and refrigerate. Note that your total volume going into the fermenter will be a half-gallon or so shy, but you'll make that up with your *speise* at bottling. Add the 10-minute hops along with kettle finings, if you are using them. Add third hops at flameout and whirlpool 10 minutes. Chill to 65° F (18° C), aerate and pitch. Make sure you have a sufficient quantity of yeast (185 B cells, 2 packs/vials, or a 1.65 L starter). After signs of fermentation are apparent, drop temperature to 62° F (17° C). Ferment until terminal gravity is reached. Crash to 40° F (4° C) to encourage settling, if possible. Rack onto priming sugar or *speise*, blending thoroughly, and bottle. Keep bottles at 68-70° F (20-21° C) for one week to allow for carbonation. Condition at cellar temperatures for two weeks.

EXTRACT VERSION

Substitute 8.5 lb (3.86 kg) Briess CBW® Rye Malt Extract syrup for all grains. Dissolve extract thoroughly and proceed with boil. Don't forget to remove *speise* near the end of the boil, as described above, if you are *kraeusening*.

brewery dates back to an ancient convent built in the 13th century, its rye beer wasn't actually launched until 1988. At that time, they wanted something like a dunkleweizen as a specialty counterpart to their very popular hefeweizen. They chose a dark rye recipe with a grain bill that included a whopping 60 percent rye, and had to adapt their brewing system to be able to mash it effectively. Why that particular recipe was chosen seems a bit arbitrary; Jackson writes in his *Beer Companion* that Schierlinger's director "felt it reasonable to assume that rye had been used for brewing in Bavaria before the Reinheitsgebot, but could find no 'recipes'." Perhaps adapting the brewery with a system of knives to loosen the grain bed in its shallow mash tun, and another system to force the wort through to the kettle with CO_2 became too much of a headache for Schierlinger—that same year Brauhaus Thurn and Taxis of Regensburg acquired the brewery. They brewed the dark rye beer for nine years before they themselves became part of the Paulaner conglomerate in 1997. But fortunately their version of Roggenbier was not lost during these acquisitions. Paulaner still makes the cloudy, 5.3 percent ABV "Naturtrub" dark rye, though it is no longer available in North America. One has to make the beer pilgrimage to Germany to taste it, or brew it at home.

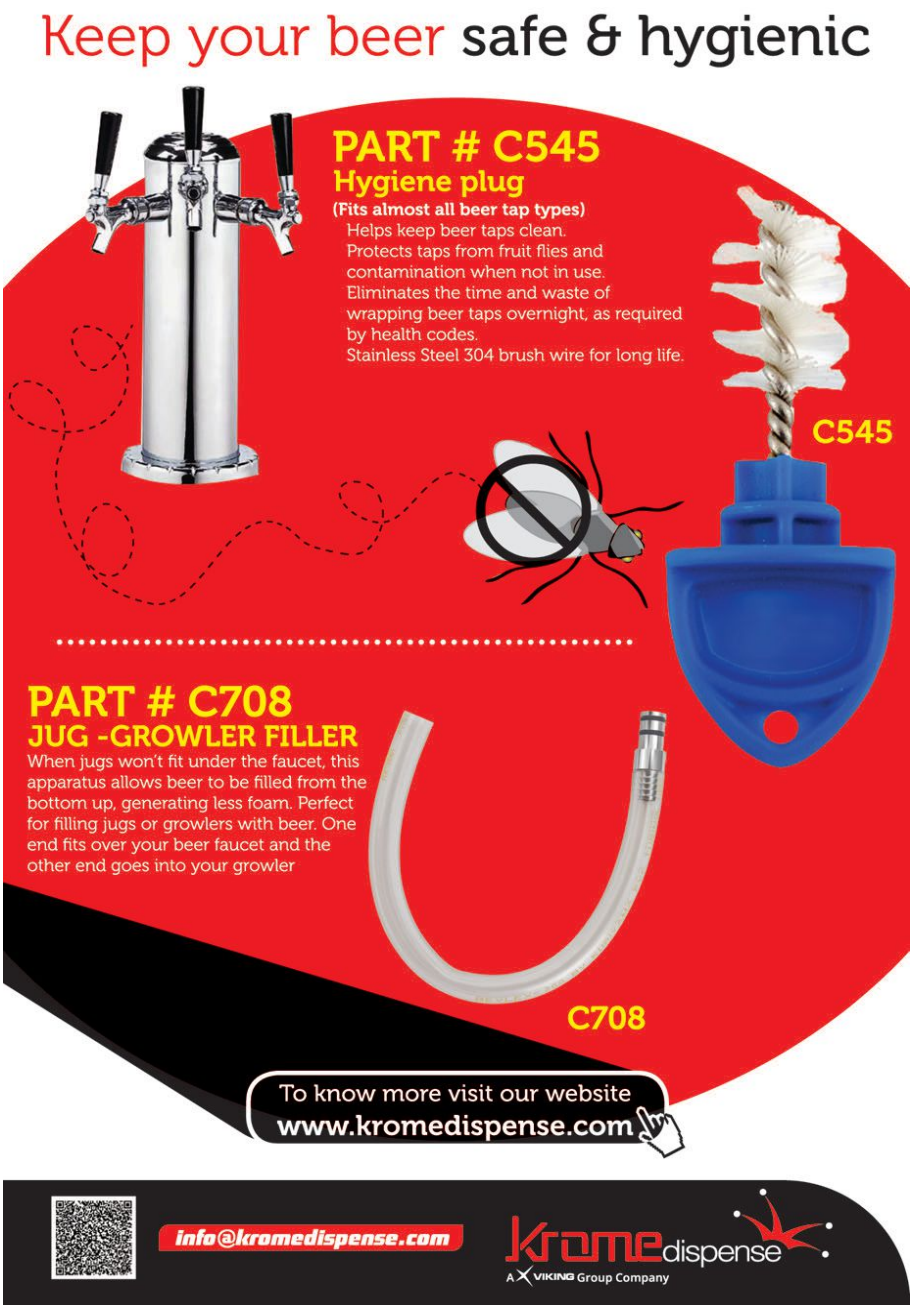
BUT IT HAS A LOVELY AND UNUSUAL FLAVOR AND TEXTURE, AND TO BREW A REAL RYE BEER RATHER THAN A BARLEY BEER WITH RYE IS THE GOAL HERE.

Brewing with Rye

It's apparent that brewing with rye is not without its challenges, particularly in the transfer from tun to kettle. Rye is huskless, like wheat, and tends to set up like concrete when mixed with water. Anyone who has made rye bread knows what a sticky, unwieldy mess it becomes as dough; lautering that mess is even more difficult. But it has a lovely and unusual flavor and texture, and to brew a real rye beer rather than a barley beer with rye is the goal here. So without using any specialized equipment, we will try to come up with a mostly-rye grain bill that can still be sparged.

For skeptical homebrewers, a couple of secret weapons are available. One sidesteps the mash challenge altogether: rye malt extract. Briess' CBW® Rye Malt Extract syrup is a blend of base, caramel 40, and rye malt extracts, and while it doesn't allow you to control the balance of rye character to the other malts, as with the all-grain recipe provided with this article, it can turn a nine-hour brew day into a two-hour walk in the park, and you'll still have a fabulous Roggen to show for it. Secret weapon number two: rice hulls.

Rice hulls offer coarse fiber as a lautering aid, without contributing any flavor or aroma of their own. A little usually goes a long way; weisse brewers can typically get



away with a half-pound or so for a 5-gallon batch-sized mash. If you've ever used rice hulls, you'll know they don't weigh much—a pound is quite a substantial volume. But for something as sticky as a rye mash, even a pound might not be enough. I recommend one to two pounds for this recipe; worst-case scenario, your mash will be too good, and you'll lose a bit of efficiency. You can always slow down your sparge rate, and it's better than getting a stuck mash. Lay down a bed of hulls before you start mashing in, and make sure the hull-to-grain ratio is highest at the bottom; they tend to float on top otherwise.

Lautering equipment is also a consideration here. Roggenbier homebrewers posting to various online forums seem to agree that braided stainless steel hose assemblies work best. I use a slotted copper pipe manifold, and I've had no problems. False bottom users (if I may be so impertinent) might run into trouble. Prepare for the worst, and chances are you'll be fine. If your mash still runs slow and threatens to stick, you can try underletting. Basically, this technique allows you to "reset" the mash bed. Carefully siphon a liter or two of boiling water down your runoff hose and through your lautering assembly beneath the mash. Stop the flow, stir the mash gently to clear the obstruction and any packed grain around your lauter assembly, then begin running wort through slowly in the right direction. You will have to recirculate the now-turbid wort until runoff clears, and then you can resume sparging.

Rye malt makes up almost half of the grain bill for this recipe. You can also use flaked rye, but that encourages even more stickiness. Pilsner malt balances out the base malts, but pale two-row can also be used. With this much rye, neither pale malt is going to come through much, if at all. Wheat malt is often used in Roggenbier, in addition to rye, but in this recipe we'll use a small amount of Weyermann caramel wheat, also known by its trademarked name, CaraWheat®. It adds some medium red color and a pleasant wheaty, cereal flavor and aroma.

Additional color comes from another Weyermann specialty grain, chocolate rye. This 188-300° L dark grain is almost tailor-made for Roggenbier, though it's sometimes used in Dunkleweizen as well. At above five percent of the grain bill it can add some roast character, but the recipe calls for only four ounces, or two percent total; this contributes a deep orange color and hints of pumpernickel bread, which is more on target for the style. The 120° L crystal malt adds more color and a bit of body without too much sweetness. Special B can also be used, but will add dried fruit flavors and even less sweetness. Per BJCP guidelines, a little sweetness is desirable in the style, though this recipe is toward the higher end of the allowable original gravity range of 1.046 to 1.056. There will already be plenty of heft from the rye malt, so caramel wheat and crystal malt amounts should be kept fairly low at just over four percent each.

Decoction mashing is traditional for this beer, and with good reason. Not only does it increase efficiency and help to

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free more starches from the mash for conversion, it also makes the rye malt a bit easier to lauter. Purists would say it also adds to the breadiness of the finished beer, but just how much is debatable, and depends a lot on technique. A single decoction mash schedule is included with brewing directions for the recipe. Strictly speaking, it is possible to use a step mash: start with a protein rest for 30 minutes at 122° F (50° C); add heat or boiling water to bring the mash to 154° F (68° C) and hold for one hour; then add heat or boiling water again to mash out at 168° F (76° C) and hold for 10 minutes. Decoction mashing is preferred, but if you are pressed for time, you can squeak by with a step infusion.

Hops are traditionally not a big component of this style, but as with Dunkleweizen, a noble German variety should be used. I like Mittelfruh when I can get it, but any German Hallertau will do (with the possible exception of the new Hallertau Blanc hop, which may be a bit too flamboyant for traditional Roggenbier). Remember that the rye itself produces its own kind of bitterness on the palate, so make sure your 60-minute kettle addition doesn't contribute much more than the 11 IBUs recommended. This recipe is again near the high end of the allowed IBU range of 10 to 20, and the whirlpool addition is perhaps going too far with hop aromatics, but the end result balances nicely with bready rye malt and prominent yeast character.

Roggenbier is typically fermented with a hefeweizen strain, and there are plenty to choose from. White Labs WLP380 Hefeweizen IV is my preferred strain. It tends to produce lots of clove phenolics and mild banana esters at lower temperatures (around 62° F, or 17° C), which blend harmoniously with the spiciness of the rye and floral aromatics of Mittelfruh. Since carbonation is critical to the style's balance, as it is with dunkelweizen, a great way to get the requisite fizz without having to fine-tune your keg dispense is to bottle condition. If you want to take this a step further, you can *kraeusen* the beer with unfermented wort (also called gyle or *speise* in German). This technique is fairly straightforward, but calculating the exact amount you need to achieve your desired level of CO_2 is a bit more involved—page 78 of Eric Warner's excellent book *German Wheat Beer* includes a good formula:

$$\%\text{Speise} = \frac{\%\text{desired } CO_2 - 0.2}{\text{starting gravity} - \text{real final gravity } (°P)} \times 0.46 \times 100$$

If you don't want to do the math, here are a few ballpark figures: 1,300 mL of 13.5° P wort added to a 20.82 L batch of the same gravity will give you 3.5 volumes of CO_2 in your finished beer, assuming a real FG of 2.5° P. To get to 4 volumes, you'd need 1,540 mL. Warner claims wheat beers should have between 2.8 and 5.1 volumes of CO_2, with the average being 3.9. Roggenbier doesn't have to be quite that highly carbonated—between 3.5 and 4 volumes is plenty. Add the speise to a sanitized secondary to which a bed of CO_2 has been added, and rack the finished beer onto it, to ensure thorough and even blending. The speise is obviously denser than finished beer, and insufficient blending will result in a mix of bottle bombs and flat bottles! Package the blended beer in sturdy bottles that can take the pressure—German wheat beer half-liter brown returnables are up to the task—and keep them around 70° F for a week. Refermentation is usually quite rapid. I usually place a cap on each bottle loosely as I go, and by the time I'm done, I can already hear the caps on the first bottles burping CO_2.

If this all sounds like too much trouble, you can certainly just use priming sugar or malt extract, or if you're an ace with kegs, go that route.

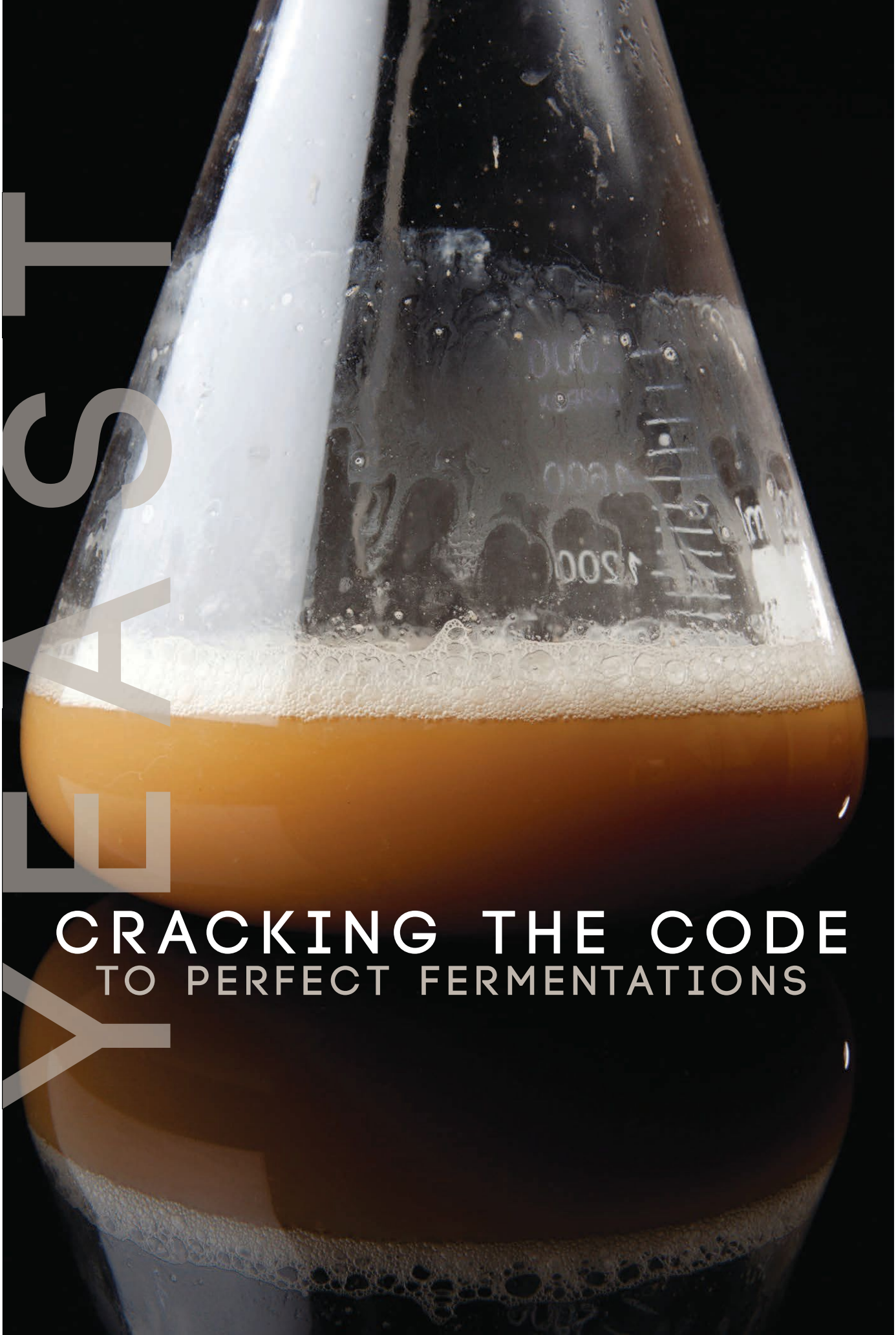
Water treatment is not critical for the style, but if you are building a water profile from scratch, an amber/malty profile would be appropriate. Per Martin Brungard's handy "Bru'n Water" spreadsheet: 55 ppm calcium, 5 ppm magnesium, 10 ppm sodium, 8 ppm chloride, 55 ppm sulfate, 65 ppm chloride, 35 ppm bicarbonate, and a residual alkalinity of -13. Total hardness would be 156 ppm, with an alkalinity of 29. A 3:1 ratio of reverse-osmosis water to tap water works well too.

This beer pairs quite well with pumpernickel bread or Bavarian soft pretzels, preferably home-baked with…you guessed it…Roggenbier.

Resources

1. The German Beer Institute web page, Cerevisia Communications.
2. Brungard, Martin. "Bru'n Water" V.1
3. Warner, Eric. *German Wheat Beer*. 1992. Brewers Publications.
4. Jackson, Michael. Michael Jackson's *Beer Companion*. 1993. Running Press.

Amahl Turczyn Scheppach is associate editor of *Zymurgy*.



YEAST

CRACKING THE CODE

TO PERFECT FERMENTATIONS

THERE'S A REASON WHY THE ADAGE "BREWERS MAKE WORT; YEAST MAKES BEER" HAS ENDURED. **"FERMENTATION IS EVERYTHING"**

There's a reason why the adage "brewers make wort; yeast makes beer" has endured. "Fermentation is everything," according to award-winning homebrewer and now professional brewer Jamil Zainasheff.

I couldn't agree more. Ironically, the smallest ingredient—a single-celled fungus—in a recipe can hold the biggest sway in determining a homebrew's success or failure. It wasn't until I learned how to select a yeast strain, properly prepare it for pitching, and control its fermentation temperature that my homebrews took that once-elusive leap to the next level. As a bonus, this knowledge gave me the confidence to harvest the yeast for reuse afterward, allowing me to make even better brews and save some cash.

DRY VERSUS LIQUID

In the early days of homebrewing, dry yeast was the only option. It came in generic packs of indeterminate age or origin in either ale or lager form. Fermentations often didn't reach target gravity or were contaminated. Still, as our grandparents used to say, we were thankful. Dry yeast was the only game in town. Then, manufacturers like White Labs and Wyeast introduced liquid yeast in a variety of strains. The Wyeast smack pack also had the attraction of allowing one to test the yeast's viability. Liquid yeast became the gold standard—the no-brainer choice.

But things started to change about 10 years ago when a French manufacturer introduced several dry yeasts under the Fermentis brand. They claimed their yeast was of equal quality to liquid, more affordable, and easier to use. Other manufacturers followed suit, and now dry yeast is a feasible alternative. I use it on a regular basis.

CHOOSING A HOUSE YEAST

Flitting from one variety to another without learning the characteristics of a few strains creates a sort of "jack of all trades" situation. The reason why many breweries rely on one workhorse yeast and a few specialty strains is more than sheer economics.

I encourage homebrewers to do the same: choose a house yeast and a few go-to strains for specialty beers. Brew a batch, split it, and ferment under the same conditions with two similar yeasts. It's the only way to determine, for example, whether one prefers Wyeast 3068 or WLP300 for a hefeweizen. There are no wrong choices. Once a few strains are well understood, branch out and try something new, like the seasonal offerings from

BY MARK PASQUINELLI

Wyeast's Private Collection or White Labs' Platinum Series.

Wyeast 1272 American Ale II is my house yeast. I'm also fond of Wyeast 3068 Weihenstephan Weizen, WLP500 Trappist Ale, and WLP013 London Ale yeast. For specialty brews, I use WLP002 English Ale yeast. It's perfect for my pumpkin ale, winter warmer, and fruit beers—and it makes a mean hard cider, too. I know how it works: fast fermentations that finish in a few days, flocculating like a rock, and leaving a hint of residual sweetness.

PREPPING DRY YEAST

Regardless of the yeast type or choice, it must be properly prepared before pitching. Dry yeast can be sprinkled directly on the wort, but this isn't recommended. The cell walls of dehydrated yeast are fragile. During the first moments of hydration, the yeast are unable to regulate what passes through the cell walls. Thus, the shock of absorbing wort directly can cause a great deal of attrition—perhaps as much as 50 percent. So not only would the wort be under-pitched, the dead yeast cells will begin to break down and affect the flavor. For these reasons, dry yeast must be hydrated first.

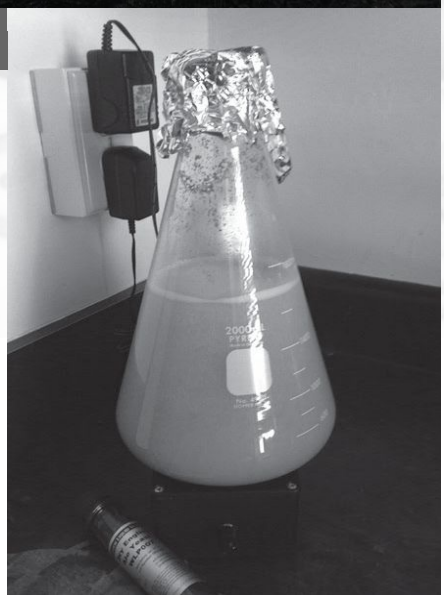
The process is similar to preparing bread yeast. To hydrate one pack, heat 100 ml of water to about 105° F (41° C). I use a sanitized Pyrex measuring cup, which I zap in the microwave. Sprinkle the yeast on the water (trying to avoid clumping), cover with a paper towel, and allow to sit for 15 minutes. Gently stir until the mixture has a creamy consistency, and allow it to sit for a few more minutes. Let the covered mixture cool to within 10 to 15° F of the wort temperature and pitch.

Another recommended aid for hydrating dry yeast is the addition of Go Ferm, a yeast hull-based nutrient that provides the building blocks for the cells to reconstitute themselves.

YEAST STARTERS

Liquid yeast requires a starter, unless one has low gravity wort for something like a mild or an ordinary bitter—or if a mini-batch of normal strength beer is being brewed. I cannot emphasize the use of a starter enough. It is the only way to achieve the proper cell count of healthy yeast, awakening them from their long sleep and whetting their appetites for the task at hand.

REGARDLESS OF THE YEAST TYPE OR CHOICE, IT MUST BE PROPERLY PREPARED BEFORE PITCHING.



This might horrify some, but I don't believe in cell counts. I despised doing them in a previous laboratory gig. They're tedious and obscure the big picture: getting lots of healthy yeast. It's difficult to over-pitch, especially for brewing high gravity styles and lagers. If you have to ask if you have enough yeast, that answers your question. Add another pack of dry yeast or step up the starter.

When I began to homebrew, I was concerned that the extra steps in making a starter might increase the possibility of contamination. Relax. You're making beer, not doing open-heart surgery. Standard sanitation procedures will be more than adequate.

Making a starter is easy. Prepare a 10 percent solution by adding 150 grams of extra light DME into 1500 ml of water with ¼ teaspoon of a yeast nutrient blend, such as the one made by Wyeast. The blend provides vitamins, minerals, nitrogen compounds, and zinc essential for yeast health.

The 10 percent DME/water solution will result in a wort with a gravity of about 1.030. Don't make a stronger solution, even if brewing a high gravity beer. The object is for the low-gravity wort to act as an appetizer. A higher gravity starter will result in a larger cell count, but the yeast will be more stressed. Also, don't make a starter smaller than one liter. It won't provide an opportunity for adequate cell count growth or for the yeast to re-energize themselves.

Photos © BIOPHOTO ASSOCIATES, LlCreate and Mark Pasquinelli

Boil the wort in a sauce pan for 10 minutes. Hops are not necessary. Cover the pan, place into an ice bath until cool, and pour into a sanitized clear growler. Add the yeast. Aerate by either shaking or by adding a 30-second shot of oxygen. An airlock is not needed. The growler can be loosely covered with sanitized aluminum foil. If possible, give the growler a shake every few hours to introduce oxygen, which will increase the cell count.

An easier method is to use an Erlenmeyer flask and a stir plate. I normally use a 2L flask. Boil the starter in the flask on the stove's lowest power burner, being careful to avoid a boil-over and subsequent mess. A few drops of Fermcap-S, an anti-foam agent, will lessen the chances of a boil-over. When the boil is finished, add a sanitized stir bar, cover the flask with sanitized foil, immerse in an ice bath until room temperature, and add the yeast. The vortex from the stir bar will introduce oxygen continuously, resulting in a much higher cell count than could be achieved by a starter in a growler.

For high-gravity worts, the starter must be stepped up to increase the cell count even further. Once starter activity slows, cool the growler or flask to crash the yeast, rewarm to room temperature, pour off spent wort, replace with fresh, cooled wort, and repeat the process.

At pitching time, sanitize the mouth of the flask or growler with rubbing alcohol. Pour off the spent wort, re-suspend the yeast, and add to the beer. If using a flask with a stir bar, attach a magnet to the underside of the flask to hold the stir bar in place. Otherwise, be careful not to pitch the stir bar with the yeast.

OXYGENATION

Providing adequate oxygen is critical for yeast. Under normal circumstances, yeast metabolize sugars under anaerobic (oxygen-free) conditions to produce alcohol and carbon dioxide. However, during the yeast's initial growth phase, oxygen is needed for the yeast to produce the sterols to synthesize their cell walls. Strong cell walls are needed for reproduction and for yeast health. Remember, for

us, alcohol's a sweet nectar; for yeast, it's a toxic waste product. Strong cell walls will provide protection.

Boiling, unfortunately, drives the oxygen from the wort. It must be replaced by either shaking the carboy or by injecting oxygen directly. Shaking a carboy requires the arms of a body builder and presents safety issues. Another solution is to use an aquarium pump and an air stone. Be sure to sanitize the air stone and use an in-line sanitary filter. The better solution, however, is to add pure oxygen.

Wort oxygenation kits use disposable oxygen tanks available at hardware stores. Since the source is pure, less time is needed to dissolve the oxygen. For normal gravity worts, I oxygenate for about three minutes, versus the 20 to 30 minutes that might be needed with an aquarium pump. Higher gravity worts, of course, will need more oxygen—about five minutes' worth. With big beers, it's also recommended to add a second dose of oxygen about eight to 12 hours after pitching. This will not result in the tell-tale stale, cardboard-like flavors from oxidation.

After several years of throwing away oxygen cylinders every few batches, I bought a welding oxygen cylinder from Tractor Supply Company and a medical regulator. It was expensive—about $120 plus an additional $20 for the oxygen. When empty (I've been using the same cylinder for a few years), I can trade in the cylinder for the cost of a refill. The beauty of this system lies in the medical regulator. It allows me to dial in an exact flow of oxygen for a set time, giving me sublime repeatability.

I always oxygenate my homebrews on the side of caution. However, it should be noted that some brewers deliberately under-oxygenate to produce a desired flavor profile. Stressing the yeast in this manner can result in more spicy phenolics in Belgian-style beers and more banana esters in hefeweizens.

TEMPERATURE CONTROL

After the yeast has been pitched and the wort has been oxygenated, fermentation must be controlled by temperature. Like all things related to homebrewing, this can be accomplished on the cheap or at great extravagance.

ONCE THE TEMPERATURE HAS STABILIZED AND FERMENTATION HAS STARTED, LET THE YEAST DO ITS JOB. DON'T MEDDLE WITH IT.

The first step is to determine the proper fermentation temperature for the yeast strain. Guidelines are available on the manufacturers' websites. However, personal preference through experimentation also comes into play. For example, I ferment Kölsch at 56 to 58° F (13 to 14° C) with Wyeast 2575, hefeweizen at 60 to 62° F (16 to 17° C) with Wyeast 3068, and saison at 90° F (32° C) with WLP565.

Regarding Belgian brews, don't fall into the trap of fermenting too warm. Many of the fermenters in Belgian breweries are shallow and engineered to work at warmer temperatures. Taller, five-gallon carboys present a different set of thermodynamics, which experts are still trying to understand. As a rule, ferment Belgian beers in the upper 60s in degrees Fahrenheit and then slowly raise the temperature to the lower 70s toward the end of fermentation. This will avoid excessive phenolic and solventy flavors.

The easiest solution for temperature control is the most obvious: find an environment with the same steady temperature required for the yeast. Climate-controlled rooms or cool basements can be perfect for ales and lagers, respectively. But that's rarely the case.

Brew belts are available to keep fermentations warm during colder months. Another solution is to use an aquarium heater in conjunction with a water bath in a storage tub. Go big with the heater. Mine is rated at 100W, good for 30 gallons. Set up the water bath a day or so in advance. It will take some finagling to dial in and stabilize the temperature for the first few times. Then cover the water bath with some blankets and let the yeast work their magic.

Fermentation is an exothermic (heat-producing) reaction. More often than not, the carboy will have to be chilled, especially during the summer and in warmer climates. Inexpensive solutions abound. A low-tech answer is to place the carboy in a pan filled with water. Wrap a towel around the carboy and let the towel wick up the water. The heat loss from evaporation will cool the ves-

sel. This process can be accelerated with a fan. Another method I've used is to place the carboy in a water bath inside an Igloo cooler and cycle 24-ounce soda bottles filled with frozen water as needed. This requires some attention, but the temperature will eventually stabilize so that it will only have to be tended to a few times a day. Same as with the aquarium heater, cover the Igloo cooler with a blanket. Believe it or not, I've been able to ferment Kölsch at 45 degrees below ambient temperature in my garage with this method.

Presently, I use a laboratory-grade refrigerator and small space heater connected to a Ranco two-stage controller to regulate my fermentation temperatures. A plastic cap with a built-in thermowell and blow-off attachment is placed on the carboy. The Ranco probe is inserted into the thermowell, which extends into the wort. This way I can get an exact temperature reading and stay within a degree of the desired target.

Once the temperature has stabilized and fermentation has started, let the yeast do its job. Don't meddle with it. If pitched with a proper amount of healthy yeast, even a high gravity beer will usually ferment to completion without having to add an alcohol tolerant yeast for clean-up. Also, be sure to give lagers a diacetyl rest as needed. Ale yeasts produce diacetyl as well, some more than others—allow time for Irish yeasts like WLP004 or Wyeast 1084 to absorb any excess diacetyl produced.

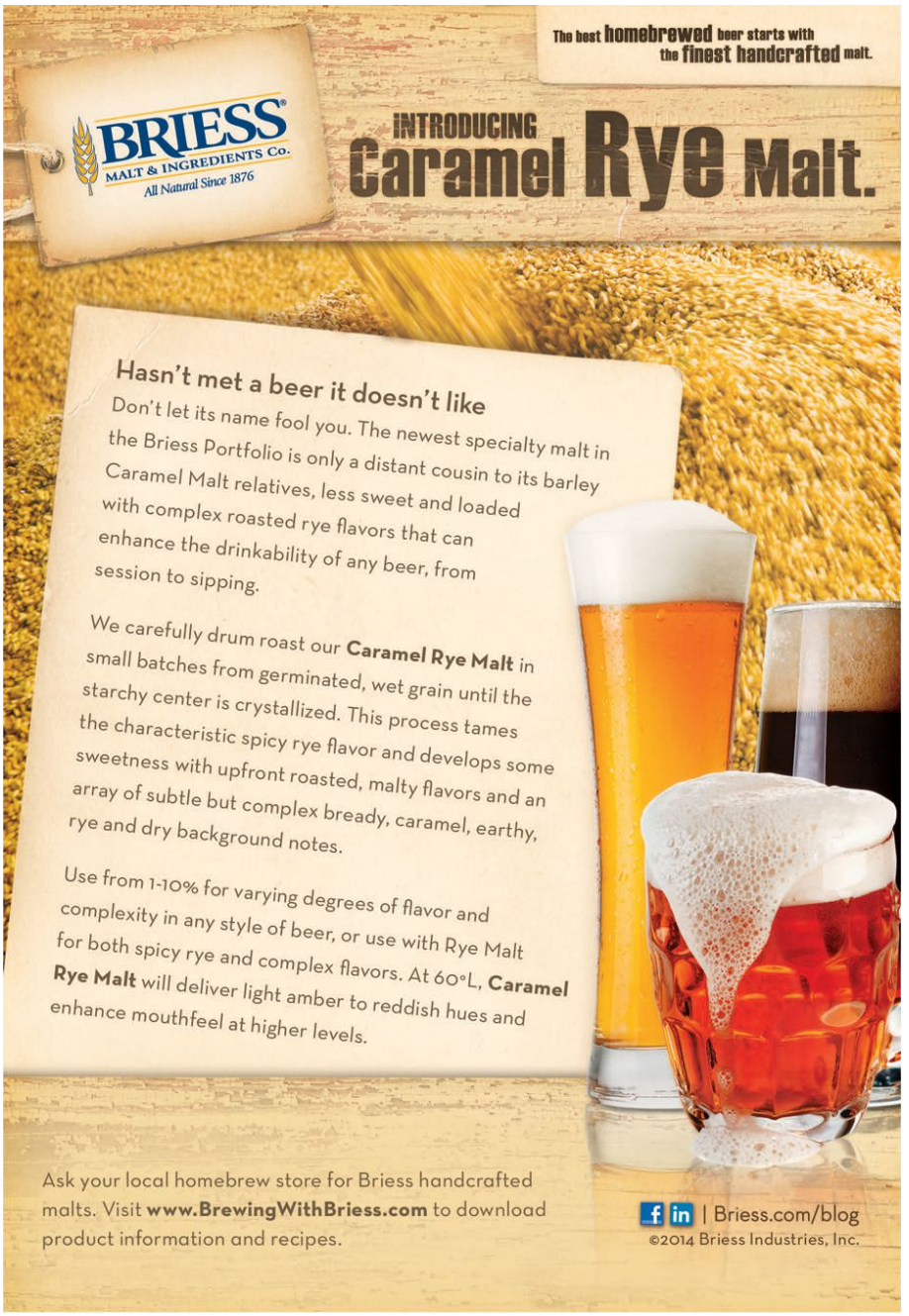
REUSING YEAST

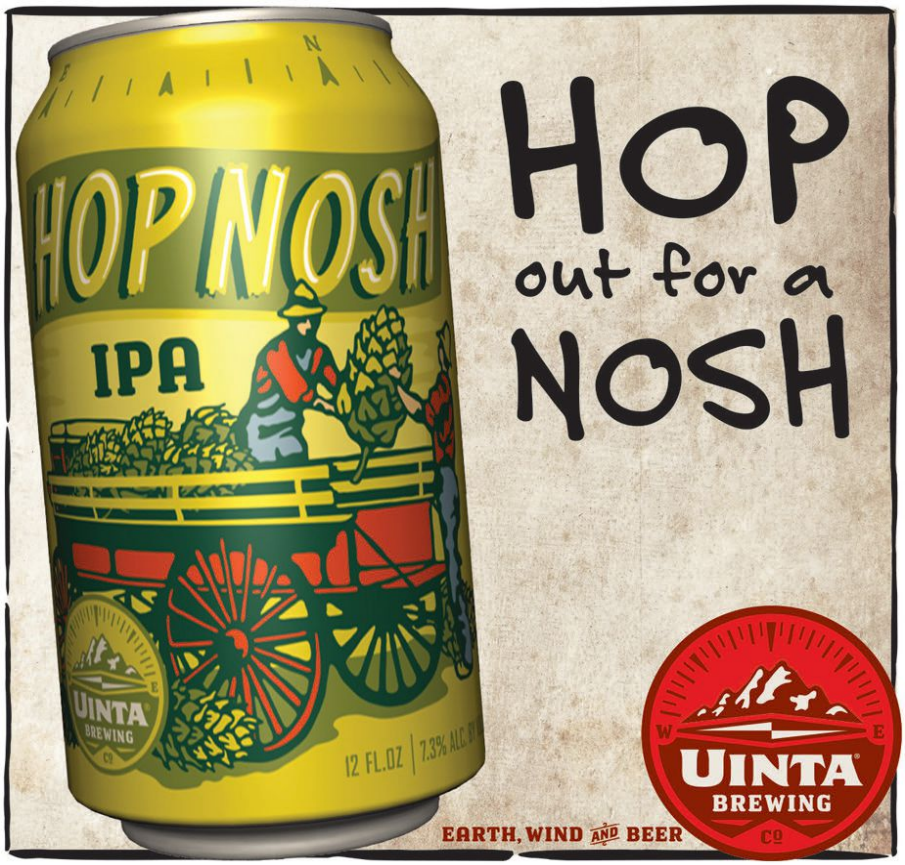
After fermentation has finished and the beer has been racked, it would be a shame to waste the large yeast cake at the bottom of the carboy—especially with the cost of a vial or smack pack at approximately $7.

However, there are some instances when the yeast shouldn't be reused. Was it used for a high gravity (+1.070) brew? The yeast will be spent from such an ordeal and underperform. Is it yeast that was used for a hoppy beer? The yeast from the previous beer will be coated with hop oils that will affect the hoppiness of the second homebrew.

Resist the temptation to pour a batch of fresh wort directly onto a yeast cake. The cake also contains trub, dead cells, and hop material, all of which must be removed by washing. Boil a few quarts of water, allow it to cool, and pour into the carboy. Shake the carboy well to suspend the yeast. Sanitize the mouth of the carboy and pour the yeast slurry into a large, clear container with a lid, such as those made by Rubbermaid. Allow the yeast to settle and observe. The slurry will have separated into three layers. The bottom layer will be darker trub and hop material. The dead and unhealthy yeast cells will settle last and comprise the top layer. The middle layer is where the healthy cells reside. It will be a light, creamy tan color. Sanitize the mouth of the container, and discard the water and the top layer. This doesn't have to be (and won't be) exact. Pour the middle layer into sanitized jars. Half-pint Mason canning jars work perfectly for this, and I usually fill about four to five jars from a slurry. I also replace the two-piece metal lids with a reusable plastic lid.

Label the jars with the yeast type and the date. It may be used immediately or stored in a refrigerator for approximately





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two months. If I don't use the yeast right away, I'll make a starter. The lack of food and nutrients in the water will cause the yeast to become dormant, and they must be awakened.

This second-generation yeast will usually perform better since it has acclimated to your brewery conditions through natural selection. However, improvement through future generations won't occur indefinitely because mutations will eventually catch up to it. Hefeweizen yeast strains are notorious for this.

All good things must come to an end. Eventually, your once-creamy tan yeast will darken, a sure sign that it's at the end of the road. If there's any doubt, discard the yeast and start fresh. Time and quality ingredients aren't worth wasting on suspect yeast.

I acquired the knowledge for this article—how to select yeast types and strains; how to prep yeast for fermentation; how to control fermentation temperature; and, finally, how to reuse yeast—over several years. Your learning curve doesn't have to be as long. Armed with this information, you can guide your homebrews to an immediate leap in quality, whether for competitions or for simple enjoyment of good beer.

Mark Pasquinelli resides in Elysburg, Pa. with his wife, Karol. He somehow finds time to homebrew between his responsibilities as husband and manservant for their six cats.

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AMERICA'S OLDEST HOMEBREW CLUB:

MALTOSE FALCONS TURN 40

BY DREW BEECHUM

IN 1974, HANK AARON BROKE BABE RUTH'S ALL-TIME HOME RUN RECORD, THE LAST JAPANESE SOLDIER FIGHTING WORLD WAR II SURRENDERED, RICHARD NIXON RESIGNED, BARBARA STREISAND'S "THE WAY WE WERE" WAS THE BEST-SELLING SINGLE, AND THE ONLY GLIMMER OF HOPE IN THE WORLD OF AMERICAN BEER WAS FRITZ MAYTAG'S REHABILITATED ANCHOR BREWING.

MEANWHILE, IN LOS ANGELES, CALIF., A FEW BEER-LOVING GENTLEMEN DECIDED THAT THE BREW THEY COULD BUY WAS NO MATCH FOR WHAT THEY HAD TRIED AROUND THE WORLD. IF THEY COULDN'T BUY IT, THEN THEY COULD SURE TRY AND MAKE IT. THEY BANDED TOGETHER, AND MY FAVORITE GROUP OF MISFITS WAS BORN—THE MALTOSE FALCONS, AMERICA'S OLDEST HOMEBREW CLUB.

ROY CLARK'S REAL ALE (1978)

INGREDIENTS
for 6 U.S. gallons (22.71 L)

1.0 lb (0.45 kg) crystal malt
1.0 lb (0.45 kg) dry malt extract
4.0 lb (1.81 kg) sugar
4.0 oz (113 g) Bullion, Hallertauer, or Northern Brewer hops
dry ale yeast

Target Original Gravity: 1.036
Est. Final Gravity: 0.995

DIRECTIONS
Simmer the hops, crystal malt, and extract together for one hour. Strain out the hops. Dissolve the sugar in the wort. Top up with cold water to make 6 gallons and ferment below 80° F (27° C).

VARIATIONS
Substitute 1 lb black patent malt for the crystal malt, use 2 lb (0.9 kg) dry extract and up to 8 lb (3.63 kg) sugar for some real kick.

Remember, 1974 was a time when brewing beer was considered moonshining and your neighbors' quizzical looks could translate to jail time. But a little thing like the "law" wasn't going to stop a man brave enough to walk around wearing a Pickelhaube.

The mustachioed, German-loving man at the center of the club's history was Merlin Elhardt. After spending his military years stationed in Europe, Elhardt was put out of sorts when he came home to a Los Angeles dominated by Pabst and Schlitz. The brew, unsurprisingly, lacked the depth he was seeking.

Scant knowledge existed on how to brew. There were a few "moonshining" types of homebrew books and Fred Eckhardt's handbook, "A Treatise on Lager Beers." Brewing ingredients were just as hard to come by. Brown paper sacks held hops that quickly matched the paper. Malt extract was packed in tins of questionable vintage, fresh malt was a luxury, and dried yeast came with free doses of Brettanomyces and Pediococcus. Seriously, folks got super excited when sources announced, "We've got a new variety of crystal malt!"

It was against this backdrop that the Falcons began. Techniques were shared in mimeographed monthly newsletters. Information was painstakingly transcribed. New equipment had to be fabricated (no Blichmann in those days!). Topics that we think of as advanced wonkery—like water chemistry—were no stranger to these guys. Even the debates sound the same: "Water chemistry is important!" "No, it's not! I use plain tap water!" All of this camaraderie, trail blazing, and pioneering homebrewing knowledge was available for a mere $10 per year.

A WALK BACK IN HISTORY

Sadly, we don't have our founders anymore. Elhardt, the club's initial driving force, was killed in 1979 in a workplace accident.

Thankfully, members gathered together all their old "Brews & News" newsletters and created annual binders—new year, new binder. The first available newsletters are from 1978. The January 1978 newsletter apparently sporting a fancy

new header graphic announced that the club meeting would have to be canceled, since it was scheduled for the same day as the Rose Bowl. (Warren Moon's Washington Huskies defeated the Michigan Wolverines 27-20.)

We've scanned all of the old newsletters into a massive archive that is slowly going online (http://maltosefalcons.com/brews). Big thanks to Gregg Van Citters for his work on this project. Go online to read some homebrew history, if you're so inclined!

I find mining the newsletters to be great fun. It's a history lesson in primary sources.

The important stuff starts right there in 1978 and 1979. In the pages of those issues, you can see in real time the passage of the bills that legalized homebrewing—first in California and then across the nation.

You can read about the near-disaster of the "Conable Bill" that would have required homebrewers to be licensed by what was then called the ATF (the Bureau of Alcohol, Tobacco, and Firearms). There was talk of founding an organization—the California Association of Brew Clubs—just to celebrate their victory and tweak a certain government group.

A little later, you see mention of a crazy nuclear engineer in Boulder, Colo. starting a newsletter called *Zymurgy*. Want

DAVID NORTON'S STRAWBERRY-RHUBARB MEAD (1989)

INGREDIENTS
for 6 U.S. gallons (22.71 L)

13.0 lb (5.9 kg) clover honey
3.0 lb (1.36 kg) strawberries
2.0 lb (0.9 kg) rhubarb
2 packages Red Star Pasteur Champagne yeast
5 tsp (25 g) yeast nutrient

DIRECTIONS
Boil for 30 minutes. Ferment at 70° F (21° C) for 7 weeks followed by a secondary fermentation of 6 weeks before bottling with 5 oz (142 g) corn sugar.

MALTOSE FALCONS AT A GLANCE

- **FOUNDED MARCH 1974 IN LOS ANGELES, CALIF. BY MERLIN ELHARDT**
- **MEMBERSHIP: ~300**
- **2014 MEMBERSHIP DUES: $25/YEAR**
- **MEETINGS** (first Sunday of the month at the club's sponsor shop)
  - > Grand Hydrometer Tasting and Style Presentation (ex.: Sour Beers, Beers of Anaheim, Brews That Were Mistakes)
  - > Technical lesson (if available)
  - > Club business
  - > Homebrew
  - > Lunch & Troubleshooters Corner—bring questionable beers for honest guidance
  - > More homebrew!
- **MONTHLY BREW LESSONS**
  - > All-grain on a 50-gallon HERMs system
  - > Brew 101 extract classes using kits
- **COMPETITIONS**
  - > Doug King Memorial Specialty & Lager Beer Competition (January)
    - *Winner's recipe is brewed at Eagle Rock Brewing Co.*
  - > Mayfaire Competition (April)
    - *Founded in 1978, part of the Sierra Nevada CA Homebrewer of the Year Circuit*
    - *Winner's recipe is brewed by Ladyface Ale Companie*
    - *Winner receives the Hashell Dammett Statue (aka "the Bird")*
  - > Los Angeles County Fair (August)
    - *Competition started in 1987*
    - *America's largest county fair*
  - > Oktoberfest
    - *Private club "competition" (informal at best)*
- **FESTIVALS**
  - > Mayfaire (May): Originally the "Springfest," it was originally billed as a non-German fest in comparison to the Oktoberfest.
  - > Oktoberfest (October): Early years had a strict German theme with a variety of German beer on tap.
  - > Southern California Homebrewers Festival (May): Not a "Falcons" fest per se, but the club played a major role in founding the festival.
  - > Sunfest (August): Started in 1982. Good time to escape the oppressive heat of the San Fernando Valley in favor of a beach or mountain!

20TH ANNIVERSARY OLD SURVIVOR (1994)
OLD ALE

INGREDIENTS
for 12 U.S. gallons (45.42 L)

22.0 lb (9.98 kg) US pale two-row malt
4.5 lb (2.04 kg) Scottish 80° L caramel malt
2.25 lb (1.02 kg) British 40° L caramel malt
1.0 lb (0.45 kg) US wheat malt
0.5 lb (227 g) Scottish chocolate malt
3.9 oz (110 g) Fuggles, 4.9% a.a. (60 min)
1.0 oz (28 g) East Kent Golding hops (0 min)
3 packages Doric dried yeast

Target Original Gravity: 1.070
IBUs: 26
SRM: 23.5

DIRECTIONS
Mash in with a protein rest at 124° F (51° C) for 30 minutes. Raise to 162° F (72° C) and hold 90 minutes.

EXTRACT RECIPE
Replace pale two-row and wheat malts with 18 lb (8.16 kg) pale malt extract syrup. Steep chocolate and crystal malts in 160° F (71° C) water for 30 minutes. Strain, dissolve extract completely, and proceed with boil.

to see when Sierra Nevada launched? It's in there, as is the news of the first "good beer"-friendly bars that poured the complete Anchor Brewing lineup!

Read about the early Mayfaire (née Springfest) competition with these *very complete* entry categories in 1979 (the BJCP should take note!):

- Ale, Grain
- Ale, Grain - Dark
- Ale, Extract
- Ale, Extract – Dark
- Stout or Bock
- "Unusual"
- Lager, Grain
- Lager, Grain – Dark
- Lager, Extract
- Lager, Extract – Dark

Trips were a big deal. The Falcons traveled to see the Great Western Malting facility and the "new" Anchor Brewery, and trekked across the border to Tecate for a brewery tour. Falcons member John Maier—yes, *the* John Maier of Rogue Ales—recalls lots of homebrew flowing and the tour guides letting them take unsealed, filled cans of beer right off the line for drinking!

STAYING POWER

The history isn't always positive. As mentioned, Elhardt passed away. Several treasurers walked away with the club's funds. There were constant attacks by neo-Prohibitionists on the nascent brewing scene as well as internal club fights.

Ten years in, the club's prospects looked bleak: membership was down, officers slacked on their duties, and people grew tired. It was all the club could do to muster enough money to buy a keg of Heineken for joint parties with the wine club.

But soon after, the Falcons had an infusion of new blood and created its first bylaws (the current bylaws are available online). The club built its first brewery, club members helped open a few brew-

25TH ANNIVERSARY IPA (1999)

INGREDIENTS
for 6 U.S. gallons (22.71 L)

12.0 lb (5.44 kg) pale two-row malt
1.5 lb (0.68 kg) 40° L crystal malt
1.5 lb (0.68 kg) 20° L Munich malt
0.5 lb (227 g) dextrin malt
0.6 oz (17 g) Centennial, 7.8% a.a. (first wort hop)
1.12 oz (32 g) Perle, 6.5% a.a. (60 min)
0.25 oz (7 g) Chinook, 11.4% a.a. (60 min)
0.5 oz (14 g) Centennial, 7.8% a.a. (15 min)
0.5 oz (14 g) Crystal, 3.8% a.a. (15 min)
1.0 oz (28 g) Cascade, 5.6% a.a. (0 min)
Wyeast 1450 Denny's Favorite 50 or WLP001 California Ale or Wyeast 1056 American Ale yeast

Target Original Gravity: 1.070
IBUs: 60
SRM: 11.8
ABV: 7.1%
Boil Time: 1 hour

DIRECTIONS
Single infusion mash at 154° F (68° C) for 60 minutes.

EXTRACT RECIPE
Replace pale two-row, Munich, and dextrin malts with 10.5 lb (4.76 kg) pale malt extract syrup. Steep crystal malts in 160° F (71° C) water for 30 minutes. Strain, dissolve extract completely, and proceed with boil.

eries like Sierra Nevada, and Maier won the AHA's Homebrewer of the Year title in 1988.

In 1991, Jerry Stoker helped put together the first Southern California Homebrewers Festival. In the process of scouting festival locations, Stoker encountered "a nice young man," a homebrewer whose family owned a winery in Temecula that would play host. Today, that nice young man is the six-time winner of *Zymurgy*'s Best Beers in America poll—Russian River's Vinnie Cilurzo!

A major reason the Falcons have lasted 40 years is precisely because we've

30TH ANNIVERSARY HASHELL 10 (2004)

INGREDIENTS
for 5.5 U.S. gallons (20.82 L)

10.5 lb (4.76 kg) Belgian pilsner malt
2.75 lb (1.25 kg) Gambrinus honey malt
0.5 lb (227 g) acidulated malt
0.5 lb (227 g) German 50° L crystal malt
0.5 lb (227 g) Cara-Munich® malt
0.25 lb (113 g) Carafa® II malt
0.75 lb (340 g) clear candi sugar (15 min)
0.75 lb (340 g) invert sugar (see Directions)
0.75 oz (21 g) Perle, 7.6% a.a. (60 min)
0.75 oz (21 g) Styrian Goldings, 4.4% a.a. (60 min)
0.75 oz (21 g) Saaz, 4.1% a.a., (15 min)
0.75 oz (21 g) Styrian Goldings, 4.4% a.a. (15 min)
Pitch a blend of Wyeast 3724 Belgian Saison, Wyeast 3787 Trappist High Gravity and Wyeast 3655 Belgian Schelde Ale yeasts

Target Original Gravity: 1.084
IBUs: 41
SRM: 18.5
ABV: 9.1%
Boil Time: 90 minutes

DIRECTIONS
Mash in at 135° F (57° C) for 30 minutes. Use a decoction mash with main mash rests at 157° F (69° C) for 60 minutes and a 165° F (74° C) mash-out for 10 minutes. Caramelize one gallon of wort with the invert sugar and add back to the kettle during the last 15 minutes of the boil.

EXTRACT RECIPE
Replace Pilsner, honey, acid, and Cara-Munich® malts with 10.6 lb (4.8 kg) pale malt extract syrup. Steep crystal and Carafa® II malts in 160° F (71° C) water for 30 minutes. Strain, dissolve extract completely and proceed with boil.

always had club sponsor John Daume. He founded The Home Wine, Beer, and Cheesemaking Shop in 1972 in Woodland Hills, Calif. From the first mentions of the club all the way to the present day, Daume has helped the Falcons with advice, donations, discounts, and the occasional kick in the pants to keep things moving.

Not only has Daume provided a steady center for the club, he's literally provided a clubhouse. In the mid-90s, Daume, the Falcons, and the Falcons' sibling club, the Cellarmasters, fixed up a storage space with fans, lights, and white boards to make a meeting room for the clubs. Given the current restriction on homebrew at licensed establishments, we're beyond ecstatic to still have this room.

THE BEER

We tend to think our predecessors were unsophisticated, focused on maximizing cheap alcohol production and hillbilly concoctions of whatever random ingredients were lying about. But it's clear that from the early days, brewing tradition and staying true to style were incredibly important to the Falcons. In the club's beginnings, a number of brewers were trying to perfect German- and British-style beers and traditions.

The first recipe to appear in the newsletter is in December 1978, for Dr. Roy Clark's Real Ale. Also, in the proud tradition of all things homebrew, the recipe had the incorrect amounts listed! (This was corrected the following month.)

Not until July 1989 did a "weird and wacky" concoction appear—a Strawberry Rhubarb Mead from David Norton of the still-existent Kenosha Bidal Society. He entered it into the Mayfaire competition and won gold.

Every year, the Falcons have three main parties: Mayfaire, Sunfest, and the original Oktoberfest. For our five-year anniversaries, though, we decide to act like adults and have a fancy dinner with a dress code that involves something other than beer T-shirts. In memory of one of our founders, J. Howard Standing, a proud Scotsman who helped name the club and gave us our mascot Hashell Dammett,

35TH ANNIVERSARY AITCHIE'S WEE HEAVY (2009)

INGREDIENTS

for 5 U.S. gallons (18.93 L)

7.25 lb (3.29 kg) pale malt
4.0 lb (1.81 kg) Munich malt
1.25 lb (566 g) 40° L crystal malt
0.75 lb (340 g) aromatic malt
0.5 lb (227 g) 120° L crystal malt
0.5 lb (227 g) 80° L crystal malt
0.25 lb (113 g) Special B malt
1.0 oz (28 g) Weyermann® beechwood smoked malt
1.0 oz (28 g) Fuggles, 4.5% a.a. (60 min)
Wyeast 1728 Scottish ale yeast

Target Original Gravity: 1.080
IBUs: 19
SRM: 20
ABV: 8.3%
Boil Time: 120 minutes

DIRECTIONS

Mash in at 122° F (50° C) for 30 minutes. Use a decoction mash, pulling 1/3 of the mash and boiling it 25 minutes. Add to main mash equalizing at 151° F (66° C) for 60 minutes. Begin runoff, boiling the first gallon of wort into a thin syrup before adding back to the main wort. Ferment at 58° F (14° C) for two weeks and then raise to 65° F (18° C) for two weeks before aging for six weeks.

MINI MASH RECIPE

Replace pale malt with 5.75 lb (2.61 kg) pale malt extract syrup. Mash remaining malts at 155° F (68° C) for 60 minutes. Strain, dissolve extract completely, and proceed with boil.

40TH ANNIVERSARY LONGEVITY BALTIC PORTER (2014)

INGREDIENTS

for 5 U.S. gallons (18.93 L)

10.5 lb (4.76 kg) Vienna malt
2.0 lb (0.9 kg) 10° L Munich malt
1.0 lb (0.45 kg) Cara-Munich® malt
4.0 oz (113 g) chocolate wheat malt
4.0 oz (113 g) Special B malt
1.0 oz (28 g) Carafa® III malt
1.0 oz (28 g) UK black patent malt
1.5 oz (42 g) Saaz, 5% a.a. (60 min)
1.0 oz (28 g) Saaz, 5% a.a. (15 min)
Wyeast 2112 California Lager yeast

Target Original Gravity: 1.073
IBUs: 33
SRM: 22
ABV: 7.1%
Boil Time: 90 minutes

DIRECTIONS

Mash in at 158° F (70° C) for 60 minutes.

MINI MASH RECIPE

Replace Vienna malt with 7.6 lb (3.45 kg) pale malt extract syrup. Mash remaining malts at 155° F (68° C) for 60 minutes. Strain, dissolve extract completely and proceed with boil.

FIRESTONE WALKER / MALTOSE FALCONS BROWNEYWINE (2014)

INGREDIENTS for 5 U.S. gallons (18.93 L) This was originally a 50 bbl batch!

10.0 lb (4.54 kg) US pale two-row malt
3.25 lb (1.47 kg) Crisp brown malt
1.5 lb (0.68 kg) 75° L crystal malt
1.25 lb (0.57 kg) Simpsons 30/37°L crystal malt
0.25 lb (113 g) Briess chocolate malt
0.12 lb (54 g) wheat malt
4.25 lb (1.93 kg) pale liquid malt extract
1.0 lb (0.45 kg) brown sugar
1.0 lb (0.45 kg) buckwheat honey
2.0 oz (57 g) French oak cubes, soaked in rum for 1 month
0.67 oz (19 g) Columbus, 15% a.a. (90 min)
1.0 oz (28 g) Centennial, 11.1% a.a. (60 min)
1.25 oz (35 g) Cascade, 6.4% a.a. (whirlpool, 20 min)
WLP005 British ale yeast

Target Original Gravity: 1.121
IBUs: 68
SRM: 40

DIRECTIONS
Mash in at 155° F (68° C) for 60 minutes. Mash out at 168° F (76° C) for 5 minutes. Add rum-infused oak cubes during secondary and age to taste.

MINI MASH RECIPE
Increase pale malt extract syrup to 10.9 lb (4.94 kg). Omit pale and wheat malts. Steep remaining malts in 160° F (71° C) water for 30 minutes. Strain, dissolve extract, honey and brown sugar completely and proceed with boil.

kilts are encouraged and a stalwart few go full formal Scottish!

Since we're homebrewers, there has to be beer, naturally. To have extra fun with it, we usually turn it into a cutthroat exploration of a style. We tell our brewers, "OK, your target style is XYZ. Bring it in two months." Everyone who's interested brings beer, and we conduct a blind tasting.

When we first did a taste-off with the 25th and 30th anniversary beers, we ended up in the middle of a monkey knife fight with criticisms flying back and forth. Since then, the commentary is more measured and respectful, but the blind voting still tells the tale.

20TH ANNIVERSARY OLD SURVIVOR OLD ALE

When the club turned 20, the members—led by then-president Jerry Macala and future presidents Bruce Brode and Brian Vessa—decided that we had to do things right and recognize the club's history. While there was no anniversary party per se, they did create a keg of old ale in December 1993 for the 1994 Mayfaire party. The keg became known as Old Survivor after surviving the tumult of the January 17, 1994 Northridge earthquake that tore through our home territory. The beer survived, as did our members, and the party went on!

25TH ANNIVERSARY IPA

This was the year that I joined the Falcons and the first year we had a big party. Additionally, when we picked the style, it was with a vision that the beer would be brewed commercially (in this case, at BJ's Brewpub) and served on tap at the club's favorite beer spots around Los Angeles. The winning beer wasn't actually one of the homebrews presented in our June tasting, but rather a compound recipe derived from the best aspects of the entries.

30TH ANNIVERSARY HASHELL 10

When it came time for the 30th anniversary, there was some debate—do we go through the pain of more actual organizational work? Since I was president at the time and I'm a big fan of making other people work, the decision was easy. Sure! For the beer, we opened the floor to the Belgian dark strong category. When tasting day came, it was truly impressive. The winning recipe was from M.B. Raines, our yeast expert who taught everyone how to make yeast sing.

The key to this one, inspired by Rochefort 10 and named for our mascot, is the blend of yeast strains, each adding notes to the brew. In addition to the Hashell 10, we had a slew of other beers as an anniversary series to honor the goofiness of homebrew.

35TH ANNIVERSARY AITCHIE'S WEE HEAVY

Just to prove that we may be older, but not necessarily wiser, it took me a while to find our notes on the 35th anniversary. My excuse? I was no longer president! But after a little bit of research, I found the answer in the form of our current president John Aitchison. This time, the style we selected was strong Scotch ale, aka wee heavy.

After another rousing tasting, Aitchison won with his Aitchie's Wee Heavy, which had the unusual quality of being decocted. Why? Because that's just how John rolls. The man is crazy enough to triple decoct a Pilsner in the middle of an LA summer, so a single decoction is nothing. The big batch of our anniversary beer was brewed by BJ's in Woodland Hills—one of the last beers brewed before they decommissioned the tiny pub brewery.

40TH ANNIVERSARY: DOUBLE TROUBLE

Earlier this year, the club teamed up with one of our favorite local breweries, Eagle Rock Brewing (ERB). Founders Jeremy Raub, Steve Raub, and Ting Su are all Falcons who actually worked up the gumption to navigate through the Byzantine bureaucracy of Los Angeles to open their brewery. We've partnered with them before to brew the winner of our annual Doug King Competition as their GABF Pro-Am entry.

This time, we approached ERB to help us brew a Baltic porter, and we gave brewers a mere two-month window between

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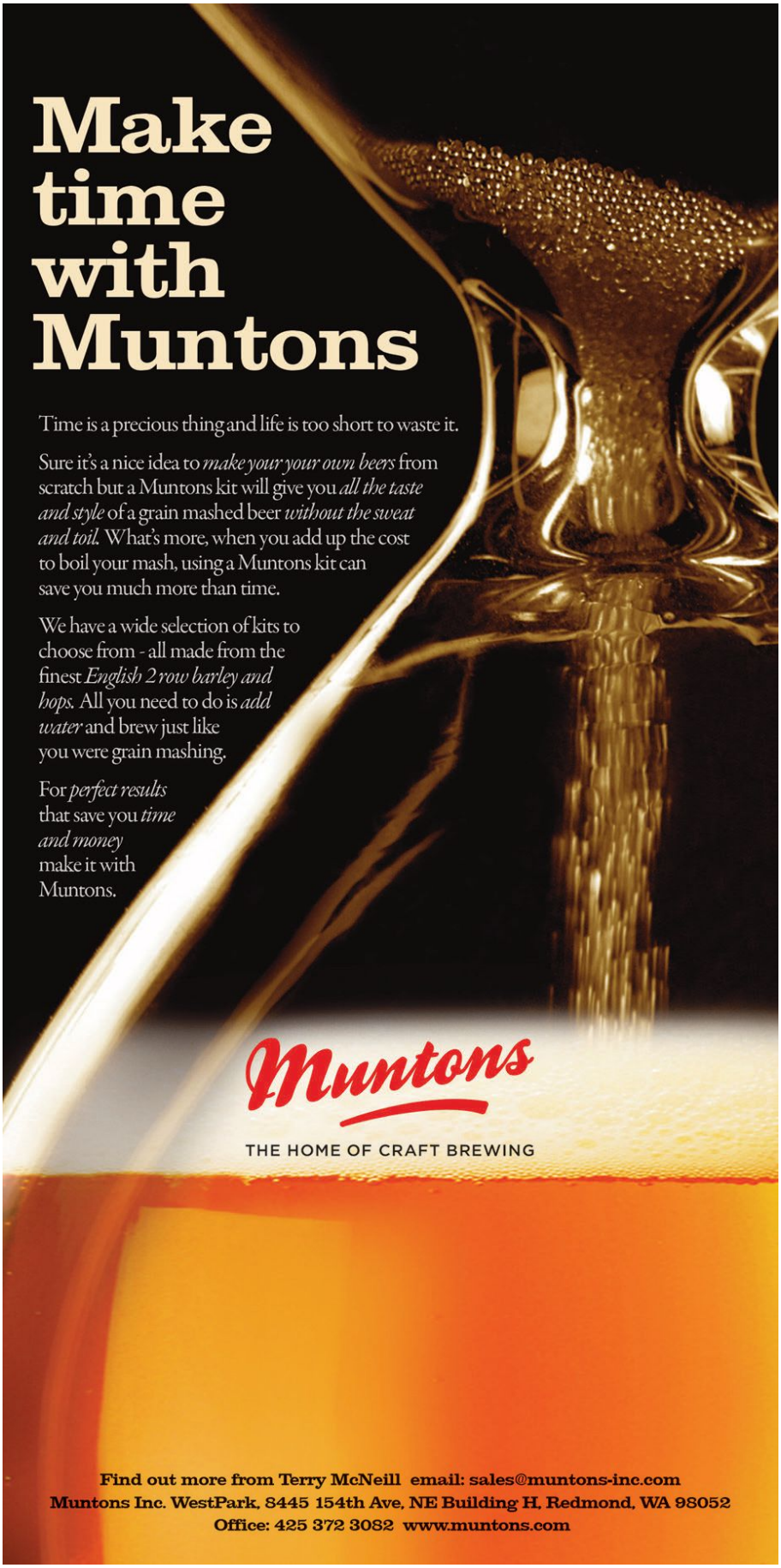

the announcement and brewing. Yes, this was fast, but we can't tie up our friends' tanks for a long lagering period. The winning recipe came from Israel Arrietta, one of our club's competition fiends. It's a scaled-down version of his Black Bird Baltic Porter and was called Longevity in honor of the club's achievement in hitting 40 without stumbling badly.

While all of this was going on, another club member, Allen Tracy, who was visiting family up the Central Coast, stopped by Firestone Walker Brewing in Paso Robles. He chatted up brewmaster Matt Brynildson, who invited the club to come brew anything we wanted with them. (Lesson of the day: Always ask award-winning brewers if you can brew with them—they sometimes say yes!) The club board, led by Steve Cook, developed a recipe for a barleywine-strength brown ale aged in rum barrels that we called a browneywine.

More than 40 members of the club made the 3.5-hour trek to Paso Robles on a rare rainy California day. Brynildson gave the Falcons the run of the brewery and clearly appreciated his guests' joy at being in such a massive beery playground. We'll be enjoying the beer at our 40th anniversary party in October.

Drew Beechum is a proud member of the Maltose Falcons as well as vice chair of the AHA governing committee.

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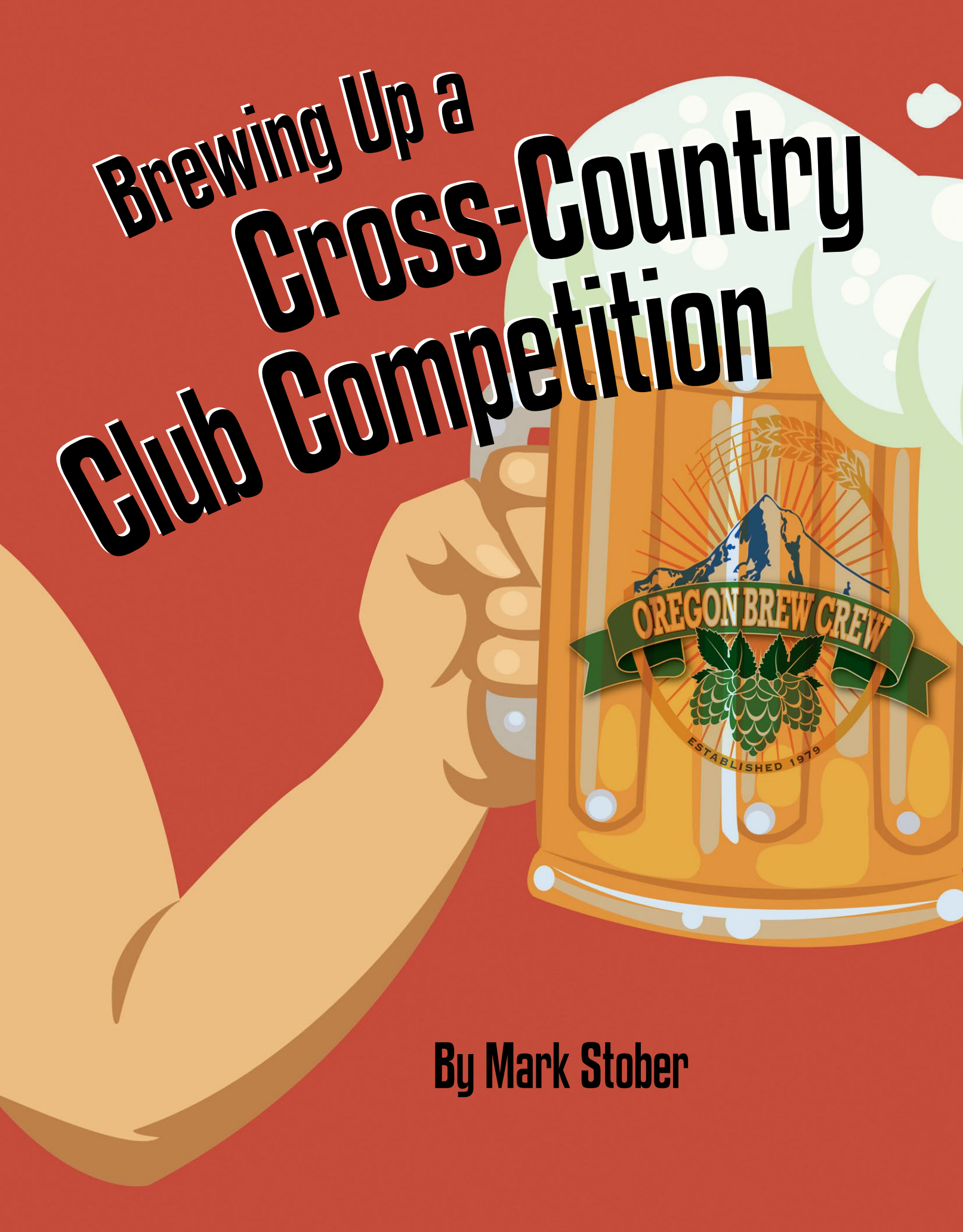
Brewing Up a Cross-Country Club Competition



By Mark Stober

Clubs have long served the homebrewing community as a wonderful medium for allowing brewers to enjoy the fellowship and camaraderie of the hobby as well as providing mentorship and learning opportunities for members. Many clubs have also sponsored and encouraged members to participate in competitions. Recently two clubs on opposite ends of the country devised a plan to challenge each other in a friendly competition format involving established competitions.

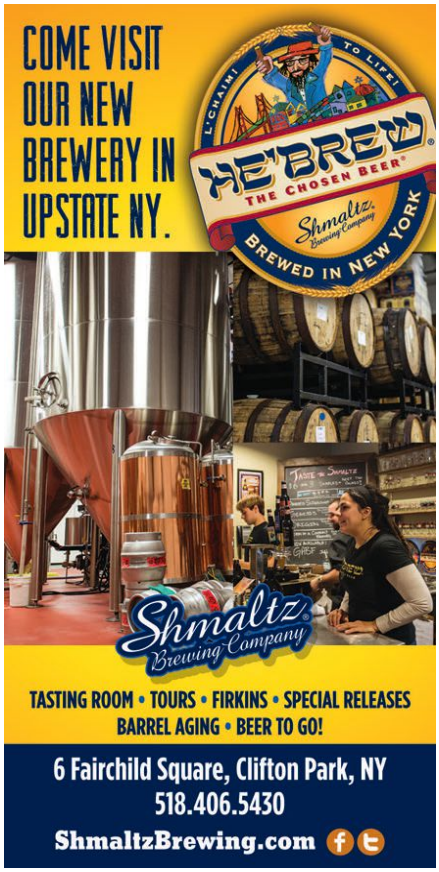
In late 2012, Ted Assur, assistant competition chairman for the Oregon Brew Crew (OBC) in Portland, Ore., set out to find a way to firm up the club's reputation among those that receive national attention and recognition. Consulting a list of the most recent top 25 finalists in the AHA Club of the Year award, Assur was shocked to find no Oregon clubs among them. Instead, a club on the list caught his eye: the Tampa Bay BEERS from Tampa, Fla. Firmly believing that Oregon brewers simply had to have the upper hand on those from Florida, Assur emailed the Tampa Bay BEERS with a simple challenge: our home competition is coming up; why don't you guys send some entries and we'll create a little rivalry?

BEERS was, of course, more than up to the challenge. However, the date of the OBC competition was rapidly approaching, and sending entries all the way to the other side of the country to the "home field" didn't quite seem equitable, so further discussion ensued. Why not pick a neutral competition site as a testing ground for this newfound rivalry? That in turn led to a further refinement of the plan. One club picks a neutral competition site, while the other picks the BJCP category. Then a second challenge is held with the same format in reverse. To ensure an even playing field and avoid flooding a competition with too large a number of entries, a cap of 12 entries per club was established. Then a point schedule was assigned for first, second, and third place medals, and at the end the club with the most points would be declared the winner. To sweeten the pot, the losing club would send a care package to the winning club—to the victor go the spoils!

With the framework and rules decided upon, the next step was to select the first style and competition site. Not surprisingly for a club from one of the great hop growing regions of the world, OBC chose IPA (BJCP Category 14). Using the BJCP competition calendar, BEERS selected the 8 Seconds of Froth competition organized by the High Plains Drafters in Cheyenne, Wyo. However, before finalizing the competition, both clubs contacted the organizer to explain the plan and idea behind the intramural format, and ensure the competition would be on board with the extra entries and club involvement.

Not only was 8 Seconds competition organizer Brian Mertz willing to accommodate the extra entries, he was positively excited to play host to what seemed like a terrific and innovative idea for a variation of a club competition. Mertz viewed the addition of the intramural club challenge as an enhancement to the 8 Seconds competition and included information about it in the appeal for judges. He also assigned a top-notch team of judges to the IPA category that resembled what would usually be reserved for a Best of Show round.

Results were announced, and both clubs were shocked to find that neither had garnered any medals! Mertz was kind



Alex Gashti's "High Score" IPA

Ingredients
for 2 U.S gallons (7.57 L)

2.4 lb (1.09 kg) Briess Golden Light DME
0.6 lb (272 g) Briess Pilsner DME
1.59 oz (45 g) cane sugar
0.88 oz (25 g) dextrin powder
0.46 oz (13 g) Centennial, 9.7% a.a. (5 min)
0.53 oz (15 g) Centennial, 8.7% a.a. (5 min)
0.14 oz (4 g) Simcoe, 12.2% a.a. (5 min)
0.35 oz (10 g) Simcoe, 13.2% a.a. (5 min)
0.53 oz (15 g) Columbus, 17.7% a.a. (5 min)
0.53 oz (15 g) Columbus (dry hop)
0.53 oz (15 g) Centennial (dry hop)
Wyeast 1056 American ale yeast

Est. Original Gravity: 1.054
Est. Final Gravity: 1.013
IBU: 32
SRM: 6.4
ABV: 5.5%

Directions
Reconstitute the extract with 1 gallon (3.79 L) of water. Bring to a boil. Once hot break has occurred, add the 5-minute additions. Boil for 5 minutes. Turn off heat. Chill to 65° F (18° C). Pour concentrated wort into a cleaned and sanitized fermenter. Add sufficient quantity of cool water to reach the 2-gallon (7.57 L) mark. Oxygenate by manually shaking the fermenter for four minutes. Add one smack pack of Wyeast 1056. Ferment at 67° F 19° C) for 5-7 days. Taste the beer. Check gravity.

Once terminal gravity is reached, rack the beer into a clean, sanitized, and purged keg. Add dry hops in a hop sack. Purge the head space. Warm the keg to 72° F (22° C) and allow it to warm condition for five days. Agitate the keg daily by rapidly inverting and reverting the keg. After five days, CO_2 transfer the beer from this keg into another cleaned, sanitized, and purged keg. Carbonate to 2.5 volumes.

Photos Courtesy Oregon Brew Crew and Tampa Bay Beers

Bohemian Pilsner

Recipe by Tyler Selbrade

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

9.75 lb (4.42 kg) Pilsner malt (UK)
0.5 lb (227 g) 20° L crystal malt
1.0 oz (28 g) Northern Brewer, 9.6% a.a. (60 min)
1.0 oz (28 g) Saaz, 3.5% a.a. (15 min)
0.5 oz (14 g) Saaz, 3.5% a.a. (10 min)
0.5 oz (14 g) Saaz, 3.5% a.a. (5 min)
Wyeast 2007 Pilsen yeast

Est. Original Gravity: 1.053
Est. Final Gravity: 1.012
IBU: 42
SRM: 3.5
ABV: 5.4%

Directions
Single infusion mash for 60 minutes at 151° F (66° C). Primary ferment two weeks at 52° F (11° C). Transfer to secondary conditioning container and lager for six weeks at 36° F (2° C) before bottling or kegging.

enough to separate out the two clubs' IPA entries from the remainder of the pack and provide full scoring statistics. Both clubs in turn shared the scores with their members—after all, if no one could come away with a medal, there could at least be some bragging rights up for grabs.

As it turned out, the overall scoring numbers were highest among the BEERS members. Additionally, in a quirk of fate that sometimes occurs in large categories, the overall highest-scoring IPA in the competition belonged to BEERS member Alex Gashti, but in the mini-best of show round, that beer did not make the cut among the top three, narrowly missing out on a medal. Despite the scoring, the cross-country club medal score was still a dead heat at 0-0.

Round Two

Both clubs then turned their attention to the next competition, determined to claim victory. BEERS chose Pilsner (BJCP Category 3) and the OBC selected the Blue Ridge Brewoff hosted by the Mountain Ale and Lager Tasters (MALT) in Asheville, N.C. Once again, the competition organizer agreed to play host. This time an extra perk was added. One of the BEERS members happens to work for the importer of Pilsner Urquell and agreed to arrange sponsorship of the Pilsner category. Pilsner Urquell T-shirts were donated and distributed to both clubs for the entrants, as well as to MALT for their assistance in playing host for the final round of the challenge.

Once again, both clubs anxiously awaited results. This time the intramural challenge would come down to a single medal. BEERS member Tyler Selbrade was awarded third place in the category with his Bohemian Pilsner, sending BEERS to victory in the 2013 OBC/BEERS Intramural Challenge.

OBC mailed a care package to BEERS containing a variety of commercial beers available only in Oregon along with a selection of hops including some varieties grown on local farms. Both clubs plan to continue the intramural challenge in 2014, possibly amending the format to include two categories instead of one while maintaining size limits to increase the likelihood of member medals.

The Intramural competition format proved to be win/win on multiple levels. Two unrelated clubs located on opposite sides of the country were able to form a friendly rivalry and newfound kinship while members were motivated to brew to specified styles and compete. At the same time, independent competitions in other areas of the country attracted special participation and focus from folks who otherwise would not likely have entered a distant competition. Both Tampa Bay BEERS and the Oregon Brew Crew hope that other clubs might benefit from this idea and come together to form their own intramural challenges.

Mark Stober is a founding member of the Tampa Bay BEERS homebrewing club, a BJCP Master judge, and longtime AHA member. He has been an avid homebrewer for over 20 years. He is the author of "Brewing with Kumquats" in the March/April 2014 *Zymurgy*.

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by Amahl Turczyn Scheppach

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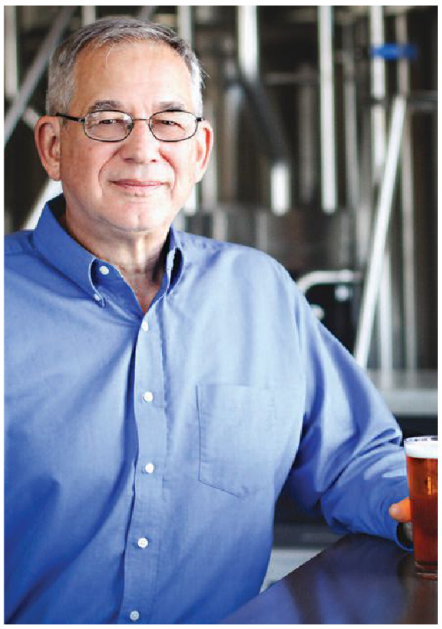
Homebrewer of the Year



Robert Hilferding, *Zephyrhills, Fla.*
Special Hoperations

"Way Off Kilter"
Scottish Light 60/-

Homebrewer of the Year goes to the brewer of the Best of Show beer from 23 categories.

Robert Hilferding brews with a converted rectangular cooler for mashing and some stainless steel brew pots for boiling. "I do 5-gallon batches and brew as many of them as I can. I brew in my garage, or at least what used to be a garage. Because I live in Florida, keeping things at the proper temperature can be a problem, so I have two old refrigerators and a temperature-controlled freezer." But like so many other successful brewers, it wasn't always thus; Hilferding started small.

His introduction to homebrewing came on Christmas 2012, courtesy of a gift from his son Gregg: a one-gallon "brew your own" beer kit. "I remember thinking to myself that this was way better than socks or a necktie and gave it a go," he recalls. Two weeks later, he filled seven bottles of American pale ale (and spilled two more on the floor, he said, because he kept forgetting to shut off the feed line.) "I don't remember if the beer was that good, but to me, at the time, it was awesome!" The only issue was that he remembers it being a lot of work for a few bottles of beer.

Not long after, he was at his local homebrew shop. "I walked out of the store ready to make my first 5-gallon batch—Kelly's Belgian Wit—from an extract kit. I followed the directions, which were more extensive than the first kit, and got drinkable results. I was hooked and hooked hard."

The next inevitable step was joining a club. "Several batches later I discovered that my local Zephyrhills, Fla. shop also had a homebrew club, Special Hoperations, that

met there," Hilferding recalls. "My wife and I went to a meeting and discovered three things: there were a whole lot of different types of beer styles; there was something called 'all-grain brewing'; and that people shared beer and it was really, really good!" Bolstered by new knowledge and camaraderie, Hilferding quickly took to his club's instruction and advice. "They are a great bunch of brewers who tolerated my incessant questions and provided clear, concise answers. I started to brew different styles and took an introduction to all-grain brewing class."

When the chance came to put his newly-honed brewing skills to the test by entering a competition, Hilferding was ready for the challenge. "At one of the meetings, the club announced that Special Hoperations had a few winners in a Florida competition, and provided dates for its next entry deadline. I had an Irish ale extract recipe in the fermenter then and thought, why not?" He entered and took third place, and discovered he liked the feeling of placing in a competition. "I was never an athlete and I believe I only won a medal once before in a science fair, so this was a big deal to me. I confess that I actually wore it around the house for a couple of days…err, I mean hours."

To move forward, Hilferding decided he needed three things: more knowledge, better equipment, and for feedback, he needed to enter every contest he could. "I entered 15 contests in one year, with the maximum number of entries allowed for each contest. I didn't place very often, but I would sometimes get a second or third with one of my entries. I took all the contest sheets and compiled comments looking for consistent themes—phenolic came up a lot." He also solicited his Special Hoperations club members and logged their comments, making gradual improvements to recipes and technique along the way. "Even the smallest win was amazing for me. The beers that scored only 'pity points' just motivated me to make them better."

Hilferding also consulted written resources in his quest for perfection, and saved up to improve his brew system. "I bought every book I could afford and pored

over the AHA Forum for hints and clues to make better beer. I began to get the equipment I wanted. For our 45th wedding anniversary, my wife and I gave each other kegging equipment. I wouldn't say I was obsessive—I did keep my day job selling custom T-shirts—but brewing became quite consuming."

His fanatical attention to detail works in his favor when it comes to brewing. "I use Beersmith for creating recipes and record keeping and I believe in three principles when brewing: 1. Document everything: you never know what caused the disaster otherwise; 2. Getting the water right brings good results; 3. Making beer and drinking beer should be two separate activities."

"The style guide made it sound delicious and I wanted to add just a hint of the peaty smokiness I imagined might taint the early morning air in the Highlands of Scotland."

This year, it all came together. "In February 2014 I was honored to win first place in the Best Florida Beer homebrew contest for my Irish red ale, Angrier Leprechaun, which was an all-grain version of my first beer that medaled. I decided to brew a Scottish Light 60/- as my next beer. The style guide made it sound delicious and I wanted to add just a hint of the peaty smokiness I imagined might taint the early morning air in the Highlands of Scotland. I had my local water tested so I could adjust it to match that of Edinburgh. I spent over an hour smelling grain at the local homebrew store to select the perfect ingredient list. I entered the beer in four contests, the last of which was the 2014 NHC."

The rest, as they say, is history.

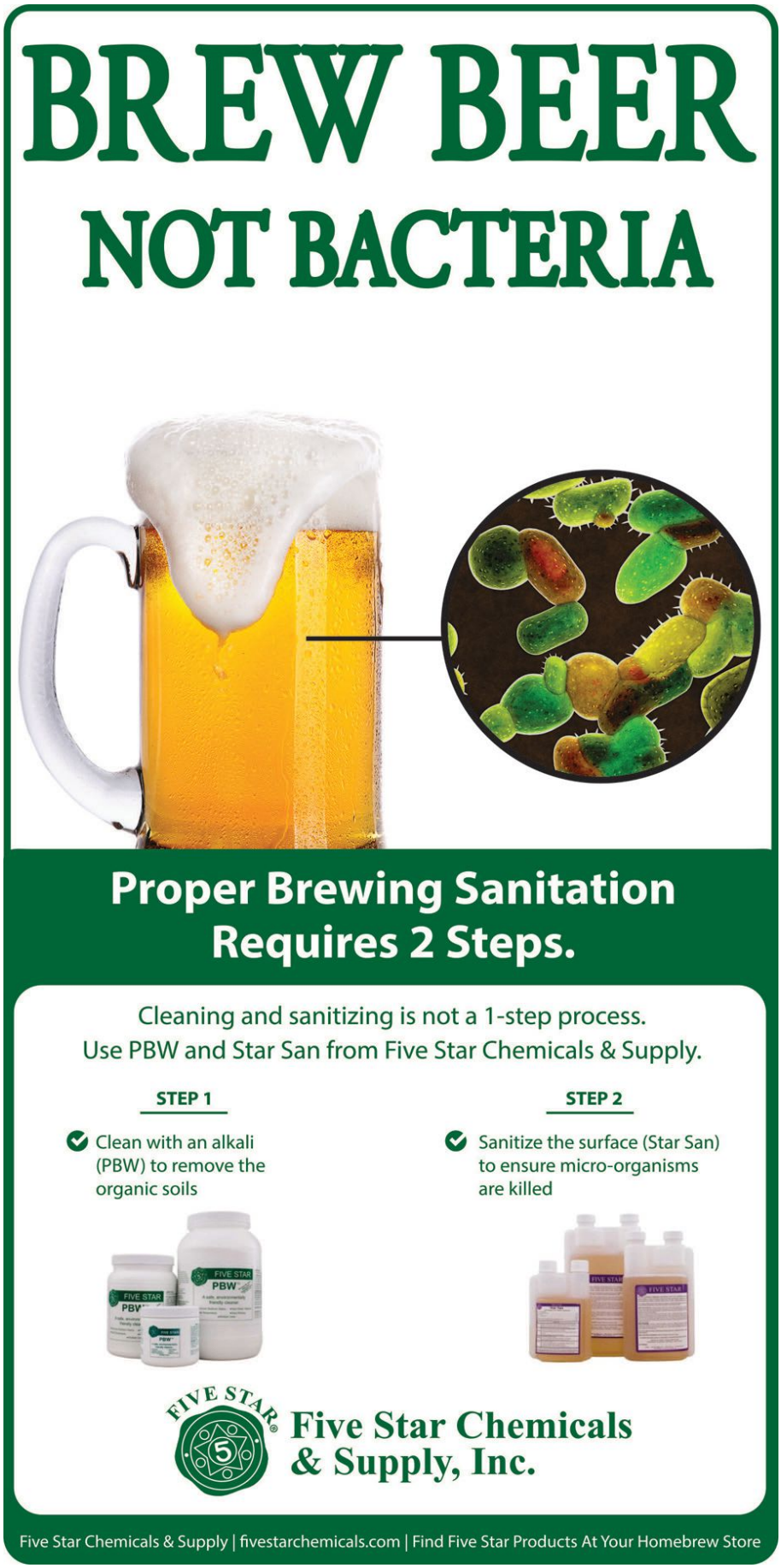
Ninkasi Award Winner

Jeremy Voeltz, *Lakeside, Ariz.*
Arizona Society of Homebrewers
1 Gold and 1 Bronze Medal

The Ninkasi Award goes to the winningest brewer in the second round of the National Homebrew Competition.

Jeremy Voeltz first started homebrewing with a friend in late 2007. After having some success with the basics (kits, partial boils, extract with specialty grains, etc.) he fell in love with the process: the recipe development, chemistry, biology, and math associated with homebrewing. Of course, making beer wasn't enough and Voeltz started tinkering with ciders and meads, and eventually wine. After moving on to all-grain and winning several awards in local competitions, but just missing out on medaling at NHC, he started tinkering with the finer points of the process—specifically water manipulation, yeast management, and fermentation temperature control. Even with the huge amount of brewing information available online, he found it was hard to keep up with it all, and prefers to learn and improve by trial and error.

Unlike many homebrewers, Voeltz is not an equipment geek—he's still using the same all-grain equipment that he started with: a Denny Conn-approved 54-quart cooler and stainless hose braid for a mash tun, a 15-gallon pot for the hot liquor tank and boil kettle, and a homemade counter-flow chiller. Single tier, no pumps, no switches. He still ferments in seven-gallon plastic buckets in



the master bedroom closet or garage, and for fermentation temperature control (if needed, depending on the time of year) he uses a 15-gallon tub filled with water kept at the right temperature by swapping out frozen water bottles. His belief is that quality ingredients and water (he highly recommends the Bru'N water spreadsheet [https://sites.google.com/site/brunwater] put together by frequent *Zymurgy* contributor Martin Brungard), coupled with an understanding of the fermentation process and continual learning about what works and what does not, is what makes great beer; not necessarily shiny, automated equipment.

Voeltz's oaked cherry melomel (Open Category Mead) has done well at many competitions, most notably a bronze medal at the Mazer Cup in 2012, an NHC first round first place ribbon in 2013, and third place in both the first and final round of this year's NHC. It's a mix of orange blossom honey and fresh cherries (both in the primary and secondary stage) aged on medium-toast oak spirals to add complexity, oak, and slight vanilla flavors. A small addition of acid blend at bottling rounds out the flavors and helps bring out the honey aroma.

Voeltz got the inspiration for the gold medal Habanero IPA (Category 21) while at Pro-Brewers Night at the National Homebrewers Conference in San Diego in 2011, when Ballast Point Brewing Company was serving its habanero Sculpin IPA out of a cask. He spent the next couple years, in conjunction with some other homebrewers from the Arizona Society of Homebrewers and other brewers in clubs such as the Tucson Homebrew Club and Evanston Homebrew Club in Illinois, perfecting the recipe. It's an American IPA base recipe with the addition of habanero peppers added prior to bottling. The peppers' aroma and heat add the perfect balance to the dry and hoppy IPA.

Meadmaker of the Year

Matthew Weide *Minneapolis, Minn.*
Minnesota Home Brewers Association

"2"
Other Fruit Melomel with Key Limes and Wildflower Honey; Still, Sweet, Standard

Meadmaker of the Year goes to the maker of the Best of Show mead from three mead categories.

Matthew Weide started making mead in 1998. In 2007, he took a BJCP exam prep class led by Gera Exire LaTour. "She introduced me to her wonderful homemade mead collection," he recalls. Inspired, Weide started to enter his own meads in contests to see how they measured up. It soon became apparent that there was room for improvement.

"Kristen England judged my lavender mead at Byggvir's Big Beer Cup Competition and he gave it a 14—he said it lacked passion, and it did." Weide needed to re-think how he went about the process. "I bought Ken Schramm's *The Compleat Meadmaker* and it helped me better understand what goes into making great mead." He received further education and inspiration from another meadmaker who's won a fair share of NHC medals. "During a panel discussion at NHC in Minneapolis I received Steve Piatz's 'Making Mead the Easy Way' handout. That was the key to improving my ferment and decreasing the time it took to make good mead."

Feedback and testing also contributed to Weide's success. "We have a wonderful group of top-notch mead makers in the Minneapolis/St. Paul area who have provided great feedback. I was also encouraged to take the mead exam by some folks in the Minnesota Home Brewers Association. Studying for this in-depth exam gave me a good foundation of knowledge and the ability to better evaluate my own meads."

Another key was diversifying his mead portfolio. "I can make a four-gallon key lime batch of mead and then split it into lemon/lime, cherry/lime, mint/lime (mojito) and the base key lime mead, just by making additions after racking into separate one-gallon jugs. This point was driven home when I watched Curt Stock on Brewing TV talk about making multiple batches in a year. How was I supposed to know what my best mead was when I'm only making one or two batches a year?"

Seeing the value in this approach, Weide adapted accordingly. "Now I usually make two or three larger batches at a time, using the same yeast so as not to cross-contaminate, and just use a different honey with maybe some fruit. When I feel the mead is ready, I rack the batches into smaller carboys. At the end of the year, I turn 30 gallons (6-8 batches) of mead into 20+ distinct meads. At that point you really get a feel for what works and what doesn't."

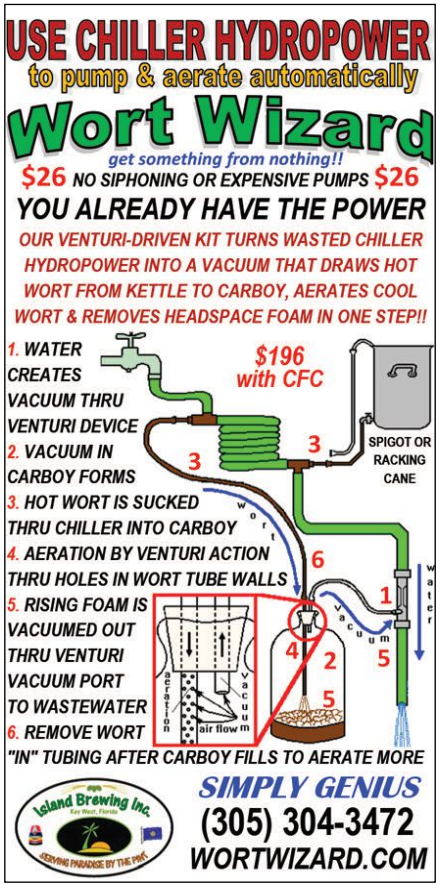
Weide's best advice for meadmakers? Purge the CO_2 during fermentation. "My biggest tip would be to really shake the carboy multiple times a day to 'de-gas' the mead for two weeks or more after you put the wine whip away. You don't want to introduce any oxygen later in the ferment with an open container and the wine whip will cause a vortex and introduce unwanted oxygen."

Cidermaker of the Year

Edward Walkowski
North Abington Township, Pa.

"Bartlett Perry"
Common Perry, Sparkling, Semi-Sweet

Cidermaker of the Year goes to the Best of Show cider from two cider categories.



Edward Walkowski started homebrewing in the mid-1990s, beginning with extract kits and moving on to all-grain about 15 years ago. Besides cider, he also makes mead and particularly enjoys brewing German and Czech lagers. He is also an avid gardener, and uses his own fresh produce for his fermented beverages. "I have a small orchard/vineyard on my property, where I grow some of my ingredients. The plot contains Santiam and Tettnanger hops, five types of French-American hybrid grapes, raspberries, red and black currants, blueberries, gooseberries, apples, peaches, and cherries." And speaking of gooseberries, Walkowski employs a rather unusual landscaping team on his orchard. "My five pet Embden geese help with the weeding and fertilizing."

Homebrewing isn't his only passion, however. "In addition to fermenting beverages, I also make my own German and Polish sausage, venison snack sticks, and the local Italian treats of soppresata and lonza."

Walkowski is modest about his cidermaking ability, but stresses a few important basics for success. "There are no real secrets to making quality cider. Proper sanitation is essential, however. Also, you must start with the best, freshest ingredients available. I have the good fortune to live in northeast Pennsylvania where excellent cider and honey are available in-season. I get great unsorbated, unpasteurized fresh-pressed ciders from Ritter's Cider Mill in Lake Ariel and excellent raw honey from Doug Rose at Endless Mountain Apiaries in New Milford."

Walkowski also belongs to two local homebrew clubs, the Tunkhannock Homebrewing Club, and the Scranton Homebrewers Guild. "Belonging to a club is very helpful to exchange ideas and techniques, taste a variety of drinks that you've never tried, and to get feedback on your own productions."

Homebrew Club of the Year

The Brewing Network
Martinez, Calif.

The Homebrew Club of the Year goes to the winningest club in the National Homebrew Competition.

For the fourth straight year, The Brewing Network club took home the Homebrew Club of the Year trophy. The club is made up of Brewing Network listeners across the country who might not have a local homebrew club or might not have a desire to join a local club. Listeners and fans banded together seven years ago to form their own "virtual" club, which has members in all 50 states and internationally.

"Our entire focus is on camaraderie, enjoying the hobby, and improving our brewing every chance we get," host Justin Crossley of The Brewing Network has explained of the club. Crossley is keenly

aware that not everyone believes that The Brewing Network meets the traditional definition of a homebrew club.

The Brewing Network edged out runner-up club QUAFF (Quality Ale and Fermentation Fraternity) of Carlsbad, Calif. by a slim margin.

"Six points—oh man!" exclaimed Crossley at the NHC awards banquet when the scores were announced. Crossley gave a shout out to QUAFF for being a "badass club." QUAFF won the Homebrew Club of the Year title six years in a row from 2001-06.

The Brewing Network won two medals in the final round, including a silver medal for Craig Vilhauer of Turlock, Calif. (with co-brewers Wes Steimle and Dylan Vaughan) in Category 10, and a bronze for Steimle of Piedmont, Calif. (with co-brewers Vilhauer and Vaughan) in Category 13.

Pacific Northwest Brewers, based in West Richland, Wash., finished third in the Homebrew Club of the Year standings.

Gambrinus Club Award

Minnesota Home Brewers Association
Edina, Minn.

The Gambrinus Club Award goes to the club with the most final-round points per number of entries from the club in the National Homebrew Competition.

Now in its sixth year, the Gambrinus Club Award (named for King Gambrinus, the patron saint of beer) was won by the Minnesota Home Brewers Association of Edina, Minn. To be eligible, clubs must have a minimum of five club members entering the first round, and a minimum of two club members advancing to, and at least one entry placing in, the final round of the competition. Six points are awarded for first place, four points for second place, and two points for third place.

The Minnesota Home Brewers Association had nine club members with 18 entries in the NHC first round. Three entries medaled in the final round. Club member Sean Kampshoff of Minneapolis won the gold medal in Category 23: Specialty Beer with his imperial milk stout with coffee, and Matthew Weide of Minneapolis took gold in Category 25: Melomel with his melomel with key limes and wildflower honey, as well as the Meadmaker of the Year title. In addition, Brett Glenna of Lakeville, Minn. won a silver medal in Category 27: Standard Cider and Perry.

The Wichita Homebrewers Organization (WHO) finished second in the Gambrinus point tallies, while the Jersey City Brew Club finished third.

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Justin Behan, Founder
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2014 Gold Medal Recipes

It's the biggest homebrew competition in the world—and growing. A total of 8,172 entries were judged in the 2014 National Homebrew Competition (compared to 7,757 in 2013), and 969 advanced to the final round. The entries came from a record 3,181 homebrewers—nearly a 50-percent increase over 2013's 2,187 entrants. Entries poured in from all 50 states and the District of Columbia, six Canadian provinces, Australia, Brazil, Iceland, Israel, Puerto Rico, and the UK. First round judging took place at 12 sites across the country, up from 11 in 2013.

"This year's National Homebrew Competition fielded the largest group of entrants in the competition's 36-year history," said AHA director Gary Glass. "The level of competition has never been higher, meaning the NHC winners are truly among the most talented brewers in the world."

Top honors in 2014—announced at the Grand Banquet of the National Homebrewers Conference in Grand Rapids, Mich. on June 14—went to Ninkasi Award winner Jeremy Voeltz of Lakeside, Ariz., with a gold medal and a bronze medal in the competition; Homebrewer of the Year Robert Hilferding of Zephyrhills, Fla., for his Scottish Light 60/-; Meadmaker of the Year Matthew Weide of Minneapolis, Minn. for his fruit melomel with key limes and wildflower honey; and Cidermaker of the Year Edward Walkowski of North Abington Township, Pa. with his Common Perry.

The Minnesota Home Brewers Association of Edina, Minn. won the Gambrinus Club Award, which goes to the club with the most final-round points per number of entries from the club. For the fourth straight year, The Brewing Network, a nationwide homebrew club, won the Homebrew Club of the Year title. (For more on the newly created Radegast Award, which is not affiliated with the NHC competition, see the Editor's Desk on page 2.)

Once again, the most competitive category in the National Homebrew Competition was Category 14: India Pale Ale with a mind-boggling 852 entries (up from 584 in 2013). IPA "rock star" Kelsey McNair of San Diego has now claimed the NHC gold medal three times in the past five years in the category—each time with the same beer, Hop-Fu! He also won a silver medal in 2013.

"Hop-Fu! has brought me dozens of awards," McNair told *Zymurgy*. "In addi-

tion to the four medals at NHC, it took both first (American IPA) and second (Double IPA) places in the first round for the San Diego judge center in 2014 and 2013. It took runner up Best of Show at QUAFF's AFC Competition this year and runner up at Stone's Pro-Am Competition in 2011. It also tied for bronze in the U.S. Open Beer Championship in 2013. I have been brewing the beer at 7.5 percent ABV and it rides the line between IPA and double IPA, performing almost identically for either category."

McNair's recipe is included along with the other gold medal winners', but he graciously offered a bit more detail to his formulation approach and technique. He targets a strike water profile of approximately 100-125 ppm calcium, 250-300 ppm sulfate, 25-50 ppm chloride, less than 40 ppm bicarbonate, and about 10 ppm magnesium. He uses RO water for his sparge liquor.

For fermentation and dry-hopping, McNair takes a page from one of craft brewing's IPA rock stars, Russian River's Vinnie Cilurzo, creator of Pliny the Elder, named *Zymurgy*'s Best Beer in America for the sixth straight year in 2014.

"I ferment in a 14-gallon conical and I don't actually rack to secondary. I remove the blow off and do a 60° F (16° C) diacetyl rest at day seven. I'll then dump trub and harvest yeast on day 8-9 and add 50 percent of the dry hops. I'll allow the fermentation to rise back up to 67-70° F (19-21° C) for the duration of dry hopping. Three days later I'll add the remaining dry hops. Then, I'll step cool to 60° F, 50° F and 40° F (16° C, 10° C and 4° C) at one day per drop and rack to keg. I definitely give Vinnie major props for sharing his dry hop program with us all—it's a flawless method in my opinion."

McNair is a stickler about minimizing oxygen uptake post-fermentation, which may be a major reason his IPA has been so consistently successful at competitions. "Anytime I open the conical to remove the blow off, to add dry hops (or for any other reason), I always purge the headspace with CO_2. I am absolutely fanatical about keeping the environment

as free from O_2 as possible. This includes the keg, racking tubing, any keg-to-keg transfer tubing, bottling equipment, etc. Everything gets purged!"

Even for IPA, appearance is important for making a good impression on competition judges. McNair adds a gelatin solution while racking to keg and force carbonates overnight at 50 PSI at 40° F (4° C) for 24 hours. "The beer is usually crystal clear when I pour the first pint the following day," he said.

Finally, McNair reminds would-be NHC medalists that yeast management is crucial. "I always pitch using Jamil's [Zainasheff] calculator using a starter on a stir plate. I set the slider to use smaller starters, so I am typically using four vials of yeast in a 1.8 to 2 L starter for 12-13 gallons (46 to 49 L) of wort. I figure that the yeast lab has done their job to provide me with a yeast pitch of the best vitality and viability, so I really just want to wake the yeast up rather than grow my own yeast in an inferior environment."

[Editor's Note: For more on making a yeast starter, download Jamil Zainasheff's article "The Secret to Healthy Yeast" (March/April 2007) from the Free Downloads section under the *Zymurgy* dropdown on HomebrewersAssociation.org.]

Congratulations to all of the medalists in this year's National Homebrew Competition! Now let's take a look at all 28 gold medal-winning recipes.

Amahl Turczyn Scheppach is associate editor of *Zymurgy*.

CONVERTING TO EXTRACT

Most all-grain recipes can be converted to extract recipes by substituting the base malt (e.g. pale malt or pilsner malt) with light malt extract. Multiply the pounds of base grain by 0.73 for liquid malt extract or by 0.60 for dry malt extract. Specialty grains can be steeped in water at 160° F (71° C) for 30 minutes or so and rinsed with hot water. If you are doing a partial wort boil [as opposed to boiling the entire 5 gallons (19L) of a 5-gallon batch], you will want to increase your bittering hops slightly to make up for the increased concentration of the wort, which decreases hop utilization.

You can always ask your local homebrew supply shop owner to help you convert a recipe.

CATEGORY 1:

Light Lager

179 entries
Sponsored by Five Star Chemicals & Supply, Inc.

Ritchie Marvin, *Portland, OR*

GOLD MEDAL
"Portlandmunder X"
Dortmunder Export

Ingredients
for 4 U.S. gallons (15.14 L)

5.0 lb	(2.27 kg) German Pilsner malt
1.5 lb	(0.68 kg) German Vienna malt
1.5 lb	(0.68 kg) American two-row pale malt
0.5 lb	(227 g) flaked wheat
0.75 oz	(21 g) whole Saaz, 4.2% a.a. (60 min)
0.5 oz	(14 g) whole Saaz, 4.2% a.a. (20 min)
0.75 oz	(21 g) whole Ultra, 5% a.a. (10 min)
0.25 oz	(7 g) whole Ultra, 5% a.a. (5 min)
0.5 oz	(14 g) whole Saaz, 4.2% a.a. (5 min)
	WLP815 Belgian lager (1 qt starter)
1 tsp	Wyeast yeast nutrient

Original Specific Gravity: 1.053
Final Specific Gravity: 1.014
Boil Time: 60 minutes
Forced CO_2 to carbonate (2.5 vol)

Directions
Treat water with 1 g baking soda, 5 g calcium chloride, 4 g Epsom salts, 4 g gypsum and 4 g calcium carbonate.

Single infusion mash at 149° F (65° C) for 90 minutes. Ferment 10 days at 53° F (12° C), then lager 38 days at 35° F (2° C).

Runners-Up
Silver Medal: **Bill Staashelm,** Indianapolis, IN, MECA Brewers, Munich Helles
Bronze Medal: **Mike Spores,** Woodbury, MN, Saint Paul Homebrewers Club, Lite American Lager

CATEGORY 2:

Pilsner

182 entries
Sponsored by Seven Bridges Cooperative

Daniel Reinholdt, *Oak Park, IL, Homebrewers Pride of the Southside*

GOLD MEDAL
"AOK"
Classic American Pilsner

Ingredients
for 6 U.S. gallons (22.71 L)

9.5 lb	(4.31 kg) German Pilsner malt
9.5 lb	(4.31 kg) pale two-row malt
7.0 lb	(3.18 kg) flaked corn
6.0 oz	(170 g) acid malt
1.0 oz	(28 g) Hallertau Mittelfruh, 4% a.a. (60 min)
1.0 oz	(28 g) Northern Brewer, 9.6% a.a. (60 min)
1.0 oz	(28 g) Hallertau Mittelfruh, 4% a.a. (20 min)
0.5 oz	(14 g) Northern Brewer, 9.6% a.a. (20 min)
3.5 oz	(99 g) Hallertau Mittelfruh, 4% a.a. (10 min)
1.63 oz	(46 g) Czech Saaz, 3.2% a.a. (5 min)
0.5 oz	(14 g) Northern Brewer, 9.6% a.a. (5 min)
2.0 oz	(56 g) Hallertau Mittelfruh, 4% a.a. (0 min)
Wyeast 2007 Pilsen Lager yeast (starter)	
1 tsp	Wyeast yeast nutrient (10 min)

Original Specific Gravity: 1.061
Final Specific Gravity: 1.010
Boiling Time: 90 minutes

Primary Fermentation: 28 days at 50° F (10° C)

Directions
Use half RO water. Mash grains at 150° F (66° C) for 90 minutes.

Runners-Up
Silver Medal: **Chris and Nick Orton,** Longmont, CO, Indian Peaks Alers, German Pilsner
Bronze Medal: **Chad Casper,** San Rafael, CA, Marin Society of Homebrewers, Bohemian Pilsner

CATEGORY 3:

European Amber Lager

161 entries
Sponsored by Brewing Tools

Nick Rodammer, *Grand Rapids, MI, Brewsquitos Homebrewing Club*

GOLD MEDAL
"Rodtoberfest"
Oktoberfest/Märzen

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

10.0 lb	(4.54 kg) Weyermann® Vienna malt
3.5 lb	(1.59 kg) Weyermann® Munich II malt
0.3 lb	(136 g) Weyermann® acid malt
1.0 oz	(28 g) Hallertau Perle pellets, 7.8% a.a. (60 min)
WLP833 German Bock lager yeast	(4 L starter)
½ tablet	Whirlfloc (2 minutes)
1 tsp	Wyeast yeast nutrient (10 min)
Forced CO_2 to carbonate (2.5 vol)	
1 tsp	gelatin finings in secondary

Original Specific Gravity: 1.056
Final Specific Gravity: 1.012
Boil Time: 60 minutes

Primary Fermentation: 10 days at 48° F (9° C)
Secondary Fermentation: 7 days at 58° F (14° C)
Tertiary Fermentation: 60 days at 30° F (-1° C)

Directions
Water was 75% RO, 25% Plainfield Twp. tap water. Used a modified Hochkurz decoction mash. Rest 60 minutes at 146° F (63° C), pulled 10 quarts thick decoction, added to bowl inside of pressure cooker, heated to 15 psi for 20 minutes, let cool naturally, added back to main mash to rest at 155° F (68° C) for 30 minutes. Mashed and sparged with 3g calcium chloride and 1g gypsum; sparge water acidified with 2 mL lactic acid.

Runners-Up
Silver Medal: **Cole Haney and Michael Wilcox,** Wichita, KS, Wichita Homebrewers Organization (WHO), Vienna Lager
Bronze Medal: **William Haase,** Leesburg, VA, Oktoberfest/Marzen

CATEGORY 4:

Dark Lager

166 entries
Sponsored by Briess Malt & Ingredients Company

Michael Wilcox, *Wichita, KS, Wichita Homebrewers Organization (WHO)*

GOLD MEDAL
"Dunkel"
Munich Dunkel

Ingredients
for 3.5 U.S. gallons (13.25 L)

4.5 lb	(2.04 kg) 20° L Munich malt (60%)
1.5 lb	(0.68 kg) Pilsner malt (20%)
1.44 lb	(0.65 kg) 10° L Munich malt (19%)
1.0 oz	(28 g) pale chocolate malt (1%)
1.1 oz	(31 g) Liberty pellets, 5% a.a. (60 min)
WLP833 German Bock lager yeast	(starter)
Forced CO_2 to carbonate (2.4 vol.)	

Original Specific Gravity: 1.055
Final Specific Gravity: 1.012
Brewhouse Efficiency: 72%
Boil Time: 90 min.
IBUs: 25
SRM: 16

Primary Fermentation: 14 days at 48° F (9° C)

Directions
Use half RO water and half tap water. Treat with 0.5 tsp calcium chloride prior to mash and adjust sparge water pH with phosphoric acid. "I use a Hochkurz-style double decoction for this one and adjust color if necessary near end of boil with pre-steeped debittered black, or Sinimar®." Mash schedule includes a protein rest at 130° F (54° C) for 20 minutes, a maltose rest at 143° F (62° C) for 60 minutes, a dextrin rest at 154° F (68° C) for 40 minutes and a mash-out at 168° F (76° C) for 20 minutes. "Aim for 25-ish IBUs. Raise to 60° F (16° C) when it slows, hold for a few days before lowering. Rack to keg and lager about 6 weeks."

Runners-Up
Silver Medal: **Frank Barickman,** Delaware, OH, Dark American Lager
Bronze Medal: **Jay Breidenbach,** Littleton, CO, Schwarzbier

CATEGORY 5:

Bock

232 entries
Sponsored by Washington Hop Commission

Kyle Schmitt, Clarkston, WA, with **Robert Hand, Lee Henry, Randy Johnson and Mark Davis,** Homebrewers of the Palouse

GOLD MEDAL
"Schmitten Doppelbock"
Doppelbock

Ingredients
for 20 U.S. gallons (75.71 L)

50.0 lb (22.67 kg) Munich malt
15.5 lb (7.03 kg) Pilsner malt
5.8 lb (2.63 kg) Caramunich® I
1.6 oz (45 g) Bravo pellets, 14.2% a.a. (60 min)
3.0 oz (85 g) Hallertau pellets, 4.2% a.a. (30 min)
WLP833 German Bock lager yeast (6L starter)
Wyeast yeast nutrient
Whirlfloc

Original Specific Gravity: 1.077
Final Specific Gravity: 1.018
Boiling Time: 120 minutes
Primary Fermentation: 30 days at 50° F (10° C)

Directions
Perform a single infusion mash at 154° F (68° C) for 60 minutes.

Runners-Up
Silver Medal: **Kyle Motley,** Winchester, VA, Shenandoah Valley Homebrewers Guild, Traditional Bock
Bronze Medal: **Karl King,** Colleyville, TX, Cap and Hare Homebrew Club, Eisbock

CATEGORY 6:

Light Hybrid Beer

379 entries
Sponsored by Cargill World Select c/o Cargill Malt

Cassidy Shibiya, Harrison, OH

GOLD MEDAL
"Pat's RIP'n Kölsch"
Kölsch

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

18.0 lb (8.16 kg) Pilsner malt
1.0 lb (0.45 kg) Vienna malt
3.0 oz (85 g) Hallertau hops, 60 min
Kölsch yeast

Est. Original Specific Gravity: 1.051
Est. Final Specific Gravity: 1.010
Boiling Time: 90 minutes
Est. IBUs: 26.5
Est. SRM: 3.6
Est. ABV: 5.2%
Brewhouse Efficiency: 72%

Directions
Ferment at 60° F (16° C). Cold condition four weeks.

Runners-Up
Silver Medal: **Doug Karp,** Wichita, KS, Wichita Homebrewers Organization (WHO), Cream Ale
Bronze Medal: **Kerry Martin,** Austin, TX, Austin Zealots, Kölsch

CATEGORY 7:

Amber Hybrid Beer

164 entries
Sponsored by Nikobrew

Patrick Barry, Cambridge, MA

GOLD MEDAL
"Neue Altbier"
Dusseldorf Altbier

Ingredients
for 5.25 U.S. gallons (19.87 L)

8.0 lb	(3.63) German Pilsner malt
2.0 lb	(0.9 kg) Munich malt
1.0 lb	(0.45 kg) aromatic malt
8.0 oz	(227 g) Cara-Munich® II malt
4.0 oz	(113 g) Carafa® malt
0.84 oz	(24 g) Herkules pellets, 15.7% a.a. (60 min)
0.5 oz	(14 g) Hallertau pellets, 7.9% a.a. (15 min)
Wyeast 1007 German Ale yeast, starter	
2 tsp	yeast nutrient (1 in starter, 1 in boil)
Forced CO_2 to carbonate (2.6 vol)	

Original Specific Gravity: 1.052
Final Specific Gravity: 1.011
Boiling Time: 90 minutes

Primary Fermentation: 21 days at 61° F (16° C)
Secondary Fermentation: 50 days at 35° F (2° C)

Directions
Use brewing water with 63 ppm calcium, 0 ppm magnesium, 16 ppm sodium, 77 ppm sulfate, 64 ppm chloride, 7 ppm bicarbonate, a residual alkalinity of -39 and a hardness of 159. Mash pH at room temp should be 5.44. Add half a Campden tablet before dough-in. Mash grains at 150° F (66° C) for 90 minutes. Mash out at 165° F (74° C) for 10 minutes. Fine fermented beer with 1 tsp gelatin.

Runners-Up
Silver Medal: **Carl Townsend,** Los Angeles, CA, Pacific Gravity Home Brewers Club, California Common Beer
Bronze Medal: **Patrick Strohmayer,** Saint Louis, MO, St. Louis Brews, Northern German Altbier

CATEGORY 8:

English Pale Ale

270 entries
Sponsored by St. Louis Wine & Beer Making

Dennis Collins, Knoxville, TN

GOLD MEDAL
"Full Monty British Ale"
Special/Best/Premium Bitter

Ingredients
for 6.5 U.S. gallons (24.61 L)

8.0 lb	(3.63 kg) Fawcett Pearl malt
1.0 lb	(0.45 kg) Vienna malt
1.0 lb	(0.45 kg) CaraRed® malt
1.0 lb	(0.45 kg) 60° L crystal malt
8.0 oz	(227 g) 20° L crystal malt
8.0 oz	(227 g) wheat malt
1.0 oz	(28 g) Wye Challenger pellets, 8.2% a.a. (60 min)
0.75 oz	(21 g) E.K. Goldings pellets, 4.5% a.a., 15 min
Wyeast 1028 London Ale yeast (1.5 L starter)	
Forced CO_2 to carbonate (2.3 vol)	

Primary Fermentation: 14 days at 68° F (20° C)
Secondary Fermentation: 14 days at 68° F (20° C)

Original Specific Gravity: 1.053
Final Specific Gravity: 1.010
Boiling Time: 60 minutes

Directions
Mash at 152° F (67° C) for 60 minutes.

Runners-Up
Silver Medal: **Derick McElhaney,** Martinsburg, WV, Shenandoah Valley Homebrewers Guild, Special/Best/Premium Bitter
Bronze Medal: **Donald Ackerman,** Paso Robles, CA, San Luis Obispo Brewers (SLOB), Special/Best/Premium Bitter

CATEGORY 9:

Scottish and Irish Ale

310 entries
Sponsored by Brew Brothers Homebrew Products

Robert Hilferding, Zephyrhills, FL, Special Hoperations
NHC 2014 Homebrewer of the Year

GOLD MEDAL
"Way Off Kilter"
Scottish Light 60/-

Ingredients
for 5.3 U.S. gallons (20 L)

9.0 lb	(4.08 kg) pale two-row malt
1.1 lb	(0.49 kg) 20° L Munich malt
0.25 lb	(113 g) 40° L crystal malt
0.1 lb	(45 g) roast barley
0.1 lb	(45 g) chocolate malt
0.7 oz	(20 g) E.K. Golding pellets, 5% a.a. (60 min)
0.88 oz	(25 g) E.K. Golding pellets, 5% a.a. (15 min)
0.7 oz	(20 g) E.K. Golding pellets, 5% a.a. (5 min)
0.48 oz	(14 g) E.K. Golding pellets, 5% a.a. (0 min)
Wyeast 1728 Scottish ale yeast (1 L starter)	
1 tablet	Whirlfloc
Forced CO_2 to carbonate (2.4 vol)	

Original Specific Gravity: 1.047
Final Specific Gravity: 1.024
Boiling Time: 60 minutes

Primary Fermentation: 4 days at 67° F (19° C)
Secondary Fermentation: 10 days at 67° F (19° C)

Directions
Single step infusion mash at 155° F (68° C). Mash out at 168° F (76° C) for 25 minutes and commence sparge.

Runners-Up
Silver Medal: **Kelly Collins** of Tigard, OR, Strange Brew Homebrew Club, Strong Scotch Ale
Bronze Medal: **Brent McGrady** of Delaware, OH, Delaware Ohio Homebrewers (DOH!), Scottish Export 80/-

CATEGORY 10:

American Ale

696 entries
Sponsored by BJ's Restaurant & Brewhouse

Brian Linder, Tewksbury, MA

GOLD MEDAL
"Big Brown Ale"
American Brown Ale

Ingredients
for 6 U.S. gallons (22.71 L)

9.6 lb	(4.35 kg) U.S. pale two-row malt
1.8 lb	(816 g) 10° L Munich malt
0.6 lb	(272 g) 60° L crystal malt
0.6 lb	(272 g) chocolate malt
0.3 oz	(9 g) whole Cascade, 7.3% a.a. (60 min)
0.3 oz	(9 g) whole Cascade, 7.3% a.a. (30 min)
1.0 oz	(28 g) Willamette pellets, 5.3% a.a. (15 min)
1.0 oz	(28 g) whole Cascade, 7.3% a.a. (15 min)
0.5 oz	(14 g) Willamette pellets, 5.3% a.a. (5 min)
0.5 oz	(14 g) whole Cascade, 7.3% a.a. (5 min)
0.3 oz	(9 g) Willamette pellets, 5.3% a.a. (1 min)
0.3 oz	(9 g) whole Cascade, 7.3% a.a. (1 min)
Wyeast 1056 American ale yeast	
0.25 tsp	yeast energizer
1 tablet	Whirlfloc
5.25 oz	(149 g) corn sugar to prime

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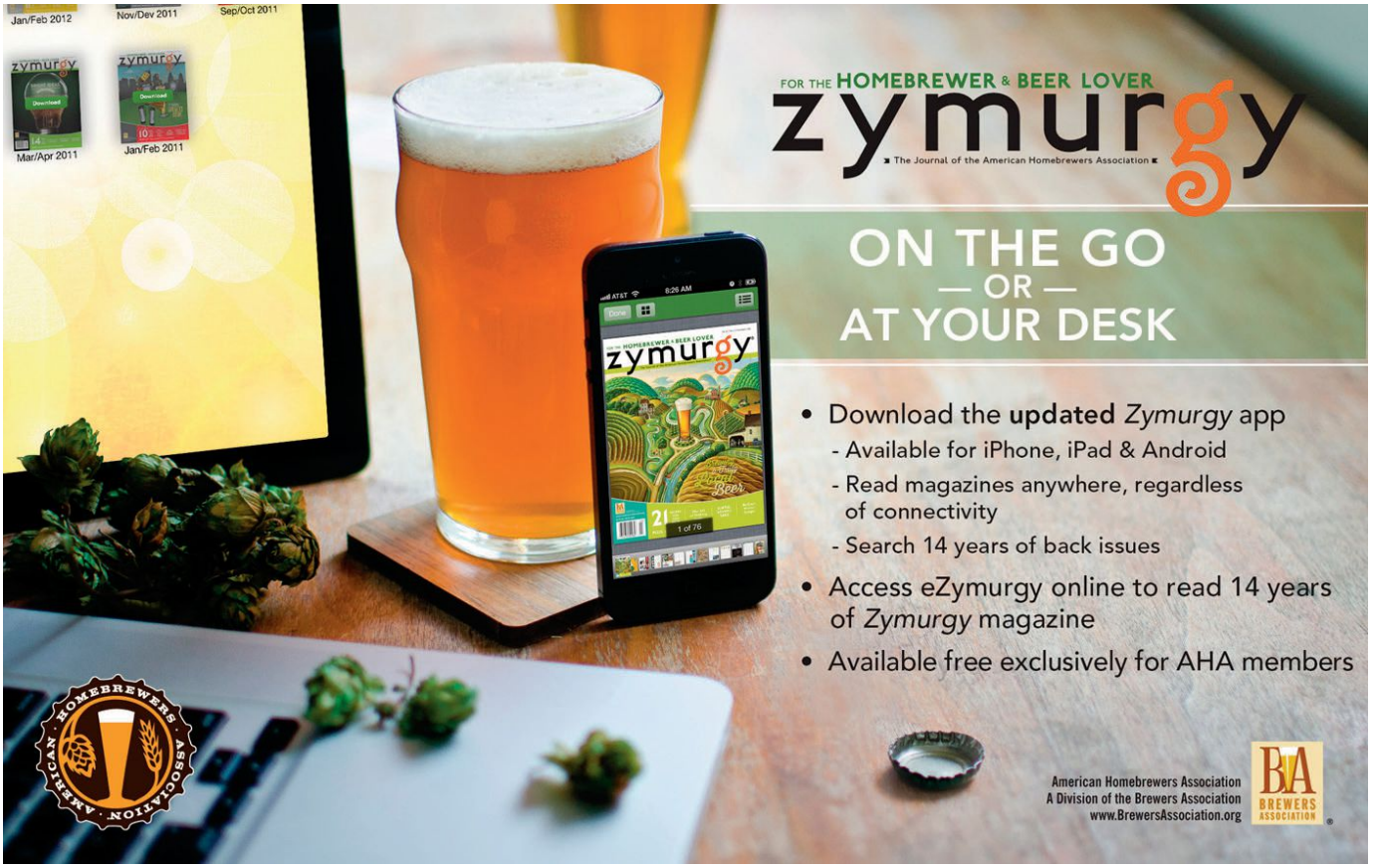
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Original Specific Gravity: 1.062
Final Specific Gravity: 1.014
Boiling Time: 60 minutes
Primary Fermentation: 7 days at 68° F (20° C)
Secondary Fermentation: 14 days at 65° F (18° C)

Directions

Treat brewing water with 3 g calcium chloride and 1 g gypsum. Mash at 145° F (63° C) for 30 minutes. Raise to 158° F (70° C) and hold for 40 minutes. Sparge at 170° F (77° C).

Runners-Up

Silver Medal: **Craig Vilhauer, Wes Steimle, and Dylan Vaughan** Turlock, CA, The Brewing Network, American Pale Ale

Bronze Medal: **Jim Barrie, Brittney Barrie, Derek Miles, Rich Yasparro, and Tim Kirchner,** Gainesville, FL, American Pale Ale

CATEGORY 11:

English Brown Ale

235 entries
Sponsored by Alternative Beverage

Dave Rawks and Zack Macfarlane, El Cerrito, CA, Diablo Order of Zymiracle Enthusiasts (DOZE)

GOLD MEDAL
"Mister Manners"
Mild Ale

Ingredients

for 11 U.S. gallons (41.64 L)

16.0 lb	(7.26 kg) Maris Otter pale ale malt
1.0 lb	(0.45 kg) 60° L caramel malt
12.0 oz	(340 g) 120° L caramel malt
8.0 oz	(227 g) dextrin malt
8.0 oz	(227 g) 200° L chocolate malt
4.0 oz	(113 g) 300° L roast barley
2.1 oz	(60 g) 500° L black malt
2.0 oz	(57 g) E.K. Goldings hops, 5% a.a. (60 min)
2 tablets	Whirlfloc (10 min)
2 capsules	Servomyces (10 min)

Wyeast 1968 London ale yeast
Forced CO_2 to carbonate (1.5 vol)

Original Specific Gravity: 1.048
Final Specific Gravity: 1.015
Boiling Time: 60 minutes
IBUs: 18
SRM: 18

Primary Fermentation: 4 days at 68° F (20° C)
Secondary Fermentation: 1 week at 72° F (22° C)

Directions

"Water is carbon filtered and treated with 5.2 pH stabilizer and a bit of Campden to protect against seasonal chloramine in the municipal water supply." Mash in at 154° F (68° C) and hold for 45 minutes. Mash out at 168° F (76° C) for 10 minutes. Sparge at 168° F (76° C).

Runners-Up

Silver Medal: **Brian Searfass,** Everett, WA, Greater Everett Brewers, Northern English Brown

Bronze Medal: **Justin Fleming,** Escondido, CA, QUAFF (Quality Ale and Fermentation Fraternity), Northern English Brown

CATEGORY 12:

Porter

364 entries
Sponsored by Deschutes Brewery

Scott Boeke, North Augusta, SC

GOLD MEDAL
"Baltic Porter 13"
Baltic Porter

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

6.5 lb	(2.95 kg) Crisp Maris Otter pale malt
5.5 lb	(2.49 kg) German Munich malt
5.0 lb	(2.27 kg) Belgian Pilsner malt
5.0 lb	(2.27 kg) German Vienna malt
1.0 lb	(0.45 kg) Caramunich® III malt
0.75 lb	(340 g) dehusked Carafa® III malt
6.0 oz	(170 g) English chocolate malt
1.0 oz	(28 g) Briess smoked malt
0.5 oz	(14 g) Hallertau pellet hops, 4.3% a.a. (FWH)
2.5 oz	(71 g) Hallertau pellet hops, 4.3% a.a. (60 min)
1.0 oz	(28 g) Hallertau pellet hops, 4.3% a.a. (15 min)
WLP833 German Bock lager yeast (1 L starter)	
2 capsules	Servomyces (15 min)

Forced CO_2 to carbonate (2.5 vol)

Original Specific Gravity: 1.086
Final Specific Gravity: 1.021
Boiling Time: 90 minutes
Primary Fermentation: 2 weeks at 50° F (10° C)
Secondary Fermentation: 4 weeks at 50° F (10° C)
Tertiary Fermentation: 575 days at 34° F (1° C)

Directions
Mash grains at 152° F (67° C) for 75 minutes.

Runners-Up
Silver Medal: **Agatha Feltus,** Noblesville, IN, Foam Blowers of Indiana (FBI), Baltic Porter
Bronze Medal: **Jeffrey Stein,** Perkiomenville, PA, Brown Porter

CATEGORY 13:

Stout

708 entries
Sponsored by Brew & Grow

Rob Vrabel, Farmington Hills, MI, Kuhnhenn Guild of Brewers Homebrew Club

GOLD MEDAL
"Oatmeal Stout"
Oatmeal Stout

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

17.375 lb	(7.88 kg) pale malt
2.0 lb	(0.9 kg) flaked oats
1.5 lb	(0.68 kg) Victory malt
1.0 lb	(0.45 kg) 80° L caramel malt
1.0 lb	(0.45 kg) black malt
0.75 lb	(340 g) chocolate malt
0.75 lb	(340 g) pale chocolate malt
4.0 oz	(113 g) Golding pellet hops, 18.5% a.a. (60 min)
WLP002 English ale yeast (2 vials)	

Original Specific Gravity: 1.062
Final Specific Gravity: 1.016
Boil time: 90 minutes

Primary Fermentation: 14 days at 68° F (20° C).

Directions
Single step infusion mash at 154° F (68° C) for 60 minutes.

Runners-Up
Silver Medal: **Mac Butcher,** Tulsa, OK, Fellowship of Oklahoma Ale Makers (FOAM), Foreign Extra Stout
Bronze Medal: **Wes Steimle, Dylan Vaughan, and Craig Vilhauer,** Piedmont, CA, The Brewing Network, Russian Imperial Stout

CATEGORY 14:

India Pale Ale

852 entries
Sponsored by Hopsteiner

Kelsey McNair, San Diego, CA, QUAFF (Quality Ale and Fermentation Fraternity)

GOLD MEDAL
"Hop-Fu! IPA"
Imperial IPA

Ingredients
for 14 U.S. gallons (53 L)

31.25 lb	(14.17 kg) Great Western two-row malt
21.0 oz	(595 g) Briess dextrin malt
8.0 oz	(227 g) Crisp 45° L crystal malt
1.0 oz	(28 g) Chinook pellets, 11.5% a.a. (FWH)
2.5 oz	(70 g) Warrior pellets, 16.7% a.a. (60 min)
2.0 oz	(57 g) CTZ pellets, 13.1% a.a. (30 min)
2.0 oz	(57 g) Simcoe pellets, 9.3% a.a. (10 min)
2.0 oz	(57 g) Amarillo pellets, 12.2% a.a. (10 min)
2.0 oz	(57 g) Simcoe pellets, 9.3% a.a. (0 min)
2.0 oz	(57 g) Amarillo pellets, 12.2% a.a. (0 min)
2.0 oz	(57 g) Citra pellets, 13.4% a.a. (0 min)
2.0 oz	(57 g) Centennial pellets, 8.8% a.a. (0 min)
2.0 oz	(57 g) CTZ pellets, 17.6% a.a. (0 min)
1.0 oz	(28 g) Simcoe pellets, 9.3% a.a. (hop back)
1.0 oz	(28 g) Amarillo pellets, 12.2% a.a. (hop back)
1.0 oz	(28 g) Citra pellets, 13.4% a.a. (hop back)
2.0 oz	(57 g) Simcoe pellets, 9.3% a.a. (dry)
2.0 oz	(57 g) Amarillo pellets, 12.2% a.a. (dry)
2.0 oz	(57 g) Citra pellets, 13.4% a.a. (dry)
2.0 oz	(57 g) Centennial pellets, 8.8% a.a. (dry)
2.0 oz	(57 g) CTZ pellets, 17.6% a.a. (dry)

WLP001 California Ale yeast
3 Whirlfloc tablets (15 min)
2 Servomyces yeast nutrient tablets (15 min)
Forced CO_2 to carbonate (2.4 vol)

0.25 tsp	Super Moss HB (10 min) to clarify
1 tsp	Wyeast nutrient (10 min)

Original Specific Gravity: 1.067
Final Specific Gravity: 1.011
IBUs: 120
SRM: 5

Boiling Time: 90 minutes
Primary Fermentation: 7-10 days at 67° F (19° C)
Secondary Fermentation: 7 days at 67° F (19° C)

Directions
Mash in at 152° F (67° C) and rest for 60 minutes. Mash out at 168° F (76° C) and hold for 15 minutes. Sparge at 170° F (77° C) for 60 minutes. Chill to 67° F (19° C) and pitch. After primary fermentation, rack and add 50 percent of dry hops. Dry hop for 3 days, then add remaining dry hops and dry hop for 4 additional days.

Runners-Up
Silver Medal: **Donna and Larry Reuter,** Akron, OH, Society of Akron Area Zymurgists (SAAZ), American IPA
Bronze Medal: **Randy Sauter,** Rapid City, SD, Ale Riders Homebrew Club, Imperial IPA

CATEGORY 15:

German Wheat and Rye Beer

208 entries
Sponsored by Brewing with Wheat

Scott and Theresa Hixson, Gulfport, MS, Gulf Coast Brewers League

GOLD MEDAL
"Yyy's Man Says"
Weizenbock

Ingredients
for 5 U.S. gallons (18.93 L)

6.9 lb	(3.13 kg) white wheat malt
4.4 lb	(2 kg) pale malt
0.5 lb	(227 g) 10° L Munich malt
0.4 lb	(181 g) pale chocolate malt
0.3 lb	(136 g) Caramunich® I malt
0.3 lb	(136 g) Caramunich® III malt
0.3 lb	(136 g) melanoidin malt
1.0 oz	(28 g) Hallertau pellets, 4% a.a. (FWH)
0.3 oz	(8.5 g) Hallertau pellets, 4% a.a.. (15 min)
WLP380 Hefeweizen IV ale yeast	(2 vials)
Keg condition to 4.2 vol. CO_2	

Original Specific Gravity: 1.072
Final Specific Gravity: 1.018
Boiling Time: 90 minutes

Primary Fermentation: 8 days at 68-72° F (20-22° C)
Secondary Fermentation: 8 days at 65° F (18° C)
Tertiary Fermentation: 175 days at 36° F (2° C)

Directions
Begin with an acid rest at 111° F (44° C) and hold for 15 minutes. Ramp up to 125° F (52° C) and hold for a 15 minute protein rest. Finish with a saccharification rest at 153° F (67° C) for one hour.

Runners-Up
Silver Medal: **Doug Bellingeri and Mike Consoli,** Beach Haven, NJ, Jersey City Brew Club, Roggenbier
Bronze Medal: **Juma Essie,** Minneapolis, MN, Nordeast Brewers Alliance, Weissebier/Weizen

CATEGORY 16:

Belgian and French Ale

591 entries
Sponsored by Port Brewing Co./The Lost Abbey

Morgan Sapp, Clarksville, TN, Clarksville Carboys

GOLD MEDAL
"Brett Strawberry Farmhouse"
Belgian Specialty Ale – Saison with Strawberries and Brett B (Trois)

Ingredients
for 5 U.S. gallons (18.93 L)

12.5 lb	(5.67 kg) Pilsner malt
6.0 oz	(170 g) aromatic malt
1.25 lb	(0.57 kg) wheat malt
5.0 lb	(2.27 kg) Shuksan strawberries
0.75 oz	(21 g) coriander
0.75 oz	(21 g) bitter orange peel
0.25 oz	(7 g) grains of paradise
0.5 oz	(14 g) Hallertau pellets, 4.65% a.a. (90 min)
0.5 oz	(14 g) Hallertau pellets, 4.65% a.a. (60 min)
1.0 oz	(28 g) Styrian Goldings pellets, 5.4 % a.a. (15 min)
Wyeast 3726 Farmhouse ale yeast	(2 L starter)
0.5 tsp yeast nutrient	
Prime with dextrose to 2.9 vol	

Original Specific Gravity: 1.055
Final Specific Gravity: 1.000
IBUs: 19
SRM: 19

Primary Fermentation: 21 days at 74° F (23° C)
Secondary Fermentation: 60 days at 70° F (21° C)

Directions
Mash grains at 146° F (63° C) for 75 minutes. Treat water with 2.5 g calcium chloride, 1.5 g chalk, and 1g gypsum.

"After primary fermentation, I pureed 5 lb (2.27 kg) of frozen Shuksan variety strawberries and brought them to 160° F (71° C). I then racked onto the puree in secondary and added dregs from an all Brett-trois fermented beer. This is the same yeast as the Brett B (trois) offered by White Labs."

Runners-Up
Silver Medal: **Bruce Sanchez,** Edmond, OK, High Plains Draughters, Belgian Specialty Ale
Bronze Medal: **Matt Backman,** Gibsonia, PA, Three Rivers Alliance of Serious Homebrewers, Belgian Specialty Ale

CATEGORY 17:

Sour Ale

286 entries
Sponsored by Captain Lawrence Brewing Co.

Jim Fish, Brooklawn, NJ, Barley Legal Homebrew Club

GOLD MEDAL
"Red Headed Stranger"
Flanders Red Ale

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

9.75 lb	(4.42 kg) Belgian Pils malt
4.0 lb	(1.81 kg) Munich malt
0.75	(340 g) Caramunich® malt
0.5 lb	(227 g) wheat
0.5 lb	(227 g) aromatic malt
0.5 lb	(227 g) Special B malt
2.0 oz	(57 g) Carafa® III malt
8	14.5-oz cans Oregon tart cherries in water
1.0 oz	(28 g) E.K. Golding pellets (60 min)

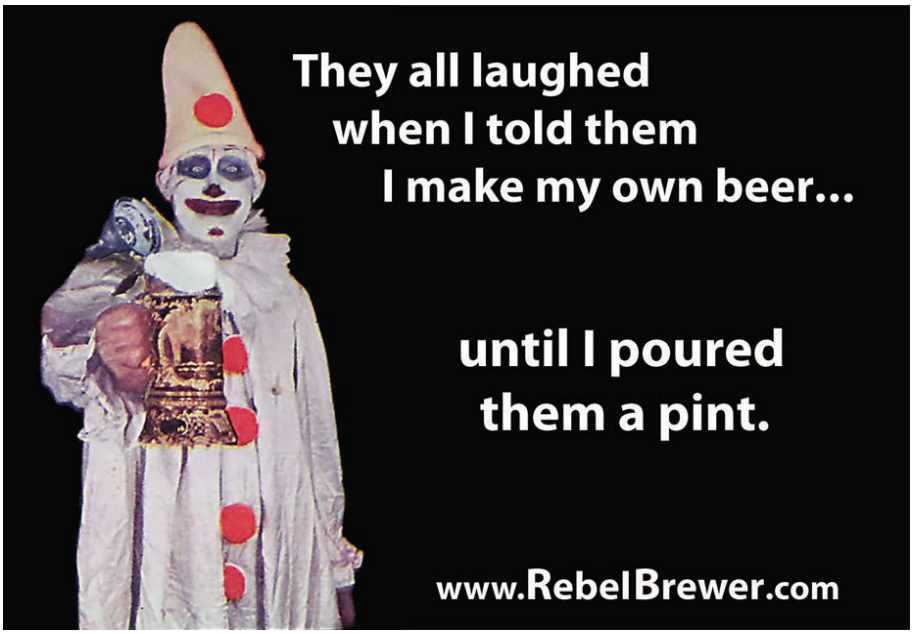
Wyeast 1056 American Ale yeast
Wyeast 3278 Lambic Blend ale yeast
Champagne yeast

Original Specific Gravity: 1.070
Final Specific Gravity: 1.008
Boiling time: 90 minutes

Primary Fermentation: 7 days at 64° F (18° C)
Secondary Fermentation: 90 days at 62-78° F (17-26° C)
Tertiary Fermentation: 3 months

Directions
Use a single infusion mash at 152° F (67° C) for 60 minutes. When primary fermentation is complete, transfer to secondary and pitch the lambic blend. Age at basement temps (62-78° F, 17-26° C). Ferment for 1 year then pitch 8 cans of Oregon sour cherries. Age for 3 more months in tertiary until clear. Bottle with champagne yeast when gravity settles around 1.008.

Runners-Up
Silver Medal: **Derek Immekus with Rick Stafford, Ben Schielke, Brendan Gramer, Paul Cervenka, Jonathon Adams-Kane and Bob Yeaw,** Seattle, WA, Homebrewers Guild of Seattle Proper, Gueuze
Bronze Medal: **John Rowley,** Santa Fe, NM, Sangre de Cristo Craft Brewers, Fruit Lambic



CATEGORY 18:

Belgian Strong Ale

408 entries
Sponsored by Dingemans c/o Cargill Malt

Jose Gutierrez, Rosamond, CA

GOLD MEDAL
"Evil Beavr"
Belgian Blonde Ale

Ingredients
for 6 U.S. gallons (22.71 L)

10.5 lb	(4.76 kg) Pilsner malt
0.5 lb	(227 g) CaraVienne® malt
0.5 lb	(227 g) wheat malt
0.5 lb	(227 g) flaked wheat
1.0 lb	(0.45 kg) table sugar (15 min)
0.25 lb	(113 g) orange blossom honey (15 min)
1.0 oz	(28 g) Tettnanger pellets, 4.5% a.a. (FWH)
0.5 oz	(14 g) Saaz pellets, 3.2% a.a. (30 min)
0.5 oz	(14 g) Saaz pellets, 3.2% a.a. (20 min)

WLP500 Trappist ale yeast
Use RO water treated with 1 tsp gypsum
1 Tbs Irish moss

Original Specific Gravity: 1.065
Final Specific Gravity: 1.004
Boiling Time: 90 minutes

Primary Fermentation: 14 days at 66° F (19° C)
Secondary Fermentation: 3 days at 74° F (23° C)
Tertiary Fermentation: 7 days at 72° F (22° C)

Directions
Mash grains at 150° F (66° C) for one hour. Fly sparge. Add honey and sugar 15 minutes before end of boil.

Runners-Up
Silver Medal: **Jason Hobbs,** Sparks, NV, Washoe Zephyr Zymurgists, Belgian Strong Dark Ale
Bronze Medal: **Peggy and Tom Kelly,** Encinitas, CA, QUAFF (Quality Ale and Fermentation Fraternity), Belgian Strong Golden Ale

CATEGORY 19:

Strong Ale

241 entries
Sponsored by Northern Brewer

Douglas Gladue and Frank Bellanio, Guilford, CT, Maniacal Association of Shoreline Homebrewers (MASH)

GOLD MEDAL
"Bellanio Farms"
English Barleywine

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

55.0 lb	(24.94 kg) Maris Otter malt
5.0 oz	(142 g) Magnum whole hops, 7% a.a. (90 min)
5.0 oz	(142 g) homegrown hops (30 min)
5.0 oz	(142 g) homegrown hops (1 min)
2 Tbs	Wyeast yeast nutrient (10 min)
1 packet	Fermentis SafeAle S04 dry yeast

Forced CO_2 to carbonate (2.5 vol)

Original Specific Gravity: 1.140
Final Specific Gravity: 1.025
Boil Time: 4 hours
Primary Fermentation: 5 days at 65° F (18° C)
Secondary Fermentation: 120 days at 65° F (18° C)

Directions
Treat brewing water with 1 Tbs Epsom salt and 1 Tbs calcium carbonate. Mash at 145° F (63° C) for 60 minutes. Take first 2 gallons of runnings and boil to 1/2 gallon, add back to the main boil.

Runners-Up
Silver Medal: **Jason Bryant,** Reston, VA, Wort Hogs, American Barleywine
Bronze Medal: **Karl King,** Colleyville, TX, Cap and Hare Homebrew Club, English Barleywine

CATEGORY 20:

Fruit Beer

208 entries
Sponsored by High Gravity Homebrewing & Winemaking Supplies

Robert Carter and Grace Santiago, Menifee, CA, Society of Barley Alchemists

GOLD MEDAL
"Razz-Ma-Tazz"
Sweet Stout with Raspberry, Chocolate and Coconut

Ingredients
for 5 U.S. gallons (18.93 L)

12.0 lb	(5.44 kg) Maris Otter pale malt
1.0 lb	(0.45 kg) honey malt
1.0 lb	(0.45 kg) black patent malt
0.75 lb	(12 oz) Briess 120° L caramel malt
0.5 lb	(227 g) chocolate malt
1.0 oz	(28 g) E.K. Golding pellets, 5.8% a.a. (FWH)
1.0 oz	(28 g) E.K. Golding pellets, 5.8% a.a. (30 min)
14.0 oz	(397 g) flaked coconut (5 min)
1.0 lb	(0.45 kg) lactose (0 min)
0.5 lb	(227 g) dark chocolate (0 min)

Raspberry extract to taste (at packaging)
Coconut extract to taste (at packaging)
WLP004 Irish ale yeast

Original Specific Gravity: 1.048
Final Specific Gravity: 1.018
Boiling Time: 90 min
Primary Fermentation: 9 days at 68° F (20° C)

Directions
Mash at 150° F (66° C) for 60 minutes. Add coconut flakes 5 minutes from the end of boil. Carter advises, "Keep [flaked coconut] in a cheese cloth bag, because if that stuff gets loose, oh man!"Add lactose and chocolate after flameout to avoid scorching the chocolate. Blend in raspberry and coconut extract to taste just prior to bottling.

Runners-Up
Silver Medal: **Mark Girard,** Annandale, VA, Brewers United for Real Potables (BURP), Fruit Beer
Bronze Medal: **Timothy Sellmeyer,** Concord, CA, Fruit Beer

CATEGORY 21:

Spice/Herb/Vegetable Beer

483 entries
Sponsored by Austin Homebrew Supply

Jeremy Voeltz, Lakeside, AZ, Arizona Society of Homebrewers
NHC 2014 Ninkasi Award Winner

GOLD MEDAL
"Hop Canyon Habanero IPA"
Spice, Herb, or Vegetable Beer
American IPA with habanero pepper

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

14.0 lb	(6.35 kg) pale two-row malt
1.25 lb	(0.57 kg) 10° L crystal malt
1.0 lb	(0.45 kg) dextrin malt
0.5 lb	(227 g) CaraVienne® malt
1.0 oz	(28 g) Amarillo pellets, 9% a.a. (mash)
0.25 oz	(7 g) Columbus pellets, 13% a.a. (60 min)
0.25 oz	(7 g) Northern Brewer pellets, 9% a.a. (60 min)
0.4 oz	(11 g) Magnum pellets, 15% a.a. (60 min)
0.5 oz	(14 g) Warrior pellets, 18% a.a. (60 min)
0.2 oz	(6 g) Simcoe pellets, 13% a.a. (60 min)
0.4 oz	(11 g) Crystal pellets, 4% a.a. (30 min)
0.25 oz	(7 g) Centennial pellets, 9% a.a. (30 min)
1.0 oz	(28 g) Simcoe pellets, 13% a.a. (30 min)
2.0 oz	(57 g) Amarillo pellets, 9% a.a. (0 min)
2.0 oz	(57 g) Simcoe pellets, 13% a.a. (0 min)
2.0 oz	(57 g) Amarillo pellets, 9% a.a. (dry)
4.0 oz	(113 g) Simcoe pellets, 13% a.a. (dry)
16.5 g	chopped habanero peppers (dry)

WLP001 American ale yeast
Forced CO_2 to carbonate (2.4 vol)

Original Specific Gravity: 1.074
Final Specific Gravity: 1.016
Boiling Time: 60 minutes
Primary Fermentation: 21 days at 64° F (18° C)
Secondary Fermentation: 7 days at 68° F (20° C)

Directions
Use a water profile that includes 165 ppm calcium, 12 ppm magnesium, 17 ppm sodium, 300 ppm calcium sulfate and 55 ppm chloride. Mash at 155° F (68° C) for 75 minutes. "Dry pepper" with 3 g of chopped habanero peppers per gallon, for five days.

Runners-Up
Silver Medal: **Brian Hoesing,** Lincoln, NE, Lincoln Lagers, Christmas/Winter Specialty
Bronze Medal: **Mark Griffin,** Sammamish, WA, Mount Si Brewing Society, Spice, Herb or Vegetable Beer

CATEGORY 22:

Smoke-Flavored and Wood-Aged Beer

403 entries
Sponsored by Alaskan Brewing Co.

Larry and Donna Reuter, Akron, OH, Society of Akron Area Zymurgists (SAAZ)

GOLD MEDAL
"Rauch Me Baby!"
Classic Rauchbier

Ingredients
for 5 U.S. gallons (18.93 L)

7.0 lb	(3.18 kg) beechwood smoked malt
2.0 lb	(0.9 kg) Munich malt
2.0 lb	(0.9 kg) Vienna malt
12.0 oz	(340 g) CaraMunich® malt
4.0 oz	(113 g) Carapils® malt
4.0 oz	(113 g) melanoidin malt
2.0 oz	(57 g) Carafa II® malt
2.0 oz	(57 g) aromatic malt
1.0 oz	(28 g) Tradition pellets (60 min)
0.5 oz	(14 g) Tradition pellets (15 min)
Akron, OH city water, carbon filtered	
1 tablet	Whirlfloc (5 min)
Wyeast 2124 Bohemian Lager yeast	
3.75 oz	(106 g) dextrose to prime

Target Original Specific Gravity: 1.056 - 1060
Boiling Time: 60 minutes
Primary Fermentation: 7-10 days at 50° F (10° C)
Diacetyl rest: 2 days at 62-65° F (17-18° C)

Directions
Treat water with 2 tsp. calcium chloride. Mash grains at 154° F (68° C) for 90 minutes. Bottle after fermentation is complete and lager in bottles up to three months.

Runners-Up
Silver Medal: **Ray Larkin and Jason Green,** Bridgeport, MI, Cass River Homebrewers Club, Wood-Aged Beer
Bronze Medal: **Chris Rauschuber,** Austin, TX, Austin Zealots, Wood-Aged Beer

CATEGORY 23:

Specialty Beer

463 entries
Sponsored by The Hops Shack

Sean Kampshoff, Minneapolis, MN, Minnesota Home Brewers Association

GOLD MEDAL
"Emily"
Imperial milk stout with coffee added at kegging

Ingredients
for 12 U.S. gallons (45.42 L) – before freeze concentration

31.0 lb	(14.06 kg) Maris Otter pale malt
3.0 lb	(1.36 kg) Simpsons dark (80° L) crystal malt
2.0 lb	(0.9 kg) 200° L pale chocolate malt (1.13 kg)
1.81 lb	(821 g) 300° L roast barley
1.81 lb	(821 g) 500° L roast barley
2.0 oz	(57 g) Magnum pellets, 14% a.a. (60 min)
Cold press coffee (see directions)	
1 tablet	Whirlfloc (15 min)
2 capsules	Servomyces (15 min)
2.0 lb	(0.9 kg) lactose (5 min)
Wyeast 1028 London Ale yeast	(4L starter)
Forced CO_2 to carbonate (2.5 vol)	

Original Specific Gravity: 1.085
Final Specific Gravity: 1.024
Boil Time: 75 minutes
IBUs: 47
SRM: 53
Boil time: 90 min
Brewhouse Efficiency: 70%
Primary Fermentation: 66° F (19° C).

Directions
Mash at 152° F (67° C) and hold for 90 minutes. Use freeze concentration to remove 20 percent water to end up with approximately 10 percent ABV. Make cold press coffee prior to bottling/kegging. Add to bottle or keg at a ratio of 1.25 ml coffee to 1 ounce beer. Ratio can vary based on strength of coffee so dose some samples to determine desired amount.

Runners-Up
Silver Medal: **Dave Moore, Cris Smith, and Dan Vogt,** Austin, TX, Definitive Ales, Specialty Beer
Bronze Medal: **James McNulty,** Whitsett, NC, Battleground Brewers Guild, Specialty Beer

CATEGORY 24:

Traditional Mead

71 entries
Sponsored by Moonlight Meadery

Tyler Cipriani and Blazey Heier, Longmont, CO, Wichita Homebrewers Organization (WHO)

GOLD MEDAL
"Tupelo Mead"
Traditional Sweet Mead with Tupelo Honey; Petillant, Sweet, Sack

Ingredients
for 5 U.S. gallons (18.93 L)

26.0 lb (11.79 kg) Tupelo honey
Diammonium phosphate (DAP)
Fermaid-K
2 packs Lalvin 71B-1122 dry yeast
100% RO water

Original Specific Gravity: 1.150
Final Specific Gravity: 1.030
Primary Fermentation: 14 days at 68° F (20° C)

Directions
Kristen England Even-Speed Mead method (http://www.ahaconference.org/wp-content/uploads/presentations/2008/KrisEngland_NHC.pdf)
* Day 0: 4.5 g Fermaid K, 2g DAP, Rehydrate 2 packs 71B with 28 g Go-Ferm
* Days 1, 3, 5, 7, 8: stir
* Day 2, 4, 6: 4.5g Fermaid K, 2g DAP, Stir

Runners-Up
Silver Medal: **Eric Holden,** Temecula, CA, Temecula Valley Homebrewers Association, Sweet Mead
Bronze Medal: **Scot Schaar,** Davenport, IA, River's Edge Fermentation Society, Semi-Sweet Mead

CATEGORY 25:

Melomel (Fruit Mead)

127 entries
Sponsored by Moonlight Meadery

Matthew Weide, Minneapolis, MN, Minnesota Home Brewers Association
NHC 2014 Meadmaker of the Year

GOLD MEDAL
"2"
Other Fruit Melomel with Key Limes and Wildflower Honey; Still, Sweet, Standard

Ingredients
for 4 U.S. gallons (15.14 L)

13.0 lb (5.9 kg) wildflower honey
16.0 oz (473 mL) key lime juice
3 gallons (11.3 L) water
3 packs Lalvin 71B-1122 dry yeast
Super Kleer

Directions
"Re-hydrated 71B-1122 yeast with Go-ferm, pitched into must after being properly mixed and oxygenated. Staggered nutrient additions over 5 days of DAP and Fermaid K (amounts per mfg.) Wine whip for oxygen intake for first 5 days. I then shake the vessel for another 10 days to degas. Add 8 oz of key lime juice (or to taste) when racking. Super Kleer at packaging."

Runners-Up
Silver Medal: **Kathleen Troxell,** Grandville, MI, Rivertown Homebrewers, Other Fruit Melomel
Bronze Medal: **Jovilin Grunewald and Mark Tanner,** Oak Harbor, WA, Pacific Northwest Brewers, Other Fruit Melomel

CATEGORY 26:

Other Mead

87 entries
Sponsored by Celestial Meads

Steve Fletty, Falcon Heights, MN, Saint Paul Homebrewers Club

GOLD MEDAL
"Chateau Fletty Arcs-en-ciels et les Licornes"
Metheglin with Sour Wood Honey and Ginger; Sparkling, Sweet, Standard

Ingredients
for 4 U.S. gallons (15.14 L)

10.0 lb	(4.54 kg) sourwood honey
2.0 lb	(0.9 kg) fresh ginger, peeled and grated
3 gallons	(11.36 L) water

Cross Evolution yeast
Forced CO_2 to carbonate (2.5 vol)

Original Specific Gravity: 1.090

Directions
Blend honey into water using stir stick, add ginger and nutrients. Rehydrate yeast and pitch. "Primary start: 8/2/13. Mead fermented to dry at basement temp. Racked to secondary, added sorbate, 8/17/13. Racked to tertiary, 9/7/13. Back sweetened with more sourwood honey to ~1.020. Added Super Kleer to fine. Racked to keg after clear and force carbonated."

Runners-Up
Silver Medal: **John Raczkowski,** Plymouth, IN, Michiana Extract & Grain Association (MEGA), Open Category Mead
Bronze Medal: **Jeremy Voeltz,** Lakeside, AZ, Arizona Society of Homebrewers, Open Category Mead

CATEGORY 27:

Standard Cider and Perry

110 entries
Sponsored by Vermont Hard Cider Company

Edward Walkowski of North Abington Township, PA
NHC 2014 Cidermaker of the Year

GOLD MEDAL
"Bartlett Perry"
Common Perry, Sparkling, Semi-Sweet

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

10.0 gal	(37.85 L) fresh Bartlett pear cider sulfited to 50 ppm SO_2

Malic acid to adjust acidity to 6g/liter

10 g	Lalvin DV-10 yeast (properly hydrated)

Fermax, added in two additions, per product instructions
Forced CO_2 to carbonate (2.8 vol)
Super-Kleer to fine, then filtered bright

Original Specific Gravity: 1.048
Final Specific Gravity: 1.002
SRM: 3
ABV: 5.3%
Primary Fermentation: two weeks at 60° F (16° C)

Directions
Source 10 gallons of fresh pear cider. "I sulfited to 50 ppm SO_2 and adjusted the acidity to 6 g/liter with malic acid. This year I fermented with Lalvin DV-10, a Champagne-type yeast. I have used 11-22B and Ba-11 in the past with good results. I used Fermax split into two additions, and fermented at 60° F. Following fermentation to dryness, I added sorbate, backsweetened with cane sugar to taste, fined with Super-Kleer KC, and filtered. This perry was keg-carbonated at 2.8 vol. CO_2."

Runners-Up
Silver Medal: **Brett Glenna,** Lakeville, MN, Minnesota Home Brewers Association, Common Cider
Bronze Medal: **Jeff Carlson,** Grand Rapids, MI, PrimeTime Brewers, Common Cider

CATEGORY 28:

Specialty Cider and Perry

101 entries
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Jeff Carlson, Grand Rapids, MI, PrimeTime Brewers

GOLD MEDAL
"Sweet Heat"
Other Specialty Cider/Perry
Common Cider Aged on Jalapeños; Petillant, Semi-Sweet

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

5.5 gal (22.71 L) Uncle John's Cider Mill (St. Johns, MI) Heirloom Blend: Apples included Baldwin, Grimes Golden, Winesap, Wealthy, Rhode Island Greening, Northern Spy, Winter Banana, and Hubbardston Nonsuch.
Pectic enzyme
5 g Red Star Cote des Blancs yeast

Original Specific Gravity: 1.054
Final Specific Gravity: 0.998
ABV: 7%
Primary Fermentation: 28 days at 55° F (13° C)
Secondary Fermentation: 4 months at 55° F (13° C)

Directions
"Juice was unpasteurized and had a pH of 3.5, stock solution of sodium metabisulfite added to 100 parts per million. After 24 hours, pectic enzyme and rehydrated yeast were added. Fermentation was started at room temperature and moved to cold area after two days. Racked after four weeks and added 50 ppm sulphite. Aged almost four months. Racked into 2-3-gallon kegs, adding 20 ppm sulphite and 1¼ tsp potassium sorbate to each 2.5 gallons. The first keg was back sweetened and a small amount of malic acid added to taste. The second keg was also back sweetened, dosed with malic acid, and a homemade jalapeño wine (which I use for cooking) was added, to taste. Both were force carbonated, bottles were counter pressure filled. I use a simple syrup to back sweeten, (2 parts table sugar/1 part water, boiled and cooled); gravity after adding sugar was 1.006."

Runners-Up
Silver Medal: **Christopher Smith,** Minneapolis, MN, Northern Brewer Fermentation Brigade, Fruit Cider
Bronze Medal: **Chad Anderson and Steve Patik,** Littleton, CO, Other Specialty Cider/Perry

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American Homebrewers Association
A Division of the Brewers Association
www.BrewersAssociation.org

KUDOS—BEST OF SHOW

AHA/BJCP Sanctioned Competition Program

March 2014

Mazer Cup International Home Competition, 271 entries—Ian Bresky, Allendale, MI.

April 2014

The ALES Open, 632 entries—Alvaro Reyes, Surrey, British Columbia, Canada.

Worthogs Summer Beer Fest, 27 entries—Lee Carpenter, Johannesburg, Gauteng, South Africa.

Capitol Brewers 9th Annual Homebrewers Classic, 173 entries—Shane Fisher, Salem, OR.

18th Annual Chico Homebrew Competition, 161 entries—Brian McGillivray, Chico, CA.

Between the Bluffs Homebrew Competition, 104 entries—Jerry Flabby, Rochester MN.

San Mateo County Fair Homebrew Competition, 102 entries—Jason Davis.

Titletown Open (20th Annual), 240 entries—Adam Meyers, Rochester, MN.

18th Annual Cascade Brewers Cup, 372 entries—Mark Aichele, Longmont, CO.

UNYHA 36th Annual Competition & 24th Empire State Open, 261 entries—Sean Coughlin, Rochester, NY.

7th Annual Liquid Poetry Slam 2014, 378 entries—Bryan Keas, Highlands Ranch, CO.

The Twisted Pepper Home Brewers Cup, 50 entries—Alex Lawes, Dublin, Ireland.

May 2014

War of the Wort, 203 entries—Jeff Kinzer, Cordova, TN.

Napa Homebrewers Classic, 111 entries—Joe Payne, Napa, CA.

18th Annual Celtic Brew Off, 232 entries—Lee Pelfrey & David Ireland, TX.

Wort Transformation Challenge, 180 entries—Roger Kegley, Omaha, NE.

Greg Noonan Memorial Homebrew Competition, 260 entries—Tom Ayers, Burlington, VT.

Sioux Falls South Side Brewing Festival, 25 entries—Bud Molyneux, Sioux Falls, SD.

Mother Earth's Rhythm & Brews Home Brew Competition, 16 entries—Patrick Schulz, Torrance, CA.

Great Basin Brew-Off, 204 entries—Rick Givens, Reno, NV.

Good-Ta-Go Homebrew Competition, 15 entries—A. Quinn (GATBF), Chambersburg, PA.

May LIBME Monthly Club Comp, 10 entries—Chris Kelley.

Wisconsin State Fair Homebrew Competition, 179 entries—Daniel Smith, Racine, WI.

El Dorado County Fair, 79 entries—Mike Conrad, CA.

Operation Fermentation, 50 entries—David Lee, Dallas, TX.

Alameda County Fair Homebrew Competition (BABO), 256 entries—Jim Williams, Sunnyvale, CA.

BrewFest at Mount Hope Homebrew Competition, 178 entries—Keith Kost, Pittsburgh, PA.

U.S. Open Homebrew Competition, 460 entries—Shawn McBride, Charlotte, NC.

Animas Alers - Ska Brewing GABF Pro-Am, 107 entries—Ernie Smith, Casper, WY.

Nebraska Shootout, 51 entries—Douglas Finke, Omaha, NE.

22nd Spirit of Free Beer Homebrew Competition, 489 entries—Patrick Gibson, Charlottesville, VA.

Bloatarian Open - Club Only Competition, 186 entries—Andy Weigel, Munhall, PA.

Lansing's Hopped Up Home Brew Competition, 67 entries—Rob Morse, Commerce, MI.

BUZZ OFF 20, 446 entries—Michael Grippi, Bensalem, PA.

The Upstate's Premier Homebrew Competition, 40 entries—AJ Ford.

Heart of Cascadia, 38 entries—Patrick Schneider, Alpine, TX.

32nd Annual Oregon Homebrew Festival, 206 entries—Tom Litwin, Portland, OR.

8 Seconds of Froth, 215 entries—Adam Frank, Denver, CO.

Beer Bacon Music, 284 entries—Beth Gangloff.

OC Fair Homebrew Competition, 563 entries—James Hilbing, Redondo Beach, CA.

Whiskey Row Brew Club UK Beer Style Competition, 10 entries—Josh Kirk, Prescott, AZ.

King of the Mountain, 209 entries—Kyle Roth Ferndock, Euclid, OH.

Hopfest, 84 entries—Robert Dieterle, Overland Park, KS.

19th Annual Big Batch Brew Bash, 96 entries—Donald Sajda, Spring, TX.

Aurora Brewing Challenge, 376 entries—Rick August, Regina, Saskatchewan, Canada.

VanBrewer Awards, 327 entries—Hiroshi Tsukada, Vancouver, British Columbia, Canada.

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KUDOS—BEST OF SHOW

AHA/BJCP Sanctioned Competition Program

Great Alaska Craftbeer and Homebrew Festival, 87 entries—Josh Hoines, Joshua Tree, CA.

Sudwerks Pro-Am, 22 entries—Steve Katz, Richardson, TX.

ASH HBOY English Ales, 37 entries—Mike Russell, AZ.

Northern Arizona Memorial Day Homebrew Competition, 15 entries—Bill Kurmes, Flagstaff, AZ.

Vista Strawberry Festival Homebrew Competition, 23 entries—Chris Barry, Vista, CA.

Battle of the Bubbles IV, 64 entries—Rob Farrell, Colesville, MD.

Minneapolis Cider Week Competition, 82 entries—Brett Glenna, Lakeville, MN.

SoCal Homebrew Supply First Annual Homebrew Competition, 350 entries—Charles Nevel, Lake Elsinore, CA.

BioMarin Brewers' Cup, 14 entries—Pablo Romero, Santa Rosa, CA.

California State Fair Homebrew Competition, 666 entries—Alex Larrabee, El Dorado Hills, CA.

Joel's Ride - 2nd Annual Competition for Charity, 85 entries—James Andrews, Oklahoma City, OK.

Beer Quest SMaSH, 21 entries—Matt Burg, Omaha, NE.

2014 CRAFT Invitational - Light Hybrids, 11 entries—Jason Volante, Fraser, MI.

2do Concurso Somos Cerveceros 2013-2014, 112 entries—Santiago Asteasaran.

Hop Blossom Homebrew Competition, 198 entries—Kyle Motley, Winchester, VA.

San Diego County Fair Homebrew Competition, 685 entries—Brian McClure, San Diego, CA.

Sasquatch Beer Fest Home Brew Competition, 81 entries—Bill Nave and Justin Lang, Eugene, OR.

June 2014

The Mash Bash, 79 entries—Tim Sheehan, Philadelphia, PA.

Steel City Brewfest, 114 entries—James White, Colorado Springs, CO.

All-American Beers Competition 2014, 20 entries—Michael Handke, Lantana, TX.

Bluegrass Cup, 323 entries—Christopher Owen, Louisville, KY.

Upland Brewing Company UpCup, 58 entries—Michael Calvin, Columbus, IN.

Odyssey Beerwerks Inaugural Homebrew Competition, 61 entries—Herb Snogren, Littleton, CO.

Alamo City Cerveza Fest, 362 entries—Paul Dietert, Houston, TX.

The Beer Project, 39 entries—Matthew McKinnon, Tampa, FL.

Treće hrvatsko homebrew natjecanje, 192 entries—Ivan Kuze, Zagreb, Croatia.

Devils Peak Homebrewing Competition, 54 entries—Greg Casey & Shawn Duthie, Cape Town, South Africa.

Door County Homebrewing Championship, 60 entries—Rich Wolter, Arlington Heights, IL.

London and South East Craft Brewing Competition, 156 entries—Josh Smith, London, England.

Hangar 24 Craft Brewery 5th Annual Homebrew Competition, 387 entries—Scott Satterthwaite, Sunnyvale, CA.

I Concurso Sul Brasileiro de Cervejas Caseiras, 309 entries—Gastao Oscar Berndt Junior, Curitiba, PR, Brazil.

California State Fair Commercial Beer Competition, 850 entries—Ryan Graham, Sacramento, CA.

Clash of the Tartans, 17 entries—Shawn McDyre, Billings, MT.

Copa Cerveceros Caseros de Chile, 72 entries—Claudio Gonzales, Santiago, Chile.

BricktownE Beerzilla 2014, 39 entries—Steve Ferrell, Grants Pass, OR.

Great Canadian Homebrew Conference Competition, 227 entries—David Scannell & Sana Tapal, Toronto, Ontario, Canada.

Barley's 19th Annual Homebrew Competition, 54 entries—Eric Yousey.

2014 CRAFT Invitational - American Ales, 19 entries—Michael Carr, Port Huron, MI.

Kohler Festival of Beer Homebrew Competition, 37 entries—Ken Megal, Milwaukee, WI.

Homebruin Cup IV, 33 entries—Michael Caylor, Knoxville, TN.

Tijuana Homebrew Club, 26 entries—Sergio Mendez, Tijuana, Mexico.

Red River Valley Fair Homebrew Competition, 11 entries—Derek Wolf, Harrisburg, PA.

July 2014

July LIBME Monthly Club Comp, 10 entries—Chris Kelley.

AHA/BJCP SANCTIONED COMPETITION PROGRAM CALENDAR

For complete calendar, competition and judging information go to www.HomebrewersAssociation.org/pages/competitions

September 1
Competencia Profesional Cerveza Mexico 2014
Mexico DF, Distrito Federal, Mexico. Entry Deadline: 7/27/2014. www.copacerveza.mx

September 2
Copa Cervezas de America
Temuco, Chile. Entry Deadline: 8/15/2014. www.copacervezasdeamerica.com

September 3
Competencia Amateur Cerveza Mexico 2014
Mexico DF, Distrito Federal; Mexico. Entry Deadline: 7/27/2014. www.copacerveza.mx

September 6
Schooner Homebrew Championship
Racine, WI. Entry Deadline: 8/23/2014. http://theschooner.org/

September 6
Pacific Brewers Cup
Los Angeles, CA. Entry Deadline: 8/23/2014. http://pacificbrewerscup.pacificgravity.com

September 6
National Organic Brewing Challenge
San Francisco, CA. http://breworganic.com/

September 6
Third Annual Consumer's Beverages Homebrew Competition
Buffalo, NY. Entry Deadline: 8/23/2014. www.consumersbeverages.com/news/homebrew-competition.html

September 6
Santa Cruz County Fair Homebrew Competition
Watsonville, CA. Entry Deadline: 8/17/2014

September 6
Ramona Homebrew Competition
Ramona, CA. Entry Deadline: 8/31/2014. www.chuckalek.com/RHC

September 6
2014 Sun City Craft Beer Festival Home Brewing Competition
El Paso, TX. Entry Deadline: 9/2/2014. www.suncitycraftbeerfest.com

September 6
Barley and Hops Hoopla
Columbia, MO. Entry Deadline: 8/15/2014. www.drinkmobeer.org

September 6
NC Brewers' Cup Homebrewer Competition
Hillsborough, NC. Entry Deadline: 8/19/2014. www.ncstatefair.org/2014/Competitions/Entering/BeerCompetition.html

September 7
Tulare County Fair Home Brew Competition
Tulare, CA. Entry Deadline: 8/22/2014. www.tcfair.org

September 7
The 2014 Great Frederick Fair
Frederick, MD. Entry Deadline: 9/6/2014. http://thegreatfrederickfair.com/wp-content/uploads/2014/06/FG.pdf

September 7
2014 Society of Barley Engineers Homebrew Competition
San Marcos, CA. Entry Deadline: 8/24/2014. http://societyofbarleyengineers.org/bcoem/

September 12
Wort Hog Homebrew Festival
Tucson, AZ. Entry Deadline: 8/29/2014. www.tucsonhomebrewclub.com/dm2014/

September 13
Sowers Cup
Lincoln, NE. Entry Deadline: 8/29/2014. www.lincolnlagers.com

September 13
Tulsa State Fair Homebrew Competition
Tulsa, OK. Entry Deadline: 9/5/2014. www.tulsastatefair.com

September 13
Blue Ridge Brew-off
Asheville, NC. Entry Deadline: 9/5/2014.

September 13
Malt Madness VIII
Allentown, PA. Entry Deadline: 8/28/2014. www.lvhb.org

September 13
DRAFT Brewfest 2014
Dayton, OH. Entry Deadline: 9/3/2014. www.brewfest.brewcompetition.com

September 14
8th Annual KROC Great American Beer Challenge
Broomfield, CO. Entry Deadline: 9/6/2014. http://kroc.brewcompetition.com/

September 20
Western Australian State Amateur Brewers Competition
Perth, WA, Australia. Entry Deadline: 9/17/2014. http://wasabc.org/

September 20
Commander SAAZ Interplanetary Homebrew Blastoff!
Cocoa Beach, FL. Entry Deadline: 8/26/2014. www.saaz.org/cms/?page_id=1850

September 20
2nd Annual Grace Lutheran Bier Brauen
Sandy, UT. Entry Deadline: 9/6/2014. www.lightcapsolutions.com/BierBrauen2014

September 20
17th Annual Cactus Challenge
Lubbock, TX. www.ale-iansociety.org/cactus/

September 20
State Amateur Brewers Show of South Australia
Adelaide, South Australia. Entry Deadline: 9/6/2014. www.sabsosa.com

September 20
KFB Brew Fest
Florence, SC. Entry Deadline: 9/13/2014. http://keepflorencebeautiful.org/

September 20
Roberts Cove Germanfest Homebrew Competition
Crowley, LA. Entry Deadline: 9/16/2014. www.robertscovegermanfest.com

September 20
Fresno Fair Homebrew Competition
Fresno, CA. Entry Deadline: 9/6/2014. www.sjworthogs.org/competition.html

September 20
Texas Mead Association 2014 Competition
La Grange, TX. Entry Deadline: 9/4/2014.

September 27
HAZtoberfest
Erie, PA. Entry Deadline: 9/13/2014. http://brew-competition.hazardhomebrewing.org/

September 27
Arizona Society of Homebrewers Oktoberfest
Scottsdale, AZ. Entry Deadline: 9/19/2014. http://club.azhomebrewers.org/page/competitions-1

September 27
Maryland Microbrewery Festival Homebrew Competition
Westminster, MD. Entry Deadline: 9/14/2014. http://mdmicrobrewfest.brewcompetition.com/

September 27
Burgfest Home Brew Competition
Warrensburg, MO. Entry Deadline: 9/17/2014. http://warrensburghomebrewcompetition.com/

September 27
XBrew
Redmond, WA. Entry Deadline: 9/20/2014. http://xbrew.azurewebsites.net/

September 27
Son of Brewzilla
Middleburg Heights, OH. Entry Deadline: 9/13/2014. http://beersnobs.org/contest/

September 27
Michigan Mead Cup
Frankenmuth, MI. Entry Deadline: 9/7/2014. www.michiganhoneyfestival.com

September 27
Queensland Amateur Brewing Championship
Brisbane, Queensland, Australia. Entry Deadline: 9/13/2014. www.qabc.org.au

September 27
Uptown's Beer & Wine Festival
Columbus, GA.

September 27
2014 CRAFT Invitational - European Amber Lager
Macomb, MI. Entry Deadline: 9/24/2014. http://crafthomebrewclub.org/gpEasy/index.php/Rules

September 28
Bavarian Beer Bash
Vevay, IN. Entry Deadline: 9/26/2014.

FOR AN UP-TO-DATE CALENDAR OF AHA SPECIAL EVENTS GO TO:
www.homebrewersassociation.org/aha-events/calendar/

AHA/BJCP SANCTIONED COMPETITION PROGRAM CALENDAR (CONTINUED FROM PAGE 79)

October 1
Half Pints Pro/Am Brew Challenge
Winnipeg, Manitoba, Canada. Entry Deadline: 9/19/2014. http://winnipegbrewbombers.ca

October 4
Celebrewtion 2014
Sacramento, CA. Deadline: 9/22/2014. www.goldcountrybrewers.org

October 4
Orpheus Cup MeadFest
Denver, CO. Entry Deadline: 10/4/2014. www.orpheuspcc.org

October 4
University City Home Brew Contest
San Diego, CA. https://www.uc-educate.org/

October 4
Ale Riders' Homebrew Competition
Rapid City, SD. Entry Deadline: 9/12/2014. www.aleriders.org

October 4
Members of Barleyment & Beau's Oktoberfest Homebrew Competition
Ottawa, Ontario, Canada. Entry Deadline: 9/12/2014. http://mob-competitions.tumblr.com/

October 4
O'Zapft Is! German Homebrew Competition
Fort Worth, TX. Entry Deadline: 8/31/2014. http://ozapfthomebrew.com/

October 4
The Old Forge Old Ale Competition
Old Forge, NY. Entry Deadline: 9/8/2014. http://kencarman.wix.com/oldforgeoldale

October 5
Big Muddy Monster Brew Fest Home Brew Competition
Murphysboro, IL. Entry Deadline: 9/21/2014

October 5
Southern New England Regional Homebrew Competition
Stratford, CT. Entry Deadline: 9/20/2014. www.undergroundbrewers.org/snerhc/

October 11
2014 Delafield Brewhaus Schnapp Hans Cup
Milwaukee, WI. Entry Deadline: 9/27/2014. http://schnapphanscup.com/

October 11
West Texas Shootout
Abilene, TX.

October 11
Queen of Beers
Placerville, CA.

October 11
Arizona Mead Cup
Phoenix, AZ. Entry Deadline: 10/4/2014. www.brewarizona.org

October 11
Beer and Chili Challenge
Okawville, IL. Entry Deadline: 10/4/2014. www.beerandchilichallenge.com

October 11
Delaware Home Brew Championship
Dover, DE. Entry Deadline: 10/2/2014. www.delawarewineandbeerfestival.com

October 11
Hirter Uberbrew Homebrew Competition
Chicago, IL. Entry Deadline: 10/3/2014. www.hirter-uberbrew.com

October 18
New England Regional Homebrew Competition
Nashua, NH. Entry Deadline: 10/3/2014. http://bfd.org/nerhbc/

October 18
2nd Annual Nevada State Homebrew Championship
Henderson, NV. Entry Deadline: 10/10/2014. http://snafubrew.com/

October 25
HOPS BOPS XXX
Philadelphia, PA. Entry Deadline: 10/20/2014. http://hopsclub.org/

October 25
27th Annual Southern California Regional Homebrew Championship
Redlands, CA. Entry Deadline: 10/12/2014. www.inlandempirebrewers.com/competition.html

COMMERCIAL CALIBRATION

One way beer judges check their palates is by using commercial "calibration beers"—classic versions of the style they represent. Zymurgy has assembled a panel of four judges who have attained the rank of Grand Master in the Beer Judge Certification Program. Each issue, they score two widely available commercial beers (or meads or ciders) using the BJCP scoresheet. We invite you to download your own scoresheets at www.bjcp.org, pick up a bottle of each of the beverages and judge along with them in our Commercial Calibration.

Just in the nick of time, as summer was starting to heat up, we sent a couple of cans of Premium American Lagers to our judges.

First up was Mexican Logger from Ska Brewing Co. in Durango, Colo. Mexican Logger was first brewed in 2001 as a summer seasonal.

"Before we started brewing Mexican Logger, the heat of summer would hit us in Durango and we'd slip into Pacifico mode, albeit pretty much in the closet, and it became difficult to hide our true selves," admitted Ska president and co-founder Dave Thibodeau. "The only thing we could do was brew our own craft version, so we did, and the recipe remains the same today. And we put limes in it."

Mexican Logger is hopped with Saaz and checks in at 16 IBU and 5.2 percent ABV.

"Mexican Logger accounts for about 12 percent of our overall sales, which is pretty amazing considering it's a seasonal among 12 year-round beers that we package," Thibodeau added.

Craft Lager from Upslope Brewing Co. in Boulder, Colo. is the brewery's top-selling canned beer, made from 100 percent malted barley and hopped with Saaz. It checks in at 4.8 percent ABV and 15 IBU.

"Our Craft Lager was created out of our own desire to have an easy-drinking, lower ABV, 100 percent malt, refreshing beer that everyone could enjoy year-round," said Upslope tap room manager Chad Pieper. "We wanted a beer that we could take on a fishing trip as well as enjoy after a long day in the brewery."

One percent of the total sales from cans of Craft Lager goes to Colorado Trout Unlimited to protect local waterways.

ON THE WEB

Ska Brewing Co.
www.skabrewing.com

Upslope Brewing Co.
www.upslopebrewing.com

BJCP Style Guidelines
www.bjcp.org

Commercial Calibration
HomebrewersAssociation.org/pages/zymurgy/commercial-calibration

(Note: This is a Members Only area of the website)

OUR EXPERT PANEL includes David Houseman, a Grand Master V level judge and competition director for the BJCP from Chester Springs, Pa.; Beth Zangari, a Grand Master II level judge from Placerville, Calif. and founding member of Hangtown Association of Zymurgy Enthusiasts (H.A.Z.E.); Scott Bickham, a Grand Master III judge from Corning, N.Y., who has been exam director or associate exam director for the BJCP since 1995; and Gordon Strong, a Grand Master VIII judge, principal author of the BJCP Style Guidelines and president of the BJCP board who lives in Beavercreek, Ohio.

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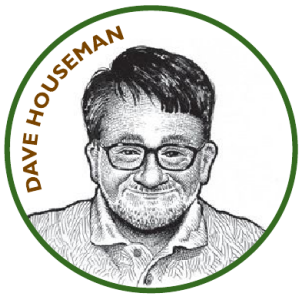
Mexican Logger—Ska Brewing Co., Durango, Colo.
BJCP Category: 1C Premium American Lager

THE JUDGES' SCORES FOR SKA MEXICAN LOGGER



Aroma: Low-medium fruity, herbal hop aroma. High for the style but quite pleasant. Low-medium grainy and slightly toasty, sweet malt aroma. No diacetyl. No DMS. No apparent fermentation esters. Low green apple aroma. Clean. Crisp. (9/12)

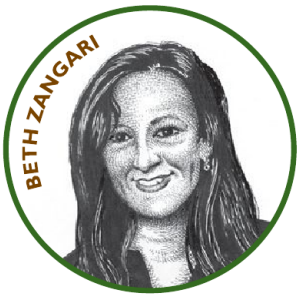
Appearance: Very pale straw with bright clarity. Dense, tight, white, long-lasting head. (3/3)

Flavor: Medium grainy malt with hints of toasted malt and corn. Low but balancing hop bitterness. Low fruity, herbal hop flavor that comes out more as the beer warms and is high for the style. There's a bit of spicy phenol. Finishes with a touch of sweetness. Alcohol presence contributes to the sweetness. No diacetyl. No DMS. (16/20)

Mouthfeel: Medium to thin body appropriate to the style. Smooth, crisp, well-attenuated mouthfeel. Low alcohol warming. Not as highly carbonated as it should be. (4/5)

Overall Impression: A very flavorful American Premium Lager. The grainy and toasty malt and moderately high hop flavor and aroma add complexity and character to this typically less exciting sub-category, even if it does push it over the high end of the style. This canned beer could have more carbonation and some attention to the spicy phenol. This is one American Premium Lager that would appeal to the craft beer drinker and be enjoyable while mowing the lawn, fishing, après sport, and at a cookout on a hot day with burgers and dogs. Even with more flavor than the style suggests, it's quite refreshing. (8/10)

Total Score: (40/50)



Aroma: Pronounced graham cracker and sweet fresh-picked yellow corn graininess dominate first impression. A light slightly bready note and whiff of DMS pass through fleetingly, with a hint of fresh green apple. No overt hop aroma, just a hint of black pepper. (7/12)

Appearance: Pale straw, almost white, with brilliant clarity. Creamy white foam persists. (3/3)

Flavor: Clean light sweet corn-maize graininess, with a hint of graham cracker spice and peppery herbal hop flavor as a background note. A light, crisp bitterness balances the crisp, juicy maize flavors, and accents the low green apple fruitiness. Hop flavor is rounded and smooth like a polished pebble, balances the corn-on-the-cob grassy, sweet graininess. (17/20)

Mouthfeel: Medium-light bodied with spritzy carbonation. Low alcohol warmth, no astringency. Lightly creamy texture, with a dry, lightly lingering finish. (4/5)

Overall Impression: Very clean, yet extremely characterful, with a bit more hop character than I expect from the style. The website states 16 IBU, but it seems more assertive than that. Refreshing and quenching. This is a great "pool beer," and what I think of when I hear the Fountains of Wayne song "Mexican Wine." Think I'd like another glass. (9/10)

Total Score: (40/50)

Aroma: Low to moderate mineral aroma followed by notes of sweet corn. Very low pear-like esters in the background. Floral and herbal notes of Saaz hops lend a sweet onion character, becoming more pronounced as the beer warms. Light biscuit and crackery malt underpins the other aromatics. (10/12)

Appearance: Light straw color with pristine clarity. Carbonation is lower than most premium lagers but enough to support a layer of tight white bubbles on the surface. (2.5/3)

Flavor: Light crackery malt notes up front along with some sweet/creamed corn. Hop flavor is low to moderate in intensity with the signature herbal and floral characteristics of Saaz. Finish is somewhat dry with moderately low bitterness and some mineral notes. Low fruitiness (lowly pear) from the yeast, but also some green apple notes that add complexity without interfering with the overall balance. (16/20)

Mouthfeel: Not quite as crisp as most classic examples of this style. This is likely due to a somewhat lower carbonation level, which makes the beer a little smoother, but at the expense of making it heavy on the palate. A touch of chalky astringency at the very end. (3.5/5)

Overall Impression: A well-crafted beer, complex and balanced. Might be an eye-opener for those expecting it to be boring. It showcases Saaz hops without being over the top, although the finish seems more German than Bohemian due to the mineral notes and slight chalky dryness. (7/10)

Total Score: (39/50)

Aroma: Initial whiff of fresh, grassy hops—nice. Kind of herbal-spicy in character. Neutral grainy malt in the background. Hops are moderately strong. Seems quite clean otherwise. The hop character isn't fleeting; it persists. The hops are higher than typical, but very interesting. (10/12)

Appearance: Quite pale—deep straw color. Crystal clear. Moderate-sized white head with fair retention. (3/3)

Flavor: Initial clean grainy malt (med-low) with a moderate herbal-spicy hop flavor. Med-low bitterness with a crisp, dry finish. Light herbal hops in the aftertaste. Just a hint of corny DMS, slightly sweet palate impression, which lasts through the finish. (17/20)

Mouthfeel: Medium body, just a touch heavy. High carbonation gives it a carbonic bite. Overall, has a smooth texture until that late bite, which improves drinkability. (4/5)

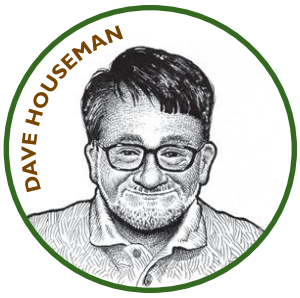
Overall Impression: Reminds me of a Corona, just with some late hop character. A touch heavy in the body; it does finish crisp, though. Hint of DMS makes it seem a bit sweet too. Fairly clean beer—the hops are definitely appealing without skewing the bitterness-malt balance. As an experiment after I finished judging, I gave it a small squeeze of lime and it perked up the flavor and thinned the body, which made it even more drinkable. (8/10)

Total Score: (42/50)

Illustrations by Terry McNerney

Craft Lager—Upslope Brewing Co., Boulder, Colo.
BJCP Category: 1C Premium American Lager

THE JUDGES' SCORES FOR UPSLOPE CRAFT LAGER



Aroma: Very low grainy malt aroma with a hint of corn-like notes. No hop aroma. No diacetyl. No DMS. No esters. No alcohol. Very little aroma at all. Crisp. Clean. (10/12)

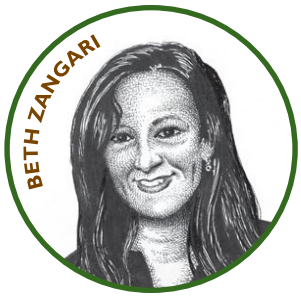
Appearance: Medium yellow color. Bright clarity. Rocky, white, long-lasting head. (3/3)

Flavor: Grainy, slightly toasty malt sweetness with medium, balancing hop bitterness. Medium-low Saaz hop flavor. No diacetyl. Some corn-like notes but no DMS. Finishes with a nice balance of malt and hops, with just a little lingering bitterness. Alcohol not apparent. Not fruity but ale-like rather than crisp lager-like character. (17/20)

Mouthfeel: Medium to medium-thin body. Low carbonation; could be higher. Smooth mouthfeel with little alcohol warming. Bit full mouthfeel for style that would have been helped by higher carbonation. (3/5)

Overall Impression: Very drinkable and enjoyable. More flavor than a typical American Premium Lager. Although it seems closer to a lagered Cream Ale than an American Premium Lager, it was well made, just needing more carbonation and perhaps more lagering time to enhance the crispness. Still a very good craft beer interpretation of this style. Really pleasant malt and hops that anyone who likes craft beer would enjoy with Thai, Chinese, or barbecue. (7/10)

Total Score: (40/50)



Aroma: Fairly strong sweet maize aroma dominates, with whispers of a more graham-like graininess. Extremely low herbal hop aroma emerges on a swirl, but disappears quickly. Extremely clean fermentation. (7/12)

Appearance: Brilliant clarity, light straw color. Light fluffy white foam forms, but dissipates quickly. (3/3)

Flavor: Light maize flavor with hints of graham graininess, evolves to a sugary sweetness with low notes of green apple (acetaldehyde) showing midway and into the finish. An herbal hop flavor makes a cameo appearance, then retreats to obscurity. Balanced to the sweet graininess, though a low hop bitterness provides for a clean finish. (15/20)

Mouthfeel: Light bodied with somewhat spritzy carbonation. A low alcohol warmth shows in the somewhat dry, very clean finish. (5/5)

Overall Impression: A super slammer lawnmower beer. The super clean fermentation and clean, sweet graininess in the initial sip invite more. The body and alcohol are both extremely light, nudging toward the Lite American Lager category classification, though certainly with more flavor. This is a great beer to sip at the top of the mountain on a day hike, or after a day on the river. (7/10)

Total Score: (37/50)

Aroma: Very clean aroma. Some faint green apple notes. The malt is low as well, with light bready notes. I pick up some DMS as it breathes, but these are subtle with more of an onion character than corn. No hops are evident. (10/12)

Appearance: Light straw in color with excellent clarity. The head forms nicely with a layer of tight white bubbles that leaves nice lace on the glass. (3/3)

Flavor: A very smooth beer with some complexity and slight lingering hop bitterness. Soft malt flavor with light bready and biscuit notes, leading into moderately low sulfur notes that speak to the use of lager yeast. Very low esters in the background but not at a high enough level to identify. The low to moderate hop bitterness produces a somewhat dry finish. Metallic notes and a slight sourness are often a signature of a low level of oxidation. (16/20)

Mouthfeel: Light to medium body, with very low residual sugars. Some metallic notes and a touch of astringency. Low alcohol adds a little sweetness but no warmth (appropriate for the style). (4/5)

Overall Impression: A nice session beer highlighted by an impressively clean fermentation. The malt bill provides a nice backbone without adding any graininess. The metallic and sour notes in the flavor could indicate some oxidation, but at a very low level that does not substantially detract from a finely crafted lager. Well done! (7/10)

Total Score: (40/50)

Aroma: Mild herbal hop aroma. Light grainy malt with a slight DMS character. Slight impression of sweetness. Fairly neutral. (9/12)

Appearance: Pale gold color. Medium-sized white head, fair persistence. Mostly clear but not brilliant. (2/3)

Flavor: Toasty malt initially with a slightly sweet palate, med-low bitterness, and a crisp, dry finish. Hop flavor is med-low and spicy-herbal. Aftertaste is slightly malty-sweet with a light hop taste. Seems clean. Toasty malt notes come out a bit more as it warms. (15/20)

Mouthfeel: High carbonation—mouth-filling bubbles. Medium body, a touch thick. Smooth with a carbonic bite. (4/5)

Overall Impression: A little heavy on the palate. The toasty notes are a bit unusual (and distracting) but the hop character is welcome. Clean and easily drinkable beer. (7/10)

Total Score: (37/50)

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by Charlie Papazian

Hop-Enhanced Deliciousness

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I've sipped, tasted, and enjoyed many different ales and lagers as I continue my personal journey into the realm of hops and beer. My thoughts have been simmering for several years.

I've asked several hop experts and scientists whether they were aware of protein studies regarding hops. No one could recall any brewing-related studies on this subject. Fortunately I had also asked Ray Marriott, who has worked in the hop industry specializing in extracts of hops and other plants. He embarked on a wider search and found an interesting study that really began to support a hop thesis I'd been thinking about.

In 1979, the American Chemical Society published an article, "Protein Quality Evaluation of Spent Hops." This wasn't an article that brewers or beer enthusiasts (there weren't many in 1979) would have noticed, as hop protein is not typically of interest. This was a study of interest to animal feed providers. The study reported that brewers' spent hops contained 20 to 22 percent protein.

I was surprised and excited.

In the study, the protein content was broken down by "aa." That's not "alpha acid" but rather "amino acids." Of the 21 different amino acids assessed, the one that caught my eye was glutamic acid, which accounted for 15 percent of all the protein in the spent hops. The study doesn't mention the type of hops, but given that the data was derived in Poland in 1976, there is reason to believe it wasn't too far removed from traditional noble hop varieties. Cascade was possibly the only "new" hop variety released into production at that time.

Why am I so excited about glutamic acid in hops? Because it is the principal amino acid that stimulates "umami," a taste perception that can make food or drink seem more "delicious" and appealing.

If you recall, I wrote about umami in my May/June 2011 Worts column ("Pairing Beer and Umami"). Umami is not a single flavor; rather it is a range of flavors often insufficiently described as brothy or savory with a particular mouthfeel. Umami is the triggering and intensification of certain protein flavors. Chemically, the principal compounds composing umami originate from glutamate (found in seaweed, certain vegetables such as tomatoes, parmesan cheese, anchovies, and soy sauce), inosinate (meat and fish), and guanylate nucleotides (certain mushrooms).

Combining different elements of umami creates intensified flavor experiences. Combining acidic food and beverages with umami proteins also intensifies flavor experiences. Beers that combine with certain foods can elevate umami, enhancing food and beer combinations.

When enjoying beer with meals, it is worthwhile to understand that:

- Umami often subdues acidity, bitterness, and sweetness
- Umami is elevated by acidity, salt, and bitterness
- Umami balances bitterness and acidity
- Umami intensifies the taste of salt

Beers that don't have umami can enhance the umami deliciousness of certain foods due to the beer's bitterness or acidity.

"...A CERTAIN BALANCE OF GLUTAMIC ACID DERIVED FROM BREWERS YEAST IN BEER DOES ENHANCE OTHER FLAVORS BOTH IN THE BEER AND WITH OTHER FOOD."

Acidity can come from:
- Roast character
- Carbonic acid
- Fruit-derived acids
- Bacteria-derived acids

Bitterness can come from:
- Hop isomerized alpha acids
- Other hop compounds
- Other agricultural product compounds
- Caffeine, cocoa, various herbs, spices

Can beer have umami character in and of itself? We know that yeast is partially made up of many proteins, including glutamic acid. That is why you see "yeast extract" or "dried yeast" listed as an ingredient in tasty food products such as Grape-Nuts, candy bars, biscuits, and cookies. So we can ascertain that a certain balance of glutamic acid derived from brewer's yeast in beer does enhance other flavors both in the beer and in other food.

Digging Deeper into Hops

I suspect that there is another source of umami protein in hops—not all hops, but certain varieties. I've been told that the amount of glutamic acid in hops is a genetic trait. I suspect that many hybrid varieties have inadvertently had glutamic acid bred out of them and perhaps in some hybrids it has been intensified. I suspect that noble hop varieties have a significant amount of glutamic acid in their makeup. Why? Because I can taste it.

The flavor-enhancing qualities of Saaz, Spalt, Hallertau, Tettnang, and Hersbruck are eerily reminiscent of the umami sensation. Beers made using these hops grown in their native lands often have a deliciousness and character unique from other beers using other or newer hop varieties. I suspect other classic varieties such as U.K. Fuggle and U.K. Golding have relatively high glutamate content. Newer varieties such as Simcoe, Columbus, and maybe even Summit might have a significant amount of glutamic acid. I might even venture to suspect that the American Cluster hop, popular before the late 1970s, also has enough glutamic acid to enhance the flavor of beers made from these hops. American wild hops might also be more likely to have these characters.

We've always recognized the special character and popularity of beers brewed with particular yeast, such as hefeweizen, kellerbier, cask ale, bottle-conditioned beer, and authentic Belgian-style witbier. Their characters have always enhanced food pairings and also have their own standalone, satisfying deliciousness.

Perhaps now there's another source of deliciousness to learn more about: hop-enhanced umami deliciousness.

Testing My Theory

To demonstrate umami character in your homebrew, brew a five-gallon (19-liter) batch of your favorite Bohemian/Czech style lager or German Pilsener. Use a classic amount of only Czech-grown Saaz hops or German-grown Hallertauer Hallertau, Tettnanger Tettnang or Hersbrucker Hersbruck for boiling and late kettle hopping. Then, be sure to dry hop with ¾ ounce (21 g) of these hops in the secondary during the last week of lagering. To intensify the dry hop character, be sure the yeast has ceased activity and has settled. Active yeast in suspension can digest dry hop flavor and aroma compounds and alter their character. Adding these dry hops to clear cold-lagered beer will accentuate the umami character contributed by these hops.

Of course you can do this same exercise with other beer styles, but the delicate umami character, while still there, may be overwhelmed by other, more aggressive fermentation and malt characters.

Charlie Papazian is founder of the American Homebrewers Association.

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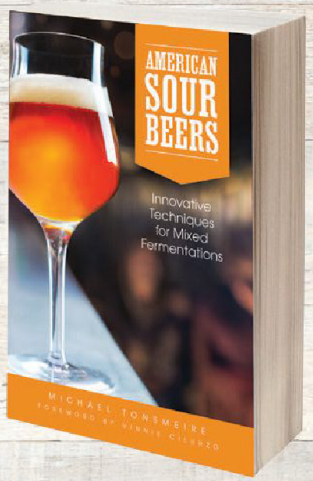

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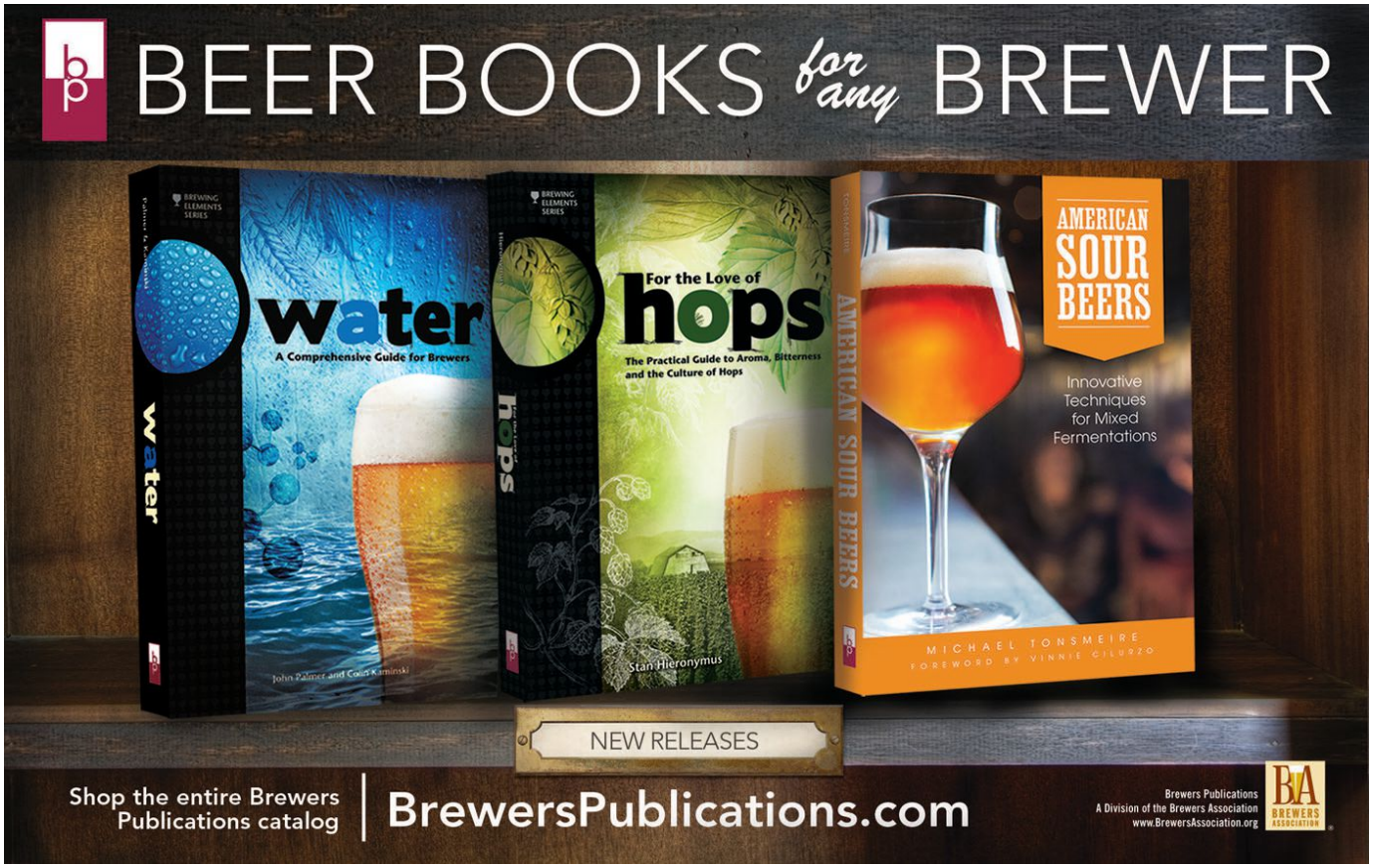

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By Andrew Luberto

Suds and Serendipity

On May 11, author and homebrew guru John Palmer visited our homebrew club, The Long Island Beer and Malt Enthusiasts (LIBME). The visit was part of a mini book tour Palmer was doing in conjunction with the Brooklyn homebrew shop Bitter & Esters to promote *Water: A Comprehensive Guide for Brewers*, the third installment of the Brewing Elements series published by Brewers Publications.

As head of the education committee for LIBME, I've helped arrange a number of educational events for the club and it always surprises me how what at first seems like an obstacle to an event later becomes an asset. When John La Polla, owner of Bitter & Esters and Palmer's liaison for the weekend, informed me that the only available time that they could fit us in would be 9 to 11 a.m. on a Sunday, I have to admit I was a bit disappointed.

However, when we approached Pete Mangouranes, co-owner of The Good Life, a local craft beer pub and friend of the club, about using his space, he had the idea of creating a three-course beer brunch to go along with the talk. So because of this early time slot, not only did we have John Palmer coming to speak to our club, we now had a gourmet beer brunch to look forward to as well. Apparently a John Palmer seminar fits into that rare category of events, alongside fishing and golf, where it's socially acceptable to consume alcohol at 9 in the morning.

On top of that, the day before the event, Mangouranes texted me about being on the fence with his choice of the first beer for the brunch: Mephistopheles imperial stout from Avery Brewing, checking in at 17 percent ABV. He was concerned about a beer that big that early to start off a brunch. Unfortunately, he happened to text me while I was at Blue Point Brewing Co. for the AHA Big Brew day, and in this crowded celebratory atmosphere, a 17-percent beer at 9 a.m. seemed to make sense. The next morning, when I thought about it again, I had serious misgivings to say the least; when I voiced them to Mangouranes, he shrugged nonchalantly and said "eh, make everybody friendly."

LIBME president Todd Long, John Palmer, and Andrew Luberto

Looking back, it was indeed very friendly. Palmer was remarkably easygoing about the whole event, even when my wife accidently hit the play button on his laptop a few times while helping to advance his power point slides, kicking in an unintended soundtrack over his talk. We had also invited members of other local homebrew clubs, giving us an opportunity to float ideas about coordinated regional homebrew events. Afterward, La Polla said he'd be in touch to help "plan our takeover of the world."

Everyone was on the same page about collaboration and growth. It occurred to me that our local event that day was a microcosm of the craft beer world in general, where everyone is working toward the greater good and general advancement of the industry, hobby, and appreciation of craft beer. And it felt good.

Andrew Luberto is a Certified BJCP judge, homebrewer, and mead maker who lives in Nesconset, N.Y.

Photos courtesy of Jennifer Davis and Jacki Brandi

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