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Brew Over

Two corrections are due for Franz D. Hofer's feature in *Zymurgy* Nov./Dec. 2024.

The title of Beer Hiking in Bavaria Part 2 should in fact be Beer Hiking in Germany Part 2, as Rothaus extends beyond the border of Bavaria, and the recipe for Hanz & Franz Festbier begins with a reference to "landbier Märzen" when in fact it should simply be "Märzen," as the two styles are distinct.

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INCREMENTAL IMPROVEMENTS: Innovation and Renovation

I may never be able to afford a Porsche 911, but I'm a big fan of the performance, design, and engineering that's gone into that vehicle over the years. Introduced in 1964, the rear-engine sports car featured an air-cooled, flat-six engine that was even turbo charged if you sprung for the 930. Beginning in 1989, the second generation added power steering and anti-lock brakes with the 964. Generation three featured perhaps one of the best air-cooled engines of the late 90s, whereas gen four's 996 model saw a shift to a water-cooled powerplant. In 2005, Porsche released the fifth-generation 997 which increased power and made the track-focused GT2 and GT3 variants available. Gen six in 2012 focused on reducing weight and improving the balance of the vehicle, while gen seven, introduced in 2019 (and still the current generation), improved aerodynamics, handling, and added advanced driving aids. With each subtle innovation came an incremental improvement as Porsche continues to strive for perfection in each iteration of the 911 model. You've heard the old expression, "If it ain't broke, don't fix it," but Porsche engineers and designers are natural born tweakers, and rather than scrap the 911 and move on to something else, they know that each little improvement brings them closer to the ideal.

This is not unlike the mindset of those who enter the National Homebrew Competition...each of the 50 beer, mead, and cider styles available to enter in 2024 is defined by parameters set by the Beer Judge Certification Program (BJCP), and with thousands of entries, only those who have honed their craft, technique, and rec-

ipes have a chance of earning a gold, silver, or bronze medal. Many of the best brewers, cidermakers, and meadmakers suggest brewing the same recipe multiple times, changing only one thing each time to learn how it affects the finished beverage...the timing of a mead's nutrient additions, for example, or maintaining a different temperature during a hop stand, or the adoption of malolactic fermentation for a cider.

But while carmakers can be secretive about their proprietary technology, homebrewers, and craft brewers who were once homebrewers themselves, strive to instead share information on making improvements. Shared in this issue are recipes and detailed notes from nearly all 50 categories—it always surprises me how forthcoming and generous these master brewers are with information that will inspire others to improve. So thank you, NHC gold medalists, for volunteering to fill this issue with the result of all your hard work and renovation.

The flip side of that relentless desire to improve is coming up with solutions to brewing problems. This issue not only features NHC medal winners, and AHA members who have taken an award-winning recipe and teamed up to have it brewed in tandem with a craft brewer in the GABF Pro-Am competition, it also includes your DIY brewing creations, workarounds, and hacks in our Gadgets feature. We had a tremendous response this year to our request for gadgets submissions, and I very much wish we had space in the issue to feature them all, but included are 15 of the best.

Again, thank you AHA members for your intellectual generosity...your gadgets will help other brewers improve their process and understanding of our favorite hobby. As luck and timing would have it, we're packing NHC results, Pro-Am winners, and Gadgets into this single issue, and it's all brought to you by Zymurgy copy editor Adriana Terron.

If that weren't enough, frequent Zymurgy contributor Ryan Pachmayer shares his experience with an old tradition that seems to be making a comeback with both old- and new-world lager brewers: the use of a large, metal pan for wort cooling called a coolship. Read how this ancient technique can be used by craft and homebrewers alike to make one more incremental improvement to brewing lager beers.

Finally, world traveler and linguistic talent David J. Schmidt takes us back to the Guianas to document the remainder of his fermentation explorations in French Guiana, Guyana, and Suriname. We hope his discoveries of ancient brewing traditions encourage you to get out, travel, and explore the world's styles. Or perhaps they will inspire a brilliant fermentation of your own, which you can then, step by step, improve and refine until it approaches perfection.

Amahl Turczyn is editor-in-chief of Zymurgy.

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NHC WINNERS

The National Homebrew Competition is the world's largest stage for amateur homebrewers to display their skills, creativity, and passion for fermentation, and recognizes the most outstanding homebrewed beer, mead, and cider.

By Adriana Terron



PRO-AM

The Pro-Am Competition, now in its 18th year, offers commercial brewers and AHA members who have won an award in an AHA- or BJCP-sanctioned competition the chance to partner up and compete for the highest distinctions.

By Adriana Terron



GADGETS

Zymurgy's annual gadgets feature is dedicated to homebrewers finding creative, thrifty, do-it-yourself solutions to life's beermaking problems. Thank you all for sharing your innovative gadgets, hacks, and workarounds.

By AHA Members



A COOL TRADITION

Few breweries still employ coolships for lagers. The extra step in the process, the maintenance, and the physical footprint of these large wort coolers make it impractical, but you can still find them in many countries, and for good reason.

By Ryan Pachmayer



BREWING IN THE GUIANAS, PART TWO

The Guianas are home to a variety of languages and cultures, and a diverse array of brewing traditions. Join David Schmidt as he learns about the Maroon brewing culture of Suriname and craft brewing in French Guiana.

By David J. Schmidt

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Vol 48 • No. 1
January/February 2025



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By Julia Herz

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LAST DROP

Respect the Extract

By Steve Ruch



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(zī'mərjē) n: the art and science
of fermentation, as in brewing.



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Tested Products

We at the AHA love reviewing products we think will be of interest to our members. We'll give you the lowdown on the good, the bad and the pricey.

THE SPIKE GRAIN MILL

Spike set about making a bulletproof, over-engineered grain mill for both amateur and professional brewers, keeping in mind durability, adjustability, noise, dust, an even crush, and plenty of power. They sent us one to fiddle with, and we were mightily impressed... we'd say they succeeded on each of those fronts.

What We Liked:

- First, the fit and finish are excellent. The black plastic cowlings hide the chain-driven motor, which on the homebrew model plugs directly into a standard 110V house current outlet. It's motorized and plenty powerful, yet weighs only about 25 pounds, and is compact even with the hopper.
- The only assembly necessary is attaching this hopper to the main body of the mill. A steel grate over the rollers keeps fingers and neckties from getting drawn in, but allows grain to pass through. The rollers are hardened 1144 steel, with a Rockwell rating of 45C, and are machined in a helical pattern to grip the grain kernels and provide enough shearing to give you an even crush while keeping husk material intact for better lautering. While the roller speed is not adjustable, once you hit the ON button, you'll be pleasantly surprised at how quietly the mill operates.

The Little Details Add Up

- The thought that went into the design and engineering of this mill is impressive. For example, there is a die cut aluminum fork at the back of the mill

so you can roll up the sturdy power cable when you're storing the mill, just to keep things tidy.

- The hopper is sized so that when filled with grain, it will mill just the right amount to fill a standard 5-gallon bucket.
- A clear plastic bucket mount beneath the mill fits snugly to the bottom of the mill, keeping grain dust to a minimum.
- The knob to adjust the roller gap is tight and spring loaded, so it's set it and forget it—that gap does not change throughout the milling session, and the increments are actual, logical fractions of an inch.
- Throughput is competitive with other mills in, and even above, the Spike mill's price category.
- Milling is one of our least favorite parts of the brew day. For anyone who has used a cordless hand drill-powered mill for ages, it's noisy, messy, and inefficient. Using the Spike was effortless, and we were shocked to find how even the crush was...no old maids! We used a gap setting of 0.025", which was on the lower end of the recommended range (Spike recommends a 0.035" crush), but we had

no issues lautering and enjoyed some truly excellent mash efficiency. The actual mill gap range goes from 0.00" to 0.07", so you can go even tighter than we did, and it's great to have this option, as sometimes malt (especially wheat malt) can have serious plumpness issues some harvest years. This mill should be able to give you the perfect crush on any of the standard brewing grains, even if the malt you get is tiny.

What Could Be Better:

- It's not often one buys a piece of equipment that just works and seems to do everything that's asked of it. The Spike Mill is that—it's hard to find fault with it anywhere. But the price will be a barrier for some homebrewers out there. It is not a cheap mill, even though it's competitively priced with other high-end motorized mills on the market. After using it for a couple of brews now though, we think you'll actually find yourselves looking forward to milling. We're convinced it's completely worth the price of admission.



BEER QUIZ

What's one advantage of drinking beer from a glass rather than a bottle or can?

- A. The beer will stay colder
- B. The beer is less likely to skunk
- C. The consumer will experience more of the aroma
- D. It's less likely to spill
- E. Your server will pester you less often





JED'S APA

Recipe by Jed Langerich

Batch volume: 5.5 gallons (20.8 L)
Original Gravity: 1.050 (12.5°P)
Final Gravity: 1.008 (2°P)
Color: 6 SRM
Bitterness: 46 IBU
Alcohol: 5.5% by volume

MALTS
 12.25 lb. (5.56 kg) 2-row malt
 7 oz. (198 g) Crystal 20 malt
 7 oz. (198 g) Victory malt

HOPS
 1.25 oz. (35 g) Cascade, 9.3% a.a.
 @ 30 minutes
 0.75 oz. (21 g) Cascade, 9.3% a.a.
 @ 15 minutes
 0.75 oz. (21 g) Cascade at 9.3% a.a., steep at
 194.4°F (90.2°C) for 15 minutes

YEAST
 1 pack SafAle US-05 American Ale Yeast

ADDITIONAL ITEMS
 1 tsp. Irish moss @ 15 minutes

BREWING NOTES
 Collect 7.25 gallons (27.4 L) of water and heat to 160°F (71°C). Thoroughly mix in the milled grains and mash for 60 minutes at 152°F (67°C). Mash out at 168°F (76°C) for 15 minutes. Lift brew basket and allow grains to drain into kettle while heating wort. Bring to a boil and add first hops. Boil for 15 minutes, add second hops, and boil for 15 more minutes. Turn off the heat, add the third dose of hops and steep at 194.4°F (90.2°C) for 15 minutes. Chill to 62°F (17°C) and pitch yeast. Keg after two weeks and force carbonate.



STEVE'S APA

Recipe by Steve Rusch

Batch volume: 3 gallons (11.36 L)
Original Gravity: 1.052 (12.7°P)
Final Gravity: 1.011 (2.75°P)
Color: 7 SRM
Bitterness: 44 IBU
Alcohol: 5.45% by volume

MALTS
 3.5 lb. (1.6 kg) Briess Pale Ale
 dry malt extract
 4 oz. (113 g) Crystal 20 malt
 4 oz. (113 g) Victory malt

HOPS
 1 oz. (28 g) Cascade, 6.1% a.a., @ 30 min
 0.5 oz. (14 g) Cascade, 6.1% a.a., @ 15 min
 0.5 oz. (14 g) Cascade, 6.1% a.a., steep at
 195°F (91°C) for 15 minutes

YEAST
 1 pack SafAle US-05 American Ale Yeast

ADDITIONAL ITEMS
 0.5 tsp. Irish moss @ 15 minutes
 3 oz. (85 g) sugar to prime

BREWING NOTES
 Heat one gallon (3.79 L) of water to 154°F (67.8°C), add the bagged specialty grains, and steep for 20 minutes. Remove the grains and top up to 3.3 gallons (12.49 L). Heat the water to 150°F (65.6°C), thoroughly mix in the extract and bring to a boil. Add the first dose of hops, boil for 15 minutes, add the second dose of hops, and boil for 15 more minutes. Turn off the heat, add the third dose of hops and steep at 195°F (91°C) for 15 minutes. Chill to 68°F (20°C) and pitch yeast. Bottle after two weeks priming with 3 oz. (85 g) of sugar.

ARTICLE
 See page 104 for Last Drop
 "Respect the Extract"



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Stay tuned.



Living, Liquid History and Terroir



Julia Herz, executive director of the American Homebrewers Association.

How cool is it that when we brew and ferment, we make a beverage that is living, liquid history, that both documents a sensory snapshot of your brew day and creates a beverage that lives, breathes, and evolves? Ingredient choice, brewing process and equipment, fermentation and cellaring conditions, and the brewers involved each contribute to a beer's story...a story that changes each passing week. Our bottled, canned, or kegged liquid is lore, a realization of history and terroir, and an expression of time that continues until the last drop is enjoyed. As brewers, we humans are absolutely part of beer's terroir. #DeepThoughts.

Speaking of time, evolution, and people's influence, the AHA has an incredible story as the world's leading homebrewing organization whose members changed the beverage of beer as we know it...and we celebrated 46 years on December 7, 2024. Traditions built over the past four decades reflect an evolving history and a multi-generational membership community that continues on amidst possibilities, successes, and challenges. Sounds a bit like some of my brew days.

While typing this column, I am struck and inspired by the fact that in the year ahead, new AHA members will join and start to homebrew, others will mentor and monitor their progress, and many will up

their equipment game (here is to shiny bright holiday presents, wink, wink) to dive deeper into the hobby we each love.

Some of us will begin or advance homebrewing advocacy as organizers, too. Advocacy comes in many forms and can be as simple as helping others gather, brew, drink, and evaluate. I greatly identify with this, both as a longstanding AHA member, and as a Certified Association Professional, the leading certification for executive directors of nonprofits in partnership with the American Society of Association Executives. My training and interests merged this past October as moderator of the AHA's Bootcamp for Club Officers in Denver, Colo. →



BOOTCAMP FOR CLUB OFFICERS

For the second year in a row, the AHA hosted a workshop for club officer leaders from around the U.S. Thank you to the officers who attended, and to our 2024 sponsor, GrogTag. The group worked through problems, possibilities, and parking lot items, with officers documenting a list (see screenshots of our whiteboard bullets) of top-of-mind items.

By the way, the HomebrewersAssociation.org Club Directory has over 1,700 AHA-sanctioned homebrew clubs, with an estimated 35 members per club, or almost 60,000 potential members. That is a lot of homebrewers worthy of support.

A valuable bootcamp takeaway is the reminder that homebrew clubs, as nonprofits (with the majority being 501(c)3 or (c)7), have a lot in common with the AHA. We each orbit decisions and diligence around governance, executive leadership, strategy, operations, business development, membership and stakeholder engagement and management, advocacy, marketing, and communications. Baked into these domains are complex concepts, including membership service and value, diversity, equity and inclusion, officer succession planning, event management, compliance and reporting, fundraising, financial forecast-

ing, fiduciary responsibility, foresight, yearly planning, budgeting, event management, and much more.

Clubs, the AHA, and multiple companion organizations are stewards of members and missions, with volunteer leaders getting incredible opportunities to learn more about homebrewing, plus the advantages and problems common to nonprofits. This is a powerful recipe for development and growth.

Considering why anyone signs up to be a club officer, competition organizer, beer judge, or AHA committee member, a vast benefit is personal and professional development that can be leveraged to further homebrewing, or a number of other worthy causes, over one's lifetime. For each of us, the year ahead will bring new discoveries, recipes, gatherings, and beers. It could also include new learnings for those interested in getting a first-hand

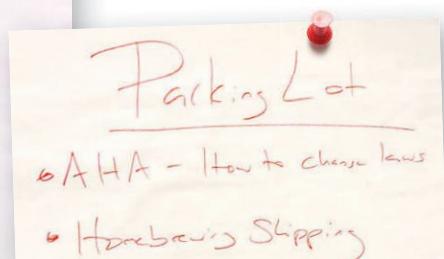
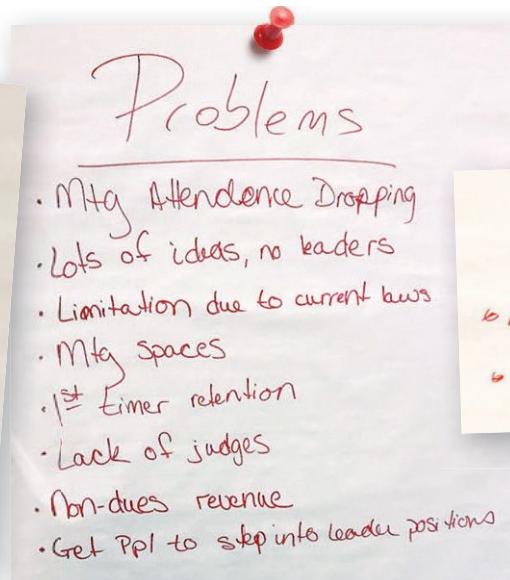
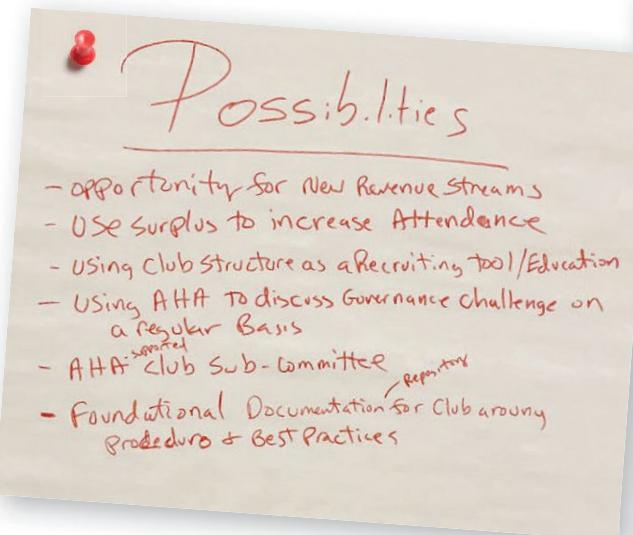
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Clubs, the AHA, and multiple companion organizations are stewards of members and missions, with volunteer leaders getting incredible opportunities to learn more about homebrewing, plus the advantages and problems common to nonprofits. This is a powerful recipe for development and growth.

chance to contribute to the story and history of homebrewing, one volunteer, committee or board meeting, event, or competition at a time.

If you're equal to that challenge, please monitor the AHA Committee volunteer page (HomebrewersAssociation.org/membership/aha-committee) for evolving opportunities. And if you are an AHA member with association management or volunteer experience, I'd love to hear from you—what you've learned, and your tips and tricks for the AHA, clubs, competitions, and other volunteer homebrewing efforts. Cheers.

Julia Herz is executive director of the American Homebrewers Association. You can follow Julia's homebrew talks and travels on Instagram @ImmaculateFermentation or contact her at ahaed@brewersassociation.org.





Making the Cut

Dear Zymurgy,

While I'll have to give Amahl's cinnamon roll recipe a try, one step I won't follow is cutting the cylinder with a knife. His rolls in the pan show a bit of deformity. A piece of dental floss placed under and wrapped around the cylinder, then pulled tight, will cut through, leaving very round rolls.

Eric Menchen

Editor-in-chief Amahl Turczyn responds:
Hi Eric, thanks for the baking tip! I'll have to try your floss trick next time I make cinnamon rolls, although a bit of deformity has never bothered me much.

Dear Zymurgy,

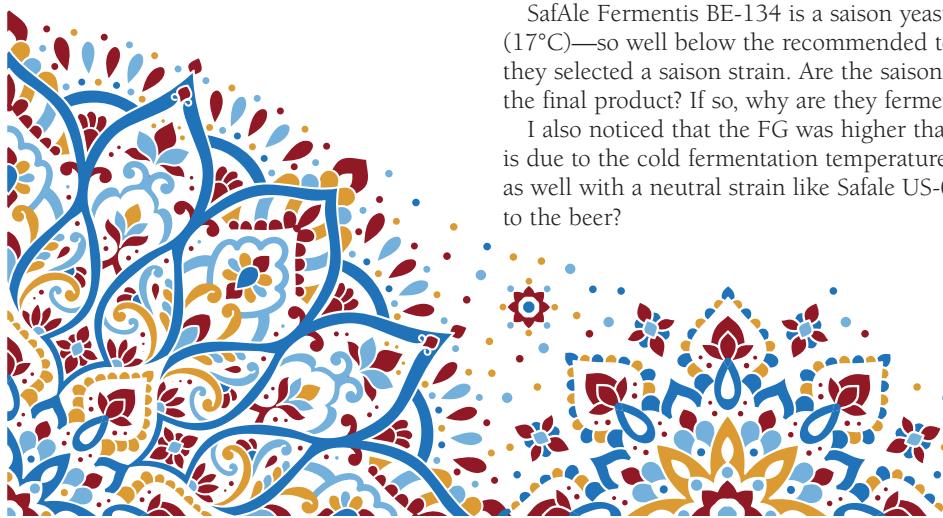
I read the recent article about brewing a NEIPA in India with interest, but ended up coming away with a question for the author that I was hoping you could pass on. I was very intrigued by the recipe for Aam Panna Sour and would like to give it a try some time. But I was confused by the yeast and was hoping Timothy could share more information about it.

SafAle Fermentis BE-134 is a saison yeast strain, but they're fermenting it at 62°F (17°C)—so well below the recommended temperature range. I'm trying to understand why they selected a saison strain. Are the saison phenols supposed to contribute something to the final product? If so, why are they fermenting it at such a cool temperature?

I also noticed that the FG was higher than normal for a saison strain, which I'm assuming is due to the cold fermentation temperature. Does Timothy think this recipe could work just as well with a neutral strain like Safale US-05, or is the saison yeast contributing something to the beer?

Thank you so much. Again—interesting article and interesting recipe.

Josh Prokopy



Contributor Timothy Hobbs Responds:
Good questions, Josh. Both Sandip and I had the same thought to ferment at the lower temperature with the saison yeast in order to not develop phenols in the finished product. Aam Panna does not taste good with phenols, as Sandip told me, and I concur. In fact, I myself ferment saison at home at 62°F (17°C) in order to reduce or eliminate phenols, which is a personal preference. The

BE-134 was chosen for two reasons: the quick availability of different yeast strains there in India (without long order lead times), and the flavor profile with slight peppery notes. They like spicy things in India.

The FG was higher due to the lower fermentation temperature, as you suspected, as well as with the addition of the sweetened Aam Panna syrup. Sandip stopped the fermentation just short of full attenuation in order to incorporate

an ever-so-slight sweetness to the finished product, which was barely noticeable, but made it taste like an authentic Aam Panna drink.

As for the alternate yeast, I think the US-05 would be a great choice due to its flavor-neutral results. In fact, I'll venture to say it would produce an Aam Panna sour that has more green mango flavor. I'll have to try it with this yeast some time!



DEAR ZYMURGY

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



Dear Zymurgy,

I was thrilled to read Ron Minkoff's article, "No Respect! Malt Liquor" in the Sept/Oct 2024 issue. I think any beer style can have a successful craft approach. I started brewing what I call "classy malt liquor" about 10 years ago for a group of pastors and elders, of all people. With the inspiration of Olde English 800, I thought about raising the bar for quality ingredients that achieved similar ends as the commercial brews. Thus, "Olde Belgic 1561" was conceived to pay homage to the Belgic Confession of Faith and offer a strong, but crushable lager for deep theological discussions. A base of Belgian Pilsner malt plus clear Belgian candi sugar offers a light and highly fermentable backdrop for some simple old-world hops fermented with White Labs Belgian Lager yeast (a seasonal release). Thank you, Mr. Minkoff, for giving some due respect to an overlooked brewing opportunity.

Cheers and blessings,
Josh Parsons
(brewing since 2011, Lifetime AHA member)
Anaheim, Calif.

In response to Weighing In on Induction, Dear Zymurgy, Nov/Dec 2024, AHA member Rob Harmon writes:

The Duxtop table top induction hot plate shown supports a maximum weight, buried deep in the specs, of 25 lb. (11.34 kg). The Avantco portable induction hot plate has a weight limit of 55 lb. (24.9 kg) or more, depending on the source.

Rob Harmon
20-year AHA member

Editor-in-chief Amahl Turczyn responds:
Thanks Rob, good to know the manufacturer's quoted specs on those models.

Anecdotally, my Iwatani 1800w induction burner regularly supports an induction-ready 25-gallon kettle (23 lb., or 10.43 kg) filled with 20 gallons of water (167 lb., or 75.7 kg). I've never heard any complaints from it.

Sounds like tolerance varies pretty widely though, so I'm sure readers will appreciate the reminder to keep weight limits in mind when buying these things.



Olde Belgic 1561

Recipe by Joshua Parsons

Batch volume: 10 U.S. gal. (37.85 L)

Original gravity: 1.059 [14.5° P]

Final gravity: 1.003 SG [0.7° P]

Color: 5.9 SRM

Bitterness: 22.3 IBU

Alcohol: 7.5% by volume



M
ALTS & ADJUNCTS

8 lb.	[3.63 kg] Belgian Pilsner malt
7 lb.	[3.18 kg] U.S. pale 6-row malt
6 lb.	[2.72 g] turbinado sugar [in boil]

H
OPS

4 oz.	[113 g] Saaz, 3.4% a.a. @ 60 min
-------	----------------------------------

Y
EAST

2 packs White Labs WLP815 Belgian Lager Yeast

A
DDITIONAL ITEMS

2 tsp. yeast nutrient @ 5 min
2 tablets Whirlfloc @ 15 min

B
REWING NOTES

Target a 1-step mash for medium body. Boil 90 minutes, adding sugar at knockout.

1/16/22 - split batch Mexican Lager (Vieja Belgica) and Belgian Lager (Olde Belgic)

Contributor Ron Minkoff responds:

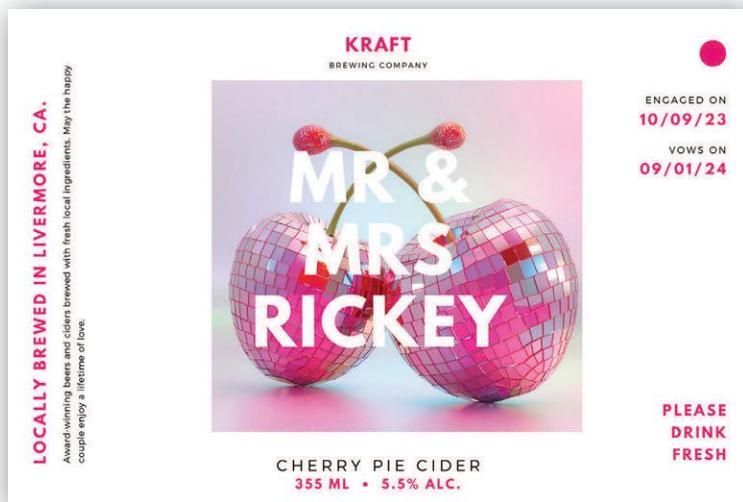
Hello Josh, high praise indeed for the "No Respect!" article! After reading feedback from others, I certainly get the sense that malt liquor is many people's guilty pleasure (like being an ABBA or an Enya fan). Your "classy" Olde English 800-inspired Belgian brew sounds like it's not only serving a higher purpose, but also lines up with Amahl

Turczyn's 2016 article which noted the similarity malt liquor has with Belgian ales such as Belgian golden strong. Perhaps you nailed the mantra of many malt liquor variants with the bumper-sticker tagline "Strong, but Crushable"! Cheers Josh, my inner Dangerfield thanks you for your note and for sharing your recipe!

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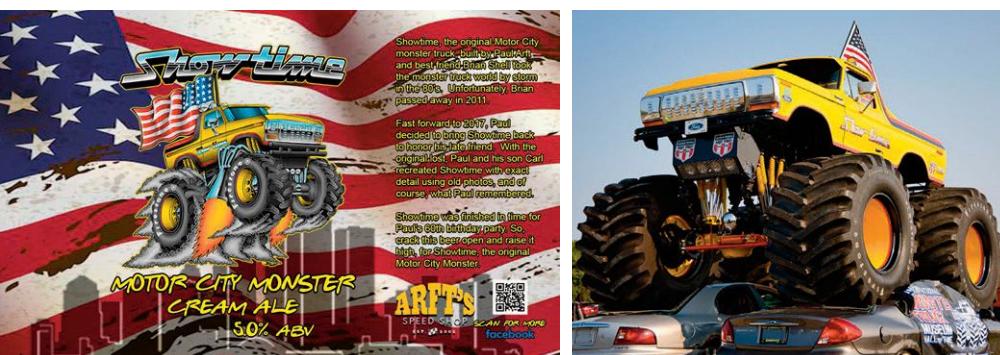
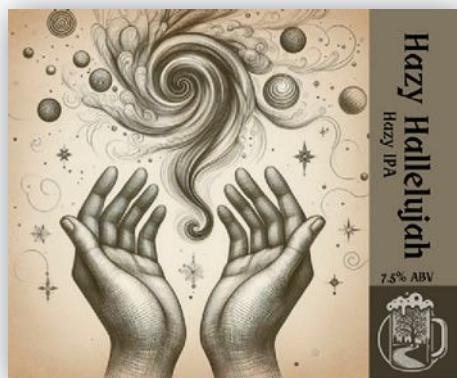
HomebrewersAssociation.org

YOUR HOMEBREW LABELS



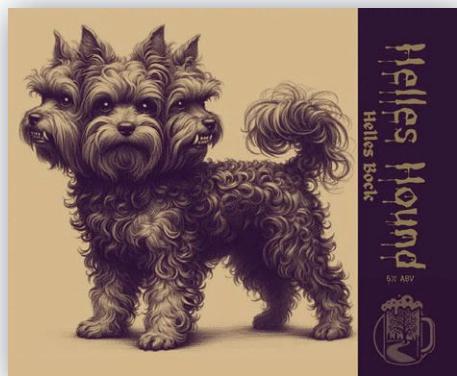
I created this label for my niece's wedding. The wedding party loved the labels and homebrewed cider! (Homebrewer 12 years, AHA member 10 years)

Ron Kraft
Mad Zymurgists
Livermore, Calif.



I made this cream ale and label for my good friend who recreated a monster truck he built from the 80s to honor his late friend. Showtime, the original Motor City monster truck, was built by Paul Arft and his best friend Brian Shell, and took the monster truck world by storm in the 80s. Unfortunately, Brian passed away in 2011. Fast forward to 2017, Paul decided to bring Showtime back to honor his late friend. With the original lost, Paul and his son Carl recreated Showtime to exact detail using old photos, and of course, what Paul remembered. Showtime was finished in time for Paul's 60th birthday party. So, crack this beer open and raise it high, for Showtime, the original Motor City monster. (Homebrewer 20+ years, AHA member 7 years)

Keith Manchester | Kuhnhenn Guild of Brewers | Shelby Township, Mich.



Honestly making labels for all my brews is as fun as brewing. (Homebrewer 2 years, AHA member 1 year)

Kortney Coles
James River Homebrewers
Richmond, Va.



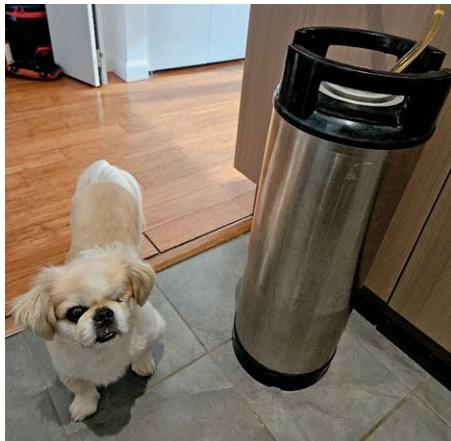
SUBMIT YOUR LABEL

Do you make custom labels for your homebrew? Want it featured here in the pages of *Zymurgy* for all to see your work?
Upload your label to HomebrewersAssociation.org/your-homebrew-experience and we will take it into consideration!

YOUR HOMEBREW EXPERIENCE

Show us your labels, brewing/fermentation day, who you brew with, the ingredients you include, what special processes you use, and how you enjoy the final product of beer and beyond.

Upload photos of your homebrew-related fun at
HomebrewersAssociation.org/your-homebrew-experience



Our dog Emma likes to check in on progress throughout the brew day. This year we're throwing her a birthday party, and here she's pictured overseeing the kegging of the ceremonial beer, "Maibock is Worse Than My Bite!"

Alex Cigan
(Homebrewer 13 years, AHA member 6 years)
New York City Homebrewers Guild
Brooklyn N.Y.



Beer art historian (MorgueBrewing.com) & Beer Culture Center (BeerCultureCenter.org) board member Lucas Livingston debuts his electric, motorized beer wagon at the 2024 Michiana Festival of Beers (FestivalOfBeers.us).

Lucas Livingston
(Homebrewer 12 years, AHA member 4 years)
MEGA (Michiana Extract and Grain Association) & CHAOS (Chicago Homebrew Alchemists of Suds)
Miller Beach, Ind.



Hunker Down Porter (above) and Snow Stout cooking during a January snow in Richmond, Va. (right).

Peter deFur
(AHA member 20 years)
Henrico, Va.



Hot Florida brew day. Easy to maintain mash temps!
Tim Philipp
(Homebrewer 12 years, AHA member 6 years)
Port St Lucie, Fla.



SHARE YOUR BEST HOMEBREWING SHOTS!

Homebrewing is all about fun and sharing. We would love to show others in the community what your homebrewing/fermentation experiences look like. Upload photos of your homebrew-related fun at HomebrewersAssociation.org/your-homebrew-experience and you may see it in the pages of Zymurgy!

SCAN ME

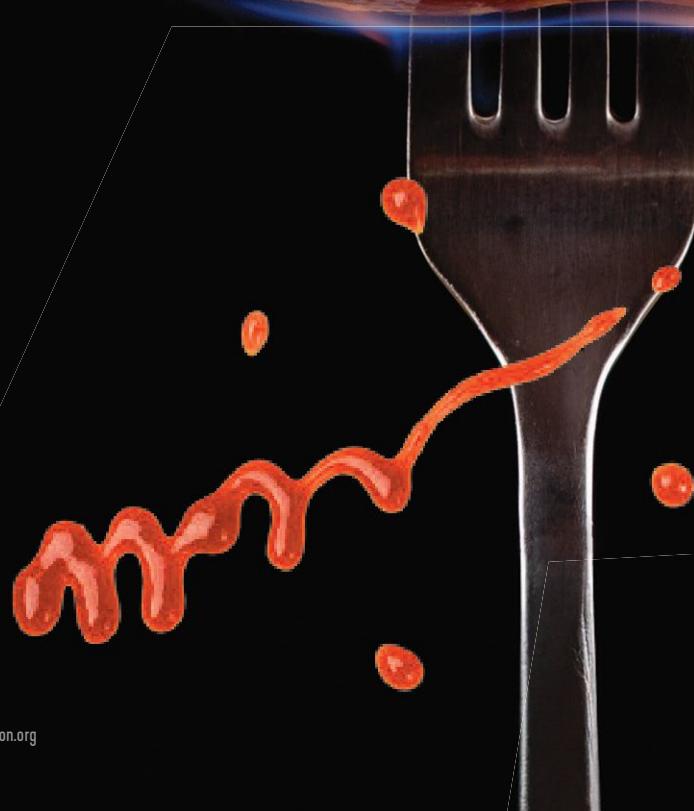


You Can
FERMENT THAT!



By Amahl Turczyn

once thought that in a perfect America, the tangy, spicy, bright-red hot sauce known as sriracha would be the most popular and most available condiment, rather than ketchup. (Well, technically mayonnaise tops the list statistically, but I rarely use the stuff myself.) Ketchup is fine, but it's sweet and it's got no kick. Sriracha is just as visually appealing, but it's more complex, and its subtle heat and acidity goes with just about any savory cuisine. I could dream. But then, in 2016, my dream was realized... sriracha sales eclipsed those of the old tomato-based standard. My perfect squeeze-bottle seasoning was now America's favorite red sauce too. →





The brand that started this meteoric rise to condiment dominance is the famous Huy Fong, founded by Vietnam immigrant David Tran, who started out in 1979 selling hot sauce from his blue Chevy van in Los Angeles. His recipe has changed over the years, and the company has had a turbulent history with lawsuits and other complications mainly revolving around supply issues. While earlier versions of the sauce used red serrano peppers, the recipe later changed to include red jalapeños, the other ingredients being vinegar, garlic, sugar, salt, and stabilizers. Those fresh ripe peppers are the soul of the sauce, but herein lies the problem.

While both pepper varieties are easy to come by when they're green, meaning they're sturdier and less perishable, still with plenty of heat but slightly more vegetal to the taste, finding fully ripened red versions of either is another matter entirely. Huy Fong, with its signature clear plastic rooster bottles to show off the magnificent red color of the sauce, has to source those peppers from dedicated growers in the U.S. and Mexico, but everything has to line up perfectly with the harvest, and that's led to supply issues over the years. They are victims of their own success in many ways, as their factory must process

over 20 tons of ripe, delicate, perishable red peppers every day during the production cycle to keep up with demand, and finding peppers of sufficient quality and color hasn't always been possible.

As far as process, most accounts peg sriracha as a fermented sauce, which is why I'm discussing it in this column. But is it? Some have mused that it is in fact a fresh sauce that consists of raw, pureed peppers tempered with glacial acetic acid (CH_3COOH) to bring it to a safely acidic 2.82 pH, along with the added insurance of 5 percent salt and a bit of potassium sorbate and sodium bisulfite. Understandable insurance, since these bottles were made to sit out on hot restaurant tables once opened. That lack of cooking would explain the vibrant red color, but the manufacturer would have to fall back on sorbates and sulfites to suppress fermentation. I thought perhaps I could ferment a sauce that didn't require stabilizers, allowing natural acids to form and preserve the sriracha, and since I'm not generally a fan of sugar, my sriracha would skip that ingredient and instead rely on the natural sweetness of the ripe chilies. But while I grow a lot of peppers, getting enough for a batch of sauce that would last me a year would be a chal-

lenge. Like David Tran's dilemma, the key was finding a consistent, reliable source.

Some chile stands in the metro Denver area will sell red jalapeños, but they are just as seasonal here, if not more, than they are in California. If available at all, they can only be found during a narrow window in September. I got tired of calling around to check if anybody had any. They should be in next week. Try in early October. No, too late, we're done for the year, try again next year. Then, somewhat miraculously, I found a Mexican mercado in Thornton, Colo. called Mi Pueblo Market, and there, in the produce section, was a huge stack of fully ripened serrano peppers. I'd hit the jackpot. I spent the better part of an hour carefully inspecting chilies for firmness, ripeness, and color, and purchased a glutinous 10 pounds.

But like any homebrewer, I knew I had to cook the peppers if I was to avoid sulfites and sorbates. Raw, unsulfited meads and ciders can be delicious, but without stabilizers, they are almost always a gamble. So, I got out my trusty gas grill and roasted those plump little firecrackers, added fresh garlic, rice vinegar, and salt, and into the blender they went. Once pureed, I strained the sauce with a food mill and bottled it. No fermentation needed. But there was a problem: the roasting had killed off any yeast or bacteria

Ripe red jalapeños.



Ripe red jalapeños, washed and stemmed.



Steam the red chilies to preserve their color.



Plenty of fresh garlic and 0.5 cup of salt.



Steamed, pureed red jalapeños in a bag-lined fermenter.



on the peppers, but it had also blackened their skin a bit, and I wasn't about to peel every single one, so while the sauce was predominantly red, it wasn't nearly as pretty as what we've come to recognize as sriracha. It was a mighty fine-tasting sauce, with a sharp acidic bite, plenty of glowing heat, and just enough sweetness for my palate. But it wasn't sriracha. Back to the drawing board.

I returned to Mi Pueblo the following week to discover that the produce gods had once again smiled upon me. This time the serranos had been replaced by deep, dark, red, fully ripened jalapeños. I'd lucked out again. An hour later, I walked out with 12 pounds of nearly perfect specimens, unable to keep the smile off my face. I decided to give this batch a proper ferment, but still, my urge to cook the peppers was strong. I finally settled on giving them a brief steam. They wouldn't cook all the way through, so most of their gorgeous color would remain, but they'd still undergo a sanitizing step. This scheme proved to work fairly well. I stemmed and rinsed them, then steamed the whole batch for 15 minutes once steam started escaping from my steamer. They weren't cooked through at that point, and retained their firmness, but still had their color. I pureed them in batches along with fresh garlic, rice vinegar, and salt, then instead of removing the seeds and skin, they went into a plastic Lexan to ferment.

I'd used my trusty rye flour-based sourdough starter for inoculating Sauergut successfully, so that was my source of lactic acid bacteria (LAB) for this sauce. Once it had cooled to 100°F (38°C), I stirred in about a tablespoon of sourdough starter, and 24 hours later, Lexan tucked into a Styrofoam cooler to preserve the warmth, the sauce was bubbling away merrily (and filling the house with a pungency that made me sympathize with all those folks living near the Huy Fong sriracha factory). About a week later, I sent the sauce through the food mill using the finest perforated steel plate to remove seeds

Use a ricer to remove seeds and skin from the fermented jalapenos.



and skin, bottled it in some fancy plastic 20-oz. condiment squeeze bottles I'd found online, and then pasteurized each bottle in the microwave. [For food safety's sake, it is strongly recommended that you can any hot sauce using a pressure canner. While hot sauce has a very low pH and high salinity, without chemical stabilizers, it is still vulnerable to food-borne pathogens.]

The result? Beautifully red, smooth, and thick as ketchup—top scores for color and consistency, even rivalling that famous chicken-label brand. But the flavor was...well, not quite on target. It was plenty hot, with a deep, glowing burn that seemed to build with every bite. Acidity was just under a pH of 3, and it was plenty tangy on the palate, so the LAB did a proper job providing lactic acid. But the garlic was muted, most likely due to the fermentation, and there was an earthy element not present in the Huy Fong sauce. I was happy with it, but it wasn't quite the result I'd been hoping for. In fact, even though it was much prettier than my roasted serrano sauce, I actually preferred the serrano, not only for its bright, pungent garlic pop, but for the freshness and heat of the peppers themselves. But one thing I loved about both of them (apart from the fact that I now had a year's supply of hot sauce to put on just about everything) was the lack of sugar. I realize it's part of the original recipe, and a big part of Thai and Vietnamese cuisine, but in my opinion these sauces stood up just fine with their own natural pepper sweetness.

For once, fermentation was not the answer. But for the recipe below, I will leave it to you to decide: You can ferment that, or not

ferment that. Personally, having tried both methods, I would skip the ferment. Sacrilege, I know, but next summer I will make another batch with whichever pepper Mi Pueblo has in stock, steam rather than roast, and bottle the sauce without fermentation. I've already achieved maybe 75 percent success making The Perfect Sriracha, so hopefully next time I'll get up in the 80th percentile. Alas, perfection is elusive, but I can't wait to try.

Amahl Turczyn is editor-in-chief of Zymurgy.



Sriracha

Recipe courtesy of Amahl Turczyn

Batch Volume: about 1 gallon

INGREDIENTS

- 12 lb. (5.44 kg) red jalapeños, plus a few other hot red chilies if you have them
- 0.5 cups (150 g) salt
- 30 large cloves fresh garlic, peeled
- Vinegar, to taste (I prefer rice vinegar, and I used about 3 cups)
- 1 Tbs. active sourdough starter, or lactic acid blend
- sodium metabisulfite, to stabilize
- potassium sorbate, to stabilize

EQUIPMENT

- Steel ricer or food mill, with a fine perforated plate
- 2-gallon Lexan with lid, or other wide-mouth fermentation vessel
- Steamer
- Hot sauce bottles

DIRECTIONS

Stem and wash the peppers. Place them in a large steamer with a tight lid and bring up to a boil. Once steam begins to escape from the top, steam the peppers for 15 minutes. Process in a blender or food processor with the garlic, salt, and enough rice vinegar to make a thick sauce. If fermenting, pour into a sanitized fermenter and cover. When the sauce cools to about 100°F (38°C), inoculate with an active lactic acid bacteria starter. Place fermenter in a warm location and try to maintain about 95°F (36°C). Once fermentation is complete, process through a fine sieve or food mill. Add potassium sorbate and sodium bisulfite to stabilize or pasteurize, or can with a pressure cooker or canner.



THAT WINNING FEELING!





NATIONAL HOMEBREW COMPETITION

- 2024 -

By Adriana Terron

3,593 entries

7 countries

1,179 homebrewers

150 medals

47 states
+ Washington, D.C.

50 categories

The National Homebrew Competition (NHC) is the world's largest stage for amateur homebrewers to display their skills, creativity, and passion for fermentation, and recognizes the most outstanding world-class homebrewed beer, mead, and cider.

This year's 46th Annual NHC saw several improvements and other changes. Supported by great feedback from last year, this was the second year of a return to first-round regional competitions and judging sites in nine cities—Chicago, Denver, Indianapolis, Kansas City, New York, Philadelphia, Portland, Ore., San Diego, and Tampa—with final-round judging taking place in San Diego once again. Alongside beer, mead and cider competed as well, with both beverages' award categories expanding—mead from five to 13 and cider from two to four.

Chris Williams, BA competition director, said, "I'm proud to say that we are extremely fortunate to have some amazing first-round organizers. Without them, the competition would look a whole lot different. They do a great job of running their respective competitions, which makes the overall NHC a huge success in the end. And I'd be remiss not to mention the folks in San Diego who helped run the final

round. They have an incredibly efficient and professional team that works well together, so the competition went off without a hitch this year."

This was the second year that judges used the 2021 BJCP Style Guidelines to provide feedback for all first-round entries. Final-rounders were given additional writeups.

This year's competition received 3,593 entries from 1,179 AHA members across 47 states, Washington, D.C., and seven countries. In total, 166,303 entries have been evaluated since the inaugural AHA NHC in 1979 in Boulder, Colo.

The most-entered style categories were Pilsner (194 entries), Strong Belgian Ale (167 entries), and Pale European Beer (153 entries). Williams noted that this was noteworthy because "IPAs, as the largest category, were finally overtaken by German Pilsners, which was definitely a big change, especially with Strong Belgians jumping over IPAs as well."

Atypically, the winners were announced at an awards ceremony that took place within the Great American Beer Festival (GABF) in Denver, Colo. on October 10. Homebrewers were showcased on the national stage of the country's biggest beer festival, which the AHA helped start in 1982 as an →



add-on to the AHA National Conference. One hundred and fifty medals were awarded to entries across 50 categories, and nine major awards recognized outstanding contributions to homebrewing. Check out HomebrewersAssociation.org/national-homebrew-competition to see the winners list and watch the recorded ceremony, which Williams commented was “buzzing and energetic throughout as the one-and-only Julia Herz spiritedly announced the excited winners.”

MAJOR AWARD WINNERS

The first major award presented went to Great Fermentations Beer & Wine Supplies in Indianapolis, Ind. The **BSG HandCraft Homebrew Shop of the Year Award** is given to the shop that best supports community and education, exemplifies fantastic customer service and engagement, and promotes the hobby of homebrewing while demonstrating responsible business practices.

The **GrogTag Homebrewer of the Year Award** went to Randy Daniels and Kc McKinney of Des Moines, Iowa in recognition of their best-of-show beer (a saison) judged from all gold medal winners in all beer categories. Michael Wilcox took both the **Woodchuck Hard Cider Cidemaker and Redstone Meadery Meadmaker of the Year Awards**, which recognize the best-of-show cider and mead, respectively, judged from all gold medal winners.

Jarrett Long and John Bates of Arlington, Texas celebrated their four-year brewing partnership with the **Samuel Adams Ninkasi Award**, which goes to the entrant(s) who accumulate(s) the most points in the final round of competition.

The homebrew club awards recognized two long-established and energetic clubs. The Rock Hoppers Brew Club of Castle Rock, Colo. took home the **Gambrinus Club Award**, which goes to the club that garners the most final round points per total club entries. The **Briess Malt & Ingredients Co. Homebrew Club of the Year Award**, which goes to the club that accumulates the most total points in all categories of beer, mead, and cider in the final round of competition, goes to QUAFF of San Diego, Calif.

Brad Smith, famous for creating the BeerSmith brewing software, from Clifton, Va., was honored with the **AHA Committee Recognition Award** for outstanding service to the community of homebrewers.

And lastly, a new honor this year, the **Member Deal of the Year Award** was awarded to the most popular AHA Member Deal based on votes from AHA members. The inaugural award goes to two breweries in a tie: Dogfish Head Craft Brewery, with multiple locations in Del., Md., and Va., and Sierra Nevada Brewing Co. in Chico, Calif. and Mills River, N.C.

AHA AT GABF

For 2024, the AHA switched things up and hosted the annual member gathering during GABF, an event founded by the AHA in 1982, and incorporated old favorites like Club Night and new events like Bootcamp for Club Officers into the week's festivities. Club Night took place at Denver Beer Co. Canworks. Herz described it as “the Holy Grail of beer events. The AHA members serving their homebrews were the event’s stars.” Ryan Pachmayer, Zymurgy contributor and member of the Olde Town Mash

Paddlers Homebrew Club of Arvada, Colo., mentioned there was “quality homebrew and fun conversation,” adding, “it did a good job of continuing the tradition of Club Night.”

The special week's other events happening in Denver's Colorado Convention Center included a kick-off toast at the Member Gathering, during which more than 150 AHA members signed up to hear Herz and Shawna Cormier, Chair of the AHA Committee, give an overview of the AHA at GABF offerings and AHA 2025 plans in the making.

BJCP cider, mead, and beer tastings and written exams were also held, and for the second year in a row, the AHA hosted a workshop for nationwide club officer leaders. See Julia's Director's Cut column on page 9 for more details on the workshop.

Headline session The Future of Homebrewing featured panelists Charlie Biolo, founder of Golden Hive Mead; Sam Calagione, CEO and co-founder of Dogfish Head; Mark Hurley, manager of The Brew Hut Homebrew Shop; Cormier; and Herz. Herz said, “the panel optimistically predicted where homebrewing would be in the next 10 years. Many of the audience questions centered around the AHA's plans to inspire the younger generation to join the fold.”

Homebrew Headquarters was a member-exclusive area inside the festival hall. This 3,000-square-foot area held live brewing demonstrations of the Maltose Falcons' West Coast IPA and Herz's Extra Special Beautiful ESB (go to HomebrewersAssociation.org for recipes). Plus, homebrew rockstars from across the U.S. personally served up their homebrew, providing stories behind each one,





and sharing their own brewing advice. The star-studded roster included Mark Boelman, Duncan Bryant, Rusty Burrell, Stephanie and Mike Butler, Brad Darnell, Stan Hieronymus, Matthew Neilson, Joaquin Quiroz Jr., Julie and Joe Rose, Dan Short, Brady Smith, and Jim and Meagan Thompson. Lallemand and Amoretti con-

ducted sensory demonstrations as well.

Connected to Homebrew HQ was the GABF Pro-Am booth. Since 2005, this premier U.S. competition brings together pro brewers and homebrewers to collaboratively brew and vie for a GABF medal in a best-of-show-style competition. Read about the 2024 Pro-Am winners on page 58.

An elite suite of seasoned BJCP/GABF judges, including John Allison, Dick Cantwell, Sandy Cockerham, Shawna Cormier, Brad Darnell, Leah Dienes, Max Finnane, and Ron Smith, ran the You Be the Judge section, which took attendees through the process of how to judge a beer and objectively assess brewing skill.



SAMUEL ADAMS NINKASI AWARD



Recognizes the entrant who accumulates the most points in the final round of competition.

**Jarrett Long with John Bates
Arlington, Texas**

This year's Samuel Adams Ninkasi Award went to a duo whose brewing partnership started during the COVID pandemic. "I invited John over to show me how to make a batch of mead, and a friendship was quickly born. After our third or fourth mead day, he asked if I would teach him beer. We have been brewing ever since," said Jarrett Long about his brew pal John Bates.

They received an NHC gold medal for their British brown Cheerio, a silver medal for an American porter called Washington's Water, and another silver for Tupelo Hustle, their semi-sweet mead. The British brown is one of the duo's favorite beers to make and features biscuity Maris Otter notes and "the slightest kiss of lemon tea," said Long, from their favorite hop, East Kent Goldings. In their pre-Prohibition porter, a style that often uses adjuncts like molasses, they let the malt do all the talking. And their prized mead proudly stars "the Cadillac of honey, Tupelo, which is rich and buttery smooth, truly a nectar of the gods," mused Long.

The brewing process is relaxing for Long, but his passion really came through when he started discussing his love for the fellowship and camaraderie of brewing with friends and being part of a club. "We push each other to be better, help each other, and lift up our fellow brewers. Although we all want to win medals, we cheer each other on the whole way." He considers the Horsemen of the Hopocalypse (2023 Radegast Club of the Year) to be his second family. "We are such a diverse group, yet we share this common hoppy hobby that brings us together. They are my friends and family, and I love them all," said Long.

For inspiration, the two often look to award-winning AHA recipes, Mean Brews, and John Palmer and Jamil Zainasheff's *Brewing Classic Styles*. To go the distance to the podium, though, Long stressed the importance of the little things. "From the recipe formulation to the brew day, to sanitization, to packaging and shipping, the details matter. Be mindful of your time frame from brew day to turn-in. The goal is to send in the

best product at the most optimal time possible to give that judge the best tasting experience." Long added that joining a homebrew club is priceless. "Having experienced people to bounce issues and ideas off of is so helpful."

While Long has been enjoying letting the win sink in, he is focused on the future too. He and his club have been considering how to get a new generation of brewers into the hobby. "We must all be ambassadors of the craft," he touts, explaining how his club stays tuned to social media, posts videos, and spreads the word at breweries and bars. The members of the Horsemen may be driven and dedicated to the hobby, but they also know how to enjoy all the challenges along the way. Long is currently working on an experimental "golden stout" brewed with flaked oats, cocoa nibs, coffee beans, and vanilla beans. "If the test batch is successful it will turn into a large barrel project. After that, it is time to start brewing lagers for the 2025 Bluebonnet Brew-off!"



HOMEBREWER OF THE YEAR AWARD



Recognizes the best-of-show beer judged from all gold medal winners in all beer categories.

**Randy Daniels with Kc McKinney
Des Moines, Iowa**

The winning streak of the victorious father-and son-in-law duo continues this year with their Homebrewer of the Year Award win. Last year they received the Pro-Am gold medal for Kaltrauch, a rauchbier. When asked what their secret is, they both simply and humbly described their somewhat short history of brewing together. Randy Daniels had been brewing since May 2012, and then during the pandemic, he invited his son-in-law, Kc McKinney, over to hang out for a brew day. After just a couple of sessions, McKinney was hooked. "The rest, as they say, is history," he joked. The hobby satisfied both their competitive natures and mutual love of beer, especially saisons.

Inspired by Boulevard Brewing Company's Tank 7 American Saison Ale, McKinney said, "the goal was to make a lighter version." After nine months of aging, Daniels' eighth attempt at the recipe and McKinney's sixth turned out "beautifully clear, well attenuated, and highly carbonated," with a wonderful citrus aroma and "spicy, peppery notes that balanced the fruitiness and hop bitterness," added Daniels.

The names of both their homebrewing "team" and their saison, Tank 1587, were created from what is always on television during their brew days. "The name 1587 comes from the jersey numbers of Patrick Mahomes and Travis Kelce. We're both huge Chiefs fans," explained McKinney. Although Kansas City may be their home

The amount of education you get from being a member of a homebrew club like the IBU is extremely valuable, from recipe development to brewing processes.

— Randy Daniels

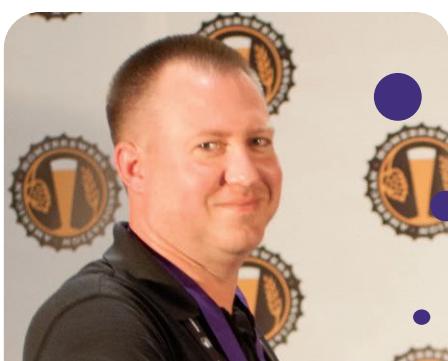
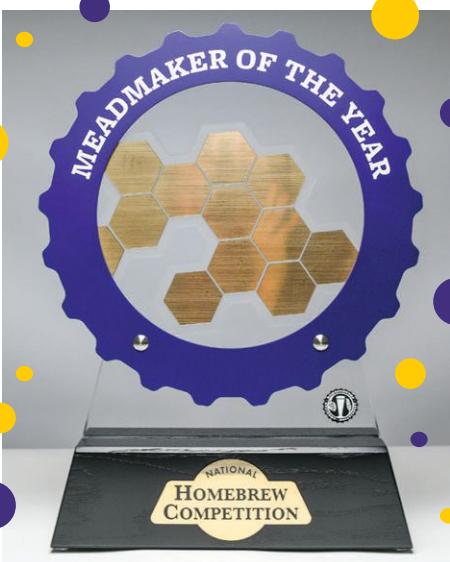
team, their homebrew club is the Iowa Brewers Union (IBU), which McKinney described as "a great group of people." He explained, "As someone who's only been doing this for four years, the experienced group is an amazing resource to answer questions and to give feedback. While we may not be the biggest club in the world, we have some great, dedicated homebrewers. Our club shows up and shows out. We have our Iron Brewer Challenge, where we

try to get brewers out of their comfort zone by making new styles, and there's also a monthly public share called Jimmy Carter Happy Hour, when we try to raise awareness of homebrewing in general."

Daniels added, "the amount of education you get from being a member of a homebrew club like the IBU is extremely valuable, from recipe development to brewing processes. We have fantastic brewers who have won numerous NHC medals. Some have even gone on to start their own breweries."

As the duo's expert tweaker, Daniels stated, "I think developing a consistent, repeatable process is very important. It allows you to make small changes and notice how they impact your finished product. You can also join groups like the Master Homebrewer Program, where you can find a wealth of knowledge from the best homebrewers in the country. Brewing with other people in your club is another way to get ideas for how to improve." McKinney agreed, saying, "I think it takes a few tries. And it's all less frustrating and discouraging when you're a big fan of the end product!"

The only thing that would make this win even more special is a certain type of work-wear that would pair splendidly with a Chiefs game day. "We would love to get some red coveralls from Weyermann one day. Perhaps if someone from Weyermann reads this, they will send us a pair." If they are listening, tack another one onto the order, please!



**MEADMAKER
OF THE YEAR**
Michael Wilcox
Wichita, Kan.



**CIDERMAKER
OF THE YEAR**
Michael Wilcox
Wichita, Kan.



Recognizes the best-of-show mead and cider judged from all gold medal winners in the mead and cider categories.

so that's what I did here." He was also glad to see a hydromel (a more sessionable mead) win since it was "way more drinkable" than his previous winners.

His cider, Bobbing for French Medals, whose name comes from his dedicated cider tap at home, Bobbing for Medals, was keeved in the French style, which Wilcox explained "involves starving yeast of nutrients to get them to give up while alcohol is still low and moderate residual sugar and significant apple flavor remain." They have a rich, rustic, overripe apple character. "Let's not say 'rotten,' but it gets close; one may be familiar with the aroma from walking through an orchard in the fall."

Wilcox said that making this style is "a good reminder that the yeast is in charge, not us; we can only sort of guide it in a certain direction." Because of the difficulties inherent to keeving, he said he is in no hurry to do it again. "Plus, getting one's hands on lovely, soft-tannin, bittersweet apples is a real pain. Then after watching half of your keeve attempts fail and hoping fermentation stays clean, you let it go

through a small amount of malolactic fermentation, but not too much."

Despite the frustrations that came along with attempting those rarely tried methods, Wilcox still finds much to enjoy in the homebrewing scene. When asked to discuss his homebrew club, the Kansas City Bier Meisters, he said, "we're not a club, we're a beer family. They are amazing people, and the club has even been rejuvenated with some young blood lately, which is great to see."

Another thing Wilcox is looking forward to is updated BJCP Cider Style Guidelines. Gordon Strong, principal author of the BJCP Style Guidelines, said, "the BJCP intends to release new guidelines later this year, which are a significant rewrite of past guidelines. There are several new styles, and styles have been reorganized into a new scheme. Michael served as one of the primary reviewers of the content." Wilcox said he is excited about making one of these new categories—moderately high-acid, moderately tannic, but clean, with no malolactic fermentation characteristics (a smoky ham/restrained clove flavor) found in English and French styles. "I look forward to seeing these styles show up in competition more than anything else."

With cider becoming an ever more popular category, and judging and competition organizers taking notice, there will be even more opportunities for future Cider and Mead Makers of the Year to compete and learn from one another in the future.

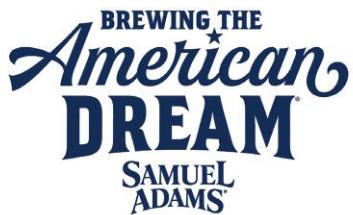


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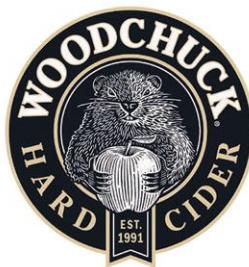
HOMEBREWER
OF THE YEAR AWARD



HOMEBREW CLUB
OF THE YEAR AWARD



MEADMAKER
OF THE YEAR AWARD



CIDERMAKER
OF THE YEAR AWARD



HOMEBREW SHOP
OF THE YEAR



HomebrewersAssociation.org





GAMBRINUS CLUB AWARD

Recognizes the club garnering the most final round points per total club entries.

Rock Hoppers Brew Club | Castle Rock, Colo.

The rockhopper penguin at first seems like an odd mascot choice for the Colorado-based Rock Hoppers Brew Club (RHBC), but the name originates from the town where the meetings first started—Castle Rock, Colo.—in 2007. Since then, the club has only grown. It now includes many members from the Denver metro area and is one of the state's most recognized homebrew clubs.

Mike Koehler, RHBC's communication and social media director, who joined in 2021, said the club's goal has been drawing in new brewers and teaching them how to brew well and compete. The focused efforts seem to have paid off. Just last year in 2023, they took home the Front Range Homebrew Circuit Homebrew Club of the Year Award.

Although they've been raking in awards of late, Koehler said, "we were thrilled to win the Gambrinus Club Award and to be honored at the highest level! It's mathematical proof of our extremely talented brewers and will hopefully convince our newer members to submit more of their beers to be judged, knowing they'll receive excellent feedback." And that's not solely because the club includes so many seasoned brewers, but because one of the club's educational focuses is on what judges look for in competitions.

"We provide opportunities like 'BJCP Mel' where members submit their beer for evaluation by the ranked BJCP judges in the club without having to pay competition fees or wait for the results," stated Koehler proudly. The club also studies how to enter

competitions, interpret results, understand the judging process, and even learn what stewards do, which oftentimes leads to members volunteering themselves.

Koehler explained it's all part of the club's goal to "be super welcoming and remove the fear of the unknown that comes with learning any new skill." He continued, "it's easy to feel intimidated by brewing—all the specialized terms and seemingly endless unwritten rules—so the more friendly and open we can be, the more it helps grow our amazing community and awesome hobby."

Approachability is key. Koehler explained, "when somebody new shows up to a meeting, are we helping them feel accepted? Are we making the hobby feel doable?" It makes sense that you wouldn't want to inadvertently scare away anyone who's already taken the initiative to show up. "People have many options for how to spend their free time. The only way homebrewing is going to win out over less expensive and less work-intensive hobbies is to make it welcoming, rewarding, and fun."

The club has the fun part down. In its annual Fantasy Draft brewing competition, participants draft ingredients to their team and then must use only those selections to make a beer. The club also coordinates the AHA-sanctioned Bière de Rock Competition, which is a premier event for Belgian- and French-inspired homebrews.

Additionally, it has a Christmas bottle swap and a Buddy Brew club competition, where veterans pair up with new members



to make collaboration beers. On top of that are bus trips, barrel brew projects, tours and Hopper Happy Hours at breweries, brewpubs, and taphouses, and participation in AHA events and the GABF.

The club even requests feedback from its members each year. "From the survey, we see that the biggest reason for club participation is being part of a community and improving skills. The Gambrinus Club Award is evidence of that culture. We make each other stronger and more knowledgeable while having a good time doing it," said Koehler.

Even though the Rock Hoppers are excited by the win, they still recognize that not all rewards come in trophy form. Koehler reminisced, "one of our newest members has only brewed two extract batches. He's just getting his feet wet! We want him to know that it's every bit as cool that his family and friends loved his homebrew as it is that other members contributed to the winning of this award or got to do Pro-Am. Brewing is and should be rewarding, no matter what kind of reward you cherish."



HOMEBREW CLUB OF THE YEAR AWARD

Awarded to the club accumulating the most total points in all categories of beer, mead, and cider in the final round of competition.

QUAFF | San Diego, Calif.

Long known as a heavyweight in the homebrewing sphere, QUAFF's roots trace back to the beginning of craft brewing in San Diego, and its members have gone on to start many iconic craft breweries. They are 10-time NHC Homebrew Club of the Year winners, having won in 2001–2006, 2016–2018, and now once again in 2024. Doug Brown, president emeritus of QUAFF, told us that winning this year was "a huge thrill."

He said they view the award as the most prestigious club award out there, adding, "although QUAFF has won it in the past, this was the first for our current generation of competition entrants. To break through this year and come out on top really means a lot to us and validates that it's truly a collective effort. Our success is built more on the club's culture than it is on any individual maker."

When asked what has defined QUAFF throughout its history, Brown responded, "its boundless enthusiasm for the shared passion of homebrew." The camaraderie that grows out of collaboratively exploring, sharing, and teaching about homebrew together extends all the way across the nearby border to its Mexican neighbors.

For about the last decade or so, the group has been working on seeding communities of BJCP judges in Mexico, teaching Mexican homebrewers, and building relationships across the U.S.-Mexico border. Brown explained, "we developed a sister-club relationship with the Tijuana Homebrew Club (THC), the largest home-

brew club in northern Baja. We now gather multiple times a year on both sides of the border to bond with them over homebrewing. This includes beer crawls, collaboration brews, and picking hops in Mexico."

QUAFF members have helped administer BJCP training sessions and exams in Tijuana, Ensenada, Mexicali, and Guadalajara. "While QUAFF has long sent members down to help judge in Mexican beer competitions, in recent years we've also been on the receiving end, having dozens of our friends from Mexico come up to San Diego to help judge our competitions, which has been an enormous help," said Brown.

Another successful club endeavor is the QUAFF Mentorship program, now in its third year. "It pairs up less experienced members with more veteran ones," Brown explained, adding, "we've also redoubled our efforts the last couple of years to encourage folks to get into meadmaking, so seeing so many QUAFF mead medals at NHC this year was particularly exciting."

The group seems highly organized and incredibly active. It conducts six internal club-only competitions per year that are free to enter and culminate in the QUAFF Homebrewer of the Year and Rising Star of the Year Awards. On top of that, Team QUAFF, a subgroup of the membership, helps the club organize and focus its annual efforts on NHC.

The club also puts on fun events throughout the year that range from pub nights to campouts to Oktoberfest and hol-

iday parties. With so many opportunities within the club, it's no wonder they have incubated such impressive and prolific beverage makers.

But Brown doesn't speak about competitions when asked what most attracts people to the hobby and keeps them experimenting and growing. "The bottom line is that it's fun. Homebrewing draws elements from both science and art; it stimulates the imagination and encourages dabbling in engineering. It ties us to the past while still allowing us to be part of shaping the future. Drinking trends are fleeting. What endures about homebrewing is that excitement we all felt the first time we fermented something and could point to the end product in our glass and say, 'I made this.'"





Dogfish Head Craft Brewery



Sierra Nevada Brewing Co.

MEMBER DEAL OF THE YEAR AWARD

Awarded to the most popular AHA Member Deal based on votes from AHA members.

Dogfish Head | Locations in Del., Md., and Va. & Sierra Nevada Brewing Co. | Chico, Calif. and Mills River, N.C.

The American Homebrewers Association's (AHA) Member Deal program offers AHA members discounts at more than 1,700 locations nationwide. Savings can be had on beer, food, homebrewing equipment, and ingredients. In addition, these transactions encourage connections between homebrewers and brewpubs, taprooms, supply shops, beer educators, and other retailers.

The Member Deal of the Year Award recognizes the most popular deal among AHA members. This year the award goes to two breweries, each having equally popular deals. Dogfish Head offers 15 percent off the total check, and Sierra Nevada offers one sample flight per visit to their Chico, Calif. location, and 20 percent off food at their Mills River, N.C. brewery.

Sam Calagione, CEO and co-founder of Dogfish Head, was "super proud" of the win. "It's a testament to our awesome hospitality teams at our locations throughout beautiful coastal Delaware, including our beer-themed hotel. Happy customers make us happy, and happy homebrewing customers make us even happier," said Calagione, who has long been known as someone who keeps the homebrewing community close at heart. He continued, "some of my favorite interactions in our tasting rooms are with fellow brewers. We love trading

“
Happy customers
make us happy, and
happy homebrewing
customers make us
even happier.

— Sam Calagione

modern craft beer scene would exist without the creative, pioneering spirit of the homebrew community in the U.S. Our founder, Ken Grossman, started his journey as an avid homebrewer who owned and operated a homebrew shop before deciding to open the brewery. There has always been a connection between Sierra Nevada and the homebrew community, and we're proud to continue that tradition."

Calagione sees alignment between both the success of homebrewers and the craft beer industry, noting the return of excitement to crisp, well-made lagers from both communities alike. Even with his charisma and unflagging enthusiasm for the hobby buoying Dogfish Head's popularity, Calagione gives full credit for the win to the staff at each of Dogfish Head's retail locations, stating, "they are the evangelists for off-centered culture and world-class hospitality." Always looking forward to more homebrew, Calagione adds that Dogfish Head's annual companywide homebrew competition is an upcoming highlight for him next year as they continue to encourage and inspire employees and customers to keep making their own brews and sharing them with their communities.

ideas for recipes, ingredients, and fun beer names over pints."

Sierra Nevada is also grateful for the recognition. Ashlee Mooneyham, external communications manager at Sierra Nevada, shared Calagione's sentiments, saying, "it's hard to imagine how the



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HOMEBREW SHOP OF THE YEAR AWARD

Awarded to homebrew supply shops on the merits of community support, education, customer service and engagement, promotion of homebrewing, and responsible business practices.



Great Fermentations Beer & Wine Supplies | Indianapolis, Ind.

The team at Great Fermentations Beer & Wine Supplies have been so busy running the store that the BSG HandCraft Homebrew Shop of the Year Award caught them by surprise. “We didn’t even know we were on the ballot until we were notified of the win. It’s truly an honor to now be hearing stories from customers who banded together to vote for us. We are extremely grateful and hope we can continue to live up to the standards that got us here,” said Bryan Johnson, president of the homebrew supply shop at 5127 E 65th St in Indianapolis.

The store features a wide selection of fresh ingredients and fermentation equipment. As a local homebrew shop (LHBS) that emphasizes customer service, the award is fitting, since Great Fermentations exemplifies all the qualities this prize seeks to acknowledge.

Johnson remarked that it’s been a challenging 29th year of business, stating, “throughout it, we’ve kept our heads down and focused on doing right by our customers. It feels great to know that they’ve noticed.” And there is much for customers to notice. The shop is one of just a few that allows customers to order malt (online or in the store) in fractional amounts, so they only get exactly what they need. “It’s the biggest piece of positive feedback we get every week,” admitted Johnson.

Other glowing reviews mention Great Fermentation’s integrity, excellent communication, fast shipping, good supply,

knowledgeable and friendly staff, and competitive prices.

Classes such as “Homebrewing Essentials,” their most recent event, are another key piece. “Classes help turn people casually interested in the hobby into enthusiasts. They reach people who still enjoy in-person learning as opposed to digital alternatives. We love doing them because they give us a chance to meet our customers face to face. We also invite other people into our space to conduct homebrew-adjacent classes, such as breadmaking and cocktail-making.”

Johnson noted that the biggest challenge they’ve faced is the same one all homebrew supply stores have dealt with over the past 10 years—the slow decline of interest in the hobby. “Some years it was gradual, but over the last three years, it’s been sudden. Navigating through these times has been tough but has made us a better company.” He added that with a cultural shift away from drinking, all they can do is “focus on attracting those who still do enjoy beer or wine. Luckily, we’ve found that the younger generation likes to support local shopping in physical stores versus online.”

Johnson’s immediate answer to the question of why they won was his staff. “Without them, none of this happens. I do a lot of behind-the-scenes work, but my employees are the ones who execute day in and day out. Our part-time staff are great

too since they allow the four core members to get some Saturdays off! The part-timers have full-time jobs and work for us on the weekends because they love being involved. Without them, we would quickly lose our sanity.”

A major development the team has been working on lately is a new website and an improved back-end Enterprise Resource Planning (ERP) system. Johnson joked, “I know, super exciting. What this will hopefully do for us, though, is help provide even better service to our customers. The new system will address the major drawbacks of our old, duct-taped-together solution.” Even as the store seems to have hit the epitome of customer satisfaction, it continues to strive for further excellence.

As Johnson recalled painting the walls of the (at the time) new store back when he was in the seventh grade, Great Fermentations starts to feel like a true labor of love. “It’s fun!” he exclaimed. “If you like cooking, if you like engineering, if you like science, if you like art, this hobby is for you. You can express yourself, whether through the end result, the wacky ingredients you source, or even your ridiculously polished but beautiful stainless steel brew system. It provides myriad avenues for different personality types. I have several customers who don’t even drink alcohol. They just love the process and watching their friends and family enjoy the beer that they make.”



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AHA COMMITTEE RECOGNITION AWARD

Brad Smith of BeerSmith | Clifton, Va.

Even with his impressive number of contributions to homebrewing and the craft beer industry, Brad Smith continues his mission to support the world of beer and beyond. Longtime brewer and author of the BeerSmith brewing software, Smith has also written for *Brew Your Own* and *Craft Beer and Brewing* magazines. He also designed the BeerSmith recipe site, blog, and newsletter, and the BeerSmith podcast. “I’m honored to accept this award,” Smith said, “especially considering the previous award winners. I’m deeply humbled to join this group of great brewers. I never imagined the little stout kit I first brewed in 1987 would lead to this. I would like to thank the AHA, the AHA Committee, and all the homebrewers out there for their continued support.”



His far reach into many aspects of brewing is a big reason for the award. The AHA Committee said, “Brad Smith is a legend in the brewing world. If you don’t know him by name, then you know him by product. As the creator of BeerSmith, the world’s most popular and widely used recipe formulation software, his name should be known by all brewers who successfully use his software every brew day. He is an avid AHA supporter as well, having spoken at Homebrew Con numerous times. His writing has also been featured in *Zymurgy*, *HomebrewersAssociation.org*, and elsewhere throughout his career.” I count myself as a satisfied BeerSmith user, having used it both personally and professionally, to create, track, and scale up recipes.

Although Smith acknowledges that BeerSmith has helped many tens of thousands of brewers, he says he also hears frequent positive feedback about his newsletter, articles, and podcasts, all of which he deems proud accomplishments. “I feel lucky to pursue my hobby full time and share it with so many people. It has been great to meet amazing pro brewers and share their love of beer these last 20 years,” said Smith. It’s no surprise that the favorite part of the brewing process for the creator of BeerSmith is the recipe design phase. “Playing with malt bills, hopping schedules, yeast selection, water, and the dozens of other details that go into a beer is more fascinating to me than the mechanics of brewing the beer itself.”

He’s been spending his time recently on the next desktop version of the BeerSmith software that will “focus on integrating the cloud and web-based versions as well as add new brewing features that reflect the growing body of beer knowledge.” Travel is something else he’s also been enjoying. On a recent trip to central Europe, Smith said he gained a true appreciation for the Czech lager style. “There is no substitute for having a fresh one from the tap in the country where the hops and often the malt are grown. They are some of the finest lagers I’ve ever had,” he said.

If you’re a new brewer, he encourages you to follow Jamil Zainasheff’s advice: “Brew often; it’s the fastest way to increase your knowledge and improve the quality of your beer.” And for those who might be stuck in a rut, Smith says, “try something new. I expanded into wine, mead, and cider several years ago. They use the same equipment but generally take less time, and you create amazing beverages that supplement your homemade beer.”

In addition to trying his hand at various types of drinks, Smith also promotes alternatives like simple no-boil methods and extract kits that might appeal to beginners. And along with keeping up with the changing times, he says he’s been trying to emphasize all the wonderful things homebrewers have going for them these days. “Not only do we have a vast amount of knowledge that we did not have 10 to 12 years ago, but we also have access to professional-grade stainless steel equipment and a large array of ingredients that are reasonably priced. It really is the best time ever to be a homebrewer.”

Adriana Terron is the technical brewing projects administrative specialist at the Brewers Association, and Zymurgy copy editor.





2024 NATIONAL HOMEBREW COMPETITION

Category 1

PALE AMERICAN BEER

95 entries



Duke Austerberry
Ferndale, Mich.

"Astro Turf"

1A. American Light Lager

"A very light, easy drinking lager beer—mostly inspired by Miller Lite."

Batch volume: 12 U.S. gal. (45.42 L)

Original gravity: 1.033 (8.2°P)

Final gravity: 1.008 (2.1°P)

Efficiency: 78%

Color: 2.3 SRM

Bitterness: 8.8 IBU

Alcohol: 3.3% by volume

2.3 g. gypsum, in mash

1.2 g. calcium chloride, in mash

4.2 mL lactic acid 88%, in mash

5.8 g. gypsum, in sparge

2.9 g. calcium chloride, in sparge

6.3 mL lactic acid 88%, in sparge

ADDITIONAL ITEMS

1 tsp. yeast nutrient @ 15 min

BREWING NOTES

Mash at 148°F (64°C) for 50 minutes, with a 10-minute mash out at 168°F (76°C). Boil 60 minutes. Pitch yeast at 52°F (11°C) and ferment one week. Bump to 56°F (13°C) on day 7, then to 64°F (18°C) on day 9 and hold for fermentation to finish. Once F.G. is stable, crash cool to 38°F (3°C) and pressure transfer into kegs to carbonate. Enjoy!

MALTS & ADJUNCTS

9 lb. (3.63 kg) Weyermann Pilsner malt

5 lb. (2.27 kg) flaked corn

1 lb. (454 g) Briess pale ale malt

HOPS

1 oz. (28 g) German Tettnang,
3.9% a.a. @ 60 min

0.25 oz. (7 g) German Tettnang,
3.9% a.a. @ 30 min

YEAST

1.5 L starter Wyeast 2007 U.S. lager

WATER

Ca 84 pp, Mg 8 ppm, Na 5 ppm, Cl 49 ppm,
SO₄ 80 ppm, HCO₃ 114 ppm

RUNNERS-UP

Silver Medal: Simon Clark, Kansas City, Kansas, Kansas City Bier Meisters

Bronze Medal: Metts Potter, Morrow, Ohio, Bloatarian Brewing League

Category 2

PALE EUROPEAN BEER

153 entries



Tim Wang
Carlsbad, Calif.
QUAFF

"Beer Mile Kolsch"
5B. Kolsch

MALTS & ADJUNCTS

8.75 lb. (3.97 kg) German Pilsner malt

12 oz. (340 g) white wheat malt

8 oz. (227 g) Munich malt 10L

HOPS

1.5 oz. (43 g) Hallertauer Mittelfrüh,
4% a.a. @ 65 min

0.5 oz. (14 g) Hallertauer Mittelfrüh,
4% a.a. @ 5 min.

YEAST

1 L starter Wyeast 2565 Kolsch yeast

ADDITIONAL ITEMS

0.5 tsp Wyeast yeast nutrient @ 5 min left
in boil

1/2 tablet Whirlfloc @ 5 minutes left in boil

5 mL White Labs Clarity Ferm at pitching

either fermenter, brite tank, or keg. After packaging and carbonating (to approximately 2.5–2.6 vol. of CO₂), run a beer mile with this Kölsch-style brew and watch the calories disappear!

RUNNERS-UP

Silver Medal: Cheyne Harvey, Gilbert, Ariz., Arizona Society of Homebrewers

Bronze Medal: Dustin Striplin, Tacoma, Wash., Browns Point Homebrew Club

BREWING NOTES

Single infusion mash at 149°F (65°C) for 60 min. Target 7.1 gallons (27 L) pre-boil volume. Boil 65 min (or however long to hit your target O.G. of 1.050). Add Whirlfloc and yeast nutrient with 5 min left. Ferment at 58°F (14°C) with a diacetyl rest at 64°F (18°C) on day 7. Clarify with gelatin (if desired) after fermentation is complete in



ON THE WEB

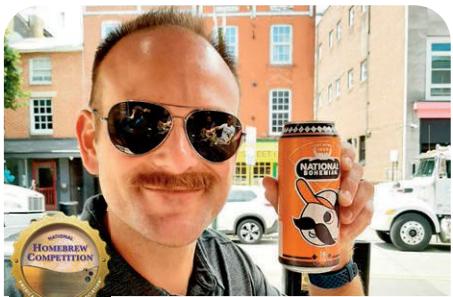
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Category 3

PILSNER

194 entries



Zach Kosslow
Pittsburgh, Penn.
*Three Rivers Alliance of
Serious Homebrewers (TRASH)*

"NZ Pils"
X5. New Zealand Pilsner

"A snappy, NZ hop-forward Pilsner."

Batch volume: 5.75 U.S. gal. (21.8 L)
Original gravity: 1.053 (13°P)
Final gravity: 1.012 (3°P)
Efficiency: 80%
Color: 3 SRM
Bitterness: 35 IBU
Alcohol: 5.4% by volume

MALTS & ADJUNCTS

12.5 lb. (5.67 kg) Weyermann Pilsner malt

HOPS

1 oz. (28.3 g) Amarillo, 6.4% a.a., in mash
 1 oz. (28.3 g) Southern Cross, 13.4% a.a. @ 20 min.
 1 oz. (28.3 g) Motueka, 7.9% a.a., whirlpool 20 min.
 1 oz. (28.3 g) Nelson Sauvin, 11.7% a.a., whirlpool 20 min.
 1.5 oz. (42.5 g) Motueka, 7.9% a.a., dry hop 3 days
 1.5 oz. (42.5 g) Nelson Sauvin, 11.7% a.a., dry hop 3 days
 1.5 oz. (42.5 g) Motueka, 7.9% a.a., keg hop
 1.5 oz. (42.5 g) Nelson Sauvin, 11.7% a.a., keg hop

YEAST

2 packs Cellar Science Berlin Lager

WATER

Ca 53 ppm, Mg 0 ppm, Na 15 ppm,
 Cl 68 ppm, SO₄ 67 ppm, HCO₃ 0 ppm.

ADDITIONAL ITEMS

0.5 g Brewtan B, in mash
 2 mL phosphoric acid, in mash
 3 mL phosphoric acid, in boil @ 60 min
 0.5 g Brewtan B, in boil @ 16 min

3.2 g Wyeast yeast nutrient, in boil
 @ 15 min

1 tablet Whirlfloc, in boil @ 15 min

0.5 dropper full ALDC @ dry hop addition
 2.5 mL Abstrax Hop Terpenes, S. Hemisphere Tropical @ packaging

BREWING NOTES

Mash grist and 1 oz. of any hops on hand that are past their prime at 148°F (64°C) for 90 min, ramp to 162°F (72°C) for 10 min, and mash out at 170°F (77°C) for 5 min. Target a mash pH of ~5.4–5.5 with phosphoric acid. Run off into kettle and add additional phosphoric acid to achieve a final kettle pH of ~5.2. Conduct a 60 min boil with the aforementioned hop additions. At the end of the boil, cool wort to 175°F (79°C) and add whirlpool hops; hold for 20 min. Chill wort to 52°F (11°C), then pitch 2 packs of Cellar Science Berlin lager yeast (24 g). Ferment at 52°F until terminal gravity. Add dry hops and ALDC, let free rise to 55°F (13°C) for 3 days. Package beer with sulfited gelatin solution and Abstrax terpenes (S. Hemisphere). Serve!

RUNNERS-UP

Silver Medal: Jordan Reed, Martinez, Calif., Diablo Order of Zymiracle Enthusiasts (DOZE)
Bronze Medal: Alex Moss, Charlotte, NC, Ultra Rare Brewers

Category 4

PALE MALTY EUROPEAN BEER

116 entries



Eric and Steve Thomas
Chicago, Ill.

"Fellowes Wheelbarrow Helles"
4A. Helles

Batch volume: 6 U.S. gal. (22.71 L)
Original gravity: 1.047 (11.7°P)
Final gravity: 1.010 (2.5°P)
Efficiency: 76%
Color: 4 SRM
Bitterness: 16 IBU
Alcohol: 5.1% by volume

MALTS & ADJUNCTS

9.5 lb. (7.26 kg) Weyermann Pilsner malt
 1 lb. (454 g) Weyermann Carahell malt
 4 oz. (113 g) chit malt

HOPS

0.5 oz. (14 g) Tettnang @ 80 min
 0.5 oz. (14 g) Tettnang @ 30 min
 1 oz. (28 g) Tettnang, in whirlpool

YEAST

1 pack Omega OYL-106
 German Lager yeast

WATER

Ca 67 ppm, Mg 1 ppm, Na 1 ppm,
 Cl 86 ppm, SO₄ 39 ppm, HCO₃ -80 ppm

ADDITIONAL ITEMS

1 tsp. yeast nutrient @ 10 min
 1 tablet Whirlfloc @ 10 min

BREWING NOTES

Water profile: 90% distilled + 10% Chicago tap, adjusted with 1 g gypsum, 2.2 g calcium chloride, and 2.2 mL lactic acid to achieve a malty, German lager profile. Target for mash pH is 5.25. Prepare a 1-L yeast starter with 1 pack OYL-106 on a stir plate 24 hours before pitching.

Mash in at 120°F (49°C) and hold for 20 min, then raise to 147°F (64°C) and hold for 15 min. Run a single decoction by pulling approximately 50 percent thick mash into a separate kettle and boiling it over medium flame, stirring constantly, for 30 mins. Return decocted portion to the mash tun, raise temp to 160°F (71°C) and hold for 30 mins. Mash out at 170°F (77°C) and sparge. Boil for 90 mins, adding 0.5 oz of Tettnanger hops at 80 min and 30 min. Add yeast nutrient and Whirlfloc tablet at 10 min. Add 1 oz Tettnanger at flameout for whirlpool.

After the boil, allow the wort to cool to 167°F (75°C), then crash cool to 45°F (7°C). Oxygenate and pitch yeast, allowing a free rise to 48°F (9°C). Hold at 48°F until 75 percent attenuation (4–5 days), then bump to 60°F (16°C) for a diacetyl rest. When the beer reaches final gravity (10–14 days), crash to 33°F (1°C), rack, and keg at 2.6 volumes of CO₂, then lager for 6–8 weeks. Tastes even better when you drink one with your brother.

RUNNERS-UP

Silver Medal: Ricardo Fritzche, Austin, Texas, Austin Zealots
Bronze Medal: John Bell, Poway, Calif., QUAFF (Homebrew Club of the Year)



2024 NATIONAL HOMEBREW COMPETITION

Category 5

AMBER EUROPEAN BEER

144 entries



David James
Eugene, Ore.
Cascade Brewers Society

"In Amber Clad"
3C. Czech Amber Lager

Batch volume:	8 U.S. gal. (3.63 L)
Original gravity:	1.058 (14.3°P)
Final gravity:	1.015 (3.7°P)
Efficiency:	82%
Color:	14 SRM
Bitterness:	43 IBU
Alcohol:	5.6% by volume

MALTS & ADJUNCTS

6 lb.	(2.72 kg) Mecca Gateway malt
3 lb.	(1.36 kg) Mecca Vanora Vienna malt
4 lb.	(1.81 kg) Mecca Metolius Munich malt
1.5 lb.	(680 g) Weyermann CaraBohemian malt
8 oz.	(227 g) Weyermann melanoidin malt
8 oz.	(227 g) Dingemans biscuit malt

HOPS

1 oz.	(28 g) Magnum, 12.4% a.a. @ 60 min.
1.5 oz.	(43 g) Saaz, 4% a.a. @ 20 min.
1.5 oz.	(43 g) Saaz, 4% a.a. @ 10 min.

YEAST

550 mL Bootleg Biology CUL slurry

WATER

Ca 28 ppm, Mg 6 ppm, Na 15 ppm,
Cl 29 ppm, SO₄ 20 ppm, HCO₃ 29 ppm

ADDITIONAL ITEMS

1 tablet Whirlfloc @ 10 minutes

BREWING NOTES

Mash in at 113°F (45°C) for a 10-minute beta-glucan rest, take pH readings and adjust as needed. Raise temp to protein rest at 133°F (56°C) and hold for 10 minutes. Pull your first decoction (roughly a third of the total volume of thick mash, just enough wort to cover the grain) and raise the main mash to the first saccharification rest at 149°F (65°C). Hold main mash at 149°F for 40 minutes; during this rest, bring your first decoction to a boil and hold for 20 to 30 minutes. Stir this decoction back into your main mash and bring it up to your second saccharification rest at 155°F (68°C); hold while you complete your second decoction.

Pull your second decoction and boil for another 20 to 30 minutes. Stir it back into the main mash and bring the temperature up to mashout at 169°F (76°C); hold at mashout for 10 minutes. Sparge/drain/transfer as normal, and bring the wort to a

boil, adding hops as needed. In the last 15 minutes of the boil, adjust the pH down to 5.1–5.0 and add Whirlfloc.

Chill to 48°F (8°C), transfer, and oxygenate before pitching. Open fermentation is optional at these initial stages. Allow wort to free-rise to 50°F (10°C) and hold until approximately 45 percent attenuation, then raise temperature by 1°F per day until you reach 60 percent attenuation. At this point you can either spund in your fermenting vessel, or if you don't have a capable vessel, transfer to a keg with a spunding valve to finish up fermentation. The beer is ready to drink at this point, but will be better after at least a month of lager time.

Bootleg's Czech Unpasteurized Lager strain is ideal, but any relatively malt-centric lager strain will do. Mecca's Gateway malt is a moderately under-modified Pilsner malt, so step mashing (or a decoction protocol) is needed. If you want to skip these steps, then you can substitute a more modified base such as Weyermann's floor-malted pilsner malt and include a slightly higher percentage of melanoidin malt. The Munich and Vienna malts can be substituted out for an equal volume of floor-malted dark malt. The CaraBohemian can be swapped for CaraMunich II.

RUNNERS-UP

Silver Medal: Kris Haskins, Seattle, Wash., Cascade Brewers Guild

Bronze Medal: Jim Skinner, Ft. Collins, Colo.

HOPS

0.5 oz.	(14 g) Saaz, 2.8% a.a., FWH
1.5 oz.	(43 g) Saaz, 2.8% a.a. @ 60 min
0.75 oz.	(21 g) Saaz, 4.9% a.a. @ 5 min
0.5 oz.	(14 g) Saaz, 2.8% a.a. @ 1 min

YEAST

2 packs Wyeast 2278 Czech Pilsner yeast

BREWING NOTES

Single infusion mash for 60 minutes at 151°F (66°C). Boil for 60 minutes. Pitch yeast at 55°F (13°C) and ferment for one week, then raise to 58°F (14°C) for week 2. Cold crash (removing yeast) and lager for 4 weeks.

RUNNERS-UP

Silver Medal: Jason Dunn, Corona, Calif., Inland Empire Brewers

Bronze Medal: Jon Serluco, Philadelphia, Pa., Brewminaries

Category 6

DARK EUROPEAN LAGER

132 entries



Ray and Vicki Garcia
Everett, Wash.
Greater Everett Brewers League

"Into the Darkness"
3D. Czech Dark Lager

MALTS & ADJUNCTS

5.25 lb.	(2.38 kg) Weyermann Pilsner malt
3.25 lb.	(1.47 kg) Munich malt
1.5 lb.	(680 g) CaraMunich malt
8 oz.	(227 g) Carafa II
4 oz.	(113 g) melanoidin malt



Category 7

AMERICAN WHEAT & BLONDE

64 entries



Zachary Miller
Overland Park, Kan.

"Ellie's Blonde"
18A. Blonde Ale

"A crispy light beer for the heat of summer. Pilsner and Munich malts add a great crackery, grainy depth to an otherwise easy drinker."

Batch volume: 5.5 U.S. gal. (20.8 L)
Original gravity: 1.047 (11.7°P)
Final gravity: 1.009 (2.3°P)
Efficiency: 80%
Color: 5 SRM
Bitterness: 12 IBU
Alcohol: 5% by volume

MALTS & ADJUNCTS

3.75 lb. (1.7 kg) Rahr pale malt
 2.75 lb. (1.25 kg) Weyermann Pilsner malt
 1.875 lb. (850 g) Weyermann Munich I
 8 oz. (227 g) Weyermann Carahell

HOPS

0.25 oz. (7.1 g) Citra, 13% a.a. FWH
 0.25 oz. (7.1 g) Citra, 13% a.a. @ 5 min
 1 oz. (28 g) Centennial, 10% a.a.,
 25-min hop stand

YEAST

1 pack Omega OYL-011 British Ale V

WATER

Ca 69 ppm, Mg 0 ppm, Na 8 ppm,
 Cl 97 ppm, SO₄ 38 ppm, HCO₃ 10 ppm

ADDITIONAL ITEMS

1 tsp. Irish moss @ 15 min

BREWING NOTES

Treat 6.8 gallons of RO water with 3.7 g calcium chloride and 1.7 g gypsum. Single infusion mash at 149°F (65°C) for 60 minutes. Pull grains and sparge with 1 gallon of RO water treated with 0.6 g calcium chloride and 0.3 g gypsum. Adjust pH of sparge water to 5.6 or slightly lower using 88% lactic acid. Add first wort hop addition of Citra before bringing wort to a boil. Add remaining hop additions as listed. At flame out add last hop addition and hop stand for 25 minutes at 175°F (79°C). Chill wort to 68°F (20°C) and pitch yeast. Primary fermentation for 14 days. Rack and package.

RUNNERS-UP

Silver Medal: Ian Heger, Dallas, Texas, North Texas Homebrewers Association
Bronze Medal: Sean Spaulding, Crestwood, Ky., Louisville Area Grain and Extract Research Society (LAGERS)

Category 8

GERMAN WHEAT & RYE BEER

80 entries



Dave Robinson
Spokane, Wash.
Spokane Recirculating Mashers (SRM)

"Nectar of Nääki"
27A9. Historical: Sahti

"Thick, malty, with rye spice and just enough juniper to stand in for the lack of hops. Comfort food in liquid form."

Batch volume: 2 U.S. gal. (7.57 L)
Original gravity: 1.106 (25°P)
Final gravity: 1.027 (6.7°P)
Color: 15 SRM
Bitterness: 14 IBU
Alcohol: 10.4% by volume

MALTS & ADJUNCTS

5 lb. (2.27 kg) Viking Sahtimallas malt
 1 lb. (454 g) Viking Munich dark malt
 1 lb. (454 g) Briess flaked rye
 1 lb. (454 g) Briess Golden Light DME
 (in boil)
 4 oz. (113 g) Bestmalz acidulated malt
 4 oz. (113 g) Briess 45°L caramel rye malt

HOPS

0.4 oz. (11.3 g) Artisan Hallertau Mittelfrüh,
 4% a.a. @ 30 min
 0.3 oz. (8.55 g) Artisan Kent Goldings,
 3.3% a.a. @ 15 min

YEAST

1 pack Omega Lutra Kveik OYL-071

WATER

Ca 51 ppm, Mg 5 ppm, Na 12 ppm,
 Cl 0 ppm, SO₄ 110 ppm, HCO₃ 65 ppm

ADDITIONAL ITEMS

0.6 oz. (17 g) juniper branches (mash 1 hour)
 0.1 oz. (3 g) juniper berries (mash 1 hour)
 0.17 oz. (5 g) juniper needles (boil 15 min)
 0.5 tsp. gypsum (in mash)

BREWING NOTES

Heat 3 gal (11.36 L) of Geyser Spring water to a strike temperature of 150°F (66°C). Gradually stir in grains into BIAB and add gypsum. Add juniper branches and berries in a large mesh bag directly to the mash. Reach a target temperature of 140°F (60°C) and mash for 45 minutes, recirculating often. Then increase to 158°F (70°C) for another 45 minutes, recirculating often. Finally, increase temperature to 176°F (80°C), lift the grain bag, and firmly squeeze the bag. Proceed to sparge with 0.5 gal (1.89 L) of water (also at 176°F). Perform a limited boil for only 30 min, adding hops according to the schedule. Add DME and juniper needles at 15 min remaining in the boil. Cool wort down to 90°F (32°C) and pitch yeast. Ferment at 90°F for 7 days, then at 60°F (16°C) for 3 days, then crash to 40°F (4°C) for 2 days. Bottle with 1 oz (28 g) dextrose for a target carbonation of 1.8 volumes CO₂.

RUNNERS-UP

Silver Medal: Doug Walker, Redlands, Calif., Inland Empire Brewers
Bronze Medal: Mike & Stephanie Butler, Olathe, Kansas, Kansas City Biermeisters



Category 9

PALE BRITISH ALE

93 entries



Benjamin Amidon
Arlington, Mass.

"Bitter-Chuk"
11A. Ordinary Bitter

"Big on flavor but very sessionable common bitter. Relatively simple grain bill, but close attention to yeast health, pitch rate and fermentation temperature brings this beer to life."

Batch volume: 9.5 U.S. gal. (36 L)

Original gravity: 1.040 (10°P)

Final gravity: 1.010 (2.5°P)

Efficiency: 70%

Color: 10 SRM

Bitterness: 23 IBU

Alcohol: 4% by volume

MALTS & ADJUNCTS

12 lb. (5.44 kg) Crisp Maris Otter pale malt

1 lb. (454g) Bairds crystal 70/80

8 oz. (227 g) Golden Naked Oats

1 oz. (28 g) Crisp pale chocolate

HOPS

3 oz. (85 g) East Kent Golding, 3.3% a.a. @ 60 min

1 oz. (28 g) East Kent Golding, 3.3% a.a. @ 15 min

YEAST

2 L starter Wyeast 1318 London III ale yeast

WATER

Ca 111 ppm, Mg 0 ppm, Na 0 ppm, Cl 73 ppm, SO₄ 168ppm, HC₀₃ 0 ppm

ADDITIONAL ITEMS

2 tablets Whirlfloc @ 15 min

1 tsp. yeast nutrient @ 15 min

BREWING NOTES

Water additions: 8g CaSO₄ + 4g CaCl₂, Distilled water. Mash grains at 152°F (67°C) for 60 minutes. Collect 9 gal. (34.07 L) for a pre-boil gravity of 1.046 (11.5°P). Add 3 oz. EKG (3.3% a.a.) at 60 minutes, then 1 oz EKG (3.3% a.a.) at 15 minutes. Yeast nutrient and Whirlfloc added at 15 minutes. Dilute to 9.5 gal. with sterile water, chill to 65°F (18°C) and pitch London Ale III (or other suitable English ale yeast). After 72 hours let free rise to 70°F (21°C) and hold for 4 days or until fermentation is complete. Cold crash and package.

RUNNERS-UP

Silver Medal: Keith Stelzer, The Dalles, Ore.

Bronze Medal: Darren Howard, Sarasota, Fla., Homebrew Association of Manatee & Sarasota (HAMS)

Category 10

SCOTTISH & IRISH ALE

88 entries



Mark Drilling
O'Fallon, Mo.

St. Charles County Society of Brewers

"Highland Clan"
14B. Scottish Heavy

Batch volume: 5.5 U.S. gal. (20.82 L)

Original gravity: 1.040 (10°P)

Final gravity: 1.012 (3°P)

Efficiency: 70%

Color: 17 SRM

Bitterness: 19 IBU

Alcohol: 4% by volume

MALTS & ADJUNCTS

7 lb. (3.18 kg) Maris Otter pale malt

7 oz. (200 g) brown malt

7 oz. (200 g) caramel 60

6 oz. (172 g) roast barley

5 oz. (141 g) Victory malt

5 oz. (141 g) melanoidin malt

HOPS

0.7 oz. (20 g) East Kent Golding, 5% a.a. @ 60 min

0.4 oz. (11 g) East Kent Golding, 5% a.a. @ 30 min

YEAST

1L starter Wyeast 1728 Scottish ale yeast

WATER

Ca 71 ppm, Mg 11 ppm, Na 26 ppm, Cl 79 ppm, SO₄ 108 ppm, HC₀₃ 44 ppm

ADDITIONAL ITEMS

1 tablet Whirlfloc @ 10 min

1 tsp. yeast nutrient @ 10 min

BREWING NOTES

Mash at 152°F (67°C) for 60 min. Target mash pH of 5.4. Raise temp to 168°F (76°C) for mash out and sparge. Collect runnings and boil for 60 min, adding hop additions at 60 min and 30 min. Chill and pitch a 1-liter starter of Wyeast 1728. Ferment at 65°F (18°C) for 2 weeks. Crash, then transfer to a purged keg and carbonate to 2.3 vols CO₂. Optionally fine with gelatin after kegging to enhance clarity.

RUNNERS-UP

Silver Medal: Phil Clarke Jr., Bronx, NY, New York City Homebrewers Guild

Bronze Medal: Tyler Miller, Mesa, Ariz., Arizona Society of Homebrewers



Category 11

AMERICAN PALE ALE

75 entries



Jeffrey Orr
Vancouver, Wash.
Oregon Brew Crew

"Pale Ale"
18B. American Pale Ale

Batch volume: 12 U.S. gal. (45.42 L)
Original gravity: 1.058 (14.2°P)
Final gravity: 1.015 (3.7°P)
Efficiency: 65.6%
Color: 6.3 SRM
Bitterness: 44 IBU
Alcohol: 5.6% by volume

MALTS & ADJUNCTS

18.5 lb. (8.39 kg) Great Western Premium 2 Row
 3.5 lb. (1.59 kg) Baird's Maris Otter
 3 lb. (1.36 kg) Durst Malz Munich 13.1°L
 2 lb. (0.9 kg) Durst Malz wheat malt
 1.5 lb. (0.68 kg) Briess caramel 10°L

HOPS

2 oz. (57 g) Saaz, 2.4% a.a. in mash
 1.5 oz. (42 g) Cascade, 9.3% a.a., @ 60 min
 1 oz. (28 g) Cascade, 9.3% a.a., @ 15 min
 4 oz. (113 g) Cascade, 9.3% a.a., 10 min hopstand
 4 oz. (113 g) Chinook Lupomax, 18% a.a., 10 min hopstand
 4 oz. (113 g) Sabro Lupomax, 19.5% a.a., 10 min hopstand
 4 oz. (113 g) Citra hop hash, 15% a.a., dry hop 3 days
 4 oz. (113 g) Mosaic hop hash, 20% a.a., dry hop 3 days
 2 oz. (57 g) Azacca, 13.8% a.a., dry hop 3 days
 2 oz. (57 g) Sabro Lupomax, 19.5% a.a., dry hop 3 days

YEAST

3.5L starter Omega Yeast OYL-406 Little DIPA ale yeast

WATER

Ca 110 ppm, Mg 18 ppm, Na 12 ppm, Cl 50 ppm, SO₄ 96 ppm, HCO₃ 216 ppm
 9.1 g. calcium chloride, in mash
 12.9 g. calcium carbonate (chalk), in mash
 13.7 g. magnesium sulfate (Epsom salt), in mash
 12.9 g. calcium sulfate (gypsum), in mash
 6 mL phosphoric acid 75%, in mash

ADDITIONAL ITEMS

3.5 oz. (99 g) Phantasm Thiol Powder @ 15 min
 2 tablets Whirlfloc @ 15 min

BREWING NOTES

Mash at 153°F (67°C) for 60 minutes. Boil 90 minutes. Conduct a hopstand at 171°F (77°C) for 10 min. Ferment at 68°F (20°C) at 15 PSI for 7 days. Dry hop 3 days, then rack and carbonate to 2.4 volumes CO₂.

RUNNERS-UP

Silver Medal: Metts Potter, Morrow, Ohio, Bloatarian Brewing League

Bronze Medal: Peter Hand, Issaquah, Wash.

Category 12

AMBER & BROWN AMERICAN ALE

112 entries



John Jacovetty
Seneca, S.C.

"Muddy Toes"
27A2. Historical: Kentucky Common

Batch volume: 5 U.S. gal. (18.9 L)
Original gravity: 1.052 (12.7°P)
Final gravity: 1.012 (3°P)
Efficiency: 70%
Color: 15 SRM
Bitterness: 20 IBU
Alcohol: 5.2% by volume

MALTS & ADJUNCTS

6.5 lb. (2.95 kg) pale 6-row malt
 3.5 lb. (1.59 kg) Boone County white corn, crushed
 4 oz. (113 g) black malt
 3 oz. (85 g) 80°L caramel malt

HOPS

0.4 oz. (11 g) Vanguard, 4.7% a.a. @ FWH
 0.4 oz. (11 g) Cluster, 6.5% a.a. @ 60 min
 0.4 oz. (11 g) Cluster, 6.5% a.a., whirlpool 30 min @ 80°F

YEAST

1 L starter Wyeast 1056 American Ale yeast

WATER

10% phosphoric acid per 5 gal (18.93 L)
 reverse-osmosis water
 1 tsp. CaCl₂, in mash water
 1 tsp. CaCl₂, in sparge water

ADDITIONAL ITEMS

½ tsp. yeast nutrient @ 10 min
 ½ tablet Whirlfloc @ 10 min

BREWING NOTES

Use RO water with 10% phosphoric acid per 5 gals (or 5.5 pH). Add 1 tsp. calcium chloride (CaCl₂) to mash. Sparge with same profile. Full fusion mash at 152°F (67°C) for 60 min. Mash out at 168°F (76°C) for 10 min. Fly sparge with 168°F (76°C) water to collect 6.5 gal (25 L) wort. First wort hops are added before the wort run off. Whirlpool hops for 30 min at 180°F (82°C). Boil 60 min. Yeast nutrient and ½ Whirlfloc tablet @ 10 min. Chill, add oxygen and pitch yeast. Ferment at 67°F (19°C) until complete. Cold crash and keg to 3–3.5 volumes.

RUNNERS-UP

Silver Medal: Timothy Van Mouwerik, Walla Walla, Wash.

Bronze Medal: Joe Skiles, Carol Stream, Ill., Urban Knaves of Grain



2024 NATIONAL HOMEBREW COMPETITION

Category 13

BROWN BRITISH BEER

84 entries



Jarrett Long and John Bates
Arlington, Texas
Horsemen of the Hopocalypse
Samuel Adams Ninkasi Award Winners

"Cheerio"
13B. British Brown Ale

Batch volume: 6.08 U.S. gal. (23 L)

Original gravity: 1.052 (13.2°P)

Final gravity: 1.013 (3.3°P)

Efficiency: 75%

Color: 18 SRM

Bitterness: 24 IBU

Alcohol: 5.1% by volume

MALTS & ADJUNCTS

10 lb. (4.54 kg) Thomas Fawcett Maris Otter malt

1 lb. (454 g) brown malt

1 lb. (454 g) caramel 60 malt

4 oz. (113 g) Baird's chocolate malt

HOPS

2 oz. (57 g) East Kent Goldings,
4.2% a.a. @ 60 min

YEAST

1 pack Wyeast 1318 London ale III yeast

BREWING NOTES

Mash for 60 minutes at 152°F (67°C).

Ferment at 68°F (20°C) for 10 days.

RUNNERS-UP

Silver Medal: Rodney Beckhoff, Plain City, Ohio

Bronze Medal: Ron Barnes, Basehor, Kansas, Kansas City Bier Meisters

Category 14

IRISH & BRITISH STOUT

105 entries



Matthew Mead
Grand Rapids, Mich.
Primetime Brewers

"Treefort Stout"
16C. Tropical Stout

"This is the base stout recipe provided by Nate Lanier at Treehouse Brewing on YouTube in Fall 2023: youtube.com/watch?v=CW_vmk8b_Rl"

Batch volume: 5.5 U.S. gal. (20.82 L)

Original gravity: 1.075 (18.2°P)

Final gravity: 1.018 (4.5°P)

Efficiency: 66%

Color: 46 SRM

Bitterness: 30 IBU

Alcohol: 7.1% by volume

MALTS & ADJUNCTS

11.2 lb. (5.07 kg) Maris Otter pale malt

2.3 lb. (1.03 kg) Munich 10L malt

1.2 lb. (553 g) caramel 60 malt

8.7 oz. (247 g) Carafa Special III malt

8.7 oz. (247 g) chocolate malt

8.7 oz. (247 g) roasted barley

HOPS

0.9 oz. (26 g) Magnum, 11.3% a.a. @ 60 min

YEAST

2 packs Safale US-05 American ale yeast

WATER

Ca 100 ppm, Mg 15 ppm, Na 11 ppm,
Cl 57 ppm, SO₄ 104 ppm, HCO₃ 185 ppm

ADDITIONAL ITEMS

1 tablet Whirlfloc @ 15 min

1 tsp. White Labs WL1000 Yeast Nutrient
@ 10 min

BREWING NOTES

Everything is standard brewing procedure (If you miss your starting gravity just add a little pale DME to get it to 1.070 or 1.075). I just fermented in my basement around 60–70°F (16–21°C). 68°F (20°C) was my target. Once fermentation was completed, I transferred to a keg and carbonated to 2.4 vol. of CO₂. No need to use Brewtan B or any anti-oxidation products on this beer, as aging improves it over time. I entered this in competitions over the months and scores kept improving as it aged and got a little more caramel and rum-raisin character. No oaking either, although you can if you want. It might add some vanilla notes and tannins, which wouldn't be a bad thing, but might take away from it being considered a tropical stout. Either way, it's an amazing base stout. Shout out to Nate at Treehouse Brewing for sharing the recipe with the homebrewing community!

RUNNERS-UP

Silver Medal: Kevin Holt, San Diego, Calif., QUAFF (Homebrew Club of the Year)

Bronze Medal: Mark Kunzelmann, St. Louis, Mo., St. Louis Brews





Category 15

AMERICAN PORTER & STOUT

99 entries



Mike and Alex Riddle
Napa, Calif.
HOME

"Gordon Doesn't Know Everything"
20A. American Porter

Batch volume: 10 U.S. gal. (37.85 L)
Original gravity: 1.065 (15.9°P)
Final gravity: 1.018 (4.5°P)
Color: 36 SRM
Bitterness: 45 IBU
Alcohol: 6.1% by volume

MALTS & ADJUNCTS

19 lb. (8.62 kg) British pale ale malt
 1 lb. (454 g) chocolate malt
 1 lb. (454 g) crystal 60
 1 lb. (454 g) crystal 45
 8 oz. (227 g) pale chocolate malt
 8 oz. (227 g) black patent malt
 8 oz. (227 g) roast barley
 8 oz. (227 g) aromatic malt
 8 oz. (227 g) wheat

HOPS

1.5 oz. (42 g) Northern Brewer,
 6% a.a. @ 60 min
 1 oz. (28 g) Northern Brewer,
 6% a.a. @ 30 min
 2 oz. (57 g) Perle, 5.1% a.a., @ 15 min.
 2 oz. (57 g) Cascade, 5.1% a.a., @ 3 min.

YEAST

3 packs Wyeast 1056 California Ale Yeast

WATER

Reverse osmosis with 1 tsp. calcium chloride and 1 tsp. calcium sulfate.

BREWING NOTES

Mash 75 minutes at 152°F (67°C). Boil 75 minutes. Bottle condition to 2.4 volumes CO₂. Age at least 6 months.

RUNNERS-UP

Silver Medal: Jarrett Long and John Bates, Samuel Adams Ninkasi Winners, Arlington, Texas, Horsemen of the Hopocalypse, Samuel Adams Ninkasi Award Winner

Bronze Medal: Jared Teaney, Shawnee, Kan., Kansas City Biermeisters

Category 16

AMERICAN IPA

105 entries



Steve Flanders and Tom Tousignant
Brea, Calif.

"West Coast #1"
21A. American IPA

Batch volume: 11 U.S. gal. (41.64 L)
Original gravity: 1.065 (16°P)
Final gravity: 1.009 (2.3°P)
Efficiency: 85.5%
Color: 4 SRM
Bitterness: 77 IBU
Alcohol: 7.4% by volume

MALTS & ADJUNCTS

28 lb. (12.7 kg) 2-row pale malt

HOPS

3 oz. (85 g) Warrior, 13.1% a.a. @ 90 minutes
 3 oz. (85 g) Citra, 14.2% a.a., whirlpool 15 min @ 175°F (79°C)
 2 oz. (57 g) Simcoe, 12.7% a.a., whirlpool 15 min @ 175°F (79°C)
 7 oz. (198 g) Cryo Citra, 25% a.a., 48 hours @ end of primary
 6 oz. (170 g) Cryo Simcoe, 23.9% a.a., 48 hours @ end of primary

YEAST

600 billion cells Imperial Flagship A07

BREWING NOTES

Ferment @ 67°F (19°C) for first 3 days, allow to free rise to 70°F (21°C) on day 4 and finish fermentation. Dry hop for 2 days when FG is reached, typically 1.009–1.012 (2.3–3°P). On the 2nd day post dry hop, dump trub. On the 3rd day, drop temp to 55°F (13°C) and add gelatin, Crash 24 hours later. Final pH should be 4.6–4.7, adjust as needed.

RUNNERS-UP

Silver Medal: Mike and Stephanie Butler, Olathe, Kan., Kansas City Bier Meisters

Bronze Medal: Kris Haskins, Seattle, Wash., Cascade Brewers Guild

**ON THE WEB**

Find past winners' homebrew recipes on our website @ HomebrewersAssociation.org/beer-recipes



2024 NATIONAL HOMEBREW COMPETITION

Category 17

SPECIALTY IPA

77 entries



Christopher Burgess
Castle Rock, Colo.
Rock Hoppers Brew Club
Gambrinus Club Award Winners

"Brut Fall Off a Bike"
21B. Brut IPA

"The pH information is important for a beer like this. The large amount of dry hops pushes up the pH, so you need to start pretty low for the beer to end at a good pH level."

Batch volume: 8 U.S. gal. (30.3 L)

Original gravity: 1.062 (15.2°P)

Final gravity: 1.007 (1.5°P)

Efficiency: 70%

Color: 3.3 SRM

Bitterness: 107 IBU

Alcohol: 7.4% by volume

MALTS & ADJUNCTS

17 lb. (7.71 kg) Weyermann Pilsner Malt
1 lb. (454 g) dextrose, in whirlpool
8 oz. (227 g) rice hulls, in mash

HOPS

2 oz.	(57 g) Mosaic, 12.5% a.a., in mash
1.75 oz.	(49 g) Simcoe, 12% a.a. @ 60 mins
1.5 oz.	(42 g) Mosaic, 12.5% a.a. @ 10 mins
4.5 oz.	(127 g) Mosaic, 12.5% a.a. @ 0 minutes (whirlpool 30 min)
2 oz.	(57 g) Mosaic Lupomax, 18% a.a., dry hop on day 4 of primary fermentation
8 oz.	(227 g) Mosaic, 12.5% a.a., dry hop 3 days
4 oz.	(113 g) Nelson Sauvin, 12% a.a., dry hop 3 days
2 oz.	(57 g) Strata, 12% a.a., dry hop 3 days
1 ml.	Strata terpenes (mixed into 3 ml Everclear) @ kegging

YEAST

2 packs Imperial Flagship A07

WATER

Ca 50 ppm, Mg 10, Na 10, Cl 50 ppm, SO₄ 100 ppm

ADDITIONAL ITEMS

Food grade acid such as phosphoric as needed to meet pH targets – see Notes
0.25 tsp. Brewtan B (hydrated) in mash
0.25 tsp. Brewtan B (hydrated) in boil @ 15 mins
1 tablet Whirlfloc in boil @ 10 mins
0.75 tsp. Yeast nutrient in boil @ 10 mins
1 ml ALDC in primary
1 Servomyces tablet (contents pasteurized in boiling water and added to primary)
1 ml ALDC with dry hop
19 ml Biofine Clear before packaging

BREWING NOTES

Target the following pH levels throughout the brewing process. Mash pH target: 5.35, boil start pH target: 5.2 (acid addition likely needed), post hop and dextrose whirlpool pH target: 4.9 (acid addition likely needed). Dough in, including the mash hops, and mash at 148°F (64°C) for 70 minutes. Mash out at 168°F (76°C) for 10 minutes. Boil and add hops and other ingredients as indicated. Turn off the heat and add dextrose. Whirlpool with the lid on for 30 minutes. Chill to 65°F (18°C). Add 1 ml ALDC while pitching the yeast to help prevent hop creep. Ferment at 64°F (18°C) for 48 hours, then ramp the temperature to 68°F (20°C) over several days to encourage a complete fermentation. After fermentation, seal the fermenter to avoid oxygen intake, and drop the temperature to 45°F (7°C). After 1 day, dump the yeast and trub, if possible. Add all of the dry hops and another 1 ml of ALDC, seal the fermenter, and let the temperature rise to 65°F (18°C). After 6 days, drop the temperature to 38°F (3°C). Dump the hops after 24 hours and again after 48 hours. Add 19 ml Biofine Clear, agitating the beer with CO₂ to mix it in. After another 48 hours, transfer the beer to a CO₂-purged keg taking special care to avoid introducing any oxygen. Carbonate to 3.5 volumes.

RUNNERS-UP

Silver Medal: Ryan Kuhn, Aurora, Ill.

Bronze Medal: Evan Brill, Louisville, Ky., Louisville Area Grain and Extract Research Society (LAGERS)





Category 18

HAZY IPA

136 entries



Terence Gardner
Carmichael, Calif.
Greenbelt Brewers Association

"The Juice Extractor"
21C. Hazy/New England IPA

"A well-balanced hazy IPA with Citra,
 Mosaic and Galaxy hops."

Batch volume: 15 U.S. gal. (56.78 L)

Original gravity: 1.066 (16.2°P)

Final gravity: 1.016 (4°P)

Color: 4 SRM

Bitterness: 15 IBU

Alcohol: 6.5% by volume

MALTS & ADJUNCTS

27 lb. (12.25 kg) Pilsner malt

7 lb. (3.18 kg) malted oats

5 lb. (2.27 kg) malted wheat

HOPS

6 g. Citra Incognito hop concentrate,
 13–17% a.a., whirlpool

6 oz. (170 g) Galaxy T90, dry hop 2 days

6 oz. (170 g) Mosaic T90, dry hop 2 days

6 oz. (170 g) Citra T90, dry hop 1 day

6 oz. (170 g) Mosaic Lupomax,
 dry hop 1 day

6 oz. (170 g) Citra Lupomax,
 dry hop 1 day

YEAST

Lalbrew Verdant IPA ale yeast

ADDITIONAL ITEMS

6.4 g Irish moss @ 10 min

6.4 g Wyeast nutrient @ 10 min

BREWING NOTES

Mash at 158°F (71°C) for 45 minutes. During Vorlauf, raise temperature to 165°F (74°C) to ensure smooth runoff and sparge with 168–170°F (76–77°C) water until pre-boil volume is met. Boil 60 minutes, perform whirlpool with Incognito hops for 25 minutes. Cool wort, transfer to fermentation vessel and pitch appropriate amount of yeast by using a yeast calculator. Ferment at 69°F (21°C). Begin dry hop schedule at day 6 into primary and begin crashing the hops out at day 8. Package the beer into kegs by day 10 to limit contact with the vegetal hop matter. Force carbonate. Ready to serve by day 12.

RUNNERS-UP

Silver Medal: David Bovitz, Lakewood, Colo.

Bronze Medal: Evan Brill, Louisville, Ky., Louisville Area Grain and Extract Research Society (LAGERS)

Category 19

STRONG AMERICAN ALE

87 entries



Zachary Belles
Salt Lake City, Utah
Lauter Day Brewers

"David Hasselhop"
22A. Double IPA

Batch volume: 5 U.S. gal. (18.9 L)

Original gravity: 1.066 (16.2°P)

Final gravity: 1.008 (2°P)

Efficiency: 72%

Color: 4 SRM

Bitterness: 89 IBU

Alcohol: 7.6% by volume

MALTS & ADJUNCTS

15.25 lb. (6.92 kg) Rahr North Star Pilsner
 malt

1.5 lb. (680 g) Weyermann Vienna malt

8 oz. (227 g) Rahr white wheat malt

HOPS

1.95 oz. (55 g) Warrior, 15.4% a.a. @ 90 min

0.4 oz. (11 g) Amarillo, 7.2% a.a. @ 20 min

0.62 oz. (18 g) Simcoe, 14.1% a.a. @ 20 min

0.4 oz. (11 g) Citra, 12.7% a.a. @ 20 min

1 oz. (28 g) Simcoe, 14.1% a.a., whirlpool
 5 min @ 180°F

1 oz. (28.3 g) Amarillo, 7.2% a.a., whirlpool
 5 min @ 180°F

0.56 oz. (16 g) Citra Incognito, % a.a., in pri-
 mary (see Notes)

3 oz. (85 g) Citra, dry hop 3 days

2 oz. (57 g) Mosaic, dry hop 3 days

1 oz. (28 g) Simcoe, dry hop 3 days

1 oz. (28 g) Citra Lupomax, dry hop 3
 days

1 oz. (28 g) Mosaic Lupomax, dry hop 3
 days

0.5 oz. (14 g) Simcoe Cryo, dry hop 3 days

YEAST

2.5 L starter Imperial Flagship ale yeast

WATER

Ca 79 ppm, Mg 11 ppm, Na 0 ppm,

Cl 70 ppm, SO₄ 139 ppm

6.5 g CaSO₄, in mash

5.5 g CaCl₂, in mash

4.2 g MgSO₄, in mash

2 mL lactic acid, in mash

ADDITIONAL ITEMS

1 tablet Whirlfloc @ 10 minutes

Gelatin finings at kegging

BREWING NOTES

Using a standard 10 gal cooler mash tun strike 7 gal (26.5 L) RO Water at 163°F (73°C). Mash at 152°F (67°C). Add all salts and lactic to strike water and target a mash pH of 5.2. Fly Sparge 2.64 gal (10 L) RO Water for 40 minutes. Preboil volume was 7.66 gal (29 L). Boil for 120 minutes on a 120v Grainfather to get to final volume of 6.87 gal (26 L). Whirlpool and recirculate the 0-min hop pellet additions at 180°F (82°C) for 5 minutes. Add Citra Incognito flowable hops in "North Park Style" directly to the fermenter. Pump 180°F (82°C) wort into two sanitized pitchers that can handle high heat,



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< Continued from previous page.

and squeeze the Citra Incognito into both pitchers. Chill down remaining kettle wort and pump in cold to your fermenter. Pour in the hot pitchers of wort with Incognito directly into the fermenter. Oxygenate wort then pitch yeast at 60°F (16°C), let slowly warm up to 64°F (18°C) over 2 days, then hold at 64°F for 4 to 5 more days. Once you get a few points from terminal, ramp up 1 degree every

12 hours until you get to 70°F (21°C). Hold until fermentation is complete and diacetyl is clear, then soft crash to 57°F (13°C). Hold at 57°F for 1 day then add all dry hops and hold for 2 additional days, then cold crash to 33°F (1°C) for 1 day. Add gelatin to very well purged keg, rack beer. Carbonate to 2.4 vol. Use fresh hops and smell them before dry hopping. Leave airlock intact throughout dry

hop. Always enjoy a homebrew while brewing, for good luck.

RUNNERS-UP

Silver Medal: Jay Highfill, Overland Park, Kansas

Bronze Medal: Randy Sauter, Rapid City, S.D., Ale Riders Homebrew Club

Category 20

STRONG EUROPEAN LAGER

70 entries



Jay Highfill and Ron Barnes
Overland Park, Kan.

"Handyman"
9A. Doppelbock
"German Doppelbock per
BJCP style guidelines."

Batch volume: 5 U.S. gal. (18.93 L)

Original gravity: 1.087 (21°P)

Final gravity: 1.024 (6°P)

Efficiency: 60%

Color: 24 SRM

Bitterness: 22 IBU

Alcohol: 8.3% by volume

MALTS & ADJUNCTS

5 lb. (2.27 kg) Weyermann Floor-Malted Bohemian Dark malt 8L
5 lb. (2.27 kg) Weyermann Floor-Malted Pilsner 2L
5 lb. (2.27 kg) Weyermann Munich I 6L
5 lb. (2.27 kg) Weyermann Munich II 9L
2 lb. (907 g) Weyermann CaraMunich I 38L
1 lb. (454 g) Weyermann Vienna 3L
8 oz. (227 g) Weyermann CaraMunich III 53L
5.3 oz. (151 g) Weyermann CaraFa III 390L

HOPS

2 oz. (57 g) Hallertauer Mittelfrüh,
4% a.a. @ 60 min

1 oz. (28 g) Tettnang, 3.9% a.a. @ 60 min

YEAST

5 L starter Omega OYL-111 German Bock

WATER

Tap water from Johnson County, Kansas,
with 10 grams of calcium chloride

BREWING NOTES

Strike at 124°F (51°C). Single decoction mash at 15 minutes with rests at 122°F (50°C) for 15 minutes, 145°F (63°C) for 30 minutes, and 158°F (70°C) for 30 minutes.

RUNNERS-UP

Silver Medal: Phil Clarke Jr., Bronx, N.Y.,
New York City Homebrewers Guild

Bronze Medal: Michael Rensing,
Cincinnati, Ohio, Cider, Homebrew, And
Mead Production Specialists (CHAMPS)

Category 21

STRONG BRITISH ALE

87 entries



Max Brown
Antioch, Calif.

with Robbie Proctor and the Diablo Order
of Zymiracle Enthusiasts (DOZE)

Batch volume: 5 U.S. gal. (18.93 L)

Original gravity: 1.105 (24.7°P)

Final gravity: 1.019 (5°P)

Efficiency: 74%

Color: 24 SRM

Bitterness: 70 IBU

Alcohol: 11.7% by volume

MALTS & ADJUNCTS

9 lb. 3 oz. (4.16 kg) U.K. Golden Promise
4.14 lb. (1.88 kg) U.K. Maris Otter
1.86 lb. (843 g) invert sugar
1.03 lb. (467 g) Victory malt
1.3 oz. (369 g) white wheat malt
8 oz. (227 g) caramel 40°L
8 oz. (227 g) caramel 120°L
4 oz. (113 g) chocolate malt

YEAST

2000 mL starter Wyeast 1968 London
ESB ale

WATER

Ca 50 ppm, Mg 7 ppm, Na 5 ppm,
Cl 70 ppm, SO₄ 58 ppm, HCO₃ 2 ppm

BREWING NOTES

Single infusion mash for 75 minutes at 148°F (64°C). Boil for 120 minutes. Pitch yeast at 62°F (17°C) with lots of oxygen and slowly raise to 70°F (21°C) at the end of fermentation. Make sure you use enough oxygen and start cold to reduce fusel formation. Cold crash after fermentation is complete and package.

RUNNERS-UP

Silver Medal: Jim Williamson, Rome, Ga.

Bronze Medal: Scott Hutchison,
Seabrook, Texas, Bay Area Mashtronauts

HOPS

1.23 oz. (35 g) Northern Brewer,
8% a.a. @ 120 min
2.46 oz. (70 g) Challenger, 5.7% a.a. @ 60 min
2.46 oz. (70 g) East Kent Goldings, 4.5%
a.a. @ 15 min



Category 22

IMPERIAL PORTER & STOUT

80 entries



Joel McCormley
Zionsville, Ind.

"Dark Cellar"
20C. Russian Imperial Stout

"Boozy Russian Imperial Stout with big roast, chocolate, and pitch black darkness like the old farm cellar with the doors closed and when you can't find the pull chain."

Batch volume: 5 U.S. gal. (18.93 L)

Original gravity: 1.110 (26°P)

Final gravity: 1.035 (8.7°P)

Color: 102 SRM

Bitterness: 62 IBU

Alcohol: 9.9% by volume

MALTS & ADJUNCTS

25 lb. (11.34 kg) American 2-row pale malt
2 lb. (907 g) chocolate malt
2 lb. (907 g) roast barley
1.62 lb. (735 g) Carafla III
1 lb. (454 g) caramel 60
1 lb. (454 g) coffee malt
1 lb. (454 g) oats
4 oz. (113 g) black patent malt

HOPS

1.5 oz. (43 g) Warrior, 15% a.a., @ 60 min
2 oz. (57 g) Willamette, 5.5% a.a.,
@ 30 min
2 oz. (57 g) Willamette, 5.5% a.a., @ 5 min

YEAST

2L starter Wyeast 1056 American ale yeast

WATER

Zionville, Ind. water

ADDITIONAL ITEMS

1 tsp. Irish moss @ 15 min

BREWING NOTES

1 hour mash at 155°F (68°C). 1 hour boil.
Ferment at 65°F (18°C).

RUNNERS-UP

Silver Medal: Philip LaFleur, Loveland, Colo., Weizguys Homebrew Club

Bronze Medal: Aaron Reif, Pleasant Hill, Iowa, Iowa Brewers Union

Category 23

SAISON

90 entries



Randy Daniels and Kc McKinney
Des Moines, Iowa
Iowa Brewers Union
2024 Homebrewers of the Year

"Tank 1587"
25B. Saison

"This Saison was inspired by Boulevard's Tank 7 Saison. We are trying to get a similar flavor profile with a little less alcohol."

Batch volume: 11 U.S. gal. (41.64 L)

Original gravity: 1.055 (13.5°P)

Final gravity: 1.004 (1°P)

Efficiency: 75%

Color: 3 SRM

Bitterness: 29 IBU

Alcohol: 6.6% by volume

MALTS & ADJUNCTS

11 lb. (4.99 kg) pale 2-row malt
3 lb. (1.36 kg) pale 6-row malt
4.5 lb. (2.04 kg) flaked corn
12 oz. (340 g) white wheat
14 oz. (397 g) acidulated malt
1 lb. (454 g) cane sugar, in boil @15 min

HOPS

0.25 oz. (7 g) Magnum, 17.7% a.a. @ 60 min
4.5 oz. (127.6 g) Amarillo, 8.5% a.a. @ 5 min
3 oz. (85 g) Amarillo, 8.5% a.a.
@ whirlpool

YEAST

3 packs Lallemand Belle Saison yeast

WATER

Ca 65 ppm, Mg 3 ppm, Na 28 ppm,
Cl 55 ppm, SO₄ 65 ppm, HCO₃ 25 ppm

BREWING NOTES

First, we do a dough in/protein rest step at 120°F (49°C) or 15 minutes. After that we turn on the recirculation pump and set the power to 87% (because Travis Kelce) to raise the temperature to 146°F (63°C) and hold there for 50 minutes. Once that is done, we raise the temp to 155°F (68°C) and hold for 15 minutes. When the mash steps are complete, boil for 70 minutes and add the hops at the appropriate times. Chill wort to 75°F (24°C) and add the Belle Saison yeast. We let the beer ferment for 14 days at 75°F.

RUNNERS-UP

Silver Medal: Tyler Miller, Mesa, Ariz., Arizona Society of Homebrewers

Bronze Medal: Edward Frank, West Allis, Wisc.

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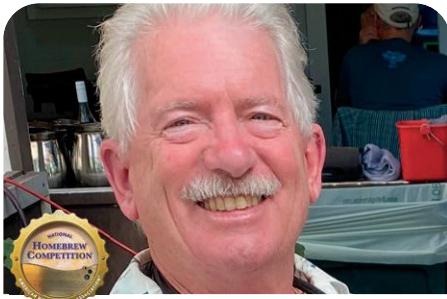


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Category 24

BELGIAN ALE

97 entries



Jeffrey Lampman
Morro Bay, Calif.

San Luis Obispo Brewers (SLOB)

"The Blondster"
25A. Belgian Blonde Ale

"A delicious golden ale at
a moderate alcohol strength."

Batch volume: 5 U.S. gal. (18.93 L)

Original gravity: 1.063 (15.5°P)

Final gravity: 1.010 (2.5°P)

Efficiency: 78%

Color: 5 SRM

Bitterness: 23 IBU

Alcohol: 6.9% by volume

MALTS & ADJUNCTS

- 7 lb. (3.18 kg) Belgian Pilsner malt
- 2 lb. (0.91 kg) Belgian pale malt
- 2 lb. (0.91 kg) torrified wheat
- 1.25 lb. (0.57 kg) light brown sugar (in primary)
- 5 oz. (142 g) light brown sugar (at kegging)

HOPS

- 1 oz. (28 g) Kent Golding, 4.2% a.a. @ 60 min
- 0.176 oz. (5 g) Magnum, 14% a.a. @ 60 min
- 0.75 oz. (21 g) Perle, 7.2% a.a. @ 10 min.

YEAST

- 1 pack Wyeast 3787 Belgian High Gravity ale yeast, in primary
- 1 pack Lalvin EC-1118 dry yeast, at kegging

WATER

Ca 39 ppm, Mg 16 ppm, Na 27 ppm, Cl 72 ppm, SO₄ 85 ppm, HCO₃ 115 ppm

ADDITIONAL ITEMS

1 tablet Whirlfloc @ 10 minutes

BREWING NOTES

Mash all the grains at 149°F (65°C) for 1 hour. Transfer enough wort to boil kettle for 5.5 gallons (20.82 L) at end of boil and boil 1.5 hours. At 30 minutes add first 2 hops, at 80 minutes add last hop and Whirlfloc, at 90 minutes flameout and cool to 68°F (20°C). Transfer to fermenter and add Wyeast 3787. At 2/3 into fermentation add 1.25 lb. light brown sugar. When the fermentation is finished transfer to keg and add 5 grams light brown sugar with the Lalvin yeast and let sit for 1 month at room temperature. Age for a couple of months, chill and enjoy.

RUNNERS-UP

Silver Medal: Jeremy Hatfield, Deer Park, Texas, Bay Area Mashtronauts

Bronze Medal: Drew Scoggins and Wyatt Youngquist of Seattle, Wash., Cascade Brewers Guild

Category 25

STRONG BELGIAN ALE

167 entries



Dustin Striplin
Tacoma, Wash.

Browns Point Homebrew Club

"E 1.099 Eternal"
26D. Belgian Dark Strong Ale

Batch volume: 5.5 U.S. gal. (20.82 L)

Original gravity: 1.099 (23.5°P)

Final gravity: 1.007 (1.7°P)

Efficiency: 56%

Color: 26 SRM

Bitterness: 32 IBU

Alcohol: 12.2% by volume

MALTS & ADJUNCTS

- 15.3 lb. (6.94 kg) Dingemans Pilsner malt
- 3 lb. (1.36 kg) Mecca Grade Metolius malt
- 0.41 lb. (186 g) Dingemans Special B malt
- 0.7 lb. (318 g) Dingemans aromatic malt
- 1.1 lb. (499 g) cane sugar, in boil
- 1.3 lb. (590 g) D-180 Candi Syrup, in boil
- 1.3 lb. (590 g) Briess Pilsner DME, in boil

HOPS

- 0.56 oz. (15.9 g) Magnum, 11.3% a.a., @ 90 min
- 1 oz. (28 g) Saaz, 2.7% a.a., @ 90 min

YEAST

- 350 billion cells WLP 500 Monastery Ale Yeast (3 L starter, decanted)

ADDITIONAL ITEMS

0.5 tsp. WLN 1000 @ 10 min
½ tablet Whirlfloc @ 5 min

BREWING NOTES

Single infusion mash at 148°F (64°C); rest 60 mins. Sparge with acidified water at 168°F (76°C). Boil 90 mins. Add simple sugars and DME at 10 minutes left in boil. Oxygenate with pure O₂ for 120 seconds @ 1 L/min with 0.5-micron stone. Pitch decanted 3L starter. Start fermentation at 68°F (20°C) and slowly ramp up to 78°F (26°C) over the course of the week. As fermentation dies down, slowly drop temp back to 68°F. Expect vigorous fermentation, blow off tube advised. Fermentation profile is attempting to simulate a free rise and fall at a commercial brewery. Use Bru'n Water's "Chimay (boiled)" profile. 5.38 pH mash. If the beer tastes very boozy after fermentation is complete, then you did a good job. Age 1–2 years before enjoying. Carbonate to high carbonation and use counter-pressure filler to fill bottles.

RUNNERS-UP

Silver Medal: Duane Jenness, Worster, Mass., WIZARDS

Bronze Medal: Thomas Atkinson, Poway, Calif.



Category 26

EUROPEAN SOUR ALE

162 entries



Jonathan Hernandez
Waterville, Maine

"Salty One"
23G. Gose

"This Gose is a beautiful and careful balance of malt, salt, and acidity. Made to reflect the historical German style."

Batch volume: 6 U.S. gal. (22.71 L)
Original gravity: 1.042 (10.5°P)
Final gravity: 1.008 (2°P)
Efficiency: 77%
Alcohol: 4.3% by volume

MALTS & ADJUNCTS

Category 27

FRUIT BEER

107 entries



Silver Medal Recipe
Gold Medal Recipe Not Available

Dan Acheson
Winfield, Ill.
Urban Knaves of Grain

"Duchesse du Winfield avec Cerise"
Subcat is 29A. Fruit Beer

4.5 lb. (2.04 kg) Weyermann Pilsner malt
4 lb. (1.81 kg) Weyermann Wheat malt

HOPS

0.5 oz. (14 g) Hallertauer Mittelfrüh
@ 60 minutes

YEAST

1-L starter White Labs Kolsch ale WLP029,
in primary
1 pack Lactobacillus plantarum/brevis

ADDITIONAL ITEMS

3 g. calcium chloride, in mash
1 g. calcium sulfate, in mash
1.25 gal. (4.73 L) sauergut, in boil @ 60 min
9 g. coriander, in boil @ 10 min
15 g. non-iodized salt, in boil @ 10 min

BREWING NOTES

This gose is acidified using a prepared Sauergut (acidified wort) of approximately 1.25 gallons. This can be done by using light DME to produce 1.25 gallons (4.73 L) of 1.037 OG (9.25°P) wort. Boil then cool to 90°F (32°C). Acidify the wort using lactic acid or Sauergut to achieve a wort pH of 4.6–4.8, then add 1 packet of lactobacillus (dry or live culture). I prefer plantarum/brevis blend from Omega. Be sure to avoid excessive aeration of the Sauergut.

Keep warm for 1 to 2 days until pH is 3.2–3.4.

To brew the beer, I use a step mash process. Mash in at 131°F (55°C), then ramp up to 147°F (64°C) and adjust pH to 5.2–5.4. Hold for 40 minutes. Ramp up to 161°F (72°C) and hold for 30 minutes. Ramp up to 168°F (76°C) and hold for 10 minutes to mash out. Boil the wort for 90 minutes, adding the time-specific boil additions listed above. Desired end boil pH of 3.4 is recommended. If unable to reach this pH with the Sauergut addition, you may need to adjust further with lactic acid. Once boil is complete, cool the wort to 62°F (17°C), pitch a 1-liter starter of yeast slurry, and allow temperature to rise to 65°F (16°C). Ferment to a final gravity of 1.008 (2°P) for approximately one to two weeks. I recommend to either keg or bottle condition to 3.2 volumes of CO₂ for one week at room temperature; then lager the beer for at least 2 to 4 weeks prior to consumption. Cheers!

RUNNERS-UP

Silver Medal: Craig Gardone, Louisville, Ky., Louisville Area Grain and Extract Research Society (LAGERS)

Bronze Medal: D. K. Linn, Rogers, Ark., Fayetteville Lovers of Pure Suds (FLOPS)

ADDITIONAL ITEMS

3–6 mL Amoretti Red Sour Cherry Puree, at bottling
2–3 medium toast oak cubes, in secondary

BREWING NOTES

The base recipe for this beer is a variant on the Flanders red recipe in Gordon Strong's *Modern Homebrew Recipes*. However, the actual Flanders red that is the basis of the beer is the result of a multi-year solera, where aged Flanders of multiple vintages is combined with fresh beer to find the right balance of acidity and malt. The fresh beer doesn't have to be the same as the base recipe shown above.

The other thing to note is that the cherry character comes from a combination of process and fruit puree, not long aging on fruit, which would be traditional. WLP036 throws a lot of cherry esters when fermented warmer, as does the Roeselare blend. The fruit puree is added at bottling. Finding the right balance to not have the cherry taste artificial is key, thus the range in dosage indicated in the recipe.

Continued >



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Brewing:

Use a step mash with mash rests at 144°F (62°C) for 60 min., 158°F (70°C) for 15 min., and 168°F (76°C) for 15 min., adding crystal and dark malts at Vorlauf/mashout. Boil 60 minutes, adding hops as indicated.

Fermenting:

1. Primary fermentation is with WLP036 until completed (2 weeks at 72°F or 22°C)
2. Secondary fermentation is with Roeselare for 6 months to a year as it ages on oak.

Blending and carbonating:

As noted above, the final beer is a blend of vintages as old as 3 years along with fresh beer. Force carbonate to 2.5 volumes CO₂.

Bottling:

Dose each bottle with cherry puree and keep cold to limit additional fermentation of sugars in the puree.

Gold Medal: Jon Phillips, Chicago, Ill., C.H.A.O.S. Brew Club

RUNNER-UP

Bronze Medal: John Warner, San Francisco, Calif.

Category 28

SPICE, HERB, OR VEGETABLE BEER

84 entries



Robert Abney
Massillon, Ohio

"Lavender Saison"

30A. Spice, Herb or Vegetable Beer

Batch volume: 3 U.S. gal. (11.36 L)

Original gravity: 1.067 (16.2°P)

Final gravity: 1.001 (0.2°P)

Color: 7 SRM

Bitterness: 33 IBU

Alcohol: 8.5% by volume

MALTS & ADJUNCTS

4 lb. (1.81 kg) Pilsner malt

2.5 lb. (1.13 kg) pale wheat malt

8 oz. (227 g) honey malt

4 oz. (113 g) table sugar, in boil

HOPS

0.5 oz. (14 g) Simcoe, 12.7% a.a. @ 20 min.

1 oz. (28 g) Cryo Citra, 24% a.a. @ 1 min

0.5 oz. (14 g) Simcoe, dry hop 3 days

YEAST

1-L starter Wyeast 3711 French Saison yeast

WATER

Ca 25 ppm, Mg 11 ppm, Na 32 ppm,

Cl 50 ppm, SO₄ 101 ppm

ADDITIONAL ITEMS

½ tablet Whirlfloc @ 15 min

0.15 oz. (4.3 g) culinary lavender @ flameout

BREWING NOTES

Grainfather BIAB. Treat reverse-osmosis water with 5 mL lactic acid, 2 g Epsom salts, 2 g gypsum, and 1.5 g table salt. Mash at 148°F (64°C) for 60 minutes. Boil for 90 minutes. Use a strainer when transferring to your fermenter to remove as much lavender as possible. Pitch a 1-L yeast starter pitched (do not decant) at 64°F (18°C). Oxygenate for 25 seconds with pure oxygen. Use sanitized foil on top of fermenter until fermentation slows, then switch to an airlock (thank you Drew). Maintain 65°F (18°C) for first 24 hours, then raise two degrees every 12 hours or so until you hit 82°F (28°C), then maintain that temperature. After about one week from brew day, let the beer drop to room temperature, then cold crash to 38°F (3°C) and dry hop cold (thank you Denny). Bottle using 4 carbonation tablets. A little bit of lavender goes a long, long way. Note: BeerSmith estimated an original gravity of 1.062 (15.2°P) for this recipe, a final gravity of 1.007 (1.7°P), and an ABV of 7.4%. Both times I brewed this beer, I overshot BeerSmith's estimate somehow. Actual OG and FG are listed above.

RUNNERS-UP

Silver Medal: Brandon and Carla Christian, Chesapeake, Va., Seven Cities Brewers

Bronze Medal: Michelle and Lonnie

Grover, Gardnerville, Nev., 395 Homebrewers



ON THE WEB

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Category 29

SPECIALTY & SEASONAL SPICED BEER

47 entries



From left: Matt, Tim, Doug.

**Timothy Rozmus,
Doug Brown, and Matt Buggert
San Diego, Calif.
QUAFF**

Homebrew Club of the Year Award Winners

"Pirate Dump Bucket Xmas IPA"
30C. Winter Seasonal Beer

"Delicately balanced fresh spruce tip and a mulling spice blend complement a punchy, San Diego-style Double IPA: an IIPA fit to be found under the tree on Christmas morning."

Batch volume: 5 U.S. gal. (18.93 L)
Original gravity: 1.074 (18°P)
Final gravity: 1.012 (3°P)

Efficiency: 93%
Color: 4 SRM
Bitterness: 66 IBU
Alcohol: 8.1% by volume

MALTS & ADJUNCTS

12.75 lb. (5.78 kg) extra-pale Pilsner malt
3.5 lb. (1.59 kg) German Pilsner malt
3 lb. (1.36 kg) chit malt
12 oz (340 g) white wheat

HOPS

1.5 oz. (42.5 g) Warrior, 15.4% a.a.
@ 90 min
4 oz. (113 g) El Dorado, 12.4% a.a.
@ 10 min
2 oz. (57 g) Citra, 13.2% a.a. @ 10 min
1 oz. (28 g) Amarillo, 8% a.a. @ 10 min
1 oz. (28 g) Simcoe, 14.7% a.a. @ 10 min
1 oz. (28 g) El Dorado Lupomax, 19% a.a., dry hop
1 oz. (28 g) Citra Lupomax, 18.5% a.a., dry hop
1 oz. (28 g) Mosaic Lupomax, 18% a.a., dry hop
2 oz. (57 g) Citra, 13.2% a.a., dry hop
1 oz. (28 g) Amarillo, 8% a.a., dry hop
1 oz. (28 g) Simcoe, 14.7% a.a., dry hop
4 oz. (113 g) El Dorado, 12.4% a.a., dry hop
2 oz. (57 g) Amarillo, 8% a.a., dry hop
2 oz. (57 g) Simcoe, 14.7% a.a., dry hop

YEAST

2 packs Safale US-05

WATER

Ca 43 ppm, Mg 8 ppm, Na 9 ppm,
Cl 41 ppm, SO₄ 80 ppm, HCO₃ 23 ppm

ADDITIONAL ITEMS

Mulling spice tincture post fermentation
Spruce tip tincture post fermentation

BREWING NOTES

Step mash with a 60-minute amylase rest at 148°F (64°C), followed by a 10-minute dextrin rest at 160°F (71°C) and a 10-minute mash-out at 168°F (76°C). Boil for 90 minutes. Ferment and dry hop at 66°F (19°C). Create mulling spice and spruce tip tinctures by soaking ingredients in vodka, then dose and balance, adding just enough to where each is clearly evident, but neither interferes with the hop expression of the base beer.

RUNNERS-UP

Silver Medal: Nick McPherson, Edmond, Okla., Red Earth Brewers

Bronze Medal: Casey Conry, Lanesborough, Mass., Berkshire Homebrew Club

Category 30

SMOKE-FLAVORED BEER

76 entries



**Christopher Owen
Louisville, Ky.
Louisville Area Grain and Extract
Research Society (LAGERS)**

"Smoked Heller Bock"
32A. Classic Style Smoked Ale

"Bold smoke that is reminiscent of barbecue and charcuterie. Noble hop character adds a pleasant spiciness that complements the beechwood smoke."

Batch volume: 13.21 U.S. gal. (50 L)
Original gravity: 1.067 (16.4°P)
Final gravity: 1.012 (3°P)
Efficiency: 81%
Color: 5 SRM
Bitterness: 25 IBU
Alcohol: 7.4% by volume

MALTS & ADJUNCTS

26.5 lb. (12 kg) Bestmalz Rauchmalt
2.7 lb. (1.2 kg) Bestmalz Pilsner malt

HOPS

2.7 oz. (77 g) Saaz T45, 8.4% a.a.
@ 60 min
0.27 oz. (8 g) Saaz T45, 8.4% a.a. @ 10 min

YEAST

5 packs Fermentis Saflager 34/70 lager yeast

WATER

Ca 45 ppm, Mg 0 ppm, Na 0 ppm,
Cl 78 ppm, SO₄ 0 ppm, HCO₃ 0 ppm

BREWING NOTES

Use the *kesselmaischen* method, with 80 percent of the grain bill, then add remaining 20 percent after the decoction. Hochkurz mash at 150°F (66°C) and 160°F (71°C), with a 170°F (77°C) mash out. Boil and add 1L Sauergut at end of boil. Classic cold fermentation with cold secondary fermentation, sparged to 2.5 vol CO₂, CaCl to reduce pH during the mash, Sauergut addition to reduce pH at knockout.

RUNNERS-UP

Silver Medal: Chad Medford, Moore, Okla., Red Earth Brewers

Bronze Medal: Patrick Woodward, Columbus, Ohio, SODZ



2024 NATIONAL HOMEBREW COMPETITION

Category 31

WOOD-AGED BEER

82 entries



Graciany Miranda
Clemont, Fla.
Brewers Anonymous

"Lake County Brand Stout"
33B. Specialty Wood-Aged Beer

"Rye imperial stout aged in a rye bourbon barrel, then conditioned for 2 years."

Batch volume: 5.5 U.S. gal. (20.82 L)

Original gravity: 1.130 (30.2°P)

Final gravity: 1.040 (10°P)

Efficiency: 71%

Color: 60 SRM

Bitterness: 36 IBU

Alcohol: 12.4% by volume

MALTS & ADJUNCTS

16 lb.	(7.26 kg) Mecca Grade Lamonta pale malt
5 lb.	(2.27 kg) Munich malt
2 lb.	(907 g) flaked rye
2 lb.	(907 g) Carafa II
1 lb.	(454 g) roasted barley
0.55 lb.	(249 g) black malt
8 oz.	(227 g) caramel 60°L

HOPS

1 oz. (28 g) Millenium, 14.3% a.a.
@ 60 min

YEAST

3 L starter Halvorsgard Kveik yeast

BREWING NOTES

Mash in at 148°F (64°C) for 10 min. Raise to 158°F (70°C) and hold for 90 min. Mash out at 168°F (76°C) for 10 min. Boil for 120 min. Cool to pitching temp and add yeast. Ferment for 4 weeks. Age the beer in a second-use 5-gallon rye bourbon barrel for 3 months. Keg, and condition in the kegerator for about 2 years.

RUNNERS-UP

Silver Medal: Eric Martin, Lees Summit, Mo., Kansas City Bier Meisters

Bronze Medal: Daniel Colbourne, Highlands Ranch, Colo., The Colbourne Garage Project

Category 32

AMERICAN WILD ALE

67 entries



Jeff Simonds
St. Albans, Vt.
Green Mountain Mashers

"Kinda Brett Saison"
28A. Brett Beer

"This recipe was inspired by Kinda Classic saison from Suarez Family Brewery, but I decided to push the OG a bit higher and add Brettanomyces bruxellensis at bottling."

Batch volume: 6.5 U.S. gal. (24.61 L)

Original gravity: 1.047 (11.7°P)

Final gravity: 1.000 (0°P)

Efficiency: 76%

Color: 3 SRM

Bitterness: 28 IBU

Alcohol: 6.2% by volume

MALTS & ADJUNCTS

5 lb.	(2.27 kg) German Bohemian Pilsner malt
5 lb.	(2.27 kg) U.S. pale 2-row malt
8 oz.	(227 g) dextrose

HOPS

0.1 oz.	(3 g) Warrior, 18.9% a.a. @ 70 min
1.06 oz.	(30 g) Hallertauer Mittelfrüh, 4% a.a. @ 25 min
0.88 oz.	(25 g) Styrian Goldings, 3.5% a.a. @ 25 min
0.7 oz.	(20 g) Hallertauer Mittelfrüh, 4% a.a., 20 min WP
1.8 oz.	(50 g) Styrian Goldings, 3.5% a.a. 20 min WP

YEAST

1 pack	Wyeast 3711 French Saison, in primary
1 pack	SafBrew BR-8 - Brettanomyces bruxellensis, at packaging

ADDITIONAL ITEMS

1 tablet Whirlfloc @ 10 min
0.5 tsp. yeast nutrient @ 10 min

BREWING NOTES

Single infusion mash at 147°F (64°C) for 60 minutes, with a target pH of 5.2. Boil for 90 minutes, adding the hops at the times indicated and the dextrose can be added at any point during the boil. After the hops have been whirlpooled, chill to 68°F (20°C) and pitch the French Saison yeast. Ferment in primary for 2 weeks allowing the beer to free rise without temperature control. After primary fermentation is complete, calculate the amount of dextrose and Brettanomyces bruxellensis needed to achieve 2.3 volumes of carbonation, accounting for any residual sugar in the beer. Rehydrate the Brettanomyces bruxellensis, combine with the dextrose and beer, and ensure everything is well mixed before packaging. Bottle and store at cellar temperature until the gravity has stabilized and the desired level of carbonation has been reached.

RUNNERS-UP

Silver Medal: Sean Thomson and Sean Pennick, Denver, Colo., The Brew Crew

Bronze Medal: Cleberton Pereira, São Paulo, Brazil, ACervA Paulista



Category 33

SPECIALTY BEER

77 entries



Bill Lynch
Waxhaw, N.C.
Carolina Brewmasters

"Bill's Big Sticke"
7B. Altbier

"A Sticke Alt, a strong German Altbier."

Batch volume: 5 U.S. gal. (18.9 L)**Original gravity:** 1.071 (17.2°P)**Final gravity:** 1.015 (3.7°P)**Efficiency:** 72%**Color:** 19 SRM**Bitterness:** 25 IBU**Alcohol:** 7.5% by volume**MALTS & ADJUNCTS**

8 lb. (3.63 kg) Munich II malt

5 lb. (2.27 kg) German Vienna malt

1 lb. (454 g) CaraMunich II malt

3 oz. (85 g) Carafa II

HOPS0.75 oz. (21 g) German Magnum, 11.2% a.a.
@ 60 min**YEAST**

1 qt starter WLP 833 German Bock lager yeast

BREWING NOTES

Single infusion mash for 90 minutes at 154°F (68°C). Boil for 90 minutes. Pitch yeast at 56°F (13°C) and ferment for 1 week, then raise to 62°F (17°C) and ferment for 2 weeks. Transfer to secondary and hold for one week at 70°F (22°C).

RUNNERS-UP

Silver Medal: Kenneth Wigginton, Walnut Creek, Calif., Diablo Order of Zymiracle Enthusiasts (DOZE)

Bronze Medal: Fritz Schanz, Aubrey, Texas, Denton County Homebrewers Guild

Category 34

DRY MEAD

14 entries



Bill Boyer
Kennesaw, Ga.
North Georgia Malt Monkeys

"Sir Galahad the Pure
– Blueberry Blossom – Petillant"
M1A. Dry Mead

Batch volume: 5 U.S. gal. (18.9 L)

HONEY

10 lb. (4.54 kg) blueberry blossom honey

1 lb. (454 g) blueberry blossom honey
(to back-sweeten)**YEAST**

2 packets Red Star Côte des Blanc wine yeast

ADDITIONAL ITEMS

5 g potassium sorbate, to stabilize

1/4 tsp potassium metabisulfite, to stabilize

5 tsp Sparkolloid, to clarify

Yeast nutrient

MEADMAKING NOTES

Mix 10 lb. (4.54 kg) blueberry blossom honey and top up to 5 gallons with water.

Stir in yeast nutrient and aerate. Pitch yeast and ferment at 68–74°F (20–23°C) until the finishing gravity is around 1.000 and fermentation has stopped. Rack to secondary and stabilize with potassium sorbate and potassium metabisulfite. Wait 24–28 hours and rack again. Heat 1 lb. (454 g) blueberry honey with just a little water, until the honey does not stick heavily on a spoon, and blend into

the finished mead to back-sweeten. (A dry mead does not need to be bone dry—a little honey can help balance it and highlight the honey character. Wait a couple of days, taste it, and decide if you wish to tweak it further or add any more honey.) If everything is the way you like it, add Sparkolloid and wait 7 days. You can then bottle or keg. When I made this, I split the batch, bottled half as a "still" mead, and the other half I kegged and force carbonated to petillant. In competition, the petillant version always performed better and that was the one that won gold at NHC. Carbonation can elevate the taste and aroma of the honey, and adds a slight carbonic bite.

RUNNERS-UP

Silver Medal: Benjamin Frymark, San Diego, Calif., QUAFF (Homebrew Club of the Year)

Bronze Medal: Eric Martin, Lees Summit, Mo., Kansas City Bier Meisters

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2024 NATIONAL HOMEBREW COMPETITION

Category 35

SEMI-SWEET MEAD

26 entries



Terry Fast
Denver, Colo.
Lakewood Fermentation Club

"Mead Me"
M1B. Semi-Sweet Mead

"This is a carbonated session mead that is a crowd pleaser because it is light and refreshing, similar to a hard seltzer. It highlights orange blossom honey, but other honey varieties may be used and experimented with."

Batch volume: 5 U.S. gal. (18.93 L)
Original gravity: 1.040 (10°P)
Final gravity: 1.000 (0°P)
Alcohol: 6.5% by volume

HONEY

5 lb. (2.27 kg) orange blossom honey, in primary

YEAST

1 pack Lalvin D47

ADDITIONAL ITEMS

4 g.	wine tannin, in primary
6 g.	Fermaid O, in primary
3 g.	malic acid, in secondary
5	Campden tablets, in secondary
2.5 tsp.	potassium sorbate, in secondary
Sparkolloid	to clarify, in secondary
2.25 lb.	(1.02 kg) orange blossom honey, in keg
2.5	Campden tablets, in keg (optional)

MEADMAKING NOTES

In primary, add orange blossom honey with distilled water. Target 5 total gallons and mix well with wine tannin and Fermaid O. Add 10 grams of Lalvin D-47 yeast. Fermentation will complete in approximately a week.

After 2 weeks, transfer to secondary with 3 grams of malic acid, 5 Campden tablets, and 2.5 teaspoons potassium sorbate. In 2 to 3 days, add Sparkolloid to clarify.

After clarity is reached (be patient, the clearer the better), transfer to keg. Back-sweeten with additional orange blossom honey, to taste. I mixed in 2.25 lb (1.02 kg) of additional orange blossom honey, which is towards the higher end—start with 1 lb (454 g) and add more if needed. Make sure to mix well. Carbonate to approximately 3 volumes.

RUNNERS-UP

Silver Medal: Jarrett Long and John Bates, Arlington, Texas, Horsemen of the Hopocalypse (Samuel Adams Ninkasi Winners)

Bronze Medal: Eric Martin, Lees Summit, Mo., Kansas City Bier Meisters

Category 36

SWEET MEAD

17 entries



Garrett Freeman
Edmund, Okla.
Red Earth Brewers

"Sweet Clover Traditional Mead"
M1C. Sweet Mead

"This is a simple recipe for a session-strength traditional mead that can use any honey! Specifically, this recipe uses sweet clover honey, which has a distinct cinnamon character to it. This mead will lean slightly into the sweet side."

Batch volume: 1 U.S. gal. (3.79 L)
Original gravity: 1.050 (12.5°P)
Final gravity: 1.026 (6.5°P)
Alcohol: 6.5% by volume

HONEY

1.3 lb. (590 g) sweet clover honey

YEAST

2 g. Safale US-05 yeast

ADDITIONAL ITEMS

2.5 g.	Fermaid O, primary fermentation
1 g.	wine tannin, primary fermentation
12 oz.	(340 g) clover honey to back-sweeten
Malic acid	post-fermentation
Citric acid	post-fermentation

MEADMAKING NOTES

This mead starts with 1.3 lb. (590 g) of honey per gallon. Dilute with water up to a 1-gallon volume and pitch your yeast. Add yeast nutrient and tannin with the yeast in the beginning and let this brew ferment. After the fermentation slows and the brew is looking clear, rack it into a new container. Your starting gravity should be around 1.050 SG and the post fermentation should be 1.000. Stabilize your brew or pasteurize it so you can back-sweeten safely. Add 12 oz.. (340 g) of sweet clover honey to back-sweeten and a pinch of malic and citric acid to brighten it up. Then force carbonate it and serve!

RUNNERS-UP

Silver Medal: Amy Olsen, Sterling Heights, Mich., Michigan Mead Coalition

Bronze Medal: Ryan Fowler, San Diego, Calif., QUAFF (Homebrew Club of the Year)



Category 37

CYSER

10 entries



Michael Wilcox
Wichita, Kan.
Kansas City Biermeisters
2024 Meadmaker of the Year

"No Cinnamon Added"
M2A. Cyser

MEADMAKING NOTES

Use McIntosh apple juice for its obvious apple character that often seems to survive fermentation, and clover blossom honey (you need batch with obvious cinnamon aroma). I add the honey to the juice until it is about 1.080 (19.25°P) and let it ferment until I stop it around 1.020 (using Côte des Blancs yeast, since you can usually stop it by lowering the temperature). Or I mix it at 1.070 (17°P), let it ferment dry with DV10, and back-sweeten. Either way, use about half the usual dose of yeast nutrients, all up front. Ferment cool at around 58–62°F (14–17°C), going up to 65°F (18°C) if the Côte des Blancs yeast is being annoying.

I did both, and some months later I couldn't tell them apart, so I ended up just blending them together in a keg and force carbonating.

RUNNERS-UP

Silver Medal: Cory Emal, Ann Arbor, Mich., Ann Arbor Brewers Guild

Bronze Medal: Pavel Anisimov, Concord, Calif., Diablo Order of Zymiracle Enthusiasts (DOZE)

Category 38

PIMENT

22 entries



Dan Acheson
Winfield, Ill.
Urban Knaves of Grain

"A Witty Reference to Monty Python"
M2B. Piment

"A piment modeled after a late-harvest Gewürztraminer. Floral and lychee fruit notes from Gewürztraminer combine with floral and pineapple notes of lehua blossom honey."

Batch volume: 6 U.S. gal. (22.7 L)

Original gravity: 1.150 (35.2°P)

Final gravity: 1.050 (12.5°P)

Alcohol: 13% by volume

FERMENTABLES

2.11 U.S. gal. (8 L) German Gewürztraminer Wine Concentrate Kit
10 lb. (4.54 kg) Lehua Blossom Honey

YEAST

18 g BA11 dry wine yeast

ADDITIONAL ITEMS

22.5 g GoFerm for yeast rehydration
51.4 g FermAid O using TOSNA V3.0 additions
½ spiral light French oak, for bulk aging
7 days

MEADMAKING NOTES

Combine one wine kit with honey and enough RO water to make 6 gallons (22.7 L) of total must. Rehydrate yeast with GoFerm, oxygenate must for 1 minute, and pitch yeast. Ferment at 64°F (18°C). Oxygenate 12 hours after initial pitch and

follow a standard TOSNA schedule for nutrients additions. After 1 month, rack off gross lees and bulk age for 3 months. Add 1/2 a light French oak spiral for 7 days but begin tasting at 5 days to make sure not to add too much oak flavor. Rack to keg and force carbonate to 2 vol. CO₂. Bulk age for an additional 3 months to allow flavors to develop and meld. The inspiration for this mead was a late harvest Gewürztraminer, a petillant dessert wine. This piment was initially cloyingly sweet, and required some additional aging and process to bring it into balance. Although French oak is not traditional in a Gewürztraminer, it brought some tannins and additional depth of flavor that counteracted the sweetness. The addition of carbonation not only allowed the aromatics to shine, but also contributed to helping balance some of the sweetness.

RUNNERS-UP

Silver Medal: Pavel Anisimov, Concord, Calif., Diablo Order of Zymiracle Enthusiasts (DOZE)

Bronze Medal: Allen Martin, Gilbert, Ariz., Arizona Society of Homebrewers



2024 NATIONAL HOMEBREW COMPETITION

Category 39

MELOMEL

15 entries



Kyle Ducharme
Saint Albans, Vt.
Green Mountain Mashers

"VT HoD"
M2E. Melomel

"Big and bold melomel attempt at replicating the best mead out there with ingredients grown in Vermont."

Batch volume: 5 U.S. gal. (18.93 L)

Original gravity: 1.140 (32.2°P)

Final gravity: 1.035 (8.7°P)

Alcohol: 14% by volume

FERMENTABLES

20 lb.	(9.07 kg) Mexican orange blossom honey
17 lb.	(7.71 kg) Morello cherries
15 lb.	(6.8 kg) red raspberries
4 lb.	(1.81 kg) black currants

YEAST

3 packs Lalvin 71B yeast

ADDITIONAL ITEMS

2 oz.	(57 g) medium-toast Hungarian oak cubes
Opti Red	
Lallzyme EX-V	
GoFerm Protect	
Fermaid O TOSNA schedule, but half the nutrients recommended	

MEADMAKING NOTES

Freeze and thaw fruit, mix with honey. Add Lallzyme EX-V. Wait to add rehydrated yeast until must reaches 55°F (13°C). Acclimate yeast to the must and ferment 62–65°F (17–18°C). Punch down fruit cap once a day for the first week of fermentation. Add nutrients set out by TOSNA calculator (halving because of fruit load). Rack off fruit after 2 weeks. Add oak and stabilize mead with sorbates and sulfites after mead is finished (should take 4–6 weeks). Let sit until clear, and then bottle. This mead was 8 months old at time of judging, but is intended to age well. Source the best honey and fruit that you can buy!

RUNNERS-UP

Silver Medal: Bill Boyer, Kennesaw, Ga., North Georgia Malt Monkeys

Bronze Medal: Ryan Fowler, San Diego, Calif., QUAFF (Homebrew Club of the Year)

Category 40

BERRY MEAD

26 entries



Steve Fletty
Falcon Heights, Minn.
Saint Paul Homebrewers Club

"Chateau Fletty Framboise"
M2C. Berry Mead

Batch volume: 5 U.S. gal. (18.9 L)

Original gravity: 1.084 (20.3°P)

Final gravity: 1.024 (6°P)

Alcohol: 11% by volume

FERMENTABLES

12 lb.	(5.44 kg) marmeleiro honey
10 lb.	(4.54 kg) raspberries

YEAST

8 g. Syrah dry wine yeast

ADDITIONAL ITEMS

8 g	Fermaid K
4 g	DAP

MEADMAKING NOTES

Combine 4 gallons (15.14 L) water with the honey. Stir in yeast nutrient. Add raspberries. Rehydrate and pitch yeast. Let ferment to dry. Rack to secondary. Stabilize and back-sweeten to 1.024 (6°P) with 1.75 lb. (0.79 kg) marmeleiro honey. Fine, keg and carbonate.

RUNNERS-UP

Silver Medal: Melissa Greenfield, Mira Mesa, Calif., QUAFF (Homebrew Club of the Year)

Bronze Medal: Richard Furlong and Fernan Perez, Gainesville, Fla., Hogtown Brewers



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Category 41

FRUIT & SPICE MEAD

23 entries



Bill Boyer
Kennesaw, Ga.
North Georgia Malt Monkeys

"Whizzo Chocolates"
M3A. Fruit & Spice Mead

Batch volume: 6 U.S. gal. (22.7 L)

FERMENTABLES

10 lb. (4.54 kg) Costco wildflower honey
1 x 2.11 U.S. gal. (8 L) Après Chocolate
Raspberry Dessert Wine Kit

YEAST

2 packets EC-1118 wine yeast

ADDITIONAL ITEMS

Yeast nutrient

MEADMAKING NOTES

Follow Après Wine Kit instructions, but when adding the wine must, add 10 lb. (4.54 kg) of honey and top up to 6 gallons (22.7 L). Add some yeast nutrient and aerate the must/mead. Sprinkle dry yeast packet on top. The kit comes with one packet of EC-1118, but I add a second packet. Ferment at 68–74°F (20–23°C) in primary for about 1 month. Once activity

slows, rack to secondary and let it sit for another two months. If fermentation has stopped, taste and decide if it needs more time to age. Stabilize (kit comes with potassium metabisulfite and potassium sorbate). Wait 24 hours and clarify. Follow the kit's instructions using the Kieselsol and Chitosan that came with it. Wait 24–72 hours and you can bottle.

RUNNERS-UP

Silver Medal: Garrett Freeman, Red Earth Brewers, Edmond, Okla.

Bronze Medal: Steve Fletty, Falcon Heights, Minn., Saint Paul Homebrewers Club

Category 42

STONE FRUIT MEAD

10 entries



Steve Fletty
Falcon Heights, Minn.
Saint Paul Homebrewers Club

"Chateau Fletty Cherry Tupelo"
M2D: Stone Fruit Mead

Batch volume: 5 U.S. gal. (18.9 L)

Original gravity: 1.052 (12.7°P)

Final gravity: 1.018 (4.5°P)

Alcohol: 7% by volume

FERMENTABLES

8 lb. (3.63 kg) tupelo blossom honey
8 lb. (3.63 kg) tart cherries

YEAST

8 g. Rhône 4600

ADDITIONAL ITEMS

6 g Fermaid K
3 g DAP

MEADMAKING NOTES

Combine water with the honey. Stir in yeast nutrient. Add cherries. Rehydrate and pitch yeast. Let ferment to dry. Rack to secondary. Stabilize and back-sweeten to 1.018 (4.5°P) with 1.25 lb. (0.57 kg) tupelo honey. Fine, keg, and carbonate.

RUNNERS-UP

Silver Medal: Matthew Mead, Grand Rapids, Mich., Prime Time Brewers

Bronze Medal: Jeff Case, San Diego, Calif., QUAFF (Homebrew Club of the Year)

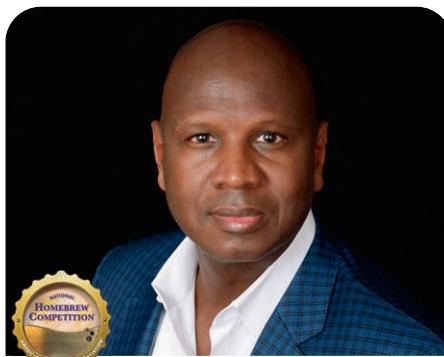


2024 NATIONAL HOMEBREW COMPETITION

Category 43

SPICE, HERB OR VEGETABLE MEAD

21 entries



LaVaughn Barker
Brookfield, Wisc.

"Grandma's Recipe"
M3B. Spice, Herb or Vegetable Mead

"Featuring vibrant Florida orange blossom honey as its base, this mead is uniquely infused with Rhamnus staddo spice (known as tsedo in Tigrinya, the most widely spoken language in Eritrea and northern Ethiopia) to deliver a nuanced, earthy bitterness that balances the floral sweetness of the honey."

The wild yeast on the surface of tsedo naturally initiates the fermentation process. Wild fermentation imparts a unique depth of flavor as native yeasts and microorganisms begin to transform the honey mixture without the addition of commercial yeast strains.

The result is a complex yet smooth profile that combines the warmth of honey with the distinct character of tsedo."

Batch volume: 6 U.S. gal. (22.7 L)

Original gravity: 1.127 (29.5°P)

Final gravity: 1.040 (10°P)

Alcohol: 11.4% by volume

FERMENTABLES

2 lb. (907 g) tsedo

18 lb. (8.16 kg) orange blossom honey

YEAST

Wild yeast naturally present on tsedo

ADDITIONAL ITEMS

2 g FT Blanc Soft

2 g Opti White

MEADMAKING NOTES

Mix 3 lb. (1.36 kg) of high-quality orange blossom honey with each gallon of water to create the must. Add the tsedo into

the must. Press the tsedo into the must to wet it. Place a clean cheesecloth over the vessel to protect it from dust, insects, and debris while still allowing wild yeast to enter. Place the vessel in a warm, clean area. Avoid places with strong drafts or potential contaminants. Let it sit unbothered for three days. On the 3rd day, press the tsedo and foamy layer into the must. Leaving it open past three days will increase the risk of unwanted bacteria. Seal the fermenter with an airlock to ferment. On the 10th day, remove the tsedo. Then seal the container with an airlock and let it continue to ferment for three weeks. At the end of that fermentation time, rack it to another vessel to get it off the lees. Traditionally, it is ready to drink at this point. Some people choose to leave it cloudy from the yeast, back-sweeten if needed, then drink it. I remove as much yeast as possible, back-sweeten, then let it age before drinking it chilled.

RUNNERS-UP

Silver Medal: Melissa Greenfield, Mira Mesa, Calif., QUAFF (Homebrew Club of the Year)

Bronze Medal: Richard Furlong and Fernan Perez, Gainesville, Fla., Hogtown Brewers

Category 44

BRAGGOT

13 entries



Benjamin Frymark, with
Doug Brown and Jenny Chua-Tuan
San Diego, Calif.

QUAFF

Homebrew Club of the Year Award Winners

"Flaming Globes of Sigmund"
M4A. Braggot

[Editor's Note: This is a blend of a cream ale and a mead, brewed separately.]

Batch volume: 5.5 U.S. gal. (20.82 L)

Original gravity: 1.047 (11.7°P)

Final gravity: 1.009 (2.2°P)

Alcohol: 5% by volume

MALTS & ADJUNCTS

4 lb. (1.81 kg) Muntons Pale Planet malt

4 lb. (1.81 kg) Weyermann Extra Pale Pilsner malt

2.75 lb. (1.25 kg) flaked corn

HOPS

0.25 oz. (7 g) Cashmere @ 90 min

0.5 oz. (14 g) Cashmere @ 5 min

YEAST

Safale US-05

WATER

4 grams each of CaSO_4 and CaCl_2 and 1 gram each of MgSO_4 and baking soda added to RO

BREWING NOTES

Mash for 90 minutes at 148°F (64°C), then mash out at 168°F (76°C) for 10 minutes. Ferment at 69°F (21°C).

MEAD

Batch volume: 2 U.S. gal. (7.57 L)

Original gravity: 1.075 (18.2°P)

Final gravity: 1.000 (0°P)

Alcohol: 9.84% by volume

FERMENTABLES

5 lb. (2.27 kg) wildflower honey

YEAST

1 packet Red Star Premier Cuvée

Continued >



ADDITIONAL ITEMS

- 1.65 g. Fermaid O, in primary @ 24 hours
- 1.65 g. Fermaid O, in primary @ 48 hours
- 1.65 g. Fermaid O, in primary @ 72 hours
- 1.65 g. Fermaid O, in primary @ 1/3 sugar break
- Potassium sorbate to stabilize post-fermentation
- Sodium metabisulfite to stabilize post-fermentation
- Acid blend to taste, post-fermentation
- Wine tannin to taste, post-fermentation
- Florida Orange Blossom Honey, to back-sweeten to taste

MEADMAKING NOTES

Blend 5 pounds wildflower honey with enough spring water to reach target O.G. of 1.075 (approximately 2 gallons, or 7.57 L). Pitch 1 packet of Red Star Premier Cuvée yeast and ferment at approximately 65°F (18°C). Degas regularly. The total amount of Fermaid-O that will be added is 6.6 g; additions at 24, 48, 72 hours. The fourth is added at the 1/3 sugar break. After 3–4 weeks, when fermentation is complete (essentially just less than 1.00 F.G.) rack the mead off the yeast cake into another clean vessel. Stabilize with potassium metabisulfite and potassium sorbate. After stabilization, balance with acid and tannin, and back-sweeten with Florida orange blossom honey to the desired semi-sweet level. Age accordingly to mellow and clarify.

BRAGGOT MAKING NOTES

Calculate the desired blend ratio of mead and beer. This is done by several trials on a small scale. This product was approximately 1/3 semi-sweet mead, and 2/3 base beer. Using a counter-pressure bottler, blend on bottling day by adding the mead to the bottle, and topping it off with the beer.

RUNNERS-UP

Silver Medal: Howard Eland, Burnet, Texas
Bronze Medal: Benjamin Frymark, with Doug Brown and Jenny Chua-Tuan, San Diego, Calif., QUAFF (Homebrew Club of the Year)

Category 45

HISTORICAL MEAD

14 entries



Bill Boyer
Kennesaw, Ga.
North Georgia Malt Monkeys

"Trójniak vs. Montmorency Cherry vs. Matthew Mead"
M4B. Historical Mead

No Recipe Available

RUNNERS-UP

Silver Medal: Gold Medal: Steve Fletty, Falcon Heights, Minn., Saint Paul Homebrewers Club
Bronze Medal: Nelson Crowle, Brighton, Colo., Indian Peaks Alers





2024 NATIONAL HOMEBREW COMPETITION

Category 46

EXPERIMENTAL MEAD

32 entries



Garrett Freeman
Edmond, Okla.
Red Earth Brewers

"Blueberry Muffin Mead"
M4C. Experimental Mead

"This session strength mead features all the flavors of a blueberry muffin. It has the blueberry, baking spices, muffin-like profile and even a clean honey character displayed from start to finish on the palate."

Batch volume: 1 U.S. gal. (3.79 L)

Original gravity: 1.070 (17°P)

Final gravity: 1.030 (7.5°P)

Color: 24 SRM

Alcohol: 9.2% by volume

FERMENTABLES

- 2 lb. (907 g) blueberries
- 2 lb. (907 g) honey

YEAST

- 2 g. Lalvin 71B-1122 yeast

ADDITIONAL ITEMS

- Pectic enzyme to pre-treat blueberries
- 2.5 g Fermaid O, beginning of fermentation
- 0.5 g wine tannin, beginning of fermentation
- Potassium sorbate to stabilize post-fermentation
- Sodium metabisulfite to stabilize post-fermentation
- 0.5 oz. (14 g) cake batter flavor, post-fermentation
- 0.25 tsp. malic acid, post-fermentation
- 0.25 tsp. citric acid, post-fermentation
- 4 oz. (113 g) maple syrup, post-fermentation
- 8 oz. (227 g) honey, post-fermentation
- 4 oz. (113 g) brown sugar, post-fermentation
- 1 cinnamon stick, post-fermentation
- 0.25 tsp. vanilla extract, post-fermentation

MEADMAKING NOTES

This mead starts with a basic blueberry mead. Mix together your honey, water, yeast, and blueberries (that have had pectic enzyme on them for at least 24 hours).

Your starting gravity will be somewhere in the ballpark of 1.070–1.080. Add your yeast nutrient and let it start fermenting. Fermentation will run for roughly 2 weeks. Once a day you will want to punch down the fruit cap to keep it submerged in the brew. Once the fermentation is done, go ahead and rack it into a new container and stabilize it with potassium sorbate & metabisulfite. If you want to pasteurize, you can do that later. Add your cinnamon stick and cake batter flavor to the brew. Let the cinnamon stick sit in the brew for a few days or until you can taste it enough on the profile. Then pull the cinnamon stick out of the brew and add your brewing acids, maple syrup, honey and brown sugar to back-sweeten. You can also add your vanilla extract at this point and possibly some blueberry juice if you do not get a strong enough flavor. If you are pasteurizing the brew, do it at this point. Keg the brew to force carbonate it and serve. If you would like to watch a video on how to make this brew... here is a video I made on how to do it: youtu.be/KrOksaO6ko8

RUNNERS-UP

Silver Medal: Kevin Olson, Raymore, Mo., with Michael Wilcox, Shane Kammerer, Jason Elder and John Daly, ZZ Hops

Bronze Medal: Bill Carley, Oviedo, Fla., Brewers Anonymous

Category 47

NEW WORLD CIDER & PERRY

33 entries



Jeffrey Carlson
Grand Rapids, Mich.
PrimeTime Brewers

"PrimeTime Perry"
C1D: New World Perry

Batch volume: 5 U.S. gal. (18.93 L)

Original gravity: 1.050 (12.5°P)

Final gravity: 1.006 (1.5°P)

Alcohol: 5.7% by volume

JUICE

- 5 gal. (18.9 L) Kieffer pear, Husteds Farm Market

YEAST

- 1 packet Lalvin QA 23

ADDITIONAL ITEMS

- 5 g Go Ferm for yeast rehydration
- 5 g Fermaid K
- Liquid pectic enzyme

PERRYMAKING NOTES

Sulfite with stock solution for pH, wait 24 hours, add pectic enzyme, rehydrate yeast using Go-Ferm, and pitch. Add Fermaid K the next day at the first signs of fermentation. Ferment at 60°F (16°C) for 3 weeks. Rack to secondary with a half dose of sulfites. Age 3 months at 60°F.

Rack with one quarter dose of sulfites, sterile filter, keg, and force carbonate to a low *petillant* level. Counter pressure bottle fill.

RUNNERS-UP

Silver Medal: Dan Acheson, Winfield, Ill., Urban Knaves of Grain

Bronze Medal: Michael Wilcox, Wichita, Kansas, Kansas City Bier Meisters



Category 48

STANDARD CIDER & PERRY

20 entries



Michael Wilcox
Wichita, Kan.
Kansas City Biermeisters
Cidermaker of the Year

"Bobbing for French Medals"
C1C. French Cider

CIDERMAKING NOTES

Keeling is a way of making a style of naturally sweet sparkling cider. The method has largely died out but remains a traditional method in some areas of western England and in parts of France. The basic idea is removal of nutrients from the juice to keep fermentation speed to a minimum, and to basically be bottled with significant residual sugar with no (well, not exactly...) fear of re-activation in the bottle. Nutrients are removed by coagulating them with apple pectins, but it is best done with fruit already low in nutrients. For those that pay attention to Yeast Assimilable Nitrogen, somewhere around 40–50 ppm at juicing seems to be a good number.

Some basics:

- **Tannic fruit:** Historically this has been bittersweet apples, though as enzymes have improved so has ability to ferment a more acidic juice. A pH of 3.7 seems to work reasonably well. Bittersharp may be OK, and even a small percentage dessert fruit, though the latter tends to be too high in nutrients. Soft astringency at moderate levels with little bitterness is preferred. Varieties that might work well include Medaille d'Or, Frequin Rouge, and Yarlington Mill.
- **Fairly high sugar:** There are plenty of French commercial examples with an OG in the 40s. Bittersweets don't tend to be very high in sugar anyway, and the low OG allows them to produce a 3-percent ABV beverage that isn't cloying. However, I prefer an OG of 1.058 and above, with an FG

from 1.010 to 1.020, because the higher ABV affords better protection.

- **Very ripe fruit:** Let's not say "rotten" but perhaps nearly. Overripe, aromatic, late-season fruit is best, and it's not unusual to use fruit picked up from the ground. It may even need to sit for a few days to ripen further. I have been a little more picky than others and gotten a less-full aroma as a result, but I like to think I had a better chance of avoiding ruining the entire batch. The apples should remind you of walking through an orchard in the fall, with restrained smoky characters from malolactic fermentation (MLF)—not Brett.
- **Wild yeast:** Pitching commercial yeast will result in too vigorous a fermentation. This also means someone like me doesn't use local fruit, as I don't trust my local Kansas wild yeasts. I've had better luck with fruit from more northern states.
- **Cool temps:** Again, this is something that might be done in, say, November with temperatures in the low 40s°F.
- **Letting milled fruit sit overnight:** You are looking to leach pectins from the apple cell walls as much as possible. This may require 24 hours at as high as 50°F (10°C). Expect a lot of color development. At the very least let the apples sit 3 to 4 hours before any pressing.
- **Calcium:** We add this as calcium chloride. Use 400 ppm as the max suggested dose, stirred into the juice immediately after milling. After sitting it, the apples are pressed, slowly. Oxidation is an important part of flavor development, so you don't want to be in a hurry.
- **Willingness to lose some volume:** These processes might cost you $\frac{1}{4}$ of your total. That's OK; make something else too.
- **Low sulfites:** If my pH indicated I needed 30 ppm for a "normal" batch of cider, I'd add 7–10 ppm in this case. You can try using 0 initially and adding some sulfites later, after clarification.
- **Enzymes:** Pectic methyl esterase (PME) is available online...sometimes. Keep looking. You don't need a lot. The last bottle I had was 14mL (about one half fluid ounce) and was supposed to treat something like 250 gallons. The enzymes already exist in the apple juice but we're adding more. They convert apple pectin to pectic acid, which binds with calcium to form a kind of gel. I do not add it at the same time as the calcium. At least separate the additions by some hours—I added CaCl after milling and let it sit before pressing onto the enzyme already dosed into the fermenter the next day. Finally, note that this is not the same as the "pectic enzyme" with which many of you are already familiar. That stuff has PME in addition to other enzymes that will inhibit the coagulation we want, basically breaking down the pectins so no brown cap forms. And even if you cannot obtain PME, simply dosing with CaCl should set up some cap and reduce your nutrient level somewhat.
- **Patience:** Really this is probably the biggest thing. None of this is fast. Fast is the enemy. You want apiculate film yeasts and other wild critters to start fermenting within a day or so, and the positively charged yeast nutrients to be attracted to the negatively charged pectic acid gel. Early fermentation bubbles make this rise to the surface of your vessel as a sort of brown cap, i.e. *chapeau brun*. Some will also fall to the bottom of vessel. The end (if successful) result is a clarified juice with a significant portion of the nutrients and wild yeast cells trapped in the bottom/top. You want what is in the middle.
- **Racking:** Again recognize that you're going to lose volume, and that the cap might fail/fall. Setting up the cap might take a week, occasionally even twice that long, but keep your eye on it. Remember that cap failure doesn't mean your batch is spoiled; you can still have a "normal" fermentation even if your keeve fails. Carefully rack the clarified juice between the cap and lees to a fermenter. Again, you can hold off on sulfiting until this point if you prefer, perhaps at half the rate you might normally use.
- **Keep it cold and rack it:** Oh, it dropped 10 points? Probably about time to rack it off that yeast as they are getting too excited and we want them to slow down. Multiple rackings are to be expected. Growth of new yeast generations after each subsequent racking further uses up available nutrients we want gone, especially if expecting to capture the end of fermentation in the bottle. Dropping three gravity points in a week is a lot but might be OK; two in a week would be better. Fermentation takes weeks...months, really, and we don't want a lot of "stuff" in there. Autolysis may even liberate extra things to eat that you want to avoid your yeast having access to. Being ready to bottle after about 5 months near 50°F (10°C) is not at all unheard of.
- **Malolactic fermentation:** Some is nice. Too much is sometimes not. I have had some luck stopping it on my own with cold; your mileage may vary. No, the

Continued >



2024 NATIONAL HOMEBREW COMPETITION

< Continued from previous page.

commercially available stuff you see for winemaking is *oenococcus oeni*, i.e. not the same thing that we are looking for, and will not add the smoky ham/clove/rustic character even if it successfully raises your pH and drops your acidity. Note that the presence of residual sugar and a fairly high pH after MLF makes French cider especially prone to problems in the bottle. Things may reactivate and blow up your bottles if you are not careful.

Some corners can be cut, others not so much. Rather than risk bottle bombs, I let it stop on its own and then kept it cold, racking multiple times, before force carbonating the final product. Methode Traditionale or Champagne can be messy. Some commercial cidersmakers may be able to bubble air through the cider to help form the brown cap,

which would allow a higher sulfite level that could kill off more apiculate yeasts but also more potential bad guys.

If it stops too late, you're just a little drier than you desired. That's OK. If it stops too early, you can try to restart it, but might be better off just blending it out. Absolutely TINY amounts of nutrients may have some success at restarting fermentation, but are you sure it is actually stopped and not just slow in the dead of winter? Consider letting a sample sit at room temp for a couple weeks to see what happens on its own before you go trying to dose a few parts per million of DAP or 100 parts per billion of thiamine. If you're going to try to bottle fermenting your almost-finished cider, it needs to be going really slow. One gravity point in a week is likely too fast. Using strong (preferably

champagne) bottles, and having the last 5 points ferment out very slowly can give you a lovely, lively drink after months to develop in the bottle. Ten gravity points isn't going to be safely contained by any glass bottle. Personally I'd prefer to know where my first batch is going to stop before I worried about bottling, and after some positive previous experience I might try to guess where that point would be in subsequent batches and risk glass.

RUNNERS-UP

Silver Medal: Hirrendu Vaishnav, Alamo, Calif., Diablo Order of Zymiracle Enthusiasts (DOZE)

Bronze Medal: Rodney Kibzey, Portland, Ore., Oregon Brew Crew

Category 49

SPECIALTY CIDER OR PERRY

27 entries



James Werner
New Berlin, Wis.
Beer Barons of Milwaukee

"Wisco Chillin'"
C2D. Ice Cider

Batch volume: 3 U.S. gal. (11.36 L)

Original gravity: 1.140 (32.2°P)

Final gravity: 1.060 (14.7°P)

Alcohol: 10.5% by volume

JUICE

15 gal. (56.78 L) fresh-pressed,
unpasteurized apple juice

YEAST

Lalvin 71B yeast slurry

ADDITIONAL ITEMS

12.5 g Go-Ferm for yeast rehydration
4.5 g Fermaid K, in primary
8 g DAP, in primary

CIDERMaking NOTES

Start with 15 gal of fresh pressed, unpasteurized apple juice. Freeze juice and slowly thaw. Collect the first 20 percent or so of the liquid. You will likely have to do this in several batches. I wrap the bucket with spigot in a blanket to slow the thawing process. Once you've collected about 3 gallons, add about 90 seconds of pure oxygen. Rehydrate yeast with Go-Ferm according to directions. Pitch the yeast slurry and add the yeast nutrients. When you reach a few points above 1.060 SG, cold crash to near freezing to stop fermentation. Stabilize and rack to secondary. Age at near freezing for 2 to 3 months. Rack one more time off the yeast that has settled out and package as desired. Carbonate if desired.

RUNNERS-UP

Silver Medal: Hirrendu Vaishnav, Alamo, Calif., Diablo Order of Zymiracle Enthusiasts (DOZE)

Bronze Medal: Javier Alderete, Pleasant Hill, Calif., Diablo Order of Zymiracle Enthusiasts (DOZE)



ON THE WEB
Find past winners' homebrew
recipes on our website @
[HomebrewersAssociation.org/
beer-recipes](http://HomebrewersAssociation.org/beer-recipes)



Category 50

FRUIT OR SPICE CIDER

38 entries



Jeffrey Carlson
Grand Rapids, Mich.
PrimeTime Brewers

"Westside Lingonberry"
C2B: Fruit or Spice Cider

Batch volume: 5 U.S. gal. (18.93 L)
Original gravity: 1.054 (13.3°P)
Final gravity: 1.006 (1.5°P)
Alcohol: 7% by volume

JUICE

5 gal. (18.9 L) Uncle John's Heirloom Blend (Golden Russet, Winesap, Northern Spy)
Swedish lingonberry concentrate

YEAST

1 packet Red Star Premier Cuvée

ADDITIONAL ITEMS

5 g Go Ferm for yeast rehydration
5 g Fermaid K
Liquid pectic enzyme

CIDERMAKING NOTES

Sulfite with stock solution for pH, wait 24 hrs, add pectic enzyme, rehydrate yeast using Go-Ferm, and pitch. Add Fermaid K the next day at the first signs of fermentation. Ferment at 60°F (16°C) for 3 weeks. Rack to secondary with a half dose of sulfites. Age 5 months at 60°F.

Rack with a quarter dose of sulfites, sterile filter, add Swedish lingonberry juice concentrate to taste, keg, and force carbonate to a low level. Counter pressure bottle fill. Ferment the original juice to dryness, then add concentrate to back-sweeten.

RUNNERS-UP

Silver Medal: William Lindel, Winston Salem, N.C.

Bronze Medal: Joe Plunkett, Golden, Colo.

**ON THE WEB**

Find past winners' homebrew recipes on our website @ HomebrewersAssociation.org/beer-recipes

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GREAT AMERICAN BEER FESTIVAL®

PRO-AM COMPETITION

2024 | DENVER, COLO.

By Adriana Terron

This year's 38th Great American Beer Festival (GABF) Competition, the largest professional beer competition in the nation, awarded 326 medals to 273 breweries and cideries. The number of beer categories judged this year reached 102, including 170 subcategories, alongside five new cider categories and the Collaboration and Pro-Am competitions, none of which could have happened without the 250+ volunteers who help carry out festival operations from start to finish. Judging occurred in three phases over seven days and included entries from 1,869 breweries and cideries from all 50 states, plus Washington, D.C. and Puerto Rico. The category with the highest number of entries was Juicy/Hazy IPA with 349, followed by West Coast IPA, American-Style IPA, Dortmunder or German-style Oktoberfest, and lastly, German-style Märzen.

A highlight of the GABF Competition is the Pro-Am Competition, now in its 18th year, which offers commercial brewers and homebrewers a chance to partner up and compete for the highest distinctions. Entries must be based on a homebrew recipe from

American Homebrewers Association (AHA) members who have won an award in an AHA- or Beer Judge Certification Program (BJCP)-sanctioned competition. All entries are then poured both for the brewery's own customers and also at the Pro-Am Booth during GABF. Winners were announced during the GABF Awards Ceremony in the Colorado Convention Center Bellco Theatre on October 12, 2024. Visit GreatAmericanBeerFestival.com/the-competition/2024-winners/ to find all the winners.

Although the Pro-Am Competition is separate from the GABF Competition, it is still judged by the same professional panel of world-class judges (a total of 285 beer experts). They saw a total of 52 entries (the entry cap is 54) for Pro-Am that were all judged during Phase I (two phases in total), in Louisville, Colo., two weeks before GABF.

This year's winners all had homebrewing roots that ran deep and were all lighter beer styles, two being European, perhaps reflecting the growing appreciation and fondness amongst brewers and beer drinkers alike for crisper, lighter beers.



AHA Members, check out the Butlers' homebrew system at HomebrewersAssociation.org/presentations/zymurgy-live



GOLD Piwo Grodziskie (Grodziskie) Kansas City Bier Co.

Mike and Stephanie Butler are big names in the homebrew world, so it's no surprise to see them win the Pro-Am gold this year for the piwo Grodziskie they brewed with head brewer Karlton Graham of the Kansas City Bier Company. The husband-and-wife team got into the hobby in 2008 and have been blazing trails since, winning their first medals in 2016, becoming National BJCP judges, and climbing the ranks quickly in the Master Homebrewer Program (MHP). As members of the esteemed Kansas City Bier Meisters homebrew club, they've been on the homebrewing radar for several years now.

They chose to brew a piwo Grodziskie when they envisioned themselves, perhaps in the middle of a Midwest winter, enjoying the style in a German biergarten on a hot summer day. The Butlers said, "the beer is very low ABV (ours is 3.2 percent), and it has several recipe and process features that make it shine."

The first iteration was for a local beer festival in March 2023. They submitted it as an entry in the Kansas City Bier Company's Scale-up Competition. Graham said the piwo stood out as special among the others they judged because "it is dry and crisp on the finish, but still has a mysterious balance from the high wheat content that makes it incredibly drinkable. That along with a little kiss of smoke flavor makes it complex and unique." The beer used 85 percent oak-smoked wheat malt and 15 percent floor-malted wheat as well as traditional noble hops for a touch of floral character.

The piwo also won Best of Show in March 2024 at America's Finest City Homebrew Competition in San Diego, and their homebrewed version advanced to the NHC Finals. It's been an especially good fit for a traditional German brewery that uses decoction methods for most of its beers. The Butlers exclaimed, "it was a great experience all the way from brew day in June to release day when we got to tap the barrel in true German style. The Kansas City Bier Company is a true gem in the KC area. We are so fortunate to have them in the community." Likewise, Graham noted, "brewing with the Butlers was a breeze. They're such even-tempered and good-natured people, so they're a pleasure to be around in general."

The brewery and homebrew club enjoy a mutually beneficial relationship. "The club volunteers at our big Oktoberfest event every year, and the brewery serves as a collection point for the club's many competition entries," said Graham.

Graham, a graduate of the Siebel Master Brewer Program in 2012, has been with Kansas City Bier Company as the founding head brewer since its opening in 2014. He relayed a review the beer received at GABF from a Polish attendee who said he hadn't had a proper Grodziskie since leaving Poland, declaring, "it was a 100-percent match to the classic example from Browar Grodzisk." Graham believes that's one of the highest compliments you could earn and partially attributes it to the brewery's excellent ability to keep oxygen out on the cold side. "I carefully bottled the entries by hand to ensure low dissolved oxygen levels. For a beer with such a delicate flavor, that was critical."

Even though the couple stay motivated to improve by programs like the MHP, which they say, "challenges us to master new styles in order to advance and earn badges," the best part of the hobby for them by far is all the friendships they have made along the way.



Brew This!

Piwo Grodziskie

Grodziskie

This bier is a historical style called piwo Grodziskie, brewed using oak-smoked German wheat. The style is generally making a modest comeback and would be a fun addition to the K.C. Bier Co. lineup!

Batch volume: 5 U.S. gal. (7.57 L)

Original gravity: 1.032 (8°P)

Final gravity: 1.007 (1.7°P)

Efficiency: 72%

Color: 2.4 SRM

Bitterness: 26 IBU

Alcohol: 3.2% by volume

MALTS & ADJUNCTS

5 lb. (2.27 kg) Weyermann oak-smoked wheat malt

13 oz. (369 g) floor-malted white wheat

HOPS

0.4 oz. (11.3 g) Magnum, 11.5% a.a. @ 60 min

0.75 oz. (21 g) Saaz, 3.75% a.a. @ 10 min

0.25 oz. (7 g) Magnum, 11.5% a.a. @ 10 min

YEAST

1 billion cells per liter White Labs WLP029 German Ale/Kolsch yeast

WATER

Ca 50 ppm, Cl 84 ppm, SO₄ 168 ppm

BREWING NOTES

Infusion mash at 122°F (50°C) with a pH of 5.3. Decoct a portion of the mash, boiling for 15 minutes, then add back to the main mash to reach 152°F (67°C) and hold for 60 minutes. Mash out at 168°F (76°C) for 10 minutes.

Boil 60 minutes. Chill rapidly to 64°F (18°C), oxygenate, and pitch yeast. Once signs of active fermentation begin, allow temperature to gradually rise to 70°F (21°C) over the course of primary fermentation. After fermentation is complete, crash to 35°F (2°C) and carbonate to 3.0 vol. of CO₂. Enjoy!



Rising Sun

Rice Lager

Batch volume:	5.5 U.S. gal. (20.82 L)
Original gravity:	1.049 (12.3°P)
Final gravity:	1.011 (2.7°P)
Efficiency:	65%
Color:	3.1 SRM
Bitterness:	22.7 IBU
Alcohol:	5% by volume

MALTS & ADJUNCTS

8.75 lb. (3.97 kg) Weyermann Pilsner malt
2 lb. (0.9 kg) Briess flaked rice
8 oz. (227 g) Briess flaked corn

HOPS

0.25 oz. (7 g) Sorachi Ace, 12.28% a.a. @ 60 min
0.75 oz. (21 g) Sorachi Ace, 12.28% a.a. @ 15 min

YEAST

Wyeast 2124 Bohemian lager yeast slurry

WATER

Garden Valley, Calif. Water
Ca 15 ppm, Mg 5 ppm, Na 9 ppm, Cl 14 ppm,
SO₄ 34 ppm, HCO₃ 0 ppm
3.8 mL lactic acid (mash)
0.19 g calcium chloride (mash)
0.3 g salt (in mash)
0.91 g gypsum (mash)
1.14 g Epsom salts (mash)

ADDITIONAL ITEMS

0.6 tsp. yeast nutrient @ 10 min

BREWING NOTES

My boil-off rate is pretty low because I use a steam condenser instead of an open boil; some scaling for other systems may be required. My water is very soft with low mineral content. Most people should probably start with RO water and build from there. Heat 7.6 gal (28.8 L) strike water to ~154°F (68°C). Acidify mash to about 5.3 pH. Mash at 148°F (64°C) for 90 min. Collect 6.78 gal (25.7 L) pre-boil volume and adjust pH to 5.2–5.25 for boil. 90-minute boil. I adjust pH to 5–5.1 post-boil. Chill to 48°F (9°C), oxygenate, and pitch a healthy starter of yeast. Allow temperature to rise to 50°F (10°C) over 4 days. Ramp to 56°F (13°C) over 4 more days for a diacetyl rest. Don't rush it, give the yeast plenty of time to clean up any off-flavors. Slowly crash to near freezing temps if possible. Adding a little gelatin or Biofine will make for brilliant clarity. Keg and lager for 4–6 weeks if possible.



From left: Dano Johnson, Matt Hall, and Teresa Psuty.

SILVER

Rising Sun (rice lager)
Crooked Lane Brewing
Co., Auburn, Calif.

AHA Member:
Matt Hall,
Garden Valley, Calif.
Pro Brewer:
Teresa Psuty



The homebrewing roots of this win run deep. Both Matt Hall and Teresa Psuty have been members of the PUBS (Placer Ultimate Brewing Society) homebrew club, which supports and educates the homebrewing community of Placer County, Calif.

Psuty, current brewmaster and president of Crooked Lane, which opened in 2016, said, "it's so exciting we were able to accomplish this along with Matt." Crooked Lane was "floored" when they tried his Best of Show winner in the PUBS Invitational Homebrew Competition. When the brew team found out Hall was the one behind it, "we were delighted," says Psuty, explaining, "he's an awesome brewer."

Hall said that winning this medal is something he never could have imagined. "I got serious about my homebrewing in 2014," said Hall, which is when he joined the PUBS club, truly jumpstarting his brewing skills.

For a brewery that loves to brew classic styles, especially German-style lagers and ales, the winning Japanese rice lager was right up Crooked Lane's alley. Rising Sun started with a love for Sapporo and got tweaked from there. Despite a few last-minute ingredient substitutions, the brew still impressed.

Psuty said, "the rice and Sorachi Ace hops in this recipe create a heavenly combination," with Hall adding that it has "a lemony hop character with a hint of dill in the finish." The beer was revealed on Crooked Lane's eighth anniversary and was immediately popular.

Brew day in late July included not just Hall but brewers Andy Armstrong, Dano Johnson, and 15 other PUBS members. "They are a lovely bunch. We have known them for so many years. It was like having old friends over for brew day, and they all had a million excellent questions and ideas." As a self-described glorified homebrewer herself, Psuty loves sharing knowledge. "I am continually impressed by the excellence PUBS and other clubs bring to their craft. We have a lot to learn from them as well."

Hall described the day as "an amazing learning experience" and points out that "extract efficiencies, boil-off rates, water adjustments, and hop utilization are much different on that big of a system. They did a fantastic job scaling it up from a five-gallon BIAB batch to seven barrels."

Getting serious about what it takes to win a medal, Psuty stressed that "packaging for GABF is the number one most important factor, beyond making a quality beer." The brewery staff were careful to keep their DO (dissolved oxygen) levels low in their canned entries. "Another factor is making a beer solidly in the style, but with a couple of characteristics that stand out."

Hall suggested striving for repeatability as well as actively participating in a homebrew club. "Take criticism as a learning experience and don't be offended; it's how we all get better," Hall noted, adding that pitching proper amounts of healthy yeast was one of the biggest improvements to his beer quality lately. "Great resources for learning more are places like Homebrew Talk and the AHA Forum."

Riding the high of receiving the award, Psuty still brought it back to homebrewing, saying, "I appreciate the homebrew community's passion, risk-taking, and embrace of classic beer styles. They are our customers, defenders, and biggest fans. They exemplify why we don't take shortcuts and try to make the best beer we can."



Jeff Metz and Joel Miller.



BRONZE

**South of Helles
(helles export)**

**Starr Hill Beer Hall &
Rooftop, Richmond, Va.**

AHA Member:
**Joel Miller,
Clen Allen, Va.**

Pro Brewer:
Jeff Metz

Joel Miller's bronze-winning helles exportbier's origins sprout from a love for a certain malt from Charlottesville, Va. "Jeff Bloem, owner of Murphy & Rude (M&R) Malting Company, helped me out even though he mostly dealt with commercial brewers. I use his malts for most of my homebrew now," said Miller. South of Helles was no exception, as it uses 100 percent M&R malt.

After taste-testing a few of Miller's beers for entry into the Pro-Am Competition, Jeff Metz, brewer at Starr Hill Beer Hall & Rooftop in Richmond, Va., chose the helles, exclaiming, "the malt character was great!" He went on to say that Miller has been "focusing on using Virginia-grown and -malted barley from M&R Malting for the past few years. I'm also a big fan of their malt, so it was a no-brainer to make Joel's beer for Pro-Am."

In response to all this love for M&R Malting, Bloem said Miller and Metz "have both been longtime customers, and we couldn't be happier helping them bring home some jewelry. Their recipe formulation and brewhouse execution are the real winners. With the renaissance moment European styles are having in the U.S., this medal is a testament to our belief that you don't need to ship malt 5,000 miles to brew award-winning versions of them."

This isn't Miller's first major brewing success either. He won the Pro-Am bronze with Decipher Brewing last year and the Pro-Am silver with Precarious Beer Project in 2019. Even though he's familiar with brewing on big systems, he considers each opportunity an honor and is "ecstatic the judges enjoyed the beer."

"Brewing with Jeff at Starr Hill was no exception," said Miller, noting Metz's extensive knowledge and "willingness to explain why he does things the way he does. His dedication and workmanship come through nicely in his beers." Metz's other medal win this year, a gold in the American Fruit Beer category for a rosé lager called Hey Girl, Hey!, makes that clear.

Metz started homebrewing when he worked in a brewpub kitchen during college and then graduated to cellarman. "I'm 12 years in at this point and still learn new things all the time," he said. Regarding brewing with Miller, Metz said he enjoyed talking shop and bouncing ideas around. "Brewing with Joel was great; our brewing philosophies are shockingly similar."

When asked what made this beer a winner, Metz noted, "balancing the hops (Spalt Select and Hallertau Mittelfrüh) in this style is tricky; it's got to be enough to support the malt while keeping the drinkability right. A small percentage of Vienna malt helped with that balancing act." He added that dialing the water chemistry into the appropriate style is key. "I always think that makes the difference between good beer and great beer."

Even with his multiple medals, Miller still recognizes the importance of being part of a welcoming homebrewing community. "James River Homebrewers has always been a laid-back club but becomes serious when it counts, like when running the Dominion Cup, Virginia's largest homebrew competition. It is great to see people with a common hobby elevating each other's game with knowledge and friendly competition."

Miller's advice to other homebrewers takes a similarly relaxed approach. He simply says, "brew something you want to drink" and, perhaps most importantly, "make connections in your community."



Brew
This!

South of Helles

Helles Export

Batch volume:	5 U.S. gal. (18.93 L)
Original gravity:	1.055 (13.5°P)
Final gravity:	1.014 (3.5°P)
Efficiency:	65%
Color:	3.1 SRM
Bitterness:	28.5 IBU
Alcohol:	5.4% by volume

MALTS & ADJUNCTS

9.25 lb.	(4.2 kg) Murphy & Rude Virginia Pilsner malt
1 lb.	(454 g) Murphy & Rude Virginia Vienna malt

HOPS

0.32 oz.	(9 g) Spalter Select, 4.75% a.a. FWH @ 60 min
0.32 oz.	(9 g) Spalter Select, 4.75% a.a. @ 40 min
0.55 oz.	(16 g) Hallertau Mittelfrüh, 4% a.a. @ 40 min
1.2 oz.	(34 g) Hallertau Mittelfrüh, 4% a.a. @ 20 min
1 oz.	(28 g) Hallertau Mittelfrüh, 4% a.a. @ 5 min

YEAST

Saflager 34/70 Lager Yeast

WATER

2:1 sulfate-to-chloride ratio

BREWING NOTES

Boil 90 minutes. Single-infusion mash at 150°F (66°C) for 60 min. Ferment at 50°F (10°C) until about 50% attenuation, then allow to rise to 56°F (13°C) until about 80% terminal gravity. Cap fermenter for natural carbonation and bring to 60°F (16°C) for a diacetetyl rest.

Adriana Terron is the technical brewing projects administrative specialist at the BA, and Zymurgy copy editor.

Photos courtesy of Allie Hochman (left) and Joel Miller



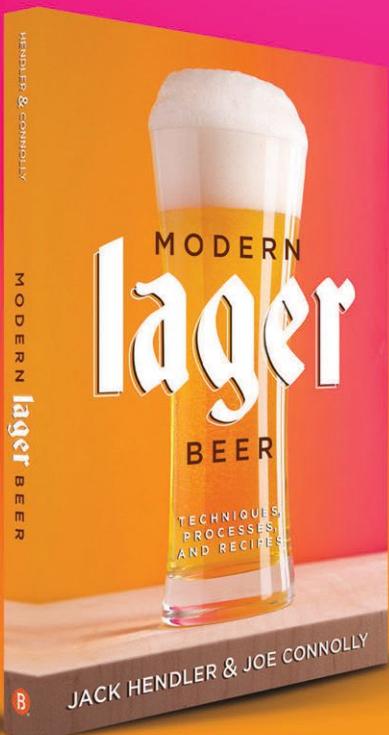
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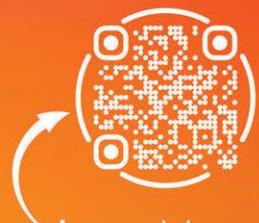
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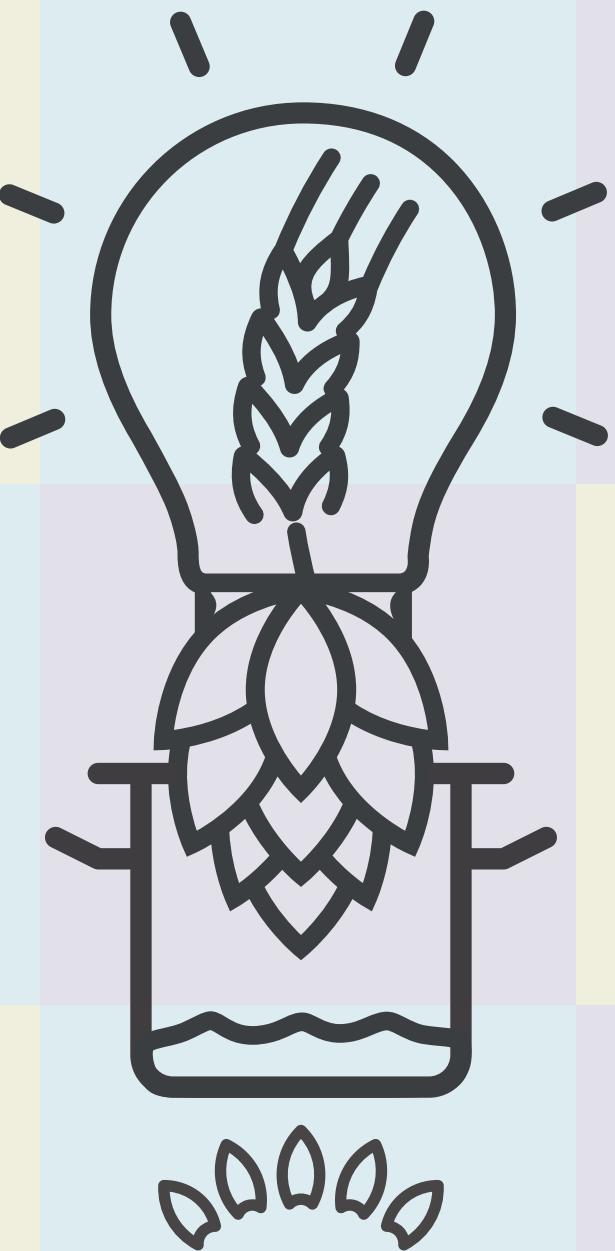
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GADGETS



By Zymurgy Readers

Homebrewers enjoy a rich heritage of creative, thrifty, do-it-yourself solutions to life's beermaking problems. Although today's hobbyists enjoy unprecedented access to purpose-built brewing equipment, that DIY spirit remains very much a part of homebrewing culture. Zymurgy's annual gadgets feature is dedicated to that spirit. Read on to discover how today's homebrewers continue to solve everyday problems with innovative gadgets.



SANKEY KEG WASHER

I built a Sankey keg washer out of an old coupler and a fish pump to give me a good first rinse of cleaner before opening it up fully.

Kyle Manderscheid
Beer Barons of Milwaukee
Milwaukee, Wis.



TOROIDAL HEAT EXCHANGER

Chilling hot wort is a task that, if it can be done faster, should be. 1) No one likes waiting for the wort to chill, and 2) the faster the chill, the less opportunity for bacteria to affect flavor, and the faster you can pitch the yeast and be on your way to pouring your new brew. Since transferring heat from the wort via a heat exchanger to somewhere else is based on the surface area of the heat exchanger, the more surface area, the faster the heat transfer. This toroidal heat exchanger significantly increases the surface area of the heat exchanger, is capable of being made at home with standard plumbing supplies, uses the same copper material as common heat exchangers, and significantly cuts cooling time. It is made by coiling 1/4" copper piping around a 3" PVC pipe for about 2 feet. Once coiled, the

copper can be removed from the PVC and shaped into a circle to fit your brew kettle. Enough length should be left on the ends of the copper to allow the exchanger ends to extend above your brew kettle for connection to an external water source. For additional cooling, a second or even third coil can be made and connected. I used some copper wire to hold the toroid coils together, soldered the two coils together, and soldered hose barb ends to connect my water source. The pictures show a dual toroid exchanger to fit an 8-gallon kettle. It has been a while since I have brewed, so the coils are oxidized after being in hot wort, and not bright as they once were.

Wes Hughson
Panama City, Fla.



PUMP AND PLATE CHILLER MOUNT

My homebrew partner and I created this mount for our recirculation pump and plate chiller which uses a ski strap to fasten down the plate chiller. It has been painted over with boat paint, which is waterproof, and adds a textured grip to the mount.

Cole Kopca
Seattle, Wash.



BOTTLE SHARE HANG TAG

This is a reusable hang tag that you can attach to a bottle of your homebrew so everyone at a bottle share knows what they are sampling. Ever go to a bottle share and hear someone ask “What’s this” as they hold up a bottle? Here is the way to answer the question before it is asked: make hang tags to put on your bottles so everyone can identify your brews.

The tags are easy to make:

1. Use a spreadsheet to make a template for the tag. Six tags will easily fit on letter-sized paper.
2. Cut the tags apart (I used an inexpensive crafting paper cutter to get uniform cuts) and punch a hole at the top of each one.

3. Laminate them six at a time in a letter-sized lamination pouch, leaving space in between them for trimming. You can get an inexpensive laminator in the craft aisle of a big box store.
4. Trim the excess plastic from around the tags—the paper cutter will do the trick here as well.
5. Punch a hole through the plastic where you put the hole in the tag in step 2.
6. Loop a rubber band through that hole. That’s all there is to it.

You can write the details about your brew on the tag with a permanent marker. It only takes about a minute for the ink to dry.

To reuse the tag, clean it off with some rubbing alcohol and a paper towel. For best results, clean it off within a few days after the bottle share.

I shamelessly stole this idea from the homebrew club I belonged to before I retired and moved south to a warmer climate. Everyone in my new homebrew club liked the tags so much that sharing the idea with the greater homebrew community seems like the right thing to do.

Therefore, I raise my glass in thanks from the Brick City Brewers in Ocala, Fla. to the Pontiac Brewing Tribe in Rochester Hills, Mich.

John Ottarson
Brick City Brewers
Ocala, Fla.

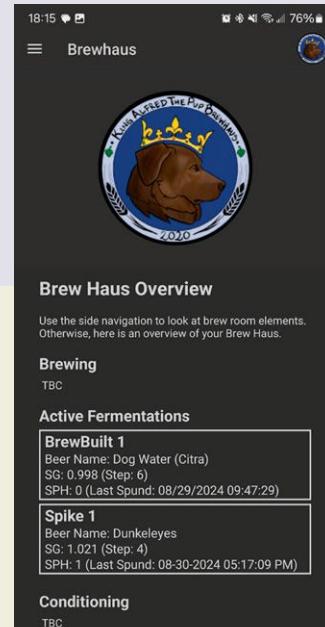
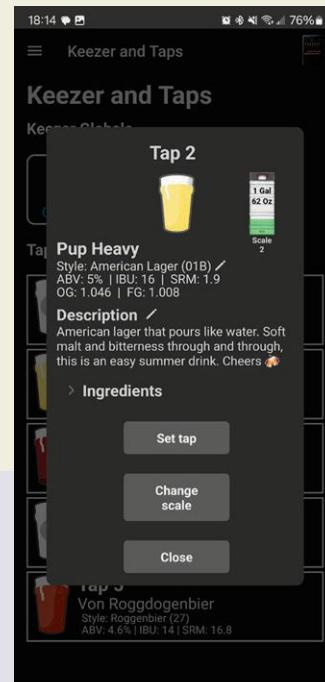
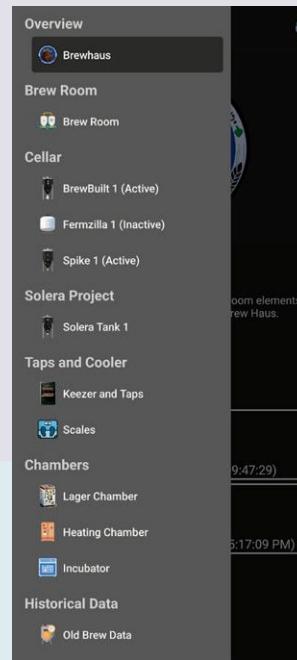
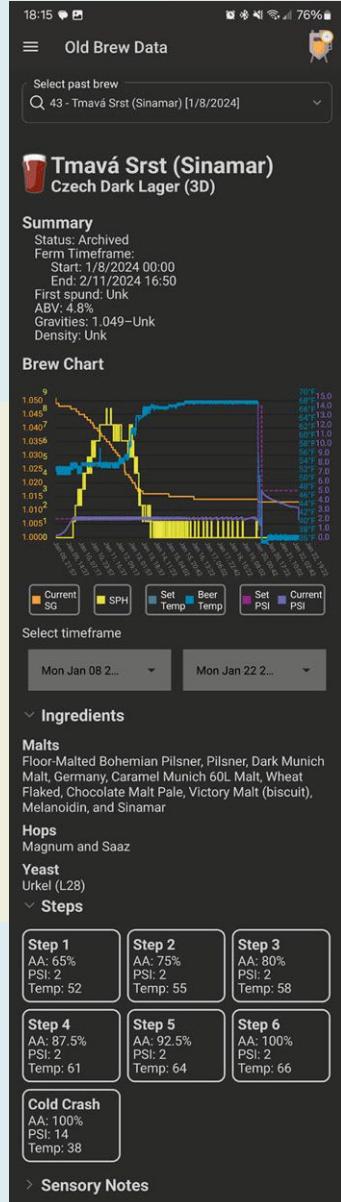


INLINE FLAVOR INFUSER

I use a filter housing to add hops or spices to kegged homebrew as it is dispensed.

Gary Johnson
Allison Park, Pa.

GADGETS



SELF-CODED ANDROID BREWING APP

I use Brucontrol to manage my fermentations. It includes a data exchange server, so during the pandemic, I learned JavaScript so I could use Node.js and Node-RED to access my brew data remotely and control certain elements.

As my skills developed, I made my setup more complex. More recently, I learned the React Native JS framework so I could build an Android app to monitor and control my home cellar operations.

For each fermenter, I can monitor the temperature, pressure (via a self-built pressure sensor and spunding valve), and Tilt (with real-time calibration). I can also:

- Set temperature and pressure levels for fermenters
- Trigger cold crash
- Get alerts (certain failures, fermentation progress, etc.)
- Set lager chamber temps
- See my keezer tap list and keg levels (with self-3D-printed and self-coded keg scales)
- See historical fermentation data

Cole Christian
DC Homebrewers
Washington, D.C.



SYRINGE KEG INFUSIONATOR

I occasionally make beers that get a spice addition. My preferred method of adding spices is to make a tincture of spice in vodka, soaking for a week or two, then adding a measured amount of the infused vodka to my keg. The benefit of this method is that I can take a small sample of the base beer, add drops from a graduated eye dropper one at a time until I get the balance right, then scale up the amount added to the full keg volume. However, I do not wish to open the keg and expose it to oxygen to add my infusion, so I created the

Keg Infusionator. A 200cc syringe, short length of hose, and a gas disconnect—just pull your infusion liquid into the syringe, connect the hose and disconnect, purge out any air from the assembly, and you are ready to infuse your keg. Careful: if your keg is carbonated, keep a firm grip on the Infusionator plunger as you connect it (don't ask me how I know this).

Mark Brzezinski
DC Homebrewers
Gaithersburg, Md.



DOUBLE-BARREL BOTTLING BUCKET

It may be simple, but I can bottle my beer twice as fast. And even faster when I get a little help from my daughter.

Keith Loats
Seven Hills, Ohio



FLOATING SIPHON FOR HOT WORT

Siphon from the top—it's the fastest and cleanest way to siphon 12 gallons (45.4 L) of boiling hot wort through your heat exchanger to get it to pitching temp in less than 30 minutes. I cut the bottom off my copper racking cane, added a wooden float (I couldn't find a stainless steel one), a couple of hose clamps to keep things in place, and a tea strainer (folded for minimum height).

Lloyd Becker
The Greater Topeka Hall of Foamers
Topeka, Kan.



DIY BIAB PULLEY SYSTEM

I used mostly off-the-shelf items for a DIY BIAB pulley system. It uses scrap wood as a cross beam with an eye screw that attaches a rope pulley. It all sits on a heavy-duty metal double clothing rack that easily folds down when not in use. The base of the clothing rack has a metal grid shelf to rest equipment and store bins. It all works on wheels that come with the rack. Additional features like carabiners allow easy hanging of tools for brew day. Extending arms on the clothing rack also allow for hanging more tools or a counterflow chiller.

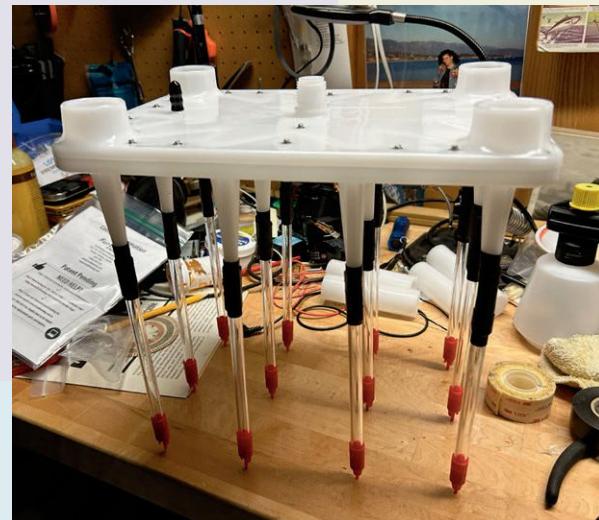
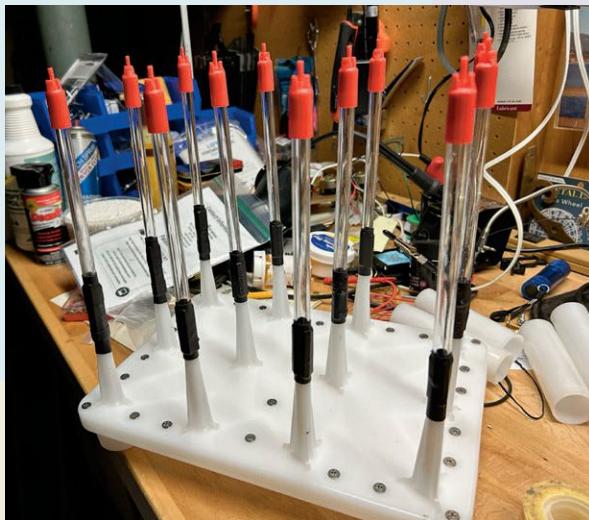
Kenneth Libeson
NYC Homebrewers Guild
New York, N.Y.



KEG SHAKER FOR FORCED CARBONATION

Carb that keg the easy way! Rather than work my arms to exhaustion to force carb my kegged beer, I use a cheap (less than \$60) exercise vibration platform to shake it to perfect carb levels. I fill my keg with cold beer from the fermenter after cold conditioning. I purge the keg with CO₂, then strap the keg to the platform with the keg sitting on two pieces of foam, connect the CO₂ at slightly over my desired pressure, and then turn on the machine for 15 minutes. It vibrates/rocks away, allowing for good CO₂ saturation, and stops by itself after the allotted time. I then adjust the keg to serving pressure and let it sit for 24 hours. Perfect carbonation every time. I use a tiedown strap, cut short, and two homemade hooks to strap the keg to the machine.

Stacy Brown
Dukes of Ale
Rio Rancho, N.M.



MULTI-BOTTLE FILLER

I built a multi-bottle filler that allows homebrewers to fill 12 bottles at once. It uses a small pump and the proper sized hose attachment.

David Barash
Garden State Homebrewers
Scotch Plains, N.J.



BIAB ROCKET

I'm an avid BIAB brewer. In the warmer months I brew over propane in my garage, and have no problems dealing with the mash, as I have a hoist.

However, in winter it's an indoor activity on the stovetop. I am able to brew full, 5-gallon (18.9-L) batches indoors in an 8-gallon (30.3-L) Megapot, but find draining the grains bag is an exercise in frustration. Trying to manage a bag with 12 or more pounds of hot, wet grain over the brew kettle was just too messy. Using a colander resulted in the grain muffin-topping over the sides, with wort running outside the kettle. Attempting to do a pour-over sparge just adds another element of messiness.

Rigging hoists and pulleys in our kitchen was a non-starter, and I wasn't about to try hanging things off a cabinet door.

I devised a solution: the BIAB Rocket.

Using a food-grade 5-gallon bucket, I cut off approximately the top third of it. I drilled a series of 3/8" holes in the bottom and attached three stainless-steel carriage bolts around the sides, 120 degrees apart and just above

the bottom, to act as a "spider." I attached the bolts to the bucket using stainless nuts and fender washers, to prevent leakage. To keep the weight of the full bucket from deflecting the bucket's sides at the bolts' attachment points I fabricated gussets from galvanized sheet steel and attached them with 1/4" stainless bolts. This keeps the assembly rigid and the spider perpendicular.

When the mash is complete, I simply lift the bag straight up above the kettle, and quickly set the rocket onto the kettle's rim. Then I just set the bag into the rocket and let it drain while I start heating the wort. I can even use a small sauce pan to press down on the bag to squeeze out more wort. The bottom of the rocket protrudes only about 3/4" below the kettle's rim, so it's not submerged into the wort, as can sometimes be the case with rounded colanders.

To remove the rocket, I lift it up, slide an inverted bucket lid beneath it and carry it away. No spills, no runs.

Kevin Brady
Blaine, Minn.

THREE-KEG SPUNDING VALVE

When keg conditioning, this 3-keg spunding valve has the added advantage of equalizing pressure between all connected kegs.

George Brooks
San Francisco Homebrewers Guild
San Francisco, Calif.



GADGETS



STOVETOP HERMS

This is a stovetop Heat Exchange Recirculating Mash System (HERMS) with a sous vide immersion heater to control the temperature. It's small enough to be used on the stovetop and is perfect for small batches.

Mark Sahr
Jenison, Mich.



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A COOL

TRADITION

LAGER COOLSHIPS

BY RYAN PACHMAYER



wenty-five miles east of Bamberg, Germany, lies the small town of Waischenfeld. On one of the town's few main streets, you'll find Brauerei Heckel. This unassuming brewery is a tiny producer (the equivalent of around 250 U.S. barrels per year), but it has a reputation that far exceeds its size. The single-room pub has four tables. It only serves one beer, gravity-poured from a barrel. Despite being brewed with 100 percent Pilsner malt, this *vollbier* (full strength/full flavored beer) has a deep, golden color due to the wood-fired, copper-bottom brew kettle used during the brewing process. The lager is full bodied, balanced, and has a certain freshness to it. It's not uncommon for the single room to fill up within a half hour of opening, with plenty of folks coming from the surrounding regions to experience an authentic slice of what many small village breweries used to be.





Cooling wort in a kühlschiff.

Photos courtesy of Jim Spaulding

Heckel also uses a lager coolship, or *kühlschiff*, a piece of equipment that plays a role in the authentic, old-world process used to brew the beer. While more popular for spontaneously fermented beers, especially in Belgium and the United States, coolships serve an entirely different purpose when it comes to lagers.

Lager brewers aren't inoculating their beers with wild yeast in the coolship—most aren't even allowing the beer to chill anywhere near pitching temperatures. Instead, these coolships are used for a combination of driving off DMS, separating solids (*trub*) from the wort, and for the unique flavor that adding hops at this point in the process can impart in the final beer. A fourth reason is fairly common as well—it's a traditional practice that was commonplace in Germany, the Czech Republic, and surrounding regions at one point in time.

Today, few breweries employ coolships for lagers. The extra step in the process, the maintenance, and the physical footprint of this large wort cooler are just some of the reasons why breweries have elected to eliminate coolships from their brewhouses. Still, if you look hard enough, you can still find them in many of the countries we recognize as leading producers of lager.

Prague-based writer Evan Rail, author of *The Brewery in the Bohemian Forest*, believes that there are around twenty Czech lager breweries that are still using coolships. In the United States, the only breweries using lager coolships that I could find were Dovetail Brewery, OEC Brewing, Wild Provisions Beer Project, and Jack's Abby Brewing. In Franconia, perhaps as many as two dozen breweries are still using them, along with a few other breweries across wider Germany.

Augustiner Kloster Mülln in Salzburg, Austria knows something about tradition—



An 84-liter kühlschiff



Pumping to a kühlschiff in the loft.

the brewery has been in operation since 1621. It uses what may be the largest lager coolship in operation today. Head brewer Oliver Wessbacher says that the old methods and technology that the brewery still uses are directly responsible for the unique taste and characteristics of the beer. “It’s a combination of all of the steps in our production,” he says.

Wessbacher feels that the coolship is intrinsically linked to the brewery’s *berieselungs-kühler*, a piece of equipment with many small copper pipes, through which cool water runs. After chilling down to about 158°F (70°C) over 30 to 60 minutes in the coolship, the wort flows via gravity down the outsides of the copper chiller, continuing the cooling process.

Wessbacher sees several benefits to the coolship process. “We take out the trub, and the wort gets concentrated. DMS evaporates,” he says, adding that the wort is exposed to a lot of oxygen, which has an influence on the final beer. Augustiner doesn’t add hops to its coolship, but there have been some thoughts about this, to increase the hop aroma of the beer.

The only coolship used for lagering in Japan is located at Baeren Brewery in Morioka. The copper brewing system, originally built in 1906, was rescued from the now-defunct Sonnen Brauerei in Germany, and installed at Baeren in 2002. The kettle has since been updated with a new boiling system, but the lauter tun and the coolship are in their original state.

Baeren uses its coolship when brewing two different Vienna lagers, one a collaboration with Mikkeller that has been brewed once a year for the last four years. Baeren uses its coolship a bit differently than most lager makers, however. According to Sebastian Hohentanner, who initiated the collaboration lager and supplies the malt and hops for it, the brewery allows its wort to fall all the way to



Hot break in the kühlschiff.



BUILD YOUR OWN COOLSHIP

Building a copper or stainless steel coolship yourself may be a bit too daunting of a task. Thankfully, there are other applications that require shallow, long, wide containers. In my initial research, two primary industries looked like a great fit: Steel sinks and maple syrup excavators. I opted for the latter, a 6" deep and 24" wide by 36" long stainless-steel pan. It was shipped to my door for under \$200.

If you're patient and perhaps live in a large metropolitan area, you can likely find a sink with the right dimensions for closer to \$100 on Facebook Marketplace or a similar sales platform. Adding in your own drain (or modifying a floor drain) is important—you'll want to be able to drain the clear wort and leave the trub behind. This can require a bit of experimentation, but as long as you're thoughtful about it up front, success is likely.

TIPS FOR BUILDING AND USING A COOLSHIP

- You don't want a vessel that is too deep, otherwise, you might as well use a kettle. You want the surface area to be high, to blow off DMS and quickly cool the wort from boiling temps. It will also help quite a bit with the separation of trub, giving you a clearer wort into the fermenter.
- You'll need a vessel that can be reliably cleaned and can handle boiling wort. Most plastics are probably a bad idea, but if it is food grade, it could be an inexpensive way to add a coolship option to your brewhouse. A scuffed surface shouldn't be a problem at these high temperatures. Matthew Peetz, owner of Propagate Labs in Golden, Colo., tells me that few bacteria will survive above 120°F (49°C), and that he would not be very concerned about going down to about that temperature in the coolship, before quickly cooling to lagering temperatures. Further, if a yeast strain manages to survive at around 130°F (54°C), it's very unlikely to then survive at a 50°F (10°C) lagering temperature.
- Peetz says that a clean space is ideal, but that the steam rising from the wort in the coolship is likely creating a protective barrier around the wort.

The use of whole leaf hops in a coolship adds a more complex hop profile.

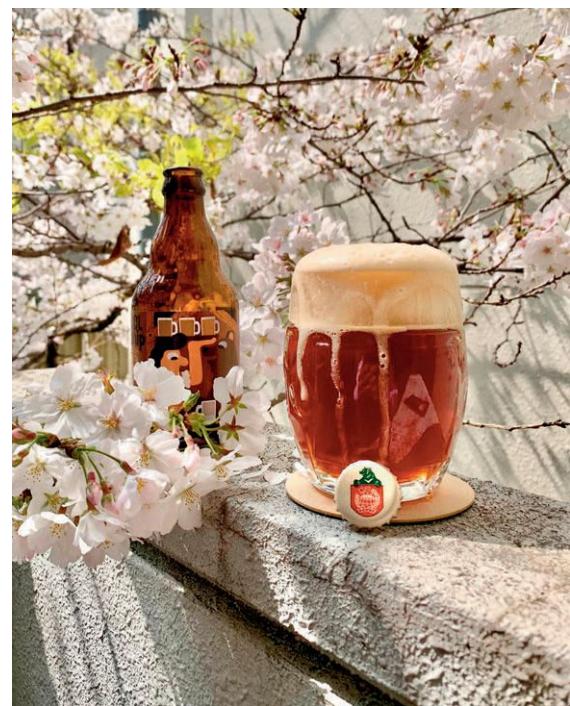
fermentation temperature in the coolship. The beer is brewed in the winter, when it's common for temperatures to hover around freezing. It takes anywhere from 18 to 24 hours to cool the wort.

Hohentanner talks about another interesting aspect of the beer—the use of whole leaf hops in the coolship. He says that the long contact time adds a more complex hop profile with a more rounded bitterness.

If a brewer would like to try this regimen at home, Hohentanner suggests cooling the wort down to 176–185°F (80–85°C), then adding the hops to the coolship and allowing it to cool all the way down to pitching temperatures. He's experienced great results with classic hops such as Hersbrucker Pure and Hallertau Gold. He's also had success with modern aroma varieties such as Amira, which he says produces an especially high quality of bitterness, while Aurum adds nuances of sweet wood and licorice that pair perfectly with the subtle caramel touch from the malts in the Vienna lager.

The U.S. may soon have another coolship in operation. Frank Trosset is set to open Volks Bräu in the Bay Area this winter. Trosset originally founded Aslan Brewing in 2014. In 2018, he visited Franconia for the first time. "I was just blown away by how much different the beer scene was compared to anything I had been familiar with before," says Trosset. "It was enlightening."

The Vienna lager collaboration between Baeren Brewery and Mikkeller uses the coolship at Baeren.



Trosset fell in love with how expansive the beer scene was, along with the style, the presentation, and drinking culture of Franconia in general. "I got back to the U.S. and immediately started trying to not only brew lager beer, but to change our tone about how we were talking about it as a brewery [at Aslan]," he says.

Trosset took the pandemic as a sign that it was time for a change. He moved on to interning at breweries in both Paris, France, as well as one in a small village in Upper Franconia. There, he learned the ins and outs of traditional brewing and drinking culture in the region.

Volks Bräu has been searching for a home in the Bay Area for the better part of a year, with Trosset getting close a few times. With a fixed budget and a very specific idea of how he wants to brew, he's not rushing in, nor is he signing a lease he isn't fully comfortable with.

Brew This!



LIDSKÁ MOUCHA

Recipe courtesy of Andy Klein, owner of The Monk's Cellar, in collaboration with AltBrau

Ryan's Comments: "When I heard that Monk's was doing a collaboration Polotmavy-style Czech lager with AltBrau, using the Hana Pils malt, with Monk's open fermenters and horizontal lagering tanks, the recipe felt like the perfect fit. The only thing Monk's doesn't have is a coolship. But I do, so I moved the whirlpool hops into the coolship, allowed it to cool to 160°F (71°C) and then chilled the beer from there."

The Hana Pils malt was a wonderful collaboration between two top-flight maltsters, Crisp Malt and Admiral Maltings. Crisp sent the malt over from England all the way to Alameda, Calif., where Admiral floor-malted it. The two maltsters communicated and collaborated on the specs for the malting process. The result is a wonderful, bready malt, a combination of old-world barley, combined with both old- and new-world techniques and knowledge."

Batch Volume: 5 U.S. gal (18.93 L)

Starting Gravity: 1.050 (12.5°P)

Terminal Gravity: 1.010 (2.5°P)

Color: 11 SRM

Bitterness: 35 IBU

Alcohol: 5.25% by volume

MALTS

8 lb. (3.63 kg) Hana Pilsner malt

2 lb. (0.9 kg) Crisp Dark Munich

3 oz. (85 g) acidulated malt for pH

2 oz. (57 g) Carafa III, during mash recirculation

HOPS

0.25 oz. (7 g) Magnum, 12% a.a. @ 60 min

0.75 oz. (21 g) Saaz, 3.75% a.a. @ 60 min.

1 oz. (28 g) Saaz, 3.75% a.a. @ 30 min.

2 oz. (57 g) Saaz, 3.75% a.a. @ 5 min.

YEAST

White Labs WLP 802 Czech Budějovice lager yeast

BREWING NOTES

Single-infusion mash at 149°F (65°C). Had we had the capability, we would have done a step mash with the Hana, as it was moderately undermodified. Our yield dropped about 9% of normal, so not too bad. Add a small amount of Carafa III during Vorlauf to help bring the color up a bit. We shoot for 10-11 SRM and I think it is close. 90-minute boil. 35 IBUs. A little bit of Magnum and some Saaz at 60 minutes. Then all Saaz at 30 and at 5 minutes. 15% of IBUs at 30 minutes and 10% at knockout, so a decent amount of hops at 5 minutes. Whirlpool and rest. Then chill wort to 50°F (10°C) and run into an open fermenter with a new pitch of WLP802. If possible, transfer to a keg when gravity is about 1.5 points from terminal and let it sit there to finish and condition.

Trosset plans to have open fermenters at Volks Bräu, as well as a coolship. While the equipment hasn't been acquired yet (he wants to have a definitive space before selecting the exact equipment), he plans to hire a sanitary welder to build his coolship.

The brewery he worked at in Franconia didn't have a coolship. Like many Franconian breweries, they got rid of their coolship in the mid 1990s, but Trosset had plenty of exposure to the equipment while he lived there. "About once a month, there was a brewer's meetup, called the Braumeister Stammtisch," he recalls. "We'd just chit-chat, and through that process I was able to meet quite a few other brewers in the area, talking about their process for coolshipping, and it gave me the insight that I needed."



GRALE

Recipe courtesy of Frank Trosset, owner and head brewer of Volks Bräu

Ryan's Comments: "This recipe is for Volks Bräu's flagship beer, GrALE. It's a classic Franconian Landbier that has been scaled to a 5-gallon 220v Grainfather homebrew system."

Batch Volume: 5 U.S. gal (18.93 L)

Original Gravity: 1.057 (14°P)

Final Gravity: 1.014 (3.5°P)

Color: 7 SRM

Bitterness: 36 IBU

Alcohol: 5.6% by volume

MALTS

10 lb. (4.54 kg) Pilsner (ideally IREKS, Weyermann or Bamberg)

0.6 lb. (272 g) CaraMunich I

HOPS

0.35 oz. (10 g) Hallertau Magnum, FWH (17 IBU)

0.35 oz. (10 g) Hallertau Magnum @ 60 min (15 IBU)

0.35 oz. (10 g) Hallertau Hersbruck (or any German noble variety) @ 30 mins (4 IBU)

YEAST

SafLager W-34/70 lager yeast

BREWING NOTES

Mash in at 112°F (44°C) and immediately bring the mash up to 145°F (63°C). [Trosset says that you can alternatively mash in at 145°F (63°C) if the first step is too difficult on a homebrew system.] Hold mash at that temperature for 45 minutes. Bring mash up to 161°F (72°C) for a 22-minute rest, then bring the mash up to 172°F (78°C) and begin recirculating. Once wort runs clear, run it off to the boil kettle. Boil 90 minutes. After the boil, allow wort to rest in a shallow pan (your coolship) until the temp reaches 176°F (80°C). Then cool to 46°F (8°C) with a wort chiller and pitch lager yeast. Allow the fermentation temperature to rise by 1 degree per day until you reach 51°F (10.5°C). Hold there until fermentation is complete. Lager for 5 weeks and enjoy!

Brew
This!



LANDBIER VOLLBIER

Recipe by Jim Spaulding and Ryan Pachmayer

Ryan's Comments: "This recipe is loosely based on the beer that I enjoyed at Heckel in Franconia. It is a Vollbier, but also a 'beer from the land,' as the malt, hops and yeast we used in this beer were from local proprietors within our state of Colorado."

Batch Volume: 5 U.S. gal (18.93 L)

Starting Gravity: 1.052 (12.7°P)

Terminal Gravity: 1.011 (2.7°P)

Color: 3 SRM

Bitterness: 30 IBU

Alcohol: 5.4% by volume

MALTS

10 lb. (4.54 kg) Edelweiss Malt from Leopold Bros via Sugar Creek Malt

HOPS

1.75 oz. (49 g) Colorado Tettnang,
3.5% a.a. @ 50 min

1.75 oz. (49 g) Colorado Tettnang,
3.5% a.a. @ 20 min

0.5 oz. (14 g) Colorado Tettnang,
3.5% a.a. in coolship

YEAST

Propagate Labs MIP-650 (or equivalent Pilsner Urquell D Strain, or favorite Czech strain)

BREWING NOTES

Target a pH of 5.3 in the mash. Mash in at 133°F (56°C) for 10 minutes, raising to 144°F (62°C) for 30 minutes, followed by 158°F (70°C) for 40 minutes. Take 1/3 of the mash, simmer for 10 minutes, adding back to the main mash, raising to a mash-out temperature of 170°F (77°C). Sparge. Boil 90 minutes. Transfer to coolship after the boil ends. Allow to cool to 150°F (66°C), then knockout to 48°F (9°C) into fermentation vessel.

Pitch Propagate MIP-650 (or equivalent Pilsner Urquell D Strain, or favorite Czech strain) at 50–52°F (10–11°C), fermenting until terminal gravity is reached. Slowly lower to 40°F (4°C) over the course of three days, then allow to rest for five days at 40°F. Then lower to 33°F (1°C) over three days, and lager at 33°F for 3–6 weeks. Use a spunding valve or cap carbonation during the final days of fermentation to naturally carbonate.

Notes: "Substitute your favorite Pilsner malt (see note in 12 Degree recipe) and local (to you) hops. Outside of the Pacific Northwest, you can find local hops in many places, perhaps most notably in Michigan and New York state."



Brew
This!

12 DEGREE

Recipe by Eric Larkin of Cohesion Brewing, with Jim Spaulding and Ryan Pachmayer

Ryan's Comments: "For this Czech-style pale lager, Spaulding and I wanted to look no further than our back yard. Eric Larkin runs Cohesion Brewing, about ten miles from us, and makes some excellent Czech-style lagers. We consulted with Eric on his process, including his hop bill, for this beer. Eric helped us acquire some Edelweiss Malt, an old barley type that Sugar Creek Malt out of Indiana has been using. For this project, Sugar Creek supplied the barley to Leopold Bros here in Denver, then Leopold malted it using its own floor malting process, before kilning it."

Much like the Admiral and Crisp collaboration, seeing so much collaboration and interest in old-world barley varieties is wonderful and gives brewers more options than ever before. There is a strong argument to be made that using barley malted only miles away, using traditional techniques, is perhaps more authentic in the 'Czech style' than importing malt from halfway around the world. It can be argued both ways (and we acquired the hops through Larkin, from halfway around the world in Czechia), but I am just glad that there are options. Twenty years ago, there were not."

Batch Volume: 5 U.S. gal (18.93 L)

Starting Gravity: 1.048 (12°P)

Terminal Gravity: 1.011 (2.7°P)

Color: 3 SRM

Bitterness: 39 IBU

Alcohol: 4.9% by volume

HOPS

0.7 oz. (20 g) Czech Agnus,
11.1% a.a. @ 60 min

1.7 oz. (48 g) Saaz, 2.5% a.a. @ 20 min.
1 oz. (28 g) Saaz, 2.5% a.a. @ 10 min.

YEAST

Propagate Labs MIP-650 (or equivalent Pilsner Urquell D Strain, or favorite Czech strain)

MALTS

9.25 lb. (4.2 kg) Edelweiss Malt from Leopold Bros via Sugar Creek Malt

BREWING NOTES

Target a pH of 5.3 in the mash. Mash in at 133°F (56°C) for 10 minutes, raising to 144°F (62°C) for 30 minutes, followed by 158°F (70°C) for 40 minutes. Take 1/3 of the mash, simmer for 10 minutes, adding back to the main mash, raising to a mash-out temperature of 170°F (77°C). Sparge. Boil 90 minutes. Transfer to coolship after the boil ends. Allow to cool to 150°F (66°C), then knockout to 48°F (9°C) into fermentation vessel.

Pitch Propagate MIP-650 (or equivalent Pilsner Urquell D Strain, or favorite Czech strain) at 50°F (10°C), fermenting until terminal gravity is reached. Slowly lower to 40°F (4°C) over the course of three days, then allow to rest for five days at 40°F. Then lower to 33°F (1°C) over three days, and lager at 33°F for 3–6 weeks.

Notes: "We used a spunding valve on this beer to naturally carbonate it. It also means the beer was fermented under moderate pressure (15 PSI). It reached that pressure naturally over the course of primary fermentation. If you don't have a spunding valve, I would cap your fermentation vessel [if it can handle pressure] towards the end of fermentation."

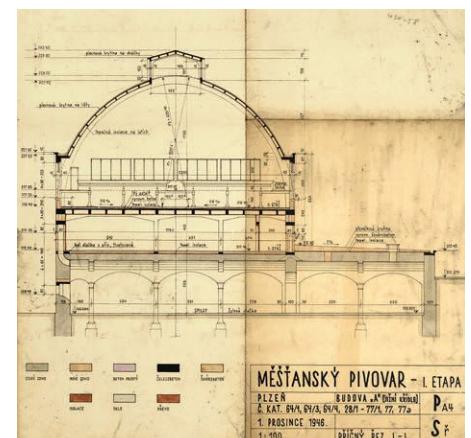
For the malt, you can sub your favorite Pilsner malt. I'd use something with a bit of a rustic edge to it, something floor malted, from the Czech Republic or a local (to you) maltster. Several U.S. maltsters floor malt, including Admiral, Blue Ox, and Leopold Bros."

During his time in Franconia, Trosset said that it was pretty obvious when a brewery was using the technique. "You saw a certain robustness [in coolshipped beer], the beauty of the beer when presented in the glass," he says. "The foam is a huge thing to brewers over there, but not every brewery cares as much."

When it comes to CO₂, Trosset also notices a real difference, not just in Franconia, but compared to what many breweries do in America and beyond. "Some breweries physically add CO₂ to a beer once it's finished, and the way they do it is actually quite aggressive on the beer," he says. "They're basically connecting CO₂ to the bottom of the tank and blasting it through the beer at like two bars, then gassing off to hold it at two bars."

Trosset says forced carbonation is a pretty intense process which leads to stripping some of the flavor of the beer and causing foam in the tank. "Every time the beer foams, it's going to foam less the next time," he explains. "So breweries that are using these older methods, they definitely have more of a craft person's mindset in the work they are doing, and the beer always inherently tastes and looks better."

If you ever end up making the trek out into the countryside east of Bamberg to Brauerei Heckel, you'll know what Trosset is talking about. There's something a little fuller and a touch rustic about the beer there. It's something special that you probably can't recreate using modern methods. Homebrewers however, can spend the extra time to achieve these qualities in their beers. Through open fermentation, through coolshipping, perhaps with direct-fire boiling and decoction mashing with flavorful grains, and spunding, you can make something special yourself.



Clockwise from top: The coolship at Velké Popovice; A historical document which outlines blueprints, including a coolship layout; A historic German coolship.

Ryan Pachmayer is the marketing and events director at New Image Brewing in Wheat Ridge and Arvada, Colo., and former head brewer at Yak and Yeti Restaurant and Brewpub in Arvada.

LAGER COOLSHIPS AROUND THE WORLD

The following is a list of breweries using a coolship for lagers, and the bottom temperature that they reach before further cooling the wort in a heat exchanger/chiller.

Brewery Name	Location	Low End Temp
Augustiner	Salsburg, Austria	158°F (70°C)
U Flecků	Prague, Czech Republic	140°F (60°C)
Heckel	Waischenfeld, Germany	149°F (65°C)
Dovetail Brewery	Chicago, Ill.	167°F (75°C)
Jack's Abby	Framingham, Mass.	140°F (60°C)
OEC Brewing	Oxford, Conn.	149°F (65°C)





Brewing in the GUIANAS

*the Hidden Corner
of South America*

Part Two

By David J. Schmidt

This two-part series describes my adventures exploring the traditional brews of Guyana, Suriname, and French Guiana—"the Guianas," three small countries on the northern coast of South America. In Part 1 of this article (Zymurgy Sept/Oct 2024), I described various folk brews I tried during my time in Guyana. In the inland jungles of Makushi territory, I experienced the cassava beer known as *paracari*, as well as the red sweet potato brew known as *flai*.

I had heard of "bush rum," a drink made from fermented (not distilled) sugar cane, and was told that I might find it in Suriname, the country east of Guyana. Find it I did, among an inspiring group of people whose ancestors overcame unimaginable obstacles: the Maroons. I would also experience many folk brews among the indigenous Wayana people of Suriname, along with a burgeoning craft beer movement in the cities of Suriname and French Guiana.

Join me for this second part of my journey, in search of the unique brews of the Guianas.

THE MAROONS OF SURINAME: A FREE PEOPLE

From Guyana's capital of Georgetown, I journeyed eastward to Paramaribo, the capital city of Suriname. As I walked the city streets, I was struck by the cultural and ethnic diversity of this former Dutch colony. Among the old wooden houses of downtown Paramaribo, were people of African, Indonesian, Indian, and Chinese descent, as well as a scattering of Dutch tourists and recent immigrants from across Latin America.

The streets had a distinctly Caribbean feel; people walked to the relaxed, lilting pace of music blasting from various speakers, in a genre adjacent to reggae. Alongside the official Dutch language of Suriname's government, I heard the lyrical tones of *Sranan Tongo*, the primary creole lingua franca.

As in Guyana, sugar cane and rum had shaped Suriname's history. The plantation economy brought workers who would later form the country's population: first enslaved Africans, then contract workers from India, Indonesia, and elsewhere. Back in the 1600s, however, many of those Africans managed to escape, fleeing deep enough into the jungle to avoid capture. They became known as "Maroons," a word thought to be derived from a Spanish word meaning "wild." →

Left front: The riverside town of Atjoni, gateway to Maroon country. Note the Parbo beer ad on the building.
Left back: Dutch-style colonial buildings in downtown Paramaribo.

Drawing from the cultures of their African homeland, they carved a new life out of the wilderness. Locals taught them about the flora and fauna. They formed new villages, then tribes, then nations. The well-organized Maroons started raiding the plantations around the city of Paramaribo with increasing boldness, stealing weapons and supplies, and liberating more people from slavery. Their numbers swelled. Eventually, the colonial powers were forced to recognize the six sovereign nations that exist to this day: the Saramaccan, Paramaccan, Ndyuka, Matawi, Kwinti, and Aluku.

In many countries, aspects of Maroon culture are now relegated to museums and history books. In Suriname, however, it is very much alive—Maroon communities still live in the outer reaches of the country, which are often not accessible by roads, only by river travel. I made plans to meet them.

JOURNEY TO MAROON COUNTRY

I learned that many Maroon villages had developed ecotourism as a source of income. I found one such lodge in Saramaccan territory, known as Ping Pe, and contacted the owner online to reserve a cabin. I got up before dawn to catch a bus from downtown Paramaribo to the edge of Maroon country, squeezing in among boxes and bags, with my knees pressed to my chest for the duration of the four-hour drive.

After a couple hours, the landscape started to take on a distinctly different personality. Houses had high-pitched, thatched roofs and low-lying doorways that featured intricate carvings. People in long, plaid cloth wraps strolled along the roadside. Women carried buckets and gourds on their heads, balancing their burdens with graceful poise.

Our long drive across savannah and rainforest ended at the tiny riverside town of Atjoni. The bus parked by a sandy beach where a long row of different colored wooden canoes floated, all equipped with outboard motors. I asked around, speaking my rudimentary Sranan Tongo, and found a canoe heading upriver in the direction of the Ping Pe Lodge. It was a sizable wooden vessel, ten or fifteen meters long, with a battered motor on the back end.

Unlike the ethnically diverse residents of Paramaribo, everyone here looked to be local Maroons, and they settled into the boat with easygoing smiles and relaxed demeanors. I removed my shoes, cuffed my cargo pants, and sloshed through the water



Above: Traditional Wayana food: fish, caiman, and wild boar. **Right:** Colonial-era fort in Paramaribo.

to the canoe's edge. The driver fired up the gas engine and we were off.

We headed upriver for four hours, making regular stops at villages along the way. Local women sat on the smooth, flat rocks at the water's edge, washing clothes and dishes, while children played, diving from the rocks and laughing joyfully. I slowly lost track of the hours. There was a bucolic serenity to Maroon country: the shimmering waters of the river, the walls of towering green vegetation on either bank, the passengers' melodic conversations in Saramaccan. Only the waning sunset marked the passing of time.

By early evening, our canoe drifted up to an outcropping of flat rocks next to a small wooden staircase. The pilot cut the motor, pointed at me, and called, "Ping Pe." I climbed out and saw a young local man walking down the stairs. "You must be our new guest," he said in accented English. "Welcome to Ping Pe Lodge. I'm Marshall." He wore his hair in tight braids. Marshall slapped my palm in greeting, then bumped a fist to his own heart in Caribbean style. He showed me to a cozy wood cabin, with a bed and a mosquito net. "I'll let you get settled in. See you for breakfast."

When I sat down to watch the sunset from the front porch of the cabin, I had my first encounter with Maroon bush rum—albeit from far away.

On the opposite bank of the Suriname River, I could make out the distant, glisten-



ing lights of oil lanterns in a nearby village. The sound of drums and music drifted across the water, beating a complex rhythm while a chorus of voices sang along. As I would later learn, it was local bush rum that kept the singing going all night long.

DRINKING SPIRITS WITH THE SPIRITS: MAROON BREWS

I asked Marshall about the music the following day. He explained that a man from that village had died, and to honor the man's passing, his family and neighbors spent the night in celebration, sharing bush rum to commune with the dead. This drink is called *pen kusu* in Saramaccan.

"How do you make it?" I asked.

"You just squeeze the cane and save the juice. You ferment it for seven days, and it's ready. It's a very strong drink. We give it to the dead to drink in the afterlife, and to help



Clockwise from top left:
The author, hand-writing the first draft of this article in Maroon country; No roads go to the remote Maroon villages, which can only be accessed via canoe; Traditional riverside Maroon villages; Monument with Surinamese flag; The author with Marshall, his Maroon friend, enjoying a cold Parbo lager.

When I returned to Paramaribo after a week, I visited the city's *Marron Markt* (Maroon Market), a large warehouse where Maroon people buy and sell sacred plants and amulets. Many of these plants can be infused with alcohol for ritual cleansing and herbal baths, known in the Sranan Tongo language as *wiwi watra*.

I noticed one woman selling bottles containing various herbs, sticks, roots, and chili peppers. I asked her what they were. "Man batra," she said with a smile. Literally, "man-bottle." She explained that they were concoctions to give a man virility.

She pointed out various cross-sections of trunks and branches and their names: *dobruduo*, *duradura*, *wasibitra*. "You pour rum into the bottle and let it soak up all the plants," she explained. "And it gives you potency. Gift for your wife?"

"Thanks," I chuckled, "but my wife's a thousand kilometers away. I don't think I should drink any man batra this far away from her."

All in all, I found Maroon culture to be rich in unique brews: *pen kusu*, *wiwi watra*, and *man batra*. I would find more when I journeyed even deeper into Suriname, to a place where Maroons and indigenous people coexisted in peace.

CASSAVA BEER WITH THE WAYANA PEOPLE

Like many other indigenous peoples, the ancestral lands of the Wayana people are now crisscrossed by the political borders

them cross over into the next world. Years after a person has died, we still drink with them to honor them and ask for their favor."

Over the week that I spent in Maroon territory, Marshall gave me a veritable master class in his people's traditions. We hiked through local villages with thatched roofs, ornately carved cedar doorposts, locals wearing plaid cloth wraps winnowing rice, and Marshall pointed out certain sacred spots. Most villages had a local altar, known in Saramaccan as *begi pao*, literally, "the pole of prayer." They were simple constructions, usually just a square frame of wood set in the earth and a vertical wooden pole. Most of these *begi pao* were strewn with old, dusty liquor bottles. "People come here to drink and pray," Marshall explained.

"Pray to whom?"

"Many spirits. We drink with our ancestors, asking for blessings. Some people drink if they've offended *Watra Gado*, the guardian spirit of the river. He appears as an ana-

da, and if you hurt or kill the anaconda, you must pray to make your peace with him. And most importantly, we pray to *Gan Gado*, the Creator of All. He wasn't brought here by foreign missionaries. We already knew Him in our own African way."

I told him of many indigenous people in Mexico who also drank with God. I recalled my time with the Rarámuri people of the Sierra Madre, who drink corn beer to commune with *Onorúame*, the Creator. Drinking spirits with the spirits.

As in many traditional cultures, folk brews served various purposes in Maroon country, meeting spiritual, social, and medicinal needs. One evening as I sat with Marshall in the hammocks of the lodge, I noticed him taking pulls from a bottle of Marienburg-brand rum from Paramaribo.

"What's that floating in the rum?" I asked, pointing at the dark shapes swirling around in the liquid.

"Oh, that's a local medicinal plant. Good for blood pressure. We make a lot of different infusions with plants." He offered me a taste; it was bitter and astringent. "We Maroons use rum and *pen kusu* for a lot of different things, to help our body and our soul."



of modern nations. Wayana villages are spread across parts of Suriname, French Guiana, and Brazil, and children go to school learning Dutch, French, and Portuguese, respectively.

Suriname's Wayana communities are much deeper into the bush than the Saramaccan Maroon communities I had visited. To get there, I would have to take a small puddle-jumper plane deep into the country's interior. The pilot was a hip, tattooed young man from Chile named Matías. I chatted with him in Spanish as we flew over the nearly unbroken expanse of green, occasionally interrupted by villages, thatched dwellings and clearings where people farmed cassava. As we approached the tiny dirt landing strip in the village of Godoholo, Matías cursed under his breath. "Man, I hate landing here."

I soon realized what he meant. The landing strip was not flat, but curved up and down a hilltop. Our plane hopped off the ground a couple times as we landed.

"It takes a lot of finesse," Matías chuckled. "If you don't hit it just right, your plane could pop off the rise and end up in the river down there."

After we came to a stop, I kissed the ground a few times, and Matías and I exchanged phone numbers. He promised to take me out for a nice draught beer when I got back to Paramaribo. Meanwhile, my long journey into Wayana territory had just begun.

The landing strip itself was located in Maroon territory, home of the Ndyuka nation. The village had a familiar look, with low-lying wood houses and thatched roofs like I had seen in Saramaccan territory. From the village, I took a canoe six hours upriver toward Wayana country. Many other Maroon villages stood along the river banks. The driver of our motorized canoe, a thin Ndyuka man in his twenties, stood at the back of the vessel, steering with ease. He drank from a dark glass bottle that had herbs floating in the liquid.

I chuckled, recognizing it as man batra, the Maroon virility potion. After three hours, it seemed to be taking effect. He flirted with all the female passengers and looked to be thoroughly drunk, chugging from the bottle and guffawing like a veritable pirate.

At this point in the journey, we came to a series of rapids. While our driver navigated them effortlessly, I learned from the other passengers that the rapids were named Krin Kasava, Sranan Tongo for "cleaning cassava." For generations, locals had come here to rinse their cassava roots, the raw ingredient used to make bread and beer. It was also the official border between Ndyuka Maroon and Wayana territory.

A hundred years ago, locals said, the chiefs of both nations met here to resolve disputes and establish boundaries. They drank cassava beer and shared each other's

Clockwise from top left:

Dutch-style colonial buildings in downtown Paramaribo; Advertisement for a djogo (liter bottle) of Parbo, Suriname's commercial lager; Bottle of a Maroon folk brew, hung up as ritualistic protection; Wan Bon Biri, Surinamese biergarten and craft brewery; The author near rapids in Wayana territory.

blood to prevent them from fighting. "We now have each other's blood in us," they said. "We are brothers." Again, I saw cassava linked to community life and ritual.

After we passed the rapids of Krin Kasava, a noticeable change came over the landscape. Circular houses of the Wayana people now lined the banks. A couple hours later, our canoe pulled over to drop two passengers off. A local man stood on the rocks, waving the rest of us ashore. He held a bucket in one hand and a gourd in the other. The village was celebrating the man's birthday, and he invited us to come take a drink of cassava beer.

The village's gas-powered loudspeakers played the traditional Surinamese birthday song, *A di mi yere yu friyari*, sung to the tune of "The Battle Hymn of the Republic." The hot equatorial sun shimmered on the river in the late afternoon. Locals dipped gourds into the bucket to drink the brew.

I noticed that this batch had a lovely, light pink color. Locals explained to me, in Sranan Tongo, that this color came from a bright red

sweet potato added to the brew. The drink combined two native Makushi brews I'd tried in Guyana: *flai* and *paracari*! When I tasted it, I found it to be pleasantly sour and full-bodied. Some grainy cassava flour was suspended in the liquid, and it had a viscous texture similar to Mexico's *pulque*.

During the following week in Wayana territory, I would learn of several varieties of cassava beer, each with its own local name. As I chatted with locals in English, French, Portuguese, and Sranan Tongo, they told me about four main types of the brew.

1. *Sakura*

This was the pink variety I tried when I first entered Wayana territory. Unlike other recipes brewed from pure cassava roots, this one was made from baked cassava bread. As such, it reminded me of the kvass of Russia and other Slavic countries, a light beer brewed from baked rye bread. Cassava roots are pounded into flour, then baked into large, round loaves. Red-colored sweet potatoes, known locally as *napi*, are boiled and the cassava bread is soaked in the broth. Sugar can be added to aid in fermentation. The pleasant, pink-colored drink is then strained and enjoyed.

2. *Kasiri*

This light, yellow-colored version is the most common of the region. People grate the raw, bitter cassava on a traditional wood grater, fitted with fish teeth or plant spines. They boil it to leach out the poison. Afterward, water is poured over the cooked cassava, then strained through a thatched sieve into a pot. The gratings are discarded, and the liquid fermented. "It ferments on its own in a couple days," a local woman told me. "Sunlight helps. Some people add white table sugar to speed the process up."

3. *Napök*

Cassava is combined with a local, purple-colored potato, rich in starch and semi-sweet. Sugar can be added as needed.

4. *Tapakura*

This version has a brewing process similar to that of *chicha*. It involves chewing the detoxified cassava roots, spitting them into the brew pot, and fermenting the result. The Wayana are one of many native peoples of the Amazon who discovered this technique, in which saliva enzymes help break down the starches into fermentable sugars.

After a week in the Wayana territory of the jungle, I had tried all these brews in various social contexts. Sometimes, they simply accompanied a meal. Cassava beer went well with many delicious local



Traditional Wayana ceremony, invoking the water spirit through music, dance, and cassava beer.

dishes—wild boar, freshly caught fish, and caiman. Other times, we drank local brews during ceremonies, such as one to invoke the Wayana water spirit for safe travels. Local men in traditional red skirts danced and played long bamboo instruments, two meters long, that emitted deep, sonorous tones.

After I left Wayana country and returned to Paramaribo, I contacted Matías, the

Chilean bush pilot. He made good on his promise to buy me a beer. In the process, he introduced me to the rich, fairly new world of Surinamese craft beer.

WAN BON BIRI: A UNIQUELY SURINAMESE CRAFT BEER

Matías sent me the address for a bar named Wan Bon Biri, a Sranan Tongo phrase that

Trips Beer Trips

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translates as “a good beer.” I arrived to find a lovely German-style biergarten with an ample patio and long wooden tables. The vibe was very cozy, with strings of Christmas lights across the patio. A food truck stood parked at one end, while one corner of the patio had been converted into a small stage, beneath a sign that read “touchdown.” The place seemed to attract mostly young professionals, well-dressed locals of Javanese, Hindustani, and Afro-Surinamese descent.

I spotted Matías and we sat at one of the wooden tables, where a very friendly waitress greeted us. I asked if they had beer on tap, expecting nothing but the local Surinamese lager, Parbo.

“Yes,” she said, “we have several craft beers on draught.”

“Really?” My eyes lit up. This was the first I’d heard of craft beer anywhere in the region. I ordered one of the house brews, a tasty blonde ale of about 6 percent. It was delicious, smooth, and creamy. As Matías and I drank our second pint, the owner and manager, Robert, came over and introduced himself. He was a middle-aged local man with deep smile lines. We chatted for a bit in Sranan Tongo, then I asked if we could switch to English.

“Sure, English works just fine!” Robert replied in fluent, American-accented English. “I lived in Minnesota in the 1990s.” He later lived in Europe. In both places, he noticed the growing popularity of the craft beer movement and taught himself to homebrew. Nearly five years ago, he decided to bring the craft back to his homeland and established Wan Bon Biri.

“Was it hard to draw a crowd?” I asked. “It seems like most locals stick to light lagers.”

“Yeah, it’s been an uphill battle.” Robert described many of the obstacles his brewery had overcome. “It’s very hard to introduce all these different styles—IPAs, wheat beers, stouts—to the Surinamese public. That’s why we keep the commercial stuff on tap as well. A lot of customers prefer Parbo, and we can’t turn up our noses at them.”

“Something for everyone.” I nodded. “I like that.” I told him that his beer garden reminded me of one of my favorite craft beer spots in my adopted hometown of Mexico City: a woodfire pizza joint named El Zazá. (See “La Cerveza Casera” in Zymurgy May/June 2024.) Like Wan Bon Biri, they serve excellent craft beers on tap, but also offer commercial brands.

“So what’s the biggest obstacle for you?” I asked.

“Ingredients. We are so far from the source. No big farmers of hops or barley in Suriname.”

“I get it.” I told him about my conversations with brewers from the remote archipelago of Hawaii. “Then again, you probably have a lot of different wild yeast strains out here that you could harvest.” I told him about Lanikai, a brewery in Hawaii that had collected wild island yeast with a traveling coolship.

“I wish we had the resources to do that,” Robert sighed. “But we’re just barely able to make ends meet as it is.”

He wasn’t the only brewer in the region to feel this way. I would learn about similar challenges from another craft brewery across the border in French Guiana.

CRAFT BREWING IN FRENCH GUIANA

French Guiana’s history is like that of Guyana and Suriname, with the same colonial past, slave economy, and sugarcane plantations. Both rum and cassava beer are common there as well.

Although I didn’t visit French Guiana in person, I experienced the country indirectly during my time in Suriname. I met several visitors who had come across the border to Paramaribo for a quick vacation. Most of them were of African descent and spoke a standard continental French, with the slight musicality of a Caribbean accent. I also met many Saramaccan Maroons who had grown up in French Guiana.

I have been referring to French Guiana as a country, but it is technically an overseas territory of France. While it hasn’t been an official colony since 1946, it’s still administered by the French government, which owns over 90 percent of it. The people of French Guiana receive government benefits from the E.U., study France’s public-school curriculum, and buy and sell in euros. The 7-hour-long trans-Atlantic flights to and from Paris are considered domestic flights.

French Guiana is home to Jeune Gueule, and it’s not far from the main city of Cayenne. I contacted Frédéric Farrugia, one of the head brewers, to learn more. (I’ve translated the comments below from French to English.)

Frédéric described the brewery’s humble beginnings in 2010. He and Jannick Boehm, his fellow founding brewer, had to improvise with 500-liter milk tanks that they reconditioned for brewing. They eventually were able to increase their capacity, gradually importing equipment from France, Germany, and Italy.

Their first beers appeared in 2011 under the label of Jeune Gueule, a slang term meaning, literally, “young mouth.” The brewery grew and opened its own tasting room in 2015. Frédéric and Jannick later traveled to mainland France to study brewing at the French Museum of Brewing.

I asked Frédéric about the challenges of being pioneers in the region. Was it hard to attract craft beer drinkers, as Robert had experienced in Suriname?

"Well, people here generally prefer pale industrial lagers," Frédéric said. "Our ambers, white ales, IPAs, and triples only reached French Guiana about fifteen years ago. Many locals find them atypical, and discovering them is an initiation that takes place bit by bit."

He explained that drinking tastes in French Guiana are an interesting mix of French and Caribbean habits. French Guianese drinkers enjoy champagne, wine, and whiskey, but they also tend to drink more beer than people in continental Europe. "And rum is certainly a major part of local culture here, in the other Guianas, and in the [Caribbean] Antilles."

While their early clients were mainly tourists, more and more locals have developed a taste for craft beer as well. "Of course," Frédéric emphasized, "tastes are always changing."

Jeune Gueule brews with only organic, non-GMO barley, wheat, and hops, imported from Germany, England, the U.S., and the Alsace region of France. While the main ingredients are imported, however, the beers themselves reflect a very French Guianese character. They incorporate many local

ingredients, most notably *le manioc*, or cassava root. Some beers are brewed with cassava flour, known here as *kwak*, while others use a Guyanese fruit called *cupuaçu*, which comes from a cousin of the cacao plant.

The local market for craft beer continues to grow, spreading across the entirety of French Guiana. "By now," Frédéric said, "our distribution networks extend to Saint Laurent du Maroni [on the border with Suriname]. We have won many international awards, and now have distribution back in France as well." Jeune Gueule is also expanding into distillation, and is planning to launch their own whiskey to the public next year. Fittingly, the whiskey will be branded *L'île du Diable*, named after French Guiana's infamous penal colony, Devil's Island.

Frédéric concluded our interview with the hopeful words, "Ce n'est que le début." Translation: "We've only just begun."

LAGERS IN THE TROPICS: SAYING GOODBYE

During my visit to the Guianas, I was amazed by the ability of local brewers to innovate and adapt to unique conditions. The indigenous people have brewed from local ingredients—cassava, sugar cane, and sweet potatoes—for millennia. The Maroons took sugar cane—the plant at the heart of

the region's past era of slavery—and repurposed it into their own bush rum. Modern-day craft brewers have been expanding a new market of exciting new styles of beer.

On one of my last evenings in Paramaribo, I sat drinking cold Parbo lager with some locals by the banks of the river. I raised my glass to the ancient brewers of the Guianas, those people of indigenous, African, and mixed ancestry, mothers and fathers of invention, who had turned cassava, sweet potatoes, and sugar cane into food, sacrament, and revelry in this unique corner of South America.

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David J. Schmidt is an author, homebrewer, and multilingual translator who splits his time between Mexico City and San Diego, Calif. Schmidt speaks 15 languages and has spent the past 20 years traveling throughout rural Mexico, Latin America, and Africa in search of ancient folk brews, making him a veritable Indiana Jones of homebrewing. (Think Harrison Ford with a beer gut.) He can be found on Facebook, YouTube, and Twitter with the handle "Holy Ghost Stories," or via the website HolyGhostStories.com.

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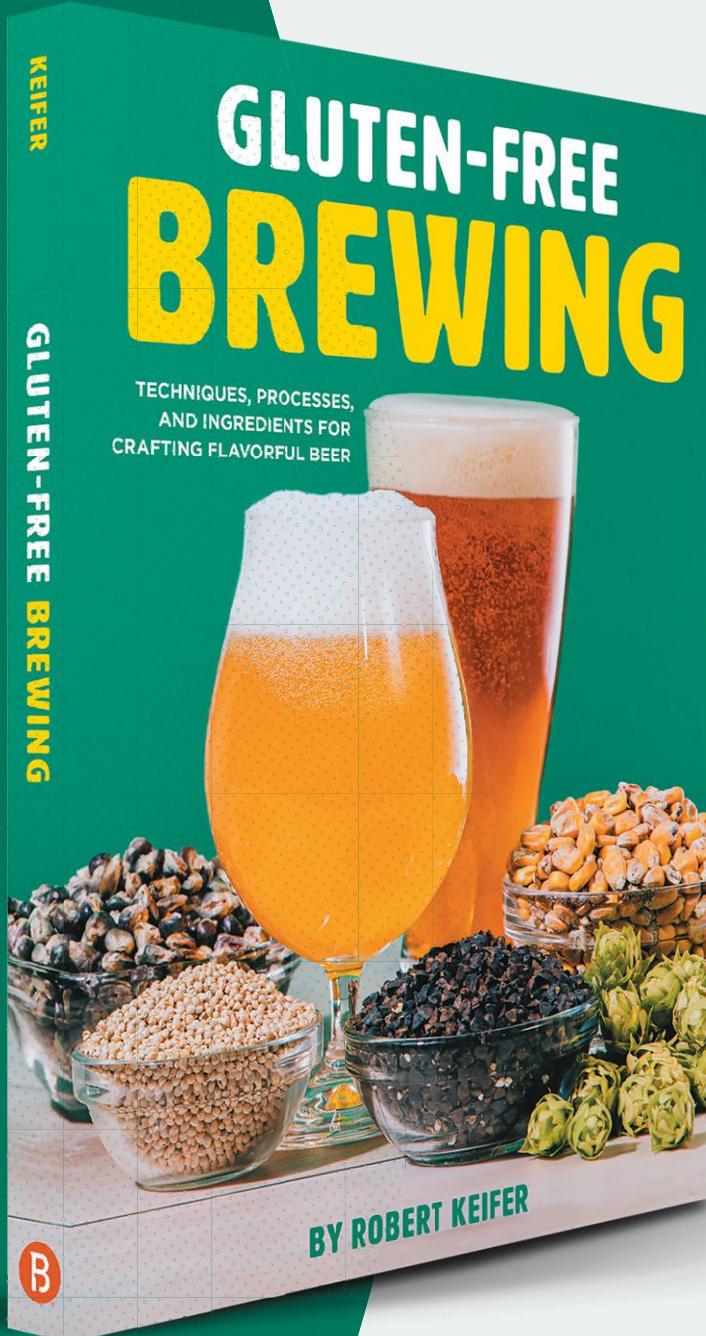
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KEEPING YOUR COOL

By Ethan Elliott

Since temperature control is one of my five keys to great beer, it's something every brewer should consider implementing as well. Most people can afford to *increase* temperature by moving the fermenter to a warmer room or making use of an electric brew belt, but managing the opposite is not always as simple or easy. How does one *decrease* temps? First, temperature control doesn't have to break the bank. This article explores several cooling methods, starting with natural cooling and traversing the gamut to the ultimate fermentation control: a glycol chiller. Along the way, I'll share my own temperature control journey, which wasn't always very cool. →

PASSIVE COOLING

The simplest (and cheapest) method of controlling fermentation temperature is to plan brews by season: ales in spring, Belgians and kveiks in summer, lagers in winter. This approach works great, provided the brewer's tastebuds agree with the season. When they don't align, it's time to get creative.

Unlike people "born in a barn," *really* cool brewers live in caves, where average temperatures often stay in the high 50s to low 60s. Unfortunately, even though the temperature is ideal for fermenting most brews, the Wi-Fi is terrible. Luckily, there are other free solutions that offer naturally stable climate conditions.

The DIY alternative to a cave is placing fermentation vessels into a hole in the ground and then covering them up. This was a common solution in the days before modern refrigeration. These days, many older homes still have root cellars, which act as perfect temperature control systems and use the earth's natural cooling—think *kellerbier* (cellar beer). My grandmother's house had a root cellar, but alas, mine has big south-facing windows that allow light (and heat) in all day. In the summer, my ambient basement temperatures, which should intuitively be the lowest in the house, still tend to sit above 80°F (27°C). And in many places in the Americas, basements aren't even an option. When natural cooling methods aren't enough, it's time to take it to the next level.

ICE, ICE, BABY

Ice baths are a legitimate option for brewers with more time on their hands than money in their pockets. By placing the fermenter in a vat of water and slowly adding ice, a relatively consistent temperature can be reached, although it requires frequent monitoring. Keeping the vessel within a few degrees means adding small amounts of ice throughout the day. As for cost, ice made at home is nearly free, but bags from the grocery store become a constant expense. In a pinch, I once wrapped a wet towel around my fermenter and used a fan to blow air across it, leveraging the effect of evaporative cooling. This of course depends upon your relative humidity, and again requires constant monitoring. One day was enough.

KEG CHILLERS AND KEEZERS

The next step up in cooling is direct refrigeration, which offers the ability to create an artificial cold season year-round. This

There are a variety of cooling solutions available to the modern homebrewer: from ambient to refrigeration to glycol chillers.

method surrounds the fermentation vessel with a set temperature of air, leaving the wort no choice but to normalize to that temp. While this solution does require a refrigerator or freezer, used fridges can be found for as low as \$50, or even free if a friend has extra space in theirs.

My first foray into electric cooling was buying a spare refrigerator and wrestling my slippery carboys inside. The fridge was great for five- to 10-gallon (19–38 L), batches, but did take up a lot of space. I also worried about dropping a glass carboy or collapsing the shelf they were sitting on.

So next, I bought a chest freezer. I could now ferment 20 gallons (76 L) of wort at a time. This method requires a temperature controller to be connected to the compressor, or bad things happen. The downsides are that all brews have to ferment at the same temperature; it sacrifices freezer space; and lifting 50 pounds worth of glass and liquid up and over a waist-high lip is both difficult and precarious. Even Corny keg fermenters, which eliminate the risk of broken glass and provide handles, still require a lot of lifting.

A third solution is to build a cooling closet: a box made of foam insulation that is sealed to a refrigerator or other cooling source. The fermenters sit in a refrigerated space on the floor, which means no more lifting. It also allows the fermentation chamber to be expanded beyond the limits of the refrigeration unit. The compressor will work harder to cool the extra area, though, which also increases the power consumption.

OUT BUT UP

Once the confines of the refrigerator have been breached, options (and prices) begin to increase.

My next brilliant idea was to build a kegerator chiller. I put two Corny kegs full of water in my kegerator that were connected in line from liquid out to gas in and "served" the cooled water from the second Corny keg into a hose wrapped around my fermenter, which then returned the water back to the first Corny keg. With the addition of an inline pump, a new expense, this created an external temperature circulation system. With enough tubing, I could leave my fermenters on the floor and move my cooling unit around the room without having to lift anything. But it came with a new challenge.

By cranking the kegerator to maximum cooling and running my pump constantly, I was able to bring my one-barrel fermenter down 20°F, but the lowest temperature I was able to achieve was 62.8°F (17°C)—certainly cool enough for an ale, but not for a lager. A consequence of this method was that the chill coils iced over, and the condenser generated a lot of extra heat. This was inefficient. Ultimately, no matter how tightly I crammed the Corny kegs against the cooling plate, the cold was barely in direct contact, and returning heat warmed up the kegerator chamber and created condensation. As a result, there was a steady stream of condensate dripping across my floor. This was inefficiency compounded.



Photos courtesy of Ethan Elliott

The better answer, the one that was tapping against my Corny keg all along, was to immerse the cooling element INSIDE the liquid. Enter glycol chilling.

GLYCOL CHILLERS

Before I proceed, I have a spoiler: glycol chilling is amazing! There's a reason the pros use them. After the journey I took to get here, I advise everyone to skip the preliminary steps and start here. Also, glycol chillers work best with fermenters equipped with submersible cooling coils, which is what I used here.

The significant advantage of a glycol chiller is that it cools through direct contact between the cold element and the transfer liquid. Of course, the significant drawback to a commercial chiller is the initial cost. The price of most new glycol chilling systems hovers around \$1,000. But there are less expensive ways to get super cool with glycol. The cheapest way to enter the glycol arena is to build your own by converting a window air conditioner. [Editor's Note: This is a fairly advanced project, and it assumes you are comfortable taking apart appliances and working with household electrical current. Readers should be aware of the potential hazards of electric shock. If you are unsure of your skill level in this area, it's best to skip the DIY conversion and

just purchase a pre-made system. See The Showdown below for suggested commercial chillers.]

For this method, first procure a working window air conditioner (analog preferred for simplicity). Set the AC unit on a solid work surface, set the temperature to maximum cool, then remove the housing to expose the main components: compressor, evaporator (cooling coils), condenser (hot coils), and expansion valve. A note here: several online sources use the terms "evaporator" and "condenser" interchangeably. The radiator-like device you want faces and blows cold air into the room. Mount a large insulated cooler close to the evaporator to act as a glycol reservoir, and carefully move the cooling coils into the cooler. If the copper lines kink or break, it's back to square one.

I found a fantastic tutorial by Matt McRoberts posted in the Equipment section at ornatebrewingco.com. Take a look at his build for a DIY glycol chiller. Matt was even kind enough to share his pictures.

The controls are next. Every air conditioner is wired differently, but the goal is to leave the AC compressor "always on," at maximum cool, and cycle the system using a temperature controller. Find the wires that operate the thermostat and hard wire them (or connect them to an Inkbird). Then do a leakdown test to verify that it functions and listen for hissing. Once you've verified

that everything works, insulate the cold-side copper lines. Finally, consider keeping the condenser (hot coils) pointed or ducted out a window, to avoid adding heat to the room. If done thoughtfully, the AC housing can be modified and re-installed for a cleaner look and far more protection.

While a used window AC unit is a great way to make a glycol chiller, anything with a compressor and freezer-level cooling coils can work: a mini-fridge freezer carefully removed from its insulated housing, a chest freezer, or even a water fountain with a compressor. Get creative. The main requirement is that the cooling device (coils, chill plate) can be modified to come into direct contact with the glycol solution.

Finding My Chiller

Ready to take the next step in my journey, I searched local sales ads. Even used glycol chillers were still going for around \$750, just a wee bit above my homebrewer budget. Then I struck gold...or brake fluid. I found someone selling an industrial brake fluid cooler retired from a Ford factory. Upon inspection, the PENN chiller had a compressor, a reservoir, immersed cooling coils, and some funky red fluid with dried leaves and dead moths floating in it. How much better could it get?

Left: For the test, both fermenters were given 20 winds of 5/16" tubing, then wrapped in double-sided reflective insulation.
Right: Homebrew-oriented glycol chillers are capable of cooling multiple barrels of beer to lagering temperatures.



I bought it for \$150 and brought it home, then put the project off for many weeks. It wasn't the building of the chiller that caused me to hold off for so long, but the intimidating thought of dealing with the dead things floating in that red goo.

When I finally got up the courage, I vacuumed out the condenser coils, Shop-Vac'd the red liquid, and rinsed it out thoroughly. Then I used a step bit to drill holes and installed plastic quick-connect fittings for the outlet and return ports. I cut out a Plexiglass lid, installed a seven-gallon-per-minute submersible pump in the reservoir, and connected a piece of clear tubing to use as a sight glass. Then I filled the reservoir.

Glycol Types and Mixtures

Important note: only use food-grade propylene glycol. Beer is a consumable product, and certain glycols contain toxic additives. Distilled water stays fresh longer. A 2:1 water-to-glycol ratio is a good starting place. Glycol lowers the freezing temperature but lacks the thermal transfer capabilities of water. This ratio should lower the freezing point to around 9°F (-12.7°C) without adversely affecting thermal transfer. Stay a safety factor above freezing point to avoid ice crystals forming in uncirculated cold pockets, which could potentially damage pumps.

The Moment of Truth

With my homemade chiller complete, it was time for a circulation test. I plugged in the submersible pump and liquid began to swirl through the tubing—a good start. After some hesitation, I plugged in the chiller. The compressor roared to life, filling my basement with a frenzied metallic buzz, fan propellers spinning fast. But would it cool?

Yes. Within 10 minutes, it had dropped from an initial temperature reading of 74.6°F

My homemade chiller, which started life as a brake fluid cooler in a Ford factory, with new QC fittings and a clean glycol reservoir. Use a short jumper to test operation of pumps, and add a lid to keep bugs and other contaminants out.



“
I am a full convert. Glycol chillers are that much better.

(23.6°C) down to 66°F (19°C). It looked like this would work after all. I just needed to wear earplugs while it was running.

THE SHOWDOWN

Building a glycol chiller is a lot of fun, but every inquisitive mind wants to know how their homemade device stacks up against the commercial competition. Several manufacturers have now stepped into the homebrew-oriented glycol chiller arena, including Spike, Blichmann, Ss Brewtech, Penguin, UBC, the BrewBuilt IceMaster, Grainfather GC4, and Craft a Brew's Stasis, to name a few.

Answering my call, the folks at Spike sent me one of their just-released glycol chillers to test beside my homemade unit. I was genuinely impressed by the design of the Spike Glycol Chiller, with its seven-gallon reservoir, sight glass, and claimed ability to cold crush or lager up to 60 gallons and ferment up to 120 gallons. Plus, after suffering noise trauma from my homemade chiller, Spike's claim that their chiller is the quietest on the market was music to my ears. It arrived nearly assembled, and was up and running in minutes.

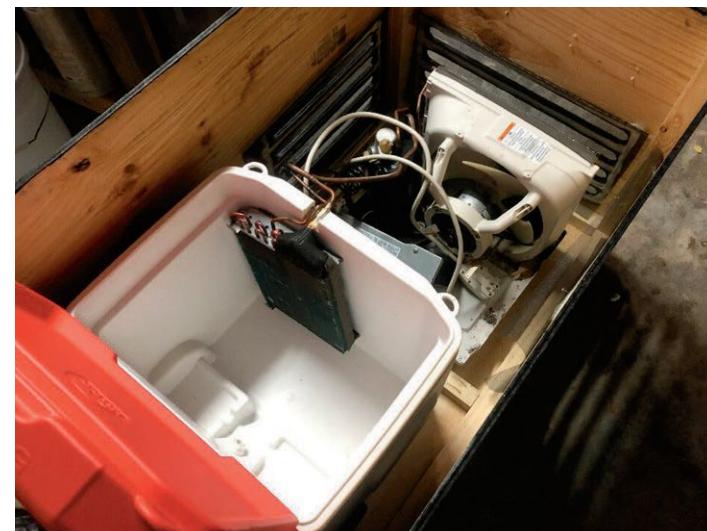
For the test, I connected each chiller to a single one-barrel Blichmann conical fermenter. As stated earlier, my basement runs hot. To keep the test fair, each conical was

given 20 windings of 5/16" clear tube, then wrapped in double-sided reflective material. That's where the equality ended. I ran out of reflective material while wrapping my "Fred Flintstone" fermenter. In the spirit of fairness, I hooked Fred up to the Spike Chiller. Giving further handicap points to the homemade chiller, the fermenter hooked up to the Spike was also filled first, resulting in a starting temperature that was two degrees higher. Was the Spike up to the challenge?

Both chillers were started at room temperature, 74.8°F (23.7°C), and used identical submersible pumps. During my tests, when the cooling coils were on, the Spike drew an average 410 watts (5 amps) and was able to cool 35 gallons of wort by about 1 degree per hour. The homemade chiller consumed around 210 watts and held its own, for a while. I let both run for 24 hours, measuring glycol temperature, fermenter temperature, and wattage.

By hour three, the Spike had made up the temperature difference and was neck and neck with my homemade chiller. Despite the hurdles I placed before it, the Spike continued to advance through the night. Twelve hours later, the homemade chiller had stalled at 59.9°F (16°C) while the Spike was cruising below 54.3°F (12.4°C). The homemade chiller's glycol reservoir reached cooling maximum at 45.1°F (7.3°C). It would continue to consume about 210 watts while chasing





Build an inexpensive glycol chiller by repurposing a window air conditioner. Begin by removing the front cover to expose the evaporator, also known as the cooling coil. Carefully maneuver the copper cooling coils to position the evaporator inside the cooler. This will be the glycol reservoir. All components of the final chiller assembly should be permanently mounted in a framework or chassis.

equilibrium down a long, flat line. Its ability to maintain 60°F (16°C), which more insulating material would help with, would work for nearly any beer. So, I turned it off.

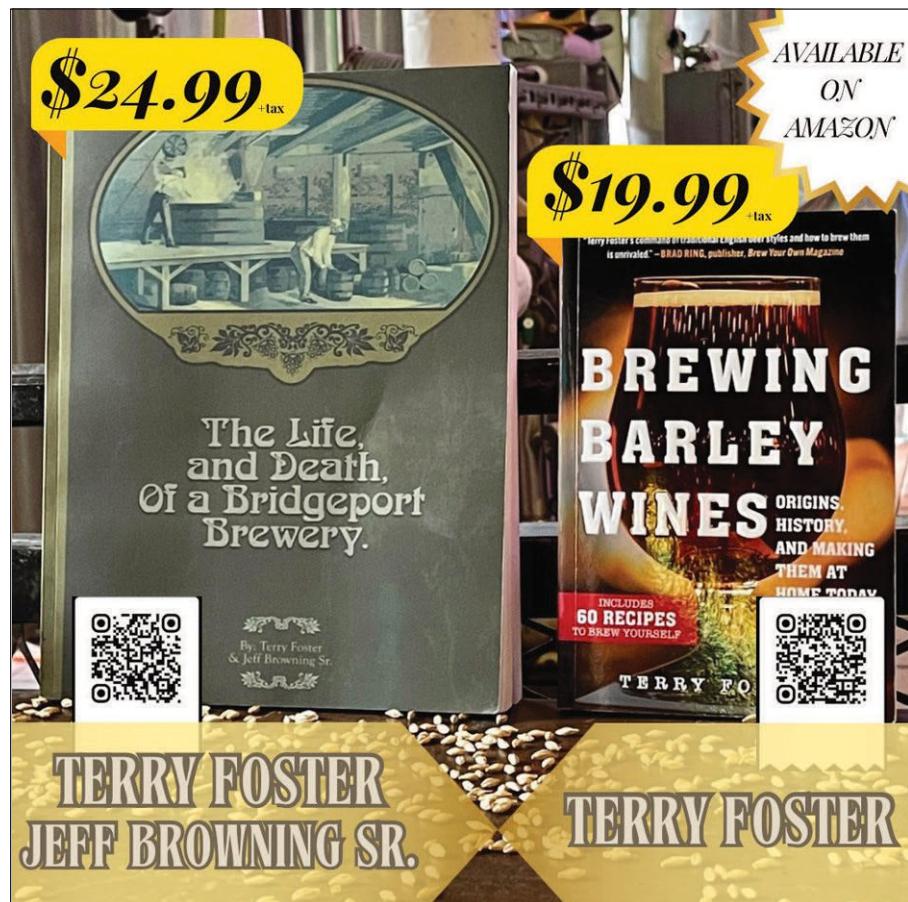
But there was still a nagging question about the Spike—what if I chilled the glycol at their recommended 28°F (-2.2°C)? In some ways, I had failed it by leaving it alone in a hot basement with one quarter of its glycol tubing exposed. What could it do with a better-insulated fermenter? Should I switch lines and let the Spike breeze through the final round? No! I doubled down, connecting the second one-barrel fermenter to the Spike, so it was now cooling 70 gallons across two fermenters.

There was a five-degree temperature differential when I connected both to the Spike. In eight hours, they were both showing the same temperature. For fun, I let the system run another night. By morning, both Spike-cooled fermenters were under 50°F (10°C): good enough for me.

MAKE THE SWITCH

I am a full convert. Glycol chillers are that much better. They deliver excellent cooling and thermal transfer, even through the outside of a fermenter. I will eventually improve energy efficiency by building or buying conical jackets, but there's no rush. While budget is often a factor in homebrew decision-making, no one should have to move to a cave or ferment underground when homemade chillers start at around \$50. For anyone ready to move beyond basic cooling methods, whether you cobble together your own or pony up for a commercial one, glycol chillers are the way to go.

Ethan Elliott is a writer and homebrewer who would have made a great monk, except for the celibacy. As a hobbyist inventor, he lives by the motto “Where there’s an Ethan, there’s a way.”





Relax, Don't Worry, Have a *Homebrew!*

That mantra rings as true today as it did in 1978 when Charlie Papazian cofounded the American Homebrewers Association with Charlie Matzen. Homebrewing can be as simple or as complex as you want to make it, but the first step is always to relax and not worry.

To aid your relaxation and help you get the most out of *Zymurgy*, here are some standard assumptions and methods for our recipes. Of course, when a recipe says to do something different, follow the recipe. But you can always fall back on these general tips to brew great beer.



ON THE WEB

For more detailed info, head over to HomebrewersAssociation.org and dive into our How to Brew resources.

might include a water profile. If you can't (or don't want to) deal with water chemistry, don't worry about it: just go ahead and brew! Extract brewers needn't add minerals to water.



Malt Extract Recipes

Making wort from malt extract is easy.

- Crush specialty grains, if any.
- Place milled grains in a mesh bag and tie it off.
- Steep bag of grains in 150–160°F (66–71°C) water for 30 min. in your brew pot.
- Remove bag of grains from the pot.
- Fully dissolve extract in the hot, grain-infused water (if there are no specialty grains in the recipe, you can skip directly to this step).
- Top up with water to your desired boil volume. (Leave some room for foam!)

BREWING WITH ZYMBURG

MAKING WORT

Most recipes in *Zymurgy* offer an all-grain version and a malt extract or partial-mash alternative. Pick the procedure you prefer and prepare some wort! Some recipes

All-Grain and Partial-Mash Recipes

Unless otherwise specified, all-grain brewers can conduct a single-temperature infusion mash with these parameters:

- Water/grain ratio: 1.25 qt./lb. (2.6 L/kg)
- Mash efficiency: 70%
- Mash temperature: 150–153°F (66–67.2°C)
- Mash duration: 60 minutes

Partial-mash recipes make the same assumptions but use a smaller amount of grain and augment the wort with malt extract.

BOILING

No matter how you get here, everyone loves adding hops.



- Boil time is 60 minutes unless otherwise stated.
- Boils are assumed to be the full batch volume, but you can also boil a concentrated wort and top up with water in the fermenter.
- Hop additions are given in minutes before the end of the boil.

Brew Lingo

Every field has specialized language, and homebrewing is no different. Here are some of the key terms, abbreviations, and acronyms you'll find throughout Zymurgy.

AA – alpha acid

ABV – alcohol by volume

AHA – American Homebrewers Association

BBL – U.S. beer barrel (31 U.S. gal or 117.3 L)

BIAB – brew in a bag

BJCP – Beer Judge Certification Program

Chico – American ale yeast, aka Wyeast 1056, WLP001, SafAle US-05, and others

CTZ – Columbus, Tomahawk, and Zeus: interchangeable high-alpha-acid hops

DME – dry malt extract

DMS – dimethyl sulfide, an off flavor similar to canned corn or cooked vegetables

DO – dissolved oxygen

EBC – European Brewing Convention (beer color)

FG – final gravity

FWH – first wort hops, added to the boil kettle as it fills with sweet wort after mashing

HERMS – heat exchange recirculating mash system

HLT – hot liquor tank

IBU – international bitterness unit

LHBS – local homebrew shop

°L – degrees Lovibond (malt color)

LME – liquid malt extract

LTHD – Learn to Homebrew Day

MLT – mash-lauter tun

NHC – National Homebrew Competition

OG – original gravity

°P – degrees Plato (wort/beer density)

RIMS – recirculating infusion mash system

RO – reverse osmosis, a water purification process that removes most dissolved ions

SG – specific gravity (wort/beer density)

SMaSH – single malt and single hop

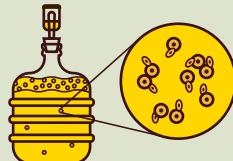
SMM – S-methyl methionine, precursor to dimethyl sulfide (DMS)

SRM – Standard Reference Method (beer color)

FERMENTING & CONDITIONING

Pitch yeast into chilled, aerated or oxygenated wort.

- Use twice as much yeast for lagers as you do for ales.
- Ales ferment at 60–70°F (15–20°C). Lagers ferment at 45–55°F (7–13°C).
- Condition ales at room temperature or colder for a week or two.
- Condition lagers at close to freezing for several weeks if you can (traditional but not required).



BOTTLING & KEGGING

If you bottle,

- Use 1 oz. (28 g) of dextrose (corn sugar) per gallon of beer (7.5 g/L) for a good, all-purpose level of CO₂.
- Use less sugar for less fizz.
- Take care with higher carbonation levels—many single-use beer bottles aren't designed for high pressure.



If you force carbonate in a keg,

- Use the chart to dial in the gauge pressure on the regulator.



- Add 0.5 psi (35 mbar) for every 1,000 feet (300 meters) you live above sea level.
- To convert psi pressures to mbar, multiply by 69.
- To convert volumes of CO₂ to g/L, multiply by 2.

REGULATOR PRESSURES (PSI) FOR VARIOUS CARBONATION LEVELS AND SERVING TEMPERATURES

TEMP (°F)	VOL. CO ₂										
	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1
33	5.0	6.0	6.9	7.9	8.8	9.8	10.7	11.7	12.6	13.6	14.5
34	5.2	6.2	7.2	8.1	9.1	10.1	11.1	12.0	13.0	14.0	15.0
35	5.6	6.6	7.6	8.6	9.7	10.7	11.7	12.7	13.7	14.8	15.8
36	6.1	7.1	8.2	9.2	10.2	11.3	12.3	13.4	14.4	15.5	16.5
37	6.6	7.6	8.7	9.8	10.8	11.9	12.9	14.0	15.1	16.1	17.2
38	7.0	8.1	9.2	10.3	11.3	12.4	13.5	14.5	15.6	16.7	17.8
39	7.6	8.7	9.8	10.8	11.9	13.0	14.1	15.2	16.3	17.4	18.5
40	8.0	9.1	10.2	11.3	12.4	13.5	14.6	15.7	16.8	17.9	19.0
41	8.3	9.4	10.6	11.7	12.8	13.9	15.1	16.2	17.3	18.4	19.5
42	8.8	9.9	11.0	12.2	13.3	14.4	15.6	16.7	17.8	19.0	20.1

■ = PSI

Source: Brewers Association Draught Beer Quality for Retailers



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HOMEBREW CLUB MARKETING

Attracting Members and Getting Them to Stay Another Round

By Taylor Migalla

In the 2010s, the motorcycle company Harley-Davidson was struggling to grow their market. Purchases by their primary clients, middle-aged men, had stalled, and they were looking to capture a new market: women and the younger generation. This would be an immense undertaking because “the role of women in the world of Harley-Davidson [had]...been largely limited to that of adornment or calendar model.”¹ The brand had to get creative. They began by designing lighter and more cost-effective bikes to appeal to women and a lower-income audience, later taking it one step further by hosting “garage parties” that offered free riding and maintenance lessons.

By 2014, Harley-Davidson was the number one motorcycle brand among those newly targeted riders. This story shares some similar themes with the homebrewing hobby. The demographics for homebrewing often skew conspicuously male, for instance, and it can be intimidating and expensive to start. Homebrew clubs can be that foot in the door for new homebrew hobbyists, as well as a comfortable sanctuary of like-minded enthusiasts for experienced amateur brewers, but clubs must often get creative to not only attract but retain members. This article serves up a flight of ideas on how to achieve this wee heavy task.



AN INVITING FIRST SNIFF

One of the most important actions a club can take to gain new members is to ensure a virtual presence as brilliantly clear as a British bitter. A club's social media channels or website are often the first type of interaction a new member has with an unknown club. Keep in mind, those aren't places that only current members use. They are ways for a person who is considering joining to gauge whether the club will be a good fit for them. Don't let your website mess up your club's ability to gain new additions.

Going to a meeting full of strangers for the first time can be intimidating for anyone, but the information on a club's website can ease this anxiety by showing evidence that the club is active and full of welcoming people. I'm not suggesting you need to have a professionally designed website with a pitch-perfect logo that says "we know how to identify acetaldehyde AND have a good time." However, there are a few practical tips that anyone running a website can follow to increase the chances someone browsing through will then mark their calendar for your next meeting date.

1. Keep your calendar up to date. It should be 100-percent accurate and include dates, times, and locations. A simple line of text that says "our meetings are the second Wednesday of the month" does not instill confidence that the information is being monitored and adjusted.

2. Provide a way to contact the club. More importantly, make sure at least one club member watches that inbox and REPLIES.
3. Do not use Facebook groups...or at least not as your sole club site. According to a 2019 AHA Club survey, Facebook groups were the most popular form of communication among clubs (73 percent) and more common than club websites (59 percent).² But if a potential new member does not have a Facebook account, then they cannot see all the information, especially if it is a private group.
4. Content should indicate that the club is currently active. Some methods for doing so are adding recent photos, omitting dead links, and even uploading meeting minutes.
5. There are nearly 1,700 AHA-registered homebrew clubs. Look at other homebrew club sites and steal the ideas that make you want to join their club! Much of this advice pertains to social channels as well. Put a club member in charge of communication, and make sure they post something at least once per event. Active socials are another indicator that your club is alive and well. When I recently moved cities and started shopping for a new club, my most important filters were club photos and social media posts. Questions I asked myself were, is this club larger or smaller? Are there other women in the club? Do meetings consist of mingling, or organized presentations? A picture is

worth a thousand words, so if your club is having a great time doing interesting things, be sure to show it off.

Once your virtual presence is up to date, start advertising in the real world. Many clubs team up with local homebrew shops. According to Brûlosophy's 2023 general homebrewer survey results, 73 percent of homebrewers shop at local homebrew shops for their supplies, either exclusively or in combination with online purchases, so getting your club's information on display inside of a brick-and-mortar store is a great way to connect with people who are already interested in the hobby.³ Craft breweries, meaderies, cideries, and wineries may also be amenable to helping clubs advertise.

According to that same Brûlosophy survey, 20 percent of homebrewers self-reported as engineers, which is a good reminder that certain personality traits, like a love for problem-solving and tinkering with equipment, can draw people into the hobby. A lot of us also get lured into brewing due to culinary curiosity, a penchant for working with our hands, interest in combining art and science, a desire to create, or a thirst for communing with people who share our same interests. When you consider some of those core motivations, the potential new member market size grows considerably. Consider teaming up with other interest groups or specialty shops related to gardening, cooking, crafting, or woodworking to draw new members to your club and to the hobby as a whole.



Photos courtesy of Matthew King

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STAYING FOR ANOTHER ROUND

Keeping new members is where the yeast meets the wort. Getting new faces at meetings is already challenging enough, but unless you provide compelling reasons to stay, you may see participation rates decline. From perusing homebrew club sites and talking to long-time members, I've gleaned that knowledge is the number one stated benefit of joining, but with cheap accessibility to a vast amount of information these days, your club has to get crafty to bring real, lasting value to its members. Three value-added activities that clubs should focus on include removing barriers to the hobby, offering sensory training, and providing a community of people with the same interests.

Unfortunately, cost and space requirements can make the homebrew hobby inaccessible to some. Living in a small apartment with a shoddy stove can be too much of a barrier for the brew-curious. So it is probably not a surprise that the majority of homebrewers today make above the median income of U.S. households and own a home. To make the hobby more approachable to people living outside this demographic, clubs can run equipment rental programs or team up with breweries or shops to provide a space that is conducive to brewing. For those who are not affected by these barriers, there are still other equipment items that homebrewers may use sparingly, but do not want to invest in for themselves, that the club could provide. Think water testing kits, pH meters, or dedicated equipment for sour/wild fermentations. Many clubs are well suited to fill these gaps. Furthermore, watch out for unintentional exclusivity. For example, I have seen some clubs charge \$20 merely to attend one meeting or encourage members to only serve their homebrew on draught instead of from bottles. I've also heard a handful of stories from homebrewers who are the only women in their clubs. I doubt these incidents are purposely malicious; I bring them up to empha-

“
Making space and time at each meeting for tasting and sensory practice is invaluable.

size the importance of mindfully considering your club's norms and everyday practices if you want your club to make a good first impression on new members.

Sensory training is something the internet cannot provide. Many homebrewers eventually find themselves curious about judging, Cicerone certification, or simply improving their palates to better evaluate their own brews. Neither books nor the internet can take the place of tasting the same bottle of beer alongside someone else and comparing notes. Making space and time at each meeting for tasting and sensory practice is invaluable. Holding virtual sensory workshops outside of regular meetings should also be a consideration. I had a great experience bonding virtually with a small group of people from across the Midwest studying for the BJCP tasting exam. Like hazy IPAs, some people might love virtual calls and others might be burned out by them, but it is a strategy for reaching a larger audience, providing more schedule flexibility, and avoiding the need for anyone to figure out a ride home!

Finally, to find community and feel understood is a deep drive we all have, so do not lose sight that a homebrew club should ultimately help people connect—whether it's just about fermented foods and beverages, or otherwise. One way to foster connection is by ensuring the club's social calendar is effervescent with activities. Beyond the monthly meetings, consider meeting at that new brewery in town that everyone has been looking forward to visiting, getting a weekly pub trivia group

going, joining a beach volleyball league, or volunteering at community events. Some brew clubs even have break-out interest groups, which can be particularly helpful if your club is 100+ members strong and it's easy to get lost in the shuffle. For a comprehensive list of ways to build community, consult Ron Minkoff's article "Fantastic Activities All Clubs Can Do" in the May/June 2024 issue of *Zymurgy*.⁴

CLOSING OUT

Not every club needs to be everything to every person. If your club is a tiny but highly engaged crew, then don't mess with a gold medal recipe. However, if your club is looking to evolve, there are plenty of options for doing so. For those of you thinking about joining a club, remember that it might take some time to find the club for you. I am currently a member of the North Urban Brewing Society in Libertyville, Ill., but it took me three different clubs to find the one that had a perfect mix of mingling and brew talk. So take your time and test-drive until you find the right fit for you.

Prost!

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Taylor Migalla is BJCP-certified judge and Certified Cicerone who enjoys adventure racing and fantasy football. She works as a food scientist for Oscar Mayer and lives in Illinois with her husband and their Bernese mountain dog Wanda.



A North Urban Brewing Society club meeting

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RESPECT THE EXTRACT

One of the benefits (curses?) of being retired is lots and lots of free time to surf the web. Making the most of it, I spend a fair amount perusing homebrew forums and discussion groups. A recurring theme among beer snobs seems to be the denigration of brewing with extract. One viewpoint summed up the lack of respect: “All my friends and neighbors laughed when they heard that I brewed beer with extract, but they still drank me out of house and home.”

I queried 11 forums over the course of two weeks and received 167 responses. Nearly 100 brewers who responded started with extract and switched to all-grain. Three only did one extract batch before switching to all-grain. Fifteen started with extract and stayed with extract. Nine started with extract, switched to all-grain, but still do an occasional extract batch. Fifteen started with extract but regularly switch back and forth. Twenty-five have only done all-grain. And one actually started with all-grain and switched to extract. I’m with the nine who switched to all-grain but still do an occasional extract batch. A short- or no-boil extract batch, I feel, is just the ticket for kitchen brewing in summer heat.

A lot of the bad reputation of extract beers can be traced back to the days of Prohibition when cans of low-quality malt extract were used for beer often fermented with bread yeast in warm, less-than-sanitary conditions. Dated liquid malt extract, perhaps with an ill-advised addition of sugar, often produced that dreaded “homebrew twang” so many

people found objectionable. But extract quality has since improved.

During a casual search through the AHA archives, I found 19 gold medal beers brewed with extract as the “base malt,” including a saison, a German wheat/rye, a Scottish ale, an Irish ale, three Belgian strong ales, two dark lagers, two amber hybrid beers, two pale American beers, two sour ales, a spice/herb/vegetable beer, a barleywine, and one dunkelweissbier. Ben Amidon won Homebrewer of the Year in 2021 with an American lager, and in 2009 Dick Blankenship took the top spot with a sour ale. And I found 22 additional recipes, most of which were high-gravity beers, that used extract for a significant portion of the fermentables,

I revisited an article I wrote (*Extract Exploration*, *Zymurgy* July/Aug 2020) on extracts and what different styles of beer could be brewed with them. Pilsen/extralight can be used to brew over 18 different styles. Eleven with wheat malt extract, eight with golden light, nine with pale, eighteen with amber, and seven with dark. Additional styles can be brewed using extract with specialty grains. In that article I also listed some extracts that were proprietary blends from Williams Brewing: American lager, porter, red, brown, and Baltic black. I also listed

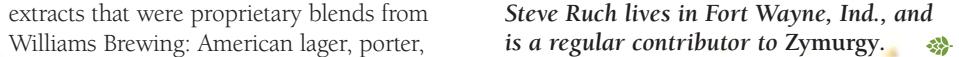
some that appear to no longer be available: rye, Vienna, and Munich.

Fast forward to this year. On Sunday, September 15, the MASH Fort Wayne Homebrew Club met at 2Toms Brewing Company for their monthly meeting. To start, we triangle tested two samples of my extract-based APA (see Steve’s APA recipe on page 7) and one sample of the same recipe brewed all-grain by club president Jed Langerich (see Jed’s APA recipe on page 7).

Seventeen MASH members took part in the test. Eight correctly distinguished which was which, eight were incorrect, and one didn’t indicate. Two of the 17 picked one of each as different. Nine preferred the all-grain batch, two preferred the extract batch, and six didn’t specify a preference. No one tasted any “homebrew twang.”

With only half the triangle testers able to pick out which sample was different, nine preferring all-grain, and eight either preferring the extract or stating no preference, I think the results clearly show that a well-made extract beer can hold its own against all-grain. We’re well clear of the dark ages of extract brewing, so it’s time to lose the stigma.

Steve Ruch lives in Fort Wayne, Ind., and is a regular contributor to Zymurgy.





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