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Homebrew Con 2023: A Recap

The 45th annual Homebrew Con was held this past June at the Town & Country Resort in San Diego, Calif.. There's a reason so many people want to live in San Diego, and from what I learned upon arrival, spring 2023 was not that reason.

San Diego experienced a remarkably cloudy and chilly start to the year that lasted till the first day of astronomical summer. A *New York Times* article written a week in advance of Homebrew Con noted that the city hadn't logged a single completely sunny day in more than four months (Karlamangla, Soumya. "Why Has California Been So Cloudy Lately?" *The New York Times*, June 16, 2023. <http://www.nytimes.com/2023/06/16/us/california-june-gloom-weather.html>). What were we getting ourselves into?

But then homebrewers descended upon the city, and the magic of fermentation transformed a dreary spring into the sort of summer that, well, makes one want to move to San Diego. If you attended Homebrew Con, you know exactly what I mean. If you didn't attend Homebrew Con, you missed out on some very nice weather (we also missed you, but we didn't talk

about it much, enamored as we were by the very nice weather).

Homebrew Con was as magical as ever, and getting to spend so much of it outdoors made it feel even more so. The zenith, of course, was Club Night, and this year's homebrewed beer festival did not disappoint. From Annie Johnson's Cape of Many Medals to a bottle of sake shared by a loyal Zymurgy reader, Club Night failed to disappoint.

And then there were the educational sessions. I didn't get to attend all that I wanted to, owing to my lack of a Hermione Granger Time-Turner, but I did make it to a few. Among the highlights for me were Gary Glass's "Pro-Up Your Homebrewing: Practical Tips for Brewing Great Beer at Home" (featuring cans of Left Hand Brewing Co. Milk Stout Nitro), Jan Brücklmeier's "The Hunter of the Lost Beers: A Trip Back into Extinct Beer Styles of Germany and Its Surroundings" (featuring a homebrewed historical beer style called Greussling), and Aaron Hyde's "Traditional & Modern Cask Ale Techniques" (featuring a 10 a.m. tapping of a pin of cask-conditioned dark mild ale).

If you weren't there to experience it in person, fret not, for recordings of these talks and countless others are available to AHA members right now at

**HOME
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CON
2023**



HomebrewersAssociation.org. You can't taste the excellent beers, meads, ciders, and sakes that accompanied them, but you'll still learn a great deal. The AHA's seminar archives offer an embarrassment of riches—go get embarrassingly wealthy at your earliest convenience.

Final-Round judging for the 2023 National Homebrew Competition also took place in San Diego, and awards were presented at the close of Homebrew Con. As is tradition, this Sept/Oct issue of *Zymurgy* features all the gold-medal-winning recipes from the National Homebrew Competition for you to try out for yourself. Hopefully they inspire you to brew your best for 2024, whether you choose to compete or keep it all for yourself. I won't judge you either way.

Looking ahead to next year, *Homebrew Con 2024* will be held in Denver, Colo., October 10–12, 2024, in conjunction with the *Great American Beer Festival*. Watch for additional details at HomebrewersAssociation.org in the coming months. I can't offer many specifics about the event itself yet, but Colorado's weather in autumn is rarely anything short of divine, and the golden leaves of the aspen are likely to be on point. I hope to see you there.

Dave Carpenter is editor-in-chief of *Zymurgy*.



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— Ss Brewtech



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WE ARE CHAMPIONS

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At a cider fest, friends gather to crush apples and make cider. Such events offer many opportunities to enterprising cidermakers, but perhaps most valuably, they demonstrate that making delicious cider is simple and inexpensive.

By Scott Riseley

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Cover Photo
Luke Trautwein

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zymurgy®

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



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homebrew-recipes](https://HomebrewersAssociation.org/homebrew-recipes)

NOW ON Tap



Aroma Sciences Wood Barrel Extracts

Aroma Sciences, LLC recently announced the availability of a line of highly aromatic, natural oak barrel extracts. Produced in an 18,000 square-foot facility in Boulder, Colo., and protected internationally by several dozen patents, this sterile concentrate contains complex oak aromatics that are captured from reclaimed wine and spirits barrels. The company's proprietary evaporative extraction process relies on turbulent heated air to gently evaporate aromatic molecules from staves of American and French light, medium, dark, and extra-dark toasted oak barrels.

Evaporative extraction technology captures aromatics in the same relative proportions as are found in the oak barrels themselves. It recovers even hard-to-reach micro-aromatic volatiles locked deep within the wood that are hard to liberate by other extraction methods and thus provides the full spectrum of oak-barrel aromatics. The addition of oak blocks, chips, and powders to the fermenter cannot achieve the same results. Aroma Sciences' total oak aroma fingerprint, which includes notes of vanilla, coconut, spice, toffee, and mocha of varying intensities, enhances the complexity, authenticity, and depth of the sensory wood perception in beer.

Aroma Sciences' natural, evaporated oak barrel extracts were designed to help brewers control their barrel-aging processes in the brewery and on the shelf. This new technology provides the following:

- » Removes microbial risks and thus the potential for off-flavors from barrel maturation
- » Can be used in low doses to balance and refine beer or in higher doses to impart a traditional barrel-aged character
- » Stops beer losses through evaporation, which can be from 3 to 6 percent annually
- » Prevents oxidation and staleness
- » Offers ease of use—the brewer simply adds a measured dose, depending on beer style and desired concentration, to a finished beverage prior to conditioning and packaging.

Aroma Sciences natural oak barrel extracts usher in a new era in the art and science of brewing oaked beverages. For more information, visit aromasciences.com

Grainfather GC2 GLYCOL CHILLER

Propylene glycol systems offer homebrewers the ultimate in temperature control, but chilling units tend to be bulky and expensive. Grainfather's new GC2 glycol chiller delivers precision temperature control in a smaller, more affordable package.

The larger GC4 chiller can control up to four fermenters at a time, but not everyone needs that much capacity. With two channels, the GC2 meets the needs of most homebrewers who only want to control one or two fermentations at once.

Paired with a Grainfather Cooling Connection Kit, the chiller can control a Grainfather GF30 fermenter with simple plug-and-play connectivity. Or, use Grainfather's Glycol Chiller Adapter kit (sold separately) to manage the fermentation temperature in virtually any vessel.

The GC2's footprint is 30 percent smaller than the GC4's, and it weighs 30 percent less. And unlike larger glycol chillers that require freight shipping, the GC2 ships with regular ground shipping—you won't have to schedule a dedicated time for a pallet to be dropped at your house. Urban apartment dwellers are sure to appreciate the smaller size as well.

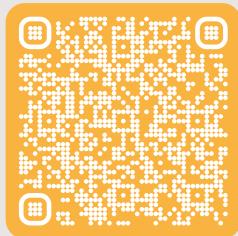
The Grainfather GC2 glycol chiller retails for \$849. Visit grainfather.com to learn more.



SHARE YOUR BEST GADGETS WITH ZYMURGY READERS

It's that time again: time to submit your favorite DIY brew gear. Zymurgy's annual Gadgets Issue, which publishes every year in the Jan/Feb issue, celebrates the innovative spirit that homebrewers employ in pursuit of everyone's favorite beverage (or at least yours and ours). From creative repurposing of everyday items to complex Rube Goldberg machines, we can't wait to see what you've come up with. Go to HomebrewersAssociation.org/gadgets-submission now to upload images and a description of your best DIY gadget (or gadgets). The deadline to submit is Monday, October 9.

SCAN ME





Verticals for Vets

Aurora, Colorado's Aurora City Brew Club (AC/BC) was recently gifted several bottles of Thomas Hardy, a vertical spanning 1986 to 1997, with the intention of using it to raise money for a veterans' charity. Rather than simply sell the verticals, AC/BC will host an auction and fundraising event centered around the Thomas Hardy flight in hopes of expanding the offerings to include verticals from several other breweries.

AC/BC have partnered with Veterans Community Project (VCP), whose mission is to help end veteran homelessness through specialized communities of tiny houses combined with support services that help veterans transition to permanent housing and financial stability. Club members visited their tiny-house community in Longmont, Colo., earlier this year and are excited to support their mission.

This event, named Verticals for Vets, is scheduled for September 17, 2023, at Launch Pad Brewery in Aurora, Colo.

VCP is a 501(c)3 non-profit organization and all donations are tax deductible (EIN 47-4960735). To learn more, visit verticalsforvets.org.

Oans, Zwoa, Drei, G'suffa!

The award-winning Vail, Colo., Oktoberfest has announced details of its two-weekend Bavarian extravaganza of competitions, contests, flowing Bavarian beer, German delicacies, traditional music and dance, children's entertainment, and more. This free, family-friendly event, named among the 10 best Oktoberfest celebrations in the country by *USA Today*, takes place in [Vail's Lionshead Village](#) September 8 to 10 and [Vail Village](#) September 15 to 17.

"If you can't make the long journey across the pond to Germany, no doubt the Vail Oktoberfest is the best stateside celebration. For more than 25 years, the Bavarian-inspired town of Vail has created an Oktoberfest destination," said Vail Oktoberfest Event Director Ryan Slater. "Against the backdrop of the picturesque mountain setting, streets are lined with German beer steins, revelers in lederho-

sen and dirndl, Bavarian food, traditional Oktoberfest performers and dancers, and bands playing traditional Oktoberfest tunes."

Vail Oktoberfest hosts several free competitions, including a costume contest, the World Keg Bowling Championship, a bratwurst-eating contest, and a stein-hoisting competition. Other entertainment includes live music, a children's area, and plenty of Bavarian nosh. To learn more, visit [OktoberfestVail.com](#).



Photos courtesy of Aurora City Brew Club, @Ryan Cox Photography [Vail]



Homebrew Con

This past June, the AHA hosted Homebrew Con 2023 in San Diego. Recordings of the educational sessions will be made available to Homebrew Con attendees and all AHA members in the coming months. Many thanks to all who traveled to San Diego to celebrate!

The 46th annual Homebrew Con will be held in Denver, Colo., at the Great American Beer Festival®, October 10–12, 2024. Stay tuned to Zymurgy and HomebrewCon.org for the latest.

Beer Comics

If you like brewing and humor, you'll want to follow the comic strip *Cliff Notes*. The story revolves around Cliff Notes, a young homebrewer who concocts imaginative and undrinkable beers in his parents' kitchen, brews he believes will someday be the talk of the world. To help move Cliff's life

forward, his parents make the financial sacrifice to send him to James Buchanan University (JBU), an overpriced, mediocre college that has attracted many other middling brewing enthusiasts.

At JBU, Cliff shares a dorm suite with four other misfit brewers: Zip, Spiro,

Cliff Notes Comics by Byron Lind



Gordo, and Warren. With the hope of charting a new path, Cliff sets early goals of being a more responsible student and a better technical brewer, but his old ways quickly return.

Cliff Notes launched in March and can be read in its entirety on

CliffNotesComics.com, which also offers information on breweries, suppliers, homebrewing clubs, and recipes. Author/illustrator Byron Lind is a craft beer aficionado and AHA member who first created the *Cliff Notes* comic for his college newspaper back in the 1980s.



Dive Bomb Bee Wheat

Recipe by Andrew Sanders.



See Last Drop on page 104 of this issue of *Zymurgy* to learn more about the story behind this recipe and the optional bee addition at 5 minutes.

Batch volume: 6 US gal. (22.7 L)

Original gravity: 1.046 (11.4°P)

FG: 1.009 (2.3°P)

Bitterness: 13 IBU

Color: 4 SRM

Alcohol: 4.8% ABV

MALTS & ADJUNCTS

9 lb. [4.1 kg] Pilsner malt

8 oz. [227 g] Vienna malt

8 oz. [227 g] caramel malt, 120°L

1 lb. [454 g] honey @ 5 min

HOPS

1 oz. [28 g] Spalter, 4% a.a. @ 60 min

ADDITIONAL ITEMS

1 bee @ 15 min (optional)

1 oz. [28 g] lemon peel, dried @ 0 min

YEAST

Wyeast 1056 American Ale

BREWING NOTES

Mash at 149°F (65°C) 60 min, followed by a 10-minute mash out at 167°F (75°C). Ferment at 65°F (18°C) for 10 days.



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Nancy Noll

On Homebrewing, AHA Membership, Inspiration, Dyslexia & More



Nancy Noll

Nancy Noll has homebrewed since 2014 and been an AHA member for many years. She spends her time in Northern California and Central Oregon, where she loves to snowboard in the winter, float on the river in the summer, and homebrew all year round. This Central Oregon Homebrewers Organization (COHO) member reached out to me after hearing me present at the Women's International Beer Summit. We met in person at Homebrew Con this past June in San Diego.

Nancy's enthusiasm was infectious. I gave her a hose clamp ring, and as we walked around Club Night, we became instant friends. After Homebrew Con, she sent me the above photo with an email that said, "A big thanks to you and all your crew for such a great event. Everyone was so open and informative and FUN."

Photos courtesy of Nancy Noll

JULIA HERZ:

Nancy, what first inspired you to homebrew?

NANCY NOLL:

I drank a lot of wine, which gave me a headache. I used to carpool with a guy up to Mount Bachelor. I'm an avid snowboarder; that's one of my passions. He always said, "Have a beer, have a beer." One day, I was in Bend, Ore., and started drinking beer. Being the extremist that I am, I started brewing. I went to the Humboldt Homebrew Festival, where they had a raffle and silent auction, and I won a homebrew kit. That was it. I then escalated from a cooler standing outside in the rain with a gas burner to a HERMS (heat exchange recirculating mash) system I bought during COVID. →

It's been great. Homebrewing's been a really positive experience for me. I've listened to many women about their experiences. Here I am. I'm older than most people, and I'm gay. I really have to say that they've embraced me.

I absolutely love it. I love the culture. Such positive things with people. In Oregon, the club does lots of events. Every month we have a group brew at somebody's house, which winds up with somebody making beer, and everybody has a good time.

JH:

Fast forward from 2014 to today—how often do you brew, and what are you brewing right now?

NN:

My signature beer is my Nasty Woman IPA. It was 2016, and I thought, *Oh hell, I'm just going to throw all these hops in at the end*. This was before I knew about whirlpooling. I kept building on the recipe, and in 2017, I went to the Sisters Brewfest. I was by myself and thinking, *I'll be so happy if somebody puts a coin in my jar, or what if somebody spits it out?*



Long story short, I won the People's Choice and the Brewer's Choice awards! I got to brew two 10-barrel batches with Three Creeks Brewery. It sold out. That was a real boost for me. I make my IPA every winter.

I also make a stout called Snow Rider Stout. A woman named Maura from Washington, D.C., who won our club brew-

er of the year, taught me things like cold pressing my dark grains and adding them in the last 15 minutes. I make a marinade with organic cherries, organic chocolate nibs, and vanilla beans and marinate it in top-shelf rum because I'm too old to drink cheap booze.

My partner doesn't like really hoppy beer, but then I'll make a beer, and she'll

A composite image showing three devices displaying content related to homebrewing. On the left, a smartphone screen shows a mobile version of the Homebrewers Association website with a logo and a message from Nancy Noll. In the center, a laptop screen displays an email message addressed to Julia at the Brewers Association, with a subject line 'INSPIRED'. The message body discusses Nancy's homebrewing journey and dyslexia. On the right, a second smartphone screen shows a user profile for 'Brewer Mark Pennick'.

like it. I make a Kölsch, but instead of a Kölsch yeast, I use an ale yeast and Cashmere hops. It's an easy drinker.

I've made some fruit beers with mango. The yeast used to wake up and eat the sugar, and it kind of came out like a sour. So I started cold crashing it and then adding the fruit. Once the keg is cold, I recommend rolling it around and getting the fruit to mix.

I make Belgians, made some hazies with Myers lemon, and used experimental hops too.

JH:

What has the AHA helped you with to up your homebrewing game?

NN:

The discounts and the AHA are like a family. The most exposure I've had is at the great conventions. I also love Zymurgy magazine. The AHA resources help me!

JH:

Why did you initially reach out to me?

NN:

I heard you speak at the Women's International Beer Summit. You were talking about becoming a beer judge and that you were concerned about the test and that you had dyslexia. I am dyslexic. When I was growing up, it was terrible in school. Somehow, I managed and was able to carve out a successful career.

JH:

Any positives from dyslexia?

NN:

It makes you figure out how to be resilient. Like martial arts, which has really helped me. I had never heard of dyslexia until 15 years ago. You learn to get around it and figure out ways to get it done. I love the process of brewing beer, even if it doesn't always come to what I want it to be. It's kind of like meditation.

Love homebrewing and the AHA? Email me your story. I'd love to learn more and possibly share in a future column. Cheers.

Julia Herz is executive director of the American Homebrewers Association. You can follow Julia's homebrew talks and travels on Instagram @ ImmaculateFermentation.



Nasty Woman

West Coast IPA

I originally nicknamed this beer Crazy IPA because I dumped in a bunch of Citra hops at flameout with no idea how it would turn out. It was well received by friends and colleagues, and after studying hops and whirlpooling and picking up tips from my brew clubs and classes, I refined the recipe to its current state. At the time I was working on this recipe, I heard an intelligent woman express her informed opinion and get called a "nasty woman." In other words, if a woman has self esteem enough to speak out, she is considered "nasty." So, cheers to all nasty women!

Batch volume: 10 U.S. gallons [37.9 L]

Original gravity: 1.064 (15.7°P)

Final gravity: 1.011 (2.8°P)

Color: 8 SRM

Alcohol: 7% by volume

Efficiency: 70%

MALTS

11 lb. [5 kg] American Vienna malt

11 lb. [5 kg] American pale 2-row malt

2 lb. [807 g] flaked wheat

2 lb. [907 g] German melanoidin malt

4 oz. [113 g] honey malt

HOPS

2 oz. [57 g] Citra, 12.6% @ 60 min

2 oz. [57 g] Citra, 12.6% @ 30 min

13 oz. [369 g] LUPOMAX Citra, 18.6% a.a., whirlpool 20 min, 165–170°F (74–77°C)

8 oz. [227 g] LUPOMAX Mosaic, 17.5% a.a., dry hop 3 days

YEAST

3 sachets Fermentis SafAle US-05

ADDITIONAL ITEMS

1 tablet Whirlfloc @ 5 min

Wyeast Nutrient Blend @ 10 min

BREWING NOTES

Recirculation mash at 152°F (67°C) for 60 min. Sparge at 168°F (76°C). Boil 60 min., adding kettle hops as indicated. Cool to 170°F (77°C) and add whirlpool hops, allowing 20 min. contact time. On 11th day, dry hop for 3.5 days. Cold crash for 2 days and keg.

EXTRACT VERSION

Dissolve 7 lb. (3.2 kg) pale liquid malt extract and 7 lb. (3.2 kg) Munich or Vienna liquid malt extract in hot water. Bring to a boil and proceed as above.



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Hold the Salt

Dear Zymurgy,
Thanks for the great mustard article (You Can Ferment That!, Jul/Aug 2023). I have been enjoying the expanded fermentation content in *Zymurgy*, and I've dabbled with fermented pickles, kraut, kimchi, hot sauce, kombucha, and vinegar.

Your article has definitely made me want to try some Ghent mustard, but either my coffee hasn't kicked in or else I think there is a typo in the Gentse Mosterd recipe: "The main ingredients here are given as fractions, by weight, relative to the amount of mustard seeds used. So, if you start with →



SUPPORT YOUR LOCAL HOMEBREWERS

Dear Zymurgy,

I wanted to comment regarding the Editor's Desk column in the Jul/Aug 2023 issue of Zymurgy. I enjoyed what you said and feel that you gave a very fair opinion on why some of us last and some have closed their doors.

I have little to no idea how to homebrew. I made a couple of kits back in the beginning when I opened my store and learned a little more as we grew. My strength was always equipment, which is how I got into this and found it easy to understand and sell. Over the years, our employees, almost all of whom have been homebrewers, have helped us grow and expand. This is our 13th year, and some



of our employees have been here for eight, nine, or ten years.

I always compare this to car guys. What better job than getting paid to

100 g of mustard seeds, you'll need $1.5 \times 100 \text{ g} = 150 \text{ g}$ of water and $0.8 \times 100 \text{ g} = 8 \text{ g}$ of salt."

0.8×100 would be 80 grams of salt. Based on the other recipe, which calls for 7.8 grams of salt for a similar amount of mustard, 80 grams seems like a lot of salt. So, I think it should be 0.08 parts by weight.

But I think I will substitute some home-brew malt vinegar (from a pale mild) for the white wine vinegar, though.

Cheers!
Brian Welch | Holden, Mass.



Zymurgy editor-in-chief Dave Carpenter responds: Thank you for pointing that out, Brian. You are correct: the salt quantity should be 0.08 parts by weight (8 percent), not 0.8 (80 percent). Dissolving 80 grams of salt in 150 grams of water would yield a brine of more than 50 percent salinity, which is saltier than even the Dead Sea!

talk about your hobby? The passion, understanding, patience, and pride in helping newbies as well as experienced homebrewers is apparent every day here. Hundreds of five-star reviews attest to my amazing team.

Out of this came the 6 and 40 Brewery, which is attached to the shop. We average 18 employees in the store and brewery—it gets a little hectic, but we have a lot of happy people working here. We have two amazing brewers who have homebrewing backgrounds. Both worked for the store and have crafted all our beers from day one. The brewery opened on September 11, 2020, during the pandemic, which was quite a challenge. We're coming up on our third anniversary and going strong.

Thanks for a good read.

Cheers!
Tom Schurmann
Tom's Brew Shop
Lakewood, Colo.

Zymurgy editor-in-chief Dave Carpenter responds: Thank you for your comments, Tom. It's encouraging to hear stories such as yours. Homebrewers need reliable brick-and-mortar stores, and I'm glad that you've found a successful way to run yours.



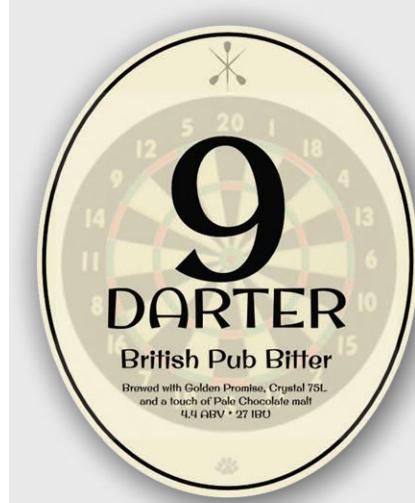
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YOUR HOMEBREW LABELS



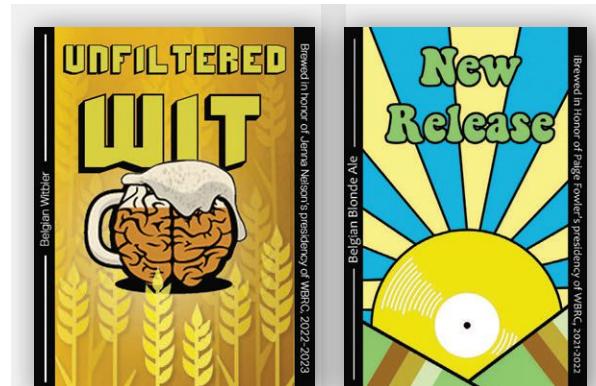
Homebrewing started for me in the early 1990s when my father-in-law, Ken, taught me to brew. We went from extract to 15-gallon all-grain brewing. My son Trevor then asked to be taught. We started naming the beers to make things more meaningful. My son Cameron designs all of our labels for us. (AHA member 3 years)

Jeff Alcorn
Herscher, Ill.



A sessionable British bitter is one of my favorite styles to brew. This beer and label honors British pubs and the popular game that is played there. A nine-darter is the lowest number of darts to go out on the 501 game. (Homebrewer 28 years. AHA member 10 years)

Ben Pelletier
Kingsley, Mich.



The Waldo-Brookside Rotary Club in Kansas City meets in a taproom, and every year, I brew a beer in honor of the new president. The labels are designed by Jack Stonebarger, the son of this year's president. His father is an avid bass fisherman and a good speaker as well. (Homebrewer 27 years. AHA member 14 years)

Dan Ryan
Kansas City Bier Meisters
Kansas City, Mo.



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YOUR HOMEBREW EXPERIENCE

Homebrewing is all about sharing, and we get hoppy when Zymurgy readers share their homebrewing and fermentation experiences with us. We'd love to show the AHA community what your experience looks like. From 1-gallon batches on the stovetop to 20-gallon brew days on your custom sculpture, we all have fun with family, friends and pets while we make and enjoy our favorite beverage. Show us your 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**



Due to the size of my hop spider and brew kettle, the spider sits in the wort when I hang it on the side of my kettle to drain. So, I cobbled together a few pieces of scrap wood to create a holder that hangs from the immersion chiller. This keeps the spider above the surface of the wort for complete draining.

Robert Resetar

(Homebrewer 7 years, AHA member 5 years)

Roswell, Ga.



I had to say goodbye to my best friend and brewing partner of 13 years, Peanut Butter. Cheers to you, old girl, and thank you for all the great memories.

Paul Sciukas

(Homebrewer 13 years, AHA member 12 years)

York Area Homebrewers Association, York, Pa.



Brew day views

Ryan Fowler

(Homebrewer 6 years, AHA member 5 years)

QUAFF, San Diego, Calif.



Brewdreaux, "Brew" for short, is a BJCP dog in training, just seven months old but a quick learner and a great assistant!

Lawrence Aucoin

(Homebrewer 2 years, AHA member 1 year)

PC Mashers, Suwanee, Ga.



I love every second of every brew day.

Rob Baysden (Homebrewer 22 years, AHA member 10 years)

West Sound Brewers

Poulsbo, Wash.

YOUR HOMEBREW EXPERIENCE



My Keeshond, Brody, waits patiently while I rack my barleywine from the fermenter into a bottling bucket. He enjoys the aroma of brewing beer and has a clear preference for IPA wort.

Lon Turner
(Homebrewer 6 years, AHA member 6 years)
Redmond, Wash.



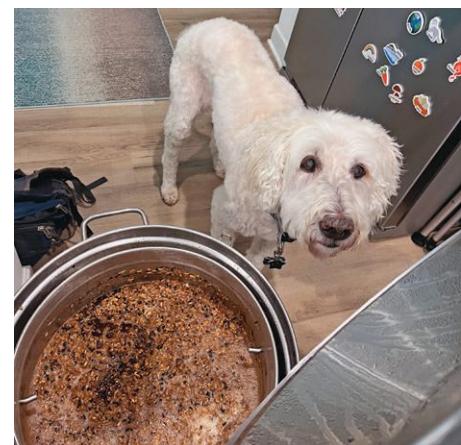
If I were younger, I would open a brewery. This is my retirement hobby!

Larry Hendon
(Homebrewer 13 years, AHA member 12 years)
*Golden Triangle Homebrew Club
Beaumont, Texas*



Grandsons (twins) Peter and Henry helping Grandpa on brew day! Enlightening and training the next generation of homebrewers.

Tom Luers
(Homebrewer 15 years)
Liberty Township, Ohio



Chief Brewing Officer, Kya, our 13-year-old Goldendoodle, is on quality assurance duty today as we brew a vanilla bourbon stout.

Mike FitzPatrick
(Homebrewer 7 years, AHA member 4 years)
Durham, N.C.



SHARE YOUR BEST HOMEBREWING SHOTS!

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BY MATT STINCHFIELD

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BREWING WITH CORN

By Amahl Turczyn

Inspired by a 2022 discussion of using malted corn (maize) in lighter homebrew styles on the AHA Forum, I decided to embark on an attempt to malt 25 pounds (11 kilograms) of corn and then brew three versions of a Pre-Prohibition-style lager using three forms of corn adjunct: unmalted corn, malted corn, and flaked maize. From what I read, the malted corn beer would taste much different from the other two, but I wanted to know what those differences were. My recipe would be the →

same for all three lagers; the only variable would be the corn. I would then compare the three beers and recruit a colleague for unbiased tasting notes.

The malting project was more work than I imagined. Malting corn is mainly something distillers do, as corn whiskey has long been popular in the United States, and to make bourbon, by law you need at least 51% corn. It's probably worth the trouble if malted barley isn't part of your wash's grain bill. For my recipe, I went with 22% corn—just enough to get some good corn flavor, but not enough to gum up my sparge. Leery of "Roundup-Ready" commercial Monsanto corn, I sourced my malting corn from Great River Milling in Fountain City, Wis. I have used their organic grain products before, and they are top quality. I know some brewers choose popcorn for malting, but I went with organic dent corn, which has a larger kernel size, and presumably a better starch-to-germ ratio.

MALTING MAIZE

You will need a couple of large, deep trays, depending upon how much corn you need to malt at once. For a 25-pound batch, I used two 8-gallon plastic bins. You will also need a heat source for maintaining the correct temperature during malting and germinating, a large sieve, and a food dehydrator, though this is not strictly necessary. I used a temperature-controlled heated tile floor for my heat source, but you could also use electric heating mats or seedling mats for this, depending upon your ambient temperature. Pick through the corn and remove any broken, black, or moldy kernels. When you are satisfied with the quality of the grain, weigh it out carefully, as this weight will help you determine when the corn is sufficiently malted later in the process.

Wash the corn in cold water. I used a sieve for this, but you could also use a large



↑
Corn steeping.

colander. Add the corn to your trays and cover it with a few inches of water to steep. Ideally, you'll want to maintain a temperature of around 75°F (24°C) as it steeps. The grain will need oxygen for successful germination. Historically, corn was often put in a sack and steeped in a stream, and that provided the necessary aeration, but for home malting, we can just alternate steeping with draining and resting the grain out of water for oxygen uptake. These intervals are ideally 9 hours submerged and 3 hours draining out of water. You will need four 9-hour steeps total, changing the steeping water after each 3-hour drain rest.

The next step is germinating the corn. By now, it will have taken up sufficient moisture to begin sprouting. Spread out the wet grain in the bins and cover them with a wet dish towel to keep the top layer of grain from drying out. You will want to maintain a temperature of around 80°F (27°C) during germination, but this is more difficult than it sounds, since the corn begins

to generate its own heat as it sprouts. Your external heat source will need to be ramped down as you go. Use a thermometer and check the grain at the top and bottom of the grain bed periodically to ensure it's at the right temperature.

You'll also need to mix the grain twice daily to make sure the moisture level is consistent. I used a spray bottle of water to keep the top surface damp—just make sure water doesn't start to pool at the bottom of the trays, which would invite unwanted bacteria and mold.

You'll need to allow at least three or four days for germination, during which time you'll notice rootlets emerge from the kernels, and an acrospire. There will also be a funky, grassy smell. It's not as pleasant as the smell of sprouting barley, and there can be some ammonia along with it. Towards the end of the process, I washed the sprouting grain a couple of times to minimize this.

When the acrospire (it's thicker than the rootlets, starts out whitish but then develops a green point, and grows up as opposed to down) reaches a length of twice the height of the kernel in most of the corn, you should be ready for the next phase, which is drying and kilning the malt. Some kernels sprout faster than others, so a good rule of thumb is to let about 80 percent of the kernels reach this stage before moving on.

You could probably air-dry the malt on an old screen door set out in the sunshine, but a food dehydrator works better because you can control the temperature more precisely. You'll need to be careful not to overheat the malt during drying, especially initially, to preserve the precious diastatic power, but you can apply more heat as the corn loses moisture and the amylase enzymes are preserved.

Spread the grain out onto the trays of the dehydrator—they stay fairly well



Sprouted corn after four days.





Kilning malted corn in an oven.



Drying malt in a dehydrator.

because all the rootlets and acropores tangle to form a sort of webbing—and set the temperature for 100°F (38°C). Rotate the trays top to bottom every 8 hours to ensure even drying.

When the kernels shrink and lose most of their weight, it's time to weigh the corn again. Your target is 10% moisture, at which point you can begin the kilning process. Each pound of malt should weigh 0.5 ounces (14 g) less than it did when you started. So, if you weighed out 25 pounds (400 oz.) of corn before you began steeping, the dried grain should now weigh 25 lb. × 0.5 oz./lb. = 12.5 oz. ≈ 12 oz. less than when you began:

$$400 \text{ oz. (initial)} - 12 \text{ oz. (loss)} = \\ 388 \text{ oz. total dried weight}$$

To kiln the dried malt, increase the temperature to about 150°F (66°C), plus or minus 5°F (2–3°C). If your dehydrator does not go this high, you can spread the malt

out on baking sheets and kiln in an oven. When the malt reaches 3% to 6% moisture, you can increase the heat to the final kilning temperature. You'll have to weigh the grain again to determine this. It should now be 3 oz. (85 g) per pound lighter than its original weight. So again, assuming we started with 25 lb. (400 oz.), the loss should be 25 lb. × 3 oz./lb. = 75 oz.

$$400 \text{ oz. (initial)} - 75 \text{ oz. (loss)} = \\ 325 \text{ oz. total first-kilned weight}$$

The final kiln is done at around 180°F (82°C) plus or minus 5°F (2–3°C). This should only take a few hours. The corn will develop a sweet, nutty, lightly toasted aroma. Congratulations! You have completed the malting process.

Now, you'll need to scrub the rootlets and acropores off the kernels. These dried hair-like tendrils tend to taste bitter, so you'll need to clean off as many as you can. Be warned—it is a messy process. If you

have the patience, you can perform this scrubbing by hand, but it takes a very long time if you are malting a large batch.

Some people tie the kilned malt in a sack and throw it in the dryer for 10 minutes or so. The tumbling action knocks most of the roots and shoots off. If you do this, you'll find that the inside of your dryer is now coated with a thick layer of corn dust. At this point you should be able to plead your case to your significant other and spread out the grain on a baking sheet or two outside, blowing off the remaining dust with a fan, hair dryer, or leaf blower.

If you taste a few malted corn kernels now, you should find them friable (easy to chew) and sweet. That sweetness comes from the amylase (present in the grain as well as your own saliva) converting starch to sugar. Store your clean, kilned corn malt in an airtight container in a cool, dry place until you are ready to mill it and brew with it. (You can also mill it to a fine meal, add about twice its volume of milk or water,

Using a fan and sieve to clean the malt.



Milling whole dent corn



Your Momma's Moustache

(Cereal Mash)

Cereal-mash recipe with organic dent corn (Batches 1 & 2)

Batch size: 20 US gal. (75.7 L)

Original gravity: 1.067 (16.4°P)

Final gravity: 1.010 (2.6°P)

Efficiency: 85%

Color: 5 SRM

Bitterness: 58 IBU

Alcohol: 7.6% by volume

MALTS & ADJUNCTS

35 lb. (15.9 kg) Briess 2-Row Malt

8 lb. (3.63 kg) Great River Milling whole organic dent corn (batch 1) OR Great River whole malted organic dent corn (batch 2)

6 oz. (170 g) Briess Special Roast
(50 SRM)

HOPS

3 oz. (85 g) CTZ, 15.1% a.a., first wort hop

8 oz. (227 g) Willamette, 5.9% a.a.
@ 10 min

8 oz. (227 g) US Tettnang, 5.6% a.a.,
whirlpool 10 min

YEAST

1L fresh SafLager W34/70 slurry

WATER

25 gal. (95 L) 100% reverse osmosis @ 4 ppm total dissolved solids

20 g calcium chloride, in mash

20 g calcium lactate, in sparge water

OTHER INGREDIENTS

28 g gelatin, to fine

7 g SuperMoss @ 5 min

BREWING NOTES

Heat mash water to a strike temperature of 171°F (77°C). Grind corn to polenta/corn grits consistency. Submerge in 3 gal. (11.4 L) RO water. Skim any greyish germ material that rises to surface. Heat slowly to 122°F (50°C) and hold 10 minutes. Heat to 145°F (63°C) and hold 30 minutes, then heat to 154°F (68°C) and hold 1 hour. Meanwhile, mash in main mash of 2-Row and Special Roast, with calcium chloride, at 145°F (63°C) and hold 30 minutes. Bring cereal mash to a boil and simmer 30 minutes. Combine and mix thoroughly. Main mash should equalize at 154°F (68°C).

Continue to mash another 30 minutes. Add calcium lactate to sparge water and fly sparge at a maximum of 175°F (79°C).

Chill, oxygenate once wort is cooler than 70°F (21°C), and pitch no warmer than 60°F (16°C). Ferment at 48°F (9°C) for 2 weeks, or until activity slows. Conduct a diacetyl rest for 3 days at 57°F (14°C), then crash to 40°F (4°C). Add dissolved gelatin and keg. Force carbonate to 3 vol. (6 g/L) CO₂ and lager at least 4 weeks at 35–38°F (2–3°C).

and cook it in your rice cooker, using the porridge setting. Makes for a deliciously sweet, rich brew-day breakfast.)

CHICHA TEST BATCH

I confess, I was not completely confident in my prowess as a maltster. Meaning, I was not sure there would be enough diastatic power in my corn malt for it to convert its own starches. So, for the comparison batches, I used the same cereal mash procedure I did for the first batch, adding 5 lb. (2.3 kg) of Briess 2-Row to the malted corn.

This went well enough, but later I did a small test batch using a pound of malted corn by itself, with no added enzymes. I mashed this 100% corn beer for an hour at 140°F (60°C), then at 160°F (71°C) overnight. It was small enough in volume so that I could use the “keep warm” feature on my rice cooker, which kept it right at 160°F (71°C) for 12 hours. The mash was plenty sweet the next day, and while I didn’t get a great yield, I was pleased that a 100% corn beer with this malted corn was possible. I was able to sparge (with considerable difficulty, as I didn’t have any rice hulls) 2 quarts of 12°P wort, which I boiled briefly and kept unhopped.

I then cooled it and pitched a traditional Ginger Plant SCOBY, as I wanted a balance of sweetness and tartness in the finished beer. It was bottled in a few PET bottles with some dextrose. After refermentation, the resulting beer was tart, dry, a somewhat cloudy yellow color, effervescent, with absolutely no head retention, plus a distinctly corny flavor—very refreshing. I am tempted to brew a larger batch with the remainder of my corn malt and use a good percentage of rice hulls in the sparge to make things flow more easily. It’s a lot of work to go through for spittle chicha, but very satisfying, and hey, it’s theoretically 100% gluten-free.

BREWING COMPARISON BATCHES

For the first batch, I ground 8 lb. (3.6 kg) of unmalted dent corn in a stone MockMill, which is designed to accommodate the larger kernels, milling it to polenta-sized meal. In order to perform a cereal mash, I added a couple of gallons of brewing water to this meal, plus 5 lb. of Briess Brewers Malt, knowing that was plenty of diastatic power to convert the corn starches once they were gelatinized.

Once the milled corn and water were mixed, I discovered an element I had not considered—the whole corn contained the germ as well as starches. Fortunately, this greyish, lipid-rich material rose to the surface and was easily skimmed off,

though I had to do a couple of rinses to get the majority.

The cereal mash was heated slowly, with rests at 122°F, 145°F, and 154°F (50°C, 63°C, and 68°C). Then it rose to boiling, and I simmered the cereal mash for 30 minutes. At that point, the cereal mash was mixed into the main mash, which had been resting for 30 minutes at 145°F (63°C), to equalize at 154°F (68°C). I used a tiny amount of Briess Special Roast (less than one percent) in the main mash grain bill to add a dry maltiness and a hint of color to the finished beer. After a 30-minute rest, the combined mash was ready to fly sparge and run off.

For the second batch, I used the same procedure and recipe, cereal mash included, with 8 lb. of malted corn. I know now that I could have skipped the cereal mash, but I wasn't ready to risk 20 gallons to a half-converted, starchy mess. I was expecting a slightly better yield for the malted corn batch, but ended up getting the same original gravity using the nearly identical grain bill.

The third batch was what most brewers do with a corn adjunct beer, and that is to use flaked maize. It's easy, since the processing pre-gelatinizes the starches. All you need to do is conduct an infusion or step mash, and your friendly neighborhood barley enzymes will do all the conversion work for you—no need for cereal mashing. You also get a bit of corn flavor. Not as much as with cereal-mashed corn beers, but much more than you would with brewer's corn syrup or corn sugar as the adjunct.

Another thing I did not take into account was that the 30-minute cereal mash boil would add Maillard reaction color to the brew. As a result, the third batch without the cereal mash was a few degrees Lovibond lighter than the first two, and as we'd find out with the taste comparison, the cereal mashed versions were deeper and toastier in flavor—closer to a Mexican-style Vienna lager than a Classic American Pils.

THE VERDICT

Zymurgy Editor-in-Chief Dave Carpenter was kind enough to do a beer judge-style comparison between the three brews. (I wish I'd had some of the 100% corn beer on hand for him to try as well, as it was pretty interesting, and totally different from the other three beers.) We sat down with the three samples, fresh from the kegs, and agreed that despite my inkling, there was very little noticeable difference between the cereal mash beer with malted corn, and the one with unmalted corn. This was a bit of

Brew
This!

Your Momma's Moustache [Infusion Mash]

Infusion-mash recipe with flaked maize [Batch 3]

Batch size: 20 US gal. (75.7 L)

Original gravity: 1.067 (16.4°P)

Final gravity: 1.010 (2.6°P)

Efficiency: 85%

Color: 5 SRM

Bitterness: 58 IBU

Alcohol: 7.6% by volume

MALTS & ADJUNCTS

35 lb. (15.9 kg) Briess 2-Row Malt

8 lb. (3.63 kg) flaked maize (batch 3)

6 oz. (170 g) Briess Special Roast (50 SRM)

HOPS

3 oz. (85 g) CTZ, 15.1% a.a., first wort hop

8 oz. (227 g) Willamette, 5.9% a.a. @ 10 min

8 oz. (227 g) US Tettnang, 5.6% a.a., whirlpool 10 min

YEAST

1 L fresh SafLager W-34/70 slurry

WATER

25 gal. (95 L) 100% reverse osmosis @ 4 ppm total dissolved solids

20 g calcium chloride, in mash

20 g calcium lactate, in sparge water

OTHER INGREDIENTS

28 g gelatin, to fine

7 g SuperMoss @ 5 min

BREWING NOTES

Heat mash water to a strike temperature of 171°F (77°C). Mash in all grains at 145°F (63°C) and hold 60 minutes. Increase to 154°F (68°C) and hold another 30 minutes. Add calcium lactate to sparge water and fly sparge at a maximum of 175°F (79°C).

Chill, oxygenate once wort is cooler than 70°F (21°C), and pitch no warmer than 60°F (16°C). Ferment at 48°F (9°C) for 2 weeks or until activity slows. Conduct a diacetyl rest for 3 days at 57°F (14°C), then crash to 40°F (4°C). Add dissolved gelatin and keg. Force carbonate to 3 vol. (6 g/L) CO₂ and lager at least 4 weeks at 35–38°F (2–3°C).

Brew
This!

Spitless Chicha

Batch size:	2 US qt. (1.9 L)
Original gravity:	1.048 (12°P)
Final gravity:	1.004 (1°P)
Efficiency:	70%
Color:	3 SRM
Alcohol:	4.8% by volume

MALTS & ADJUNCTS

1 lb. (454 g) malted corn

YEAST

Traditional ginger beer plant SCOBY from German yeast culture bank

OTHER INGREDIENTS

4 oz. (113 g) rice hulls for sparging (optional, but highly recommended)

BREWING NOTES

Mash at 140°F (60°C) with 2.5 qt. (2.37 L) water for 1 hour. Heat to 160°F (71°C) and hold for 12 hours. Sparge 2 quarts, rice hulls highly recommended.

Chill, pitch SCOBY once wort temperature is under 70°F (21°C), and ferment at 70°F (21°C). Add ¼ tsp. corn sugar per bottle at bottling, using PET bottles.



a disappointment to me, but I'm hoping to pass on to you the conclusion that malting corn is a whole lot of work, and at the end of the day, it's really not worth doing. Unless of course you want a 100% corn beer, in which case it's totally worth it.

The flaked maize batch ended up being the favorite of the three, and Dave noted that as a Classic American Pilsner style beer, it would do the best as far as competition style accuracy. I was happy with all four beers, and while I probably won't go through the arduous process of malting corn again, there are several craft maltsters, including Sugar Creek and Riverbend, that sell malted corn. You can save yourself the work and still

make a corn beer using whatever percentage you like of this noble Mesoamerican grain.

(Editor's note: I found the samples brewed with unmalted corn and malted corn virtually identical, with the former presenting somewhat sweeter, fuller, and perhaps slightly more bitter than the latter. Both offered lightly herbal notes and a faint hint of caramel. The version brewed with flaked maize was lighter in color and body, with the hop character tending more pine- and cannabis-like. All three were delicious. Thanks, Amahl for conducting this corn-y experiment and sharing!)

Amahl Turczyn is associate editor of Zymurgy.



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SMOKE YOUR HOPS



By Brian Haslip

As an avid homebrewer and general beer lover, I am very happy to reside in the Portland, Ore., area. Portland is awash with many great breweries. Some come and go, but there are always plenty of choices and opportunities for a great beer. Here in the Pacific Northwest (PNW), we are fortunate enough to live in Hop Country, where hops are in abundance.

On average, 95 percent of the hops grown in the United States are grown in the PNW. Washington leads →

with 80 percent, followed by Idaho and Oregon, with 8 and 7 percent, respectively. The terroir is ideal for hops to grow, and the great conditions prompt many PNW homebrewers to grow their own hops in their backyards, or along the side of their homes.

August and September are busy harvest months for hop growers and brewers alike. It is almost a requirement that many area brewers use some freshly picked “wet hops” in a special brew. Unlike hops that have been dried and packaged, fresh hops have a short lifespan and need to be used immediately after harvest. Local brewers often brew with fresh regional hops just hours after they are picked. Home hop growers have the same criteria and must package fresh hops right away or use them in a fresh hop beer as soon as possible.

I planted my first hop rhizome four years before I even became a homebrewer. At the time, I was at a friend’s home, enjoying a late summer barbecue and beer when I noticed the hop plant growing up the side of his house. It towered 20 feet up, then cascaded back down with wonderful bundles of hops. I picked a few, rolled them in my hands and sampled the wonderful aroma. If you are familiar with the scent left on your hands after picking tomatoes, just think of crushing a fresh hop cone in your hands and you will understand this experience. At the end of the night, my buddy used a shovel to chop off a piece of the crown (rhizome)



Hops growing on the south facing rear of my house. It's a good 18-foot climb to the eave.



American Amber Ale with Honey and Smoked Hops

Batch volume: 5 US gal. (18.9 L)

Original gravity: 1.065 (15.9°P)

Final gravity: 1.015 (3.8°P)

Color: 14–20 SRM

Bitterness: 30–35 IBU

Alcohol: 6.6% by volume

MALTS & ADJUNCTS

9 lb.	[4 kg] pale malt
1 lb.	[454 g] crystal malt, 120°L
4 oz.	[113 g] crystal malt, 40°L
4 oz.	[113 g] Carapils malt
1.5 lb.	[680 g] clover honey @ 15 min

HOPS

0.6 oz.	[17 g] Chinook @ 60 min
1 oz.	[28 g] Willamette @ 15 min
1 oz.	[28 g] Willamette @ 5 min
0.4 oz.	[11 g] Chinook @ 5 min
1 oz.	[28 g] smoked hops, dry hop 3–5 days

YEAST

Imperial Yeast Darkness A10, White Labs
WLP004 Irish Ale Yeast, or Wyeast
1084 Irish Ale Yeast

BREWING NOTES

Mash for 60 minutes at 152°F (67°C). Lauter, sparge, and collect enough wort to yield 5 gallons (18.9 L) after the 60-minute boil. Boil one hour, adding hops as indicated.

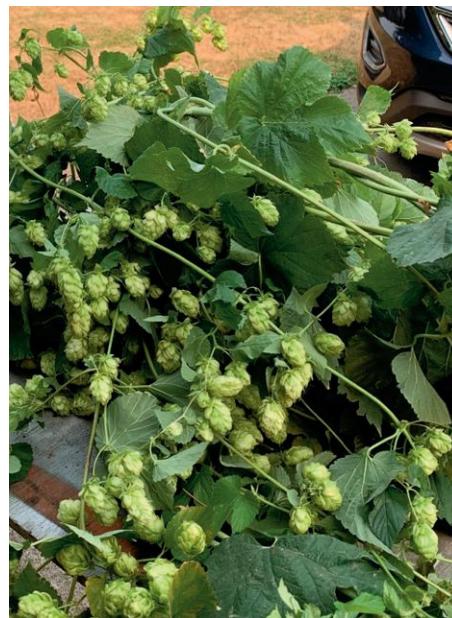
Chill wort to 66°F (19°C), pitch yeast, and ferment until specific gravity stabilizes at or near 1.017 (4.3°P). Bottle or keg with 2.5 vol. (5 g/L) CO₂.

which I immediately planted in the back of my house. That was 14 years ago.

During my 10-plus years of homebrewing, this hop plant has become very prosperous, albeit very dependent on weather conditions. The problem is I have no idea what the variety is of these hops. Because of that, once I became a homebrewer, I needed to decide their future. As I did not know the alpha/beta components of the hop (I’m pretty sure they are Willamette), it was hard to develop a recipe for a beer.

In 2012, during my first year of brewing, while I was harvesting and plucking the unidentified hops off the bine, I saw my pellet smoker out of the corner of my eye and thought to myself, *I wonder what smoked hops will do to a beer?* That year, after picking the hops, I dried them immediately on the smoker for about two hours at 185°F (85°C). So, on my second ever brew day, I brewed a partial-mash IPA kit and added smoked hops to it. I called it “Hickory Dickory Hop Ale.” For the record, it was horrible, but I persisted!

Over the years, my brewing skills strengthened. I learned much more about recipe creation and continued to think I could perfect a smoked IPA. Oh, how wrong I would turn out to be. After multiple attempts, I came to the realization that the smoked element just competed too much with the expected hop profile of an IPA and I needed to go in a new direction. I torched my original recipe and began anew.



Hops ready for picking.

I had recognized the smoked hops provided a unique smoky flavor very different from a beer made with smoked malts. It is much more subdued on the back end, rather than an “in your face” traditional rauchbier. Subsequently, I created an American amber ale. I discerned that the smoked hops needed some sweetness to balance out the smoke. The first batch was quite nice. I made a few minor adjustments to the grain bill, added some honey to the whirlpool, and—wow!—a total success. This beer really brought everything together and allowed the smoked hops to shine.

My homebrew club, the Oregon Brew Crew (OBC), is fortunate that our close relationships with local brewers enable several competitions whose winners can participate in collaborations. One such competition, known as the Collaborator, was created by Rob Widmer of Widmer Brothers Brewing. As a past homebrewer and member of OBC, he understood that homebrewers could be leaders ahead of the industry with their willingness to brew just about anything. (Read more about the Collaborator in *Last Drop, Zymurgy*, May/June 2018).

The Collaborator, which ran from 1998 to 2018, was exclusive to OBC members, and Widmer Brothers reimbursed entrants the costs of one 5-gallon batch of beer. Typically, 20 to 30 beers were submitted, and a group of local BCJP members, craft industry folks, and, of course, Rob, would meet to judge the entries. Widmer Brothers Brewing would scale up the recipes for one to three winners, and over the course of the next year, each winner would get to brew their beer on Widmer’s 10-barrel “Innovation” brewing system for local sales. My American Amber with Honey and Smoked Hops was one of the beers picked in 2016—the folks at Widmer decided March was a good opportunity to brew this beer.



The 2022 harvest came in around 2 pounds wet.

Now, I've always smoked my hops directly off the bine when freshly picked. However, fresh hops aren't available in March, so I performed an experiment using dried Cascade hops. I rehydrated the dried hops three ways: spritzed, steamed, and soaked. Then, using dry hops as a “control,” I smoked all four batches for approximately three hours at 200°F (93°C).

I then split a 10-gallon (37.9-liter) batch of beer into four 2.5-gallon (9.5-liter) volumes and treated each with one of the four smoked hops varieties. After tasting these beer sets with many brewers, amateur and pro alike, the consensus was that the dried, non-hydrated hops actually presented the smoke flavor best.

Thus, after my brew day with Widmer, I brought home 12 pounds (5.4 kg) of dried Cascade hops and spent hours smoking multiple batches of the cones. These were then added as dry hops after

primary fermentation. The beer turned out great, and we called it Lazy Bee. Like many smoked beers, it was polarizing.

I run a pellet smoker because of its ease of use, and there are many brands out there: Traeger, Green Mountain, Weber, Camp Chef, and Louisiana Grills, to name a few. All function pretty much the same, so pick your own poison. Over the years, I have tried different pellets, from hickory to applewood to mesquite—I think I may even have a few bags of grapevine laying around.

In my experience, the choice of pellet flavor is not that critical for smoking hops because it does not present itself so uniquely in the finished beer. I fill vented aluminum trays with about 8 ounces (227 g) each of freshly picked hops, and then I set the smoker to 175°F (79°C) and let it do its thing. I recommend using a temperature between 150 and 180°F (66 to 82°C).



Let the smoke begin!



Brian Haslip won Widmer's Collaborator in 2016. >

Brew
This!



Smoked Hop Oatmeal Porter

Batch volume:	5 US gal. (18.9 L)
Original gravity:	1.059 (14.5°P)
Final gravity:	1.017 (4.3°P)
Color:	25–30 SRM
Bitterness:	35–40 IBU
Alcohol:	5.5% by volume

MALTS

12 lb.	(5.4 kg) pale malt
1.5 lb.	(680 g) flaked oats
8 oz.	(227 g) black patent malt
8 oz.	(227 g) Special B malt
8 oz.	(227 g) Victory malt

HOPS

1 oz.	(28 g) Centennial @ 60 min
1 oz.	(28 g) Cascade @ 5 min
1 oz.	(28 g) Mt. Hood @ 5 min
2 oz.	(57 g) smoked hops, whirlpool 15 min

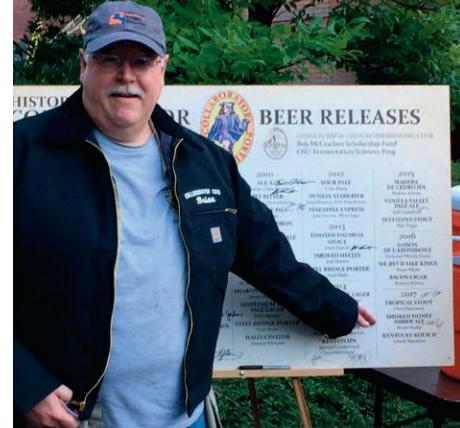
YEAST

Imperial Pub A10, White Labs WLP002
English Ale, or Wyeast WY1098
British Ale Yeast

BREWING NOTES

Mash for 60 minutes at 152°F (67°C). Lauter, sparge, and collect enough wort to yield 5 gallons (18.9 L) after the 60-minute boil. Boil one hour, adding hops as indicated.

Chill wort to 66°F (19°C), pitch yeast, and ferment until specific gravity stabilizes at or near 1.017 (4.3°P). Bottle or keg with 2.2 vol. (4.4 g/L) CO₂.



I begin checking the hops for dryness after about 60 minutes. Drying times vary and could take up to two hours total. Eight ounces (227 g) of fresh hops should yield 1 to 2 ounces (28 to 57 g) of dried smoked hops. You want to make sure they pick up plenty of smoke, but also make sure they are dry enough for storage. Once finished, I allow them to cool and then vacuum seal into 1- or 2-ounce packages.

I use these packages throughout the year in different beers, and I'm including two of my favorite recipes. Keep in mind that no matter the hop variety, smoking at this temperature kills most of the "hoppy" characteristics, such as lupulin, terpenes, and so on. The hops essentially become a delivery mechanism for the smoke (dried smoked hops do, however, serve up some hop aroma in addition to the smoke flavor). When dry hopping with smoked hops, I recommend 1 to 2 ounces (28 to 57 g) for a 5-gallon batch and dry hopping for three to five days. When used as a late kettle addition, I recommend 2 to 4 ounces (57 to 113 g) added at 15 minutes, or even during the whirlpool.

This year, I plan to use my entire harvest in one beer, a fresh-hop smoked IPA—yes, folks, IPA. I'll harvest the hops while the strike water heats. During the mash, I will harvest the hops and use half of the wet hops during the boil; meanwhile the other half will be in the smoker. At flameout, I'll add the smoked hops for a 15-minute whirlpool. I still haven't decided how to get sweetness into the beer, but I am leaning toward using more crystal malts and potentially mashing at a higher temperature.

So, if you grow your own hops, try experimenting with them this year. Break out the smoker or the grill and add some new flavors to your beer. If you do not have fresh hops, try smoking dried hops—just remember it will take a bit longer for them to pick up the smoke flavor. Try something new and you might be happily surprised. Good luck, and sláinte!

Brian Haslip is a member of the Oregon Brew Crew and a team member at F.H. Steinbart in Portland, Ore.

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Owner/Founder, Allagash Brewing Co.

JASON PERKINS

Brewmaster, Allagash Brewing Co.

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WE ARE CHAMPIONS



NATIONAL
HOMEBREW
COMPETITION
- 2023 -
AMERICAN HOMEBREWERS ASSOCIATION





NATIONAL

HOMEBREW COMPETITION

- 2023 -

By Kristen Kuchar

4,335 entries

13 countries

1,708 homebrewers

120 medals

50 states
+ Washington, D.C.

40 categories

For many of the 1,708 homebrewers who entered this year's National Homebrew Competition, competing is not just about taking home a medal. Entering the competition also means receiving high-quality, critical, and honest feedback from a panel of expert beer judges. This allows brewers to continue to grow and improve in their beloved craft, a shared goal for these passionate artisans.

Chris Williams, Brewers Association competition director, notes that feedback from qualified judges helps homebrewers learn how to improve their competition entries. Entrants generally receive sensory feedback on how well their beer, cider, or mead matches style guidelines, as well as advice about any potential flaws an entry might have and occasional recommendations on how to fix such flaws.

"This is important, as it helps brewers understand how their beer lines up with the defined style and what they might be able to do to improve it," Williams says.

The competition helps foster excellence, creativity, and experimentation in homebrewing, Williams adds, including positive results for those who aren't even competing. "It helps raise the standard," he says, by establishing a high benchmark for other homebrewers.

"Other brewers can try to make a particular style they see in the competition. Even professional brewers can be inspired by →





the creativity of homebrewers, who don't have to think about marketing and selling their beer, and can be more experimental with their brewing."

As the organizer of the event, Williams says the best part of the competition is the excitement from entrants simply to brew and enter the competition, with the added bonus of potentially advancing to the Final Round or even winning an award.

This year, 120 medals were awarded in 40 categories. These came from 4,335 entries across 50 states, Washington, D.C., and 13 countries. In total, 164,105 entries have been evaluated since the inaugural AHA National Homebrew Competition was held in 1979 in Boulder, Colo.

The largest homebrew competition in the country returned to its roots this year, with first rounds of judging located in nine regions around the country—Chicago, Denver, Indianapolis, Kansas City, New York, Philadelphia, San Diego, Seattle, and Tampa.

The COVID-19 pandemic was largely responsible for the competition's temporary transition to single-site judging in 2021 and 2022, owing to operational issues and travel uncertainty. But member feedback overwhelmingly favored the original model for a variety of reasons, including shipping costs.

"I think entrants also enjoy this because it helps to involve more judges from around the country who are able to judge at the regional competitions but might not have the opportunity to judge at the Final Round," Williams says. This will likely stay the same for years to come. "It's a better format for this competition," Williams says. The number of judges varied but ranged from 30 to 85 per First Round site. At the Final Round, there were 150 judges.

Another judging improvement this year was new software that allowed judges to



Chris Williams, Brewers Association competition director.

type their feedback rather than use handwritten sheets. This not only sped up the process for judges, but made their feedback clearer for entrants. Style guidelines were also integrated into the software for easy reference.

When it comes to the most-entered styles, there are many factors that seem to influence this each year. "I think it's very reflective on what's going on in beer right now," Williams says. This year, Pilsner was the most-entered category with 211 entries, which doesn't come as a surprise to him, as brewers enjoy the challenge of making this style. "It takes a lot of technical skills," he notes. The second-most-popular style was Hazy IPA, with 168 entries, followed by European Sour Ale with 162 entries. Williams says as more European Sours continue to pop up in the market, more homebrewers want to try making them. Irish and British Stouts were up next, with 161

“
It sets a great benchmark for other homebrewers.

- Chris Williams

entries. People love these easy-drinking beers, Williams says. "When done well, they're amazing," he adds.

On the opposite end of the spectrum, common entries go from popular styles to those that are non-existent: historical styles that homebrewers want to recreate. Some styles that have gained recent traction include Sahti, Pre-Prohibition (American) Pilsners and Porters, Kentucky Common, Grodziskie, Lichtenhainer, and even Egyptian-style meads.

And as the number of entries per styles shift, so does the category in which they are judged. For example, Gluten Free started as a category option, but after low entry counts in 2022, it was rolled back into the Specialty Beer category, where it remained for the 2023 competition. When it comes to condensing and rearranging categories together, Williams explains that the competition team groups styles that make sense, so they don't throw off the balance. →



Photo courtesy of Doug Piper [judges]



Awards were announced during Homebrew Con at the Town and Country Resort in San Diego. Williams describes it as a great venue with a communal feel, noting it added to a relaxed event where attendees enjoyed themselves. More than 60 speakers and 35 sessions punctuated the three-day event.

For homebrewers who are apprehensive about competing, Williams says to give it your best shot. "You're always going to be your worst critic," he says. If you're making beer you and other people enjoy, it's worthy for competition, he adds. "You can't win unless you try."



HOMEBREWER OF THE YEAR AWARD

John Heasley
Portland, OR
The Brewing Network



Homebrewer of the Year John Heasley declined to be interviewed for this article.



The Samuel Adams Ninkasi Award, named for the Sumerian goddess of beer, is given to the brewer with the winningest points in the National Homebrew Competition. Talented homebrewer Richard Shoff found out he won this accolade when a friend texted to congratulate him. He was completely shocked and is humbled and honored. "I had a goal of getting one medal, and I would have been happy for the rest of my life," he says.

Instead, Richard won three this year: a gold in the Scottish and Irish Ale category and silvers in Irish and British Stout and Standard Cider and Perry. The beers this year were experimental for the longtime homebrewer, who used British grains for the beers and a heritage malt.

Richard had a couple of recent St. Patrick's Day brews on hand and thought he would send them in to get some constructive feedback, something he values for improving his creations. "Enter your beer in competition and pay attention to feedback you get from the judges," he notes.



SAMUEL ADAMS NINKASI AWARD
Richard Shoff
New York, N.Y.



The proof of the effectiveness of feedback can be seen in the stout he entered in competition, which was a rebrew. He had gotten a response from judges that it had the wrong type of esters, so he switched the yeast and added more coffee. The revised recipe earned him a silver medal in Irish and British Stout this year.

He adds that it's most useful when the response from the judge is productive. "The best judges give you positive feedback on how to improve your beer, not just negative on what's wrong with it."

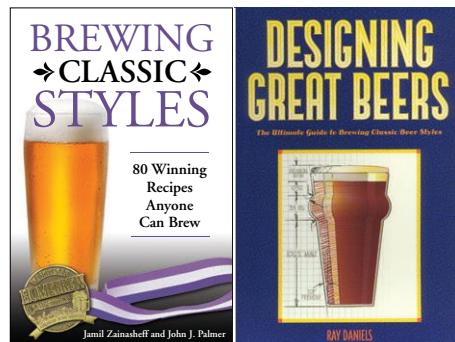
Richard's homebrew journey started when he was fresh out of the military and wanted to start making wine like his grandfather did. But when he walked into the beer- and winemaking supply store, he discovered what kind of beer homebrewers were making and turned to brewing beer instead. He's now been brewing for 35 years with no plans of stopping.

He read *The Complete Joy of Homebrewing* by Charlie Papazian, which make the hobby sound like a lot of fun, he says. He's also

enjoyed reading *Brewing Classic Styles* and *Designing Great Beers: The Ultimate Guide to Brewing Classic Beer Styles*. Richard also notes he has been reading Zymurgy for as long as he's been brewing. "Zymurgy has been instrumental in my development as a brewer," he says, adding that he loves that we are now learning how to ferment virtually everything, including fermented mustard.

A desire to venture out into brewing new styles of beer introduced him to a helpful podcast as well. When Richard wanted to make a wood-aged beer, he checked out The Brewing Network's podcast *The Session*, which talked about the process of wood-aging beer. From there, he continued listening to other episodes and appreciating the valuable information he was getting. "I feel like that took me to the next level," he says.

His current goal is to perfect his Czech amber lager, a beer he has been brewing repeatedly. Richard's advice to other homebrewers is to pay attention to detail and fermentation control. And, like all award-winning brewers, he stresses the importance of sanitation.



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**MEADMAKER
OF THE YEAR**
Shane Kammerer
Shawnee, Kan.



Shane Kammerer has been competing in the National Homebrew Competition since 2016 and says the news of winning the Meadmaker of the Year award was surreal and an incredible feeling. "When you get to this level, the quality of every mead entered is amazing," he says. "It's astounding, and to come out on top is surreal."

While she leaves the beer making to Shane, Susan Kammerer has been the co-brewer on all their meads and ciders, although she will suggest a style from time to time. This year, they entered with a Traditional Mead made with Meadowfoam Honey that had won awards at previous competitions (that won bronze) and an award-winning Fruit Mead (which won the Meadmaker of the Year) made with Tupelo honey, pear juice, and kveik yeast. Shane notes that while most yeast used for making mead is wine yeast, generally fermented at or below 70°F (21°C), this yeast fermented at 95° to 100°F (35° to 38°C).

"We really like to try and think about what ingredients would go well together... that's the fun part for us," he says.

Shane describes meadmaking as more similar to winemaking than beer brewing. He appreciates how diverse mead can actually be.

"The fascinating thing about mead is all the different varieties you can have," he says, pointing out various levels of sweetness, different fruit combinations, spice combinations, and varying levels of carbonation from still to sparkling, like an effervescent wine. And like wine, mead makers can also play around with blend-

“
Start with small batches—use the same honey but try different yeasts and see what kind of characteristics come through.

ing. He's noticing more consumer demand for mead and an expanding section in his local liquor store.

Shane's inspiration to enter competitions is to get that assurance he is on the right path with his meadmaking. "For someone who isn't a friend or colleague and who doesn't have any skin in the game, to come in and give you that affirmation means a lot," he says.

He was introduced to meadmaking during a mead panel in 2016 with his homebrew club, Kansas City Bier Meisters, featuring Scot Schaar (2017 Meadmaker of the Year) and Al Boyce and Susan Ruud of Prairie Rose Meadery in North Dakota. He thought it was something he could try, so

he went home and started making a mead. "It turned out horrible," he laughs. "But as with anything, if you want to get better, you have to ask for advice."

He'll often turn to the resources in his homebrew club, which also happens to be this year's Homebrew Club of the Year, including Amanda Burkemper, Michael Wilcox (2018 Meadmaker of the Year), Jason Elder, John Daly and Carvin Wilson, who runs the Mazer Cup International Mead Competition and was also Meadmaker of the Year in 2019 (shared with Schaar and Wilcox).

The passionate meadmaker says that you need to be able to put yourself (and your mead) out there, accept feedback and criticism, and then be willing to go back to the drawing board. "If you want to get better and have honest feedback, it's what you have to do," he says.

His advice to fellow meadmakers is to read, ask questions, and try different commercial and homemade meads. Visit commercial meaderies for inspiration and to support these local businesses. For those starting out, he suggests using cheaper honey, since some honey varieties can get pretty expensive. Start simple and traditional, he says.

He also advises starting with small batches—use the same honey, but try different yeasts and see what kind of characteristics come through. Another great tip is to try splitting batches. For example, Shane did a traditional batch with six gallons, leaving three gallons traditional and adding cinnamon and vanilla to the remaining three gallons.

NATIONAL
**HOMEBREW
COMPETITION**
- 2023 -

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NINKASI AWARD



GAMBRINUS CLUB AWARD



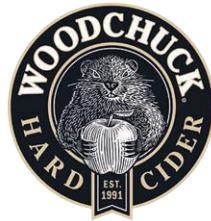
HOMEBREWER
OF THE YEAR AWARD



HOMEBREW CLUB
AWARD



MEADMAKER
OF THE YEAR AWARD



CIDERMAKER
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HOMEBREW SHOP
OF THE YEAR



RADEGAST AWARD



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**CIDERMAKER
OF THE YEAR**
James Werner
New Berlin, Wis.



James Werner won this year's competition with a fire cider, the first he's ever made of this variety. He describes it as similar to an ice cider, where he concentrated the apple juice by first boiling it down almost caramelizing it. The result is a rich, viscous, heavy-drinking cider.

James started homebrewing 20 years ago when his in-laws gave him a kit. He made a batch, not expecting much, and then gave it a try once it was ready. "This is actually pretty good," he thought. He was hooked right away, and the hobby quickly took over the garage and the basement.

"It's become a passion," he says. When it comes to beer, he enjoys brewing Belgian styles. He makes a Belgian dark strong ale (quad) every year and changes the recipe a little bit each time.

About 10 years ago, cider got his attention, and he decided to broaden his horizons, learn more, and try it for himself. His juice is sourced from local orchards, such as Weston's Antique Apples and Patterson's Orchard in New Berlin, Wis., among others. He also presses some of his own juice from apples he purchases and from apples he forages from the area. One of his more memorable ciders was the first ice cider he made, which he now makes once a year. He also makes a rosé cider with juice pressed from red-fleshed apples and blended with juice from apples he forages. It's a hit with his friends.

What really propelled him forward into cider was in 2016, when his New World

"This is actually pretty good," he thought. He was hooked right away quickly taking over the garage and the basement.

Cider won best of show at the Midwinter Homebrew Competition. Part of the prize was the opportunity to then make the cider at a local cidery, White Winter Winery in Wisconsin. He spent the day learning about testing, analyzing, and adjusting cider. "I took all that and ran with it and improved what I was doing," he says.

Part of what makes James such a great cidermaker, and has helped him improve his craft, is that willingness to learn, which he says is very important. "That translates to anything in life," he says. He'll often look to online resources and reach out to professional brewers and homebrewers, meadmakers and cidermakers.

His homebrew club, the Beer Barons of Milwaukee, also gives him an opportunity to learn from local brewery representatives and other members. He got involved with the Barons about six years ago, after the club hosted a seminar the prior year that was open to non-members. The event featured authors who wrote Brewers Publications' Brewing Elements Series books on malt, hops, yeast, and water.

The openness to continue to learn has clearly paid off. In the 2021 Great Lakes International Cider & Perry Competition, he won three of the five best-in-class awards. And, of course, now he is the AHA's 2023 Cidermaker of the Year.



ON THE WEB

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



GAMBRINUS CLUB AWARD

New York City Homebrewers Club New York, N.Y.

The Gambrinus Club Award is given to the homebrew club having the most Final Round points per number of entries. This year, the award, named for King Gambrinus, the unofficial patron saint of beer, went to the New York City Homebrewers Club.

President emeritus Alex Cigan and treasurer Andie Davies were in San Diego when the honor was announced and were both totally shocked. “It was a super exciting moment for us,” Andie says, who is so proud of the beer the club brewed and medaled with in this competition.

One thing that makes this club unique is its location in a part of the country where it can be challenging to brew, since many New York City residents live in small spaces without yards or garages, explains vice president Reinhard Nann. But they are setting an example that that doesn’t mean you can’t be an excellent brewer here. “You can still brew high-quality beer in a small space,” Reinhard says.

The club was established in 1988 and has since had many members go on to brew professionally—Chris Cuzme and Mary Izett (both former presidents) at Fifth Hammer Brewing, Zack Kinney (former president) at Kings County Brewers Collective, Jason Sahler at Strong Rope Brewery, Garrett Oliver at Brooklyn Brewery and Jon Moxey formerly at Perennial Beer and now Rockwell Brewing.

One of the club’s many strengths, with roughly 30 members, is that it brings

homebrewers together to build a network of people who share a common interest and desire to brew better beer, says Reinhard.

“It’s just a great community,” says Andie, who has met many close friends through the club.

Alex agrees that it does truly connect members with a community and also allows for brewers to receive more critical feedback that elevates one other’s brewing game.

Meetings have included educational and entertaining events such as beer and food pairings, blind tasting of honey varietals, sensory analysis, professional brewers speaking on the brewing process and a beekeeper discussing different types of honey. Andie explains members bring in parallel brews in which same recipe is made with different hops, malts or yeasts to isolate each ingredient’s contributions. The group has also done blind tastings with fruits and other food items commonly found in beer to help people learn what, for example, papaya smells like or what orange is versus tangerine, and how they compare with beers that have similar flavors imparted by hops or yeast.

Overall, these events aim to help brewers gain a firmer grasp on ingredients and improve their brewing abilities. The club hosts a Beer Judge Certification Program (BJCP) prep course and annual judge trainings by president emeritus and BJCP National judge Katie Sloan, who also administers the BJCP Exam.

“It really helps people not only become judges but also more knowledgeable about their own brewing,” Alex says.

When it comes to sharing feedback on brews, Alex advises not only calling attention to something that’s not quite right but offering a suggestion on how to improve. Generally, you can also point out something positive about the beer and one or more things they’ve done well and should keep doing, Alex adds.

As for advice for other homebrew clubs, Reinhard says whether it is someone who has never brewed before or is on the verge of going pro, keep the experience fun for everyone.

“Meet your members where they are,” Reinhard says.





HOMEBREW CLUB OF THE YEAR AWARD

Kansas City Bier Meisters

Kansas City, Kans.

The Kansas City Bier Meisters decided to watch the National Homebrew Competition award ceremony together at Kansas City Bier Company, where it was live streamed. They had reserved two tables but ended up needing four long tables for the more than 35 members who came to cheer on the group. Even people who weren't members of the club started watching and celebrating each club's win. And when club member Shane Kammerer was named Meadmaker of the Year, the bar erupted, says Joe Rose, Kansas City Bier Meisters president.

"It represents the spirit of the club, where it's competitive and you do compete, but you're even more ecstatic when other members win," he says. "You're so happy for them." Joe was proud of the first-time winners, including Rudy Valladares (silver for American Wheat & Blonde), Dann Searcy (bronze for Pale British Ale and bronze for Brown British Beer), Jamye and Cody Naramore (gold for Fruit Beer) and Shane and Susan Kammerer (bronze for Traditional Mead and gold for Fruit Mead and Meadmaker of the Year Award.) Additional winners who have won in the past include Mike and Stephanie Butler and Michael Wilcox.

Founded in 1983, the homebrew club is one of the oldest in the country and has about 100 members and 1,200 Facebook members. "We've never really gotten away from our roots of education and social and community," Joe says. Part of the purpose of the club is to surround yourself with others

to collaborate, have fun, and improve your craft. He compares it to being a musician: you may not be the best guitar player, but playing with others just makes you better.

"It's not necessarily about being the best—it's the journey of the brew," Joe says. Giving each other feedback, both positive and constructive, helps the group push each other in a respectful and collaborative way. Currently, the club's BJCP judges include 17 Certified, 8 National, 3 Recognized, and 1 Grand Master, which means a great deal of highly valuable feedback. You've got to be able to take input on what you can do better, Joe says. "Know that it's coming from a place of positive intent." And for those giving feedback, he advises to remember the end goal is to play a role in that person's becoming a better brewer and continuing to enjoy the hobby and have fun.

And as an added bonus, Joe points out, sometimes the act of teaching, mentoring and guiding other brewers will help someone become a better brewer themselves. A typical monthly meeting may include a deep dive into a specific topic such as sensory or off-flavors. A professional brewer might talk about techniques, or members might bring in their home setups to showcase and discuss. He describes the club as fun, inclusive, and welcoming, with something for everybody.

Many members have gone on to professionally brew—Michael Crane (Crane Brewing), John McDonald (Boulevard Brewing), Steve Holle (Kansas City Bier Co.),

and Sean Greenwood and Michael McVey (Transport Brewing Co.).

It's not all about the beer though. Giving back is important for the club, such as volunteering time with Harvesters Kansas City packing lunches during the summer or winter and pouring beer at charitable events. KC Bier Meisters will have about 15 homebrewers bring homebrew to pour at the Helping Hops event to support Hope Lodge, which provides a no-cost home away from home for cancer patients and their caregivers. Hope Lodge is owned and operated by the KC Chapter of the American Cancer Society and is located in the Quality Hill area east of downtown Kansas City. Everything associated with Helping Hops is donated, and every dollar goes to Hope Lodge.





RADEGAST CLUB OF THE YEAR AWARD

Horseman of the Hopocalypse

Fort Worth, Texas

Each year, one homebrew club is awarded the Radegast Club of the Year, named for the Slavic god of hospitality and the creator of beer. The recipient is a club that does fantastic things in addition to brewing great beer, such as finding creative ways to promote the hobby and joys of homebrewing, engaging in philanthropy efforts, and focusing on the community. This year, The Horseman of the Hopocalypse have been given this honor.

The North Texas club's monthly meetings each take place at a different local brewery. To help spread the word of homebrewing, members wear club shirts and hats, and inevitably brewery patrons come ask about it. It's a great way to introduce homebrewing and the club to beer lovers who are likely already passionate about craft beer. The club also has brew days at the local homebrew store in Fort Worth, BrewHound. Members are on hand to be an asset to new brewers and talk about the club and homebrewing in general.

There's a priority on encouraging first-timers to the group to stick with homebrewing. "We really work to engage our new members," says Charlie Scudder, chief information officer for the club. The goal is to bring them into the fold and help them improve their brewing and elevate their work.

A monthly newsletter (with a high open rate) keeps people involved with a calendar of events, a technical column on a brewing topic, a Q&A to spotlight a member (including a recipe), and more. They'll also periodically host a new member meet-up where fledgling members can gather at the home-

brew shop so it's a familiar, comfortable place. "We want to be able to meet people where they are and help them improve where they are," Charlie says.

New members are matched with the best club resources for their skill and interest level. If a new member is an extract brewer, for example, they'll be pointed in the direction of members who are winning medals with extract beers.

Club secretary Rachael Brasovan has felt the positive impacts of those new member efforts. Rachael wanted to get into a hobby after graduating college in 2020 and a friend told her about brewing. During a visit to BrewHound, the shop suggested she check out the club, so she went to a meeting on a whim.

"Everyone was super nice and welcoming," she says. For Rachael, the club is a source for useful information as well as camaraderie, and someone always is there with an answer. "I get tips and tricks that I wouldn't have figured out on my own," she says.

When she wanted to make the switch to all-grain brewing, a member invited her to come over and brew one together, to get a hands-on experience. "Doing it on your own is fun but having other people that share your hobby and love what they do and love to try your beer is really nice and encouraging," she says. Rachael, who loves brewing IPAs and pale ales, won the IPA division at the Spirit of 76 competition last year.

As for giving back, the club has raised funds for the Brotherhood of the Fallen and



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Ukrainian humanitarian aid. They also rallied around the BrewHound store owner (also a fellow club member) when he lost his wife to a sudden illness. Members raised money through a GoFundMe page, helped him at the shop to lessen his workload, and planned a homebrew community event to provide additional support.

Education is a continued priority. One of the members won a five-gallon drum of high-quality honey, so the club hosted a mead day in which members learned how to make mead. Participants tried honey varieties, and everyone went home with honey to make their own batch of mead.

"It's a really collaborative environment," Charlie explains. "But we're also very competitive." There is a lot of encouragement for members to compete as much as possible, and having so many BJCP judges in the group helps guide what the judging process is like.

The club hosts a handful of competitions throughout the year. Club-only competitions are held seasonally—in February, members make a Valentine's Day beer; in April, everyone brews a recipe from a pro brewer, and Halloween-themed beers in October are complete with spooky décor. They also host the Belgian Draft Horse and Spirit of 76 competitions, which are open to all homebrewers.

It's not only about acknowledging the award-winning brews, Charlie explains, but acknowledging all brewing strides. "Even if it's not the greatest beer, if it's the best beer you've made, we want to celebrate it."



HOMEBREW SHOP OF THE YEAR AWARD

Patriot Brewery and Homebrew Supply

Elkorn, Neb.



"A fermenter's hidden gem." "This is exactly what homebrewers need in Omaha." "Best supplies, even better people."

These are only a few of the many five-star reviews Patriot Brewery and Homebrew Supply has earned, and represent a mere glimpse into why this Nebraska store was named 2023 Homebrew Shop of the Year. Each year, the honor is awarded to a homebrew supply store on the merits of community support, education, customer service and engagement, promotion of homebrewing, and responsible business practices.

Husband and wife Matthew and Jennifer Misfeldt opened the doors to their brewing supply shop in 2013. Matthew has been homebrewing since 2007, and Jennifer was an entrepreneur wanting a change from the corporate world.

The two pride themselves on their clean, organized, and well-stocked store. A good selection of products is the priority, with 79 yeast varieties, 45 malt varieties and 30 hop varieties. Customers have flexibility in purchasing grain by the bag, pound or ounce, and they will special order a yeast that is not in stock. It's important to Jennifer to keep a clean grain room and have a store that's not cluttered, she says.

While online shopping becomes an everyday experience for many, there are undeniable benefits to shopping in-store, especially when it comes to purchasing the supplies to make a fermented beverage. As Jennifer points out, a hands-on shopping experience gives you the ability to look

around and be inspired by what's in stock for your next batch. There's also a social and community aspect to shopping at a brick and mortar. Patriot customers are often chatting about the beer they're working on while selecting ingredients, and they have a chance to ask their questions. And if Jennifer doesn't know the answer, she will help you find it.

Another bonus to shopping on site at Patriot is their nano-brewery, which went on line in 2020. There is also an eclectic tap list with something for everyone. Customers can sample a brew while they shop for brewing supplies, and even purchase beer to take home.

But the biggest benefit of having a creative lineup of beer on tap at the shop? All the recipes are available to the public, so homebrewers can taste something new, and be inspired to brew something new. It's also a good way to taste specific ingredients first-hand.

For example, Jennifer points out if you want to use a different yeast strain, instead of taking a risk based on a written description, you can taste a beer made with that strain and judge for yourself whether or not you want to use it.

All ingredients used to brew each beer can be found right in the store, so if you like something on tap, you can buy what's required and make it yourself. Part of the purpose of the brewery is to show creativity and get brewers thinking—such as brewing twenty gallons of stout, but putting a wood



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spiral in five gallons to showcase the difference. "Something simple can change the whole dynamic of the beer," Jennifer says.

You'll also find a beer on tap made with an extract kit to highlight this brewing technique. "You don't have to do all-grain to make a good beer," she adds. There is usually a cider and a root beer on tap (and they sell the soda kit right in the store, if you're inspired). While the on-site nano brewery is intended to be an education tool for homebrewers, Jennifer says it's also a great place for anyone to come and grab a beer, be they brewer or not. The space is also dog- and kid-friendly.

In addition to the brewery and knowledgeable staff, another educational aspect of the store are the hands-on classes for brewing beer, winemaking, and cider. Free seminars are offered per topic, including yeast, water, flavoring and extract brewing. Their Brewing 101 class is ideal for newbies, and they allow students to make use of the store's equipment, so they don't have to invest in the hobby before knowing if it's right for them. Amongst the long list of classes and events are women-only brew days, women-led brew classes, Ladies Nights and "Beer School" to discover various beer styles and terminology.

Other in-store perks for shoppers include a gift registry, an ounce of free hops on your birthday and a loyalty program where shopping for ingredients earns \$1 in-store credit on every \$15 spent. If customers are in a hurry or having someone else pick up an order, they can simply call or email orders for curbside pick-up. And for those seen out and about wearing a Patriot hat or shirt in public, they just may receive a \$10 store credit if spotted.

A plus for the environment and customers' wallets is the store's consignment corner, where customers can buy used equipment. For those wanting to consign their equipment, which often happens as brewers upgrade their setups, they will get 90 percent of the sale to be used as store credit. They can also recycle their old homebrewing and beer magazines and pick up used copies for free to enjoy.

Jennifer's advice to other homebrew stores is having a solid selection and a good attitude. "Make it a fun experience," she says.



AHA GOVERNING COMMITTEE RECOGNITION AWARD

Drew Beechum
Pasadena, Calif.

Drew Beechum homebrews to create something. As an engineer, much of what he does happens virtually, on his laptop. "What homebrewing gives to me is the ability to make something and point to it and say, 'I made that,'" he says. That is exactly why he, and many other homebrewers, invest a great deal of time making something that is available at thousands of breweries, bars, and stores.

"I'm getting more out of it than beer," Beechum says, noting he is a short walk from his local brewery. Another aspect of brewing that he values is the community, particularly these days, when modern life can be isolating.

"Homebrewing is a quick, fantastic way to build community," he says. Beechum and his fellow homebrewers are excited to get together to pour each other a beer and either celebrate it, troubleshoot it, or both.

What started as simply trying to brew a beer in college with friends ultimately led to Beechum leading numerous influential endeavors on homebrewing, including authoring several go-to homebrew books, launching and hosting informative beer podcasts, contributing to beer magazines, and continuing to spread homebrew education. This is why he's receiving this year's American Homebrewers Association (AHA) Governing Committee Recognition Award, which honors outstanding service to the homebrewing community.

His homebrew journey started as a young college student who wanted beer and decided to give brewing a try. His first batch, a porter, was great. The second batch? Not so much. Then classes got harder, and homebrewing took a backseat. But the hobby resurfaced when he had his first "real job" in Los Angeles in 1996, working 100-hour weeks, and he couldn't remember what he used to do for fun.

"Then I remembered making that batch of beer," he says. He bought a kit and never looked back. His love of cooking and food inspired some one-of-a-kind brews along the way, such as a clam chowder saison and guacamole saison. Coming from a family of educators, including his wife, he wanted to help teach and spread the joys of homebrewing. He joined the Maltose Falcons Homebrew Club, later serving as president of the club. Now he serves as the beer education officer, or the "Grand Hydrometer" in Falcons terms. His basic role is to present a topic at each member meeting that covers a style, a technique, or a concept. For example, he recently presented on the same beer in two different packaging formats: cans versus bottles.

A passion for storytelling and educating leads him to write informative content for *Zymurgy*, *Craft Beer & Brewing*, and *BeerAdvocate* magazines. He is the author of *The Everything Homebrewing Book*, *The Everything Hard Cider Book*, and *The*

Homebrewer's Journal: From the First Boil to the First Taste, Your Essential Companion to Brewing Better Beer. He also co-authored *Simple Homebrewing*, *Experimental Homebrewing*, and *HomeBrew All-Stars* with Denny Conn.

When Conn and Beechum completed *Experimental Homebrewing*, they weren't done. The two created the *Experimental Brewing* podcast to tell the story of what is happening with beer right now, while bringing on interesting voices and thoughts on beer and brewing. He and Conn hope listeners will consider different opinions and remember to always be kind to each other. "I want people to keep coming away with a new idea, a new angle to pursue," he says.

There was still too much to say, so a second podcast, the *Brew Files*, was born. Even though he had extensively written about brewing and beer, the podcast was a new experience. "It felt like there was a much more immediate and closer connection with the people listening," he says.

Valuing education, he is always trying to discover new things, such as what happens with a particular yeast or water. "Every time I brew a batch of beer, there's something I'm trying to learn," he says. If there's a beer he's brewing, there's a story he's trying to tell with it, such as his "Year of Saisons" with different takes on the saison style to reflect the seasons.

That pursuit of learning can even help motivate homebrewers who may begin to feel a little less inspired. "If you're starting to feel burned out and you want to get back in, find one thing you want to learn," he says. For example, how do I make a better IPA, which yeast do I really love working with, or can I make my brew day faster. "Use that as a driver."

His advice to homebrewers is to read, listen, and don't be afraid of asking questions.

"The thing people need to do is learn not to fear the mistake," he says. "The mistake is really where you learn."



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2023 NATIONAL HOMEBREW COMPETITION

Category 1

PALE AMERICAN BEER

123 entries



Mike Gallagher
Charleston, SC
Lowcountry Libations

"Chicken Scratch"
1C. Cream Ale

Batch volume: 11 US gal. (41.6 L)

Original gravity: 1.046 (11.4°P)

Final gravity: 1.008 (2.1°P)

Efficiency: 60%

Color: 3 SRM

Bitterness: 13 IBU

Alcohol: 5%

MALTS & ADJUNCTS

17.5 lb. (7.94 kg) floor-malted Pilsner malt
3.25 lb. (1.47 kg) flaked maize
0.45 lb. (204 g) flaked barley
1 lb. (454 g) corn sugar/dextrose @ 15 min

HOPS

1 oz. (28 g) Crystal, 5.1% a.a. @ 60 min
0.9 oz. (26 g) Crystal, 5.1% a.a. @ 15 min

YEAST

1 L starter White Labs WLP080
Cream Ale Blend

WATER

Ca 80 ppm, Mg 5 ppm, Na 25 ppm,
Cl 75 ppm, SO₄ 80 ppm, HCO₃ 100 ppm

ADDITIONAL ITEMS

1 tablet Campden

1 tablet Whirlfloc @ 15 min

BREWING NOTES

Full infusion mash at 152°F (67°C) for 60 min. Boil 90 min., adding hops and corn sugar as indicated. Chill to 66°F (19°C) on transfer to fermenter. Oxygenate wort for 5 min. at 0.25 L/min. Pitch yeast. Ferment at 66°F (19°C) for 7 days, raise temperature to 70°F (21°C) for 3 days, cold crash for 4 days. Transfer to keg and force carbonate.

RUNNERS-UP

Silver Medal: Caleb Meinke, Cambridge, WI, Madison Homebrewers & Tasters

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

Category 2

PALE EUROPEAN BEER

131 entries



Metts Potter
Morrow, OH
Bloatarian Brewing League

"Iceberg!"
5B. Kölsch

MALTS & ADJUNCTS

10.5 lb. (4.76 kg) Bestmalz Pilsner malt
1.13 lb. (510 g) Weyermann Vienna malt

HOPS

1 oz. (28 g) Hallertauer Mittelfrüh, 4.5% a.a. @ 60 min
1 oz. (28 g) Hallertauer Mittelfrüh, 4.5% a.a. @ 15 min.

YEAST

2 L starter Wyeast 2565 Kölsch

WATER

Ca 80 ppm, Mg 0 ppm, Na 0 ppm, Cl 34 ppm, SO₄ 30 ppm

ADDITIONAL ITEMS

2 g pickling lime (calcium hydroxide) to treat strike water
2 g gypsum (CaSO₄) to treat strike water
2 g calcium chloride (CaCl₂) to treat strike water
20 mL 10% phosphoric acid @ 15 min
½ tablet Whirlfloc @ 5 min
12 mL 0.1% ZnSO₄ (yeast nutrient) at pitching

BREWING NOTES

Bulk treat 10 gal. (37.85 L) RO water with 2 g each pickling lime, gypsum, and calcium chloride.

Follow low-oxygen brewing practices to the extent possible with your system. Techniques employed were pre-boiling and chilling strike water, purging tubing and grain bed with CO₂, underletting mash, using a mash cap, and conducting a full-volume mash to avoid need for sparging.

Dough in at 144°F (62°C), then step mash at 148°F (64°C), 153°F (67°C), 163°F (73°C), and 170°F (77°C) for 45, 10, 45, and 15 min., respectively.

Boil gently with kettle partially covered for 60 min. Adjust pH to 5.1 with 15 min. remaining in boil. Add Whirlfloc with 5 min. left in boil.

Chill rapidly and transfer clear wort to fermenter, minimizing carryover of trub and hop matter as much as possible. Oxygenate to 16–18 ppm. Pitch yeast at 62°F (17°C) and allow to free-rise to 66°F (19°C) at about 60% of expected attenuation.

Closed-transfer to CO₂-purged keg with 3–4 remaining gravity points and spund to 2.8 vol. (5.6 g/L) CO₂. Lager until clear.

RUNNERS-UP

Silver Medal: Wayne Doucette, Big Lake, MN, River City Brewers

Bronze Medal: Jason Lorenz, Taylor, MI, Motor City Mashers

Batch volume: 6.25 US gal. (23.7 L)

Original gravity: 1.048 (11.9°P)

Final gravity: 1.009 (2.3°P)

Efficiency: 68%

Color: 3 SRM

Bitterness: 19 IBU

Alcohol: 5.2%



Category 3

PILSNER

211 entries



Jared Aumen
Ann Arbor, MI
Ann Arbor Brewers Guild

"Powerful Pils"
5D. German Pils

Batch volume: 5.5 US gal. (20.8 L)
Original gravity: 1.052 (12.9°P)
Final gravity: 1.011 (2.8°P)
Efficiency: 82%
Color: 4 SRM
Bitterness: 42 IBU
Alcohol: 5.5%

Category 4

PALE MALTY EUROPEAN BEER

131 entries



Alex Rezmerski
Louisville, KY
Louisville Grain and Extract Research Society (LAGERS)

"Cliftyfest"
4B. Festbier

MALTS & ADJUNCTS

9 lb. (4.08 kg) Weyermann Barke Pilsner malt
0.5 lb. (227 g) Briess Victory malt

HOPS

1 oz. (28 g) Homegrown Magnum, approx. 10% a.a., FWH
0.5 oz. (14 g) Homegrown Hallertau, approx. 3% a.a. @ 10 min
0.5 oz. (14 g) Homegrown Tettnang, approx. 3% a.a. @ 10 min
0.5 oz. (14 g) Homegrown Hallertau, approx. 3% a.a. @ 0 min
0.5 oz. (14 g) Homegrown Tettnang, approx. 3% a.a. @ 0 min

YEAST

Lallemand Diamond

WATER

Ca 94 ppm, Mg 14 ppm, Na 69 ppm,
Cl 124 ppm, SO₄ 202 ppm.

ADDITIONAL ITEMS

½ tablet Whirlfloc @ 10 min
½ tsp. yeast nutrient @ 10 min
1 Tbsp. Biofine Clear after kegging

BREWING NOTES

Mash 60 min. at 148°F (64°C) and a pH of 5.45. Raise temperature and mash out at 165°F (74°C). Sparge with 175°F (79°C) water at pH 5.3 with same profile. Collect 6.25 gal (23.7 L) wort pre-boil. Boil for 60 min. Hop stand for 20 min. after knockout. Chill and add oxygen. Ferment at 52°F (11°C), raising by 1°F (0.6°C) every 2 days until 60°F (15°C). Total ferment time of 30 days. Transfer to keg, cold crash, add Biofine Clear, force carbonate, and lager 30 days. Recipe uses homegrown hops and treated municipal water. Named for Phish lyrics.

RUNNERS-UP

Silver Medal: Robby Narquis, Richland, WA

Bronze Medal: Gregory Rinehardt, Abingdon, VA, Stooges Brew Club

Batch volume: 11 US gal. (41.6 L)

Original gravity: 1.055 (13.6°P)

Final gravity: 1.008 (2.1°P)

Efficiency: 75%

Color: 6 SRM

Bitterness: 22 IBU

Alcohol: 6.3%

MALTS & ADJUNCTS

16 lb. (7.26 kg) Pilsner malt
4 lb. (1.81 kg) Munich malt
2 lb. (907 g) Vienna malt

HOPS

2 oz. (57 g) Hallertauer Mittelfrüh, 4.1% a.a. @ 60 min
2 oz. (57 g) Hallertauer Mittelfrüh, 4.1% a.a. @ 20 min

YEAST

6000 mL starter WLP833 German Bock Lager yeast

WATER

Ca 30 ppm, Mg 12 ppm, Na 30 ppm,
Cl 50 ppm, SO₄ 50 ppm, HCO₃ 84 ppm

BREWING NOTES

Single decoction mash: 35 min at 145°F (63°C) and 45 min at 158°F (70°C). Boil for 90 min. Ferment at 52°F (11°C) for about 6 days until fermentation starts to slow. Raise to 60°F (16°C) and spund until fermentation is complete (about 10 days total). Cold crash, fine, and keg. Lager until you can no longer resist!

RUNNERS-UP

Silver Medal: Chad Medford, Moore, OK, Red Earth Brewers

Bronze Medal: Jonathan Hughes, Moses Lake, WA

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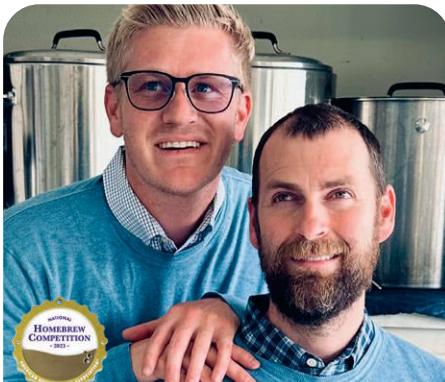


2023 NATIONAL HOMEBREW COMPETITION

Category 5

AMBER EUROPEAN BEER

155 entries



Shane Sprague and Chris Kohl
Irvine, CA
OC Mashups

"A Day in Vienna"
7A. Vienna Lager

Batch volume: 6.8 US gal. (25.7 L)

Original gravity: 1.051 (12.6°P)

Final gravity: 1.010 (2.6°P)

Efficiency: 75%

Color: 28 SRM

Alcohol: 5.5%

MALTS & ADJUNCTS

4.75 lb. (2.15 kg) Weyermann Munich I malt

3.5 lb. (1.59 kg) Maris Otter malt

3.5 lb. (1.59 kg) Vienna malt

0.25 lb. (113 g) chocolate malt

HOPS

0.8 oz. (23 g) Nugget, 14% a.a. @ 30 min

1.2 oz. (34 g) Hallertauer Mittelfrüh,
4% a.a. @ 5 min

YEAST

2 packs White Labs WLP830

German Lager Yeast

WATER

Ca 98 ppm, Mg 10 ppm, Na 80 ppm,

Cl 150 ppm, SO₄ 160 ppm, HCO₃ 96 ppm

ADDITIONAL ITEMS

1 Tbs Irish Moss @ 15 minutes

yeast nutrient

gelatin as fining

BREWING NOTES

Start with RO water. Mash at 152°F (67°C) for 60 min. Boil 60 min. Ferment in primary at 50°F (10°C) for 3 days, then at 60°F (16°C) for 18 days. Cold crash for 2 days.

RUNNERS-UP

Silver Medal: Andy Cox, Wilton, CT,
Underground Brewers of Connecticut

Bronze Medal: Nicholas LaFond,
Saint Anne, IL

Category 6

DARK EUROPEAN LAGER

159 entries



Jason Dunn
Corona, CA
Inland Empire Brewers

"The Most Gluggable"
3D. Czech Dark Lager

MALTS & ADJUNCTS

10.13 lb. (4.59 kg) Origin Malting & Brewing Co. Classic Pils malt

5.63 lb. (2.55 kg) Rahr North Star Pils malt

4 lb. (1.81 kg) Weyermann Munich I malt

2 lb. (0.91 kg) Briess Carapils malt

2 lb. (0.91 kg) Briess Victory malt

2 lb. (0.91 kg) Viking Chocolate Light Malt

0.5 lb. (227 g) Weyermann Carafla II malt

4 oz. (113 g) Weyermann CaraAmber malt

HOPS

0.62 oz. (18 g) Saaz, 4.9% a.a., FWH

0.28 oz. (8 g) Magnum, 16.1% a.a., FWH

0.62 oz. (18 g) Saaz, 4.9% a.a. @20 min

YEAST

4000 mL starter SafLager Western European Lager (S-23)

BREWING NOTES

Mash at 152°F (67°C) for 60 min. Mash out, then fly sparge for about 60 min. Ferment at 54°F (12°C) for about 2 weeks. Lager.

RUNNERS-UP

Silver Medal: Robert Abbott, Chester, NH,
Brewtubers Online Brew Club

Bronze Medal: Jason Slaasted,
Caledonia, WI with Eric Lewis

Batch volume: 12 US gal. (45.4 L)

Original gravity: 1.059 (14.5°P)

Final gravity: 1.012 (3.1°P)

Efficiency: 72%

Color: 24 SRM

Bitterness: 19 IBU

Alcohol: 6.4%

WATER

Ca 53 ppm, Mg 12 ppm, Na 50 ppm,

Cl 84 ppm, SO₄ 82 ppm

ADDITIONAL ITEMS

2 tablets Whirlfloc @15 min



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Category 7

AMERICAN WHEAT & BLONDE

71 entries



Bryce Hunter
Grand Rapids, MI
QUAFF

"MI Blonde Baby"
18A. Blonde Ale

Batch volume: 5 US gal. (18.9 L)

Original gravity: 1.047 (11.7°P)

Final gravity: 1.009 (2.3°P)

Efficiency: 72%

Color: 5 SRM

Bitterness: 24 IBU

Alcohol: 5%

MALTS & ADJUNCTS

5 lb. (2.27 kg) Rahr Pale 2-Row malt

5 lb. (2.27 kg) Weyermann Vienna malt

0.5 lb. (227 g) Gambrinus Honey malt

HOPS

0.5 oz. (14 g) Cascade, 9.3% a.a., FWH

0.5 oz. (14 g) Saaz, 4.9% a.a.

@ 30 min

0.5 oz. (14 g) Cascade, 9.3% a.a. @ 10 min

0.5 oz. (14 g) Cascade, 9.3% a.a. @ 0 min

YEAST

2L starter White Labs WLP001 California Ale

WATER

Ca 75 ppm, Mg 15 ppm, Na 0 ppm,
Cl 71 ppm, SO₄ 143 ppm

ADDITIONAL ITEMS

3 g ascorbic acid in mash

BREWING NOTES

Mash at 146°F (63°C) for 60 min. Boil for 60 min., adding hops according to recipe. Cool wort to 60°F (16°C). Aerate wort and pitch yeast starter. Allow to free rise to 65°F (18°C), and maintain temperature for 7 days. Raise temperature to 68°F (20°C) for another 7 days. Cold crash and transfer to keg. Force carbonate. Allow one week to condition. Enjoy.

RUNNERS-UP

Silver Medal: Rodolfo Valladares, Kansas City, KS, Kansas City Bier Meisters

Bronze Medal: Zach Kossow, Pittsburgh, PA, Three Rivers Alliance of Serious Homebrewers

Category 8

GERMAN WHEAT & RYE BEER

95 entries



Joseph Hirtz
Valrico, FL
Brandon Bootleggers Homebrew Club

"Midnight Beach Dream"
10B. Dunkles Weissbier

Batch volume: 5 US gal. (18.9 L)

Original gravity: 1.053 (13.1°P)

Final gravity: 1.018 (4.6°P)

Color: 17 SRM

Bitterness: 10 IBU

Alcohol: 4.7%

MALTS & ADJUNCTS

6 lb. (2.72 kg) Briess Bavarian Wheat dried malt extract (DME)

0.5 lb. (227 g) maltodextrin

4 oz. (113 g) dark chocolate malt

4 oz. (113 g) Weyermann Munich II

3 oz. (86 g) Weyermann Caramunich I

HOPS

0.72 oz. (20 g) German Hallertau,
4.1% a.a. @ 60 min

YEAST

1 pack Wyeast 3068 Weihenstephan Wheat

ADDITIONAL ITEMS

5.2 oz. (145 g) priming sugar

BREWING NOTES

This is a full-boil extract-based beer. Preheat oven to 165°F (74°C). Crush grain malts and place in a grain bag. Heat 0.7 gal. (2.6 L) of Publix spring water to 150°F (66°C) in a gallon-sized pot. Add grain bag to hot water in the pot, then place the pot in the oven and allow grains to steep for 25 min. at 150°F (66°C). Meanwhile, heat 4 gal. (15.14 L) Publix spring water and 2 gal. (7.57 L) Publix distilled water to 150°F (66°C) in a brew kettle large enough to hold the full boil volume. After the steep, place a plastic

colander over the brew kettle, remove the bag of steeping grains from the smaller pot, and place the grain bag in the colander. Pour the steeping liquid through the grain bag and into the brew kettle. Add the malt extract and maltodextrin and bring to a boil. After hot break collapses, add hops and boil for 60 min. Cool wort quickly and transfer to fermenter. Add additional Publix spring water if needed to obtain about 5.25 gal. (19.9 L) wort. Aerate wort and pitch yeast when wort temperature is 64°F (18°C). Ferment for three days at 64°F (18°C) and then allow temperature to gently rise to 68–70°F (20–21°C) until fermentation is complete, about 4 days. Check beer with hydrometer to ensure fermentation is complete (readings should be the same on three consecutive days). Bottle with 5.2 oz. (147 g) priming sugar and allow filled bottles to carbonate at room temperature for at least three days. I prefer to allow beer to age for an additional week or two before drinking.

RUNNERS-UP

Silver Medal: Dustin Striplin, Tacoma, WA with Jamie Striplin, Browns Point Homebrew Club

Bronze Medal: Paul Brown, Pinole, CA, Diablo Order of Zymiracle Enthusiasts (DOZE)



2023 NATIONAL HOMEBREW COMPETITION

Category 9

PALE BRITISH ALE

132 entries



Mark Kunzelmann
St. Louis, MO
St. Louis Brews

"Australian Sparkling Ale"
12B. Australian Sparkling Ale

Batch volume: 7.5 US gal. (28.4 L)

Original gravity: 1.056 (13.8°P)

Final gravity: 1.017 (4.3°P)

Efficiency: 70%

Color: 6 SRM

Bitterness: 36 IBU

Alcohol: 5.3%

MALTS & ADJUNCTS

10 lb. (4.54 kg) Golden Promise malt

6.5 lb. (2.95 kg) pale 2-row malt

1 lb. (454 g) biscuit malt

HOPS

0.8 oz (23 g) Comet pellets,
15.5% a.a. @ 60 min

YEAST

314 billion cells White Labs WLP009
Australian Ale

WATER

Carbon filtered water treated with 0.75 g/gal.
gypsum, 0.75 g/gal. Epsom salt, and 0.25 g/gal.
sodium chloride

BREWING NOTES

Mash 10 min at 122°F (50°C) and then 45 min @ 156°F (69°C). Fly sparge. Boil 60 min. Whirlpool 20 min. Plate chill. Aerate with pure O₂. Pitch yeast. Ferment at 56°F (13°C). Keg at 3 weeks.

RUNNERS-UP

Silver Medal: Alex Cigan, Brooklyn, NY,
St. Louis Brews

Bronze Medal: Dann Searcy,
Kansas City, MO with Sally Crosson,
Kansas City Bier Meisters

Category 10

SCOTTISH & IRISH ALE

106 entries



Richard F Shoff Jr.
Baldwinsville, NY

"British Mats"
15A. Irish Red Ale

HOPS

1.7 oz. (48 g) East Kent Goldings,
4.8 a.a. @ 60 min

YEAST

256 billion cells Wyeast 1084 Irish Ale

WATER

Ca 60 ppm, Mg 5 ppm, Na 10 ppm,
Cl 95 ppm, SO₄ 55 ppm

ADDITIONAL ITEMS

10 gal. (37.85 L) RO water

2 g calcium chloride in mash

4 g gypsum in mash

1.5 g magnesium chloride in mash

1.5 mL lactic acid in mash

Irish moss @ 15 min

yeast nutrient @ 15 min

is also added at 15 min. left in the boil. I also used a hop spider with pellet hops. (After beer is cooled, I gravity-transfer to a smaller pot so that I can carry it to the basement from my garage which leaves some trub in the bottom of the first pot. Second pot is pumped into my conical fermenter, again leaving behind some trub.) Let settle at 67°F (19°C). Collect whatever settles out and discard. Pitch yeast starter that was built up to 0.75M cells/mL/P. Raise temperature 1°F (0.6°C) per day until you reach 71°F (22°C) and fermentation appears complete. Collect yeast from the bottom and let sit for two weeks. Transfer to a keg via closed transfer. Carbonate to 2.25 vol. (5.5 g/L) CO₂.

RUNNERS-UP

Silver Medal: James Matthews,
Arnold, MO

Bronze Medal: John Huhn,
Springfield, MO, Zymurgists of the Ozarks

Batch volume: 7 US gal. (26.5 L)

Original gravity: 1.052 (12.9°P)

Final gravity: 1.013 (3.3°P)

Efficiency: 92%

Color: 13 SRM

Bitterness: 26 IBU

Alcohol: 5.1%

MALTS & ADJUNCTS

11.25 lb. (5.1 kg) Chevalier Heritage Malt

7 oz. (198 g) 160°L Extra Dark Crystal
malt

7 oz. (198 g) 45°L crystal malt

2 oz. (57 g) Weyermann Carafa I

BREWING NOTES

Mash in at 140°F (60°C) and hold for 10 min. Raise to 148°F (64°C) and hold for 30 min. Raise to 152°F (67°C) and hold for 30 min. Raise to 168°F (76°C). Vorlauf for 15 min. to clear wort. Sparge with RO water to collect 8 gal. (30.28 L). Boil for 60 min. to reach a volume of 7 gal. (26.5 L). (I tend to brew in 7- or 14-gallon batches so that when I am done with transfer losses and trub removal, I have 6-plus gallons so that the thermowell is covered in my conical.) 60-minute hop addition. Irish moss and yeast nutrient in the last 15 min. of the boil. I use an immersion chiller, so that



ON THE WEB

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Category 11

AMERICAN PALE ALE

123 entries



Brandon Holt and Kevin Holt
San Diego, CA
QUAFF

"Horizon Pale Ale"
18B. American Pale Ale

Batch volume: 6 US gal. (22.71 L)
Original gravity: 1.057 (14°P)
Final gravity: 1.009 (2.3°P)
Efficiency: 77%
Color: 7 SRM
Bitterness: 57 IBU
Alcohol: 6.5%

MALTS & ADJUNCTS

7.23 lb. (3.28 kg) Great Western Premium 2-Row malt
 3.3 lb. (1.5 kg) Simpsons Golden Promise
 0.95 lb. (431 g) Weyermann CaraHell
 9.5 oz. (269 g) Briess caramel 20°L malt

HOPS

0.2 oz. (6 g) Idaho 7, 12.5% a.a. @ 40 min
 0.8 oz. (23 g) Nectaron, 13% a.a.
 @ 20 min
 0.5 oz. (14 g) Citra, 13% a.a., @ 20 min
 0.7 oz. (20 g) Mosaic, 12.5% a.a., whirlpool 20 min @ 180°F (82°C)
 1.75 oz. (50 g) Nectaron, 13% a.a., whirlpool 20 min @ 180°F (82°C)
 0.75 oz. (21 g) Citra, 13% a.a., whirlpool 20 min @ 180°F (82°C)
 1.5 oz. (43 g) Nectaron, 13% a.a., @ high kräusen
 1 oz. (28 g) Citra, 13% a.a., @ high kräusen
 1 oz. (28 g) Idaho 7, 12.5% a.a., @ high kräusen
 1.5 oz. (43 g) Nectaron, 13% a.a., dry hop 3 days
 1 oz. (28 g) Citra, 13% a.a., dry hop 3 days

YEAST

2 packs Omega Yeast Labs OYL-402
 Cosmic Punch

WATER

Ca 50 ppm, Mg 10 ppm, Na 5 ppm,
 Cl 45 ppm, SO₄ 105 ppm

BREWING NOTES

Mash at 148°F (64°C) for 60 min. Use RO water with mineral additions to specifications of Bru'n Water.

RUNNERS-UP

Silver Medal: Russell Berger, Portland, OR, Portland Brewers Collective
Bronze Medal: Bob Rouse, College Park, MD

Category 10

AMBER & BROWN AMERICAN ALE

133 entries



Mike and Stephanie Butler
Olathe, KS
Kansas City Bier Meisters

"Challenge Accepted"
19A. American Amber Ale

Batch volume: 5 US gal. (18.9 L)
Original gravity: 1.056 (13.8°P)
Final gravity: 1.014 (3.6°P)
Efficiency: 70%
Color: 15 SRM
Bitterness: 33 IBU
Alcohol: 5.7%

MALTS & ADJUNCTS

5.31 lb. (2.41 kg) Simpsons Maris Otter
 3.19 lb. (1.45 kg) Mecca Grade Lamonta Pale Malt
 14 oz. (397 g) IREKS Vienna malt
 11 oz. (312 g) Simpsons Amber Malt
 11 oz. (312 g) Crisp C60
 6 oz. (170 g) Mecca Grade Opal
 1 oz. (28 g) Crisp Roasted Barley

HOPS

0.33 oz. (9.4 g) Citra, 12% a.a. @ 60 min
 1.66 oz. (47 g) Mosaic, 12.3% a.a. whirlpool 20 min
 1.33 oz. (38 g) Amarillo, 9.2% a.a. whirlpool 20 min
 1.33 oz. (38 g) Citra, 12% a.a. whirlpool 20 min
 0.7 oz. (20 g) Mosaic, 12.3% a.a. dry hop 4 days
 0.7 oz. (20 g) Amarillo, 9.2% a.a. dry hop 4 days
 0.7 oz. (20 g) Citra, 12% a.a. dry hop 4 days

YEAST

200 billion cells Imperial Yeast A18
 Joystick

WATER

Ca 106 ppm, Mg 0 ppm, Na 2 ppm,
 Cl 75 ppm, SO₄ 154 ppm

ADDITIONAL ITEMS

4.4 mL Lactic acid, in mash

BREWING NOTES

Mash in BrewEasy at 154°F (68°C) for 60 min. Add lactic acid to hit mash pH of 5.2. Boil 60 min. Whirlpool at 170°F (77°C). Ferment at 65°F (18°C) for 3 days, then ramp to 69°F (21°C) over 4 days. Dry hop at 50°F (10°C) for 2 days immediately prior to cold crash and packaging. Be sure to take extra time to let this one clear up!

RUNNERS-UP

Silver Medal: Keith Wright, Mustang, OK, Red Earth Brewers
Bronze Medal: Bob Rouse, College Park, MD



2023 NATIONAL HOMEBREW COMPETITION

Category 13

BROWN BRITISH BEER

137 entries



Stephen Schmitt
Evanston, IL
Evanston Homebrew Club

"Maxwell Porter"
13C. English Porter

Batch volume: 5.5 US gal. (20.8 L)
Original gravity: 1.050 (12.4°P)
Final gravity: 1.013 (3.3°P)
Efficiency: 68%
Color: 25 SRM
Bitterness: 25 IBU
Alcohol: 5.0%

MALTS & ADJUNCTS

8.5 lb. (3.86 kg) Crisp No. 19 Floor Malted Maris Otter
 14.4 oz. (408 g) Crisp Pale Chocolate
 12 oz. (340 g) Crisp Brown Malt
 12 oz. (340 g) Simpsons Golden Naked Oats
 12 oz. (340 g) Bairds Greenwich Crystal Malt

HOPS

1 oz. (28 g) East Kent Goldings, 4.8% a.a. @ 60 min.
 1 oz. (28 g) East Kent Goldings, 4.8% a.a. @ 15 min.

YEAST

1 pack Omega British Ale I OYL-006

WATER

Ca 77 ppm, Mg 12 ppm, Na 26 ppm, Cl 78 ppm, SO₄ 43 ppm, HCO₃ 162 ppm

ADDITIONAL ITEMS

Whirlfloc @ 7 min left in boil
 2 g baking soda to adjust pH
 Potassium metabisulfite to dechlorinate water

BREWING NOTES

Mash for 60 min. at 152°F (67°C). Mash out at 168°F (76°C) for 10 min and sparge

with 170–175°F (77–79°C) water for 20 min. Boil 60 min. Chill wort to 64°F (18°C) and ferment for 2 weeks. Allow to free rise a few degrees toward the end of fermentation. Closed-transfer to a keg and carbonate to about 10 psi CO₂ at 36°F (2°C).

I typically brew my ales as 5-gallon batches on the Grainfather G30. I use Chicago-area Lake Michigan water, which has a pH of 7.9. With all the roasted malt, you don't need lactic acid to achieve a suitable mash pH. I add 2 g baking soda to boost the pH to 5.4–5.5, which I find helps with this style. Also, I always add potassium metabisulfite to eliminate chlorine. I acidified the sparge water to a pH of around 5.5.

Omega Yeast is local to the Chicago area. I have had great experience with getting very fresh, viable yeast and therefore can simply pitch yeast packets directly for fermentation. For this batch, I pitched one yeast packet.

RUNNERS-UP

Silver Medal: Mike Gallagher, Charleston, SC, Lowcountry Libations

Bronze Medal: Dann Searcy, Kansas City, MO with Sally Crosson, Kansas City Bier Meisters

Category 14

IRISH & BRITISH STOUT

161 entries



Christopher Hunter
Martinsville, IN
Artesian Homebrewers

"Critter Milk Stout"
16A. Sweet Stout

Batch volume: 6 US gal. (22.7 L)

Original gravity: 1.070 (17.1°P)

Final gravity: 1.026 (6.6°P)

Efficiency: 63%

Color: 56 SRM

Bitterness: 32 IBU

Alcohol: 5.8%

MALTS & ADJUNCTS

10.75 lb. (4.88 kg) 2-row brewers malt
 1.42 lb. (644 g) flaked oats
 1.38 lb. (626 g) roasted barley
 1.5 lb. (680 g) chocolate malt
 1.13 lb. (510 g) Munich 20°L malt
 10 oz. (283 g) Crystal 60°L malt
 1.5 lb. (680 g) lactose in boil

HOPS

0.65 oz. (18 g) Nugget, 14.1% a.a. @ 60 min
 0.5 oz. (14 g) Cascade, 5.6% a.a. @ 30 min
 0.45 oz. (13 g) Cascade, 5.6% a.a. @ 10 min

YEAST

3 packs Fermentis SafAle US-05

WATER

Ca 62 ppm, Mg 13 ppm, Na 50 ppm, Cl 85 ppm, SO₄ 100 ppm, HCO₃ 119 ppm

ADDITIONAL ITEMS

1 tablet Whirlfloc @ 15 min
 1.5 tsp. yeast nutrient @ 10 min

BREWING NOTES

Brew-in-a-bag mash at 154°F (68°C) for 60 min., then circulate the mash at 166°F (74°C) for 10 min. Boil for 60 min. Ferment at 70°F (21°C) for 14 days. Once beer reaches final gravity, cold crash for 2 days, then keg and carbonate at 35°F (2°C).

RUNNERS-UP

Silver Medal: Richard Shoff, Baldwinsville, NY

Bronze Medal: Christopher Johnson, San Diego, CA, QUAFF



Category 15

AMERICAN PORTER & STOUT

136 entries



Christian Chandler
Chandler, AZ
Arizona Society of Homebrewers

"Sable Porter"
20A. American Porter

Batch volume: 5 US gal. (18.9 L)
Original gravity: 1.065 (15.9°P)
Final gravity: 1.016 (4.1°P)
Efficiency: 78%
Color: 30 SRM
Bitterness: 43 IBU
Alcohol: 6.7%

MALTS & ADJUNCTS

9.5 lb. (4.31 kg) Maris Otter malt
 1.25 lbs (567 g) chocolate malt
 1 lb. (454 g) Munich malt
 10 oz. (283 g) Briess Carapils malt
 8 oz. (227 g) 120°L crystal malt
 4 oz. (113 g) black patent malt

HOPS

0.75 oz. (21 g) Nugget, 3.3% a.a.
 @ 60 min
 0.75 oz. (21 g) Willamette, 5% a.a.,
 @ 20 min
 0.75 oz. (21 g) Crystal, 4.5% a.a.,
 @ 20 min
 0.25 oz. (7 g) Willamette, 5% a.a.,
 hop stand 0 min
 0.25 oz. (7 g) Crystal, 4.5% a.a.,
 hop stand 0 min

YEAST

1 pack Fermentis SafAle US-05

WATER

Ca 62.5 ppm, Mg 5 ppm, Na < 100 ppm,
 Cl 75 ppm, SO₄ 86.25 ppm, CaCO₃ 115 ppm

To achieve this profile, start with RO
 water (pH 7) and adjust mash with 0.075 oz.

gypsum, 0.035 oz. Epsom salt, 0.096 oz.
 calcium chloride, and 0.135 oz. baking soda.

Adjust sparge water with 0.3 oz. gypsum,
 0.014 oz. Epsom salt, 0.04 oz. calcium
 chloride, and 0.056 oz. baking soda.

BREWING NOTES

Single infusion mash at 155°F (68°C) for 60
 min., targeting a mash pH of 5.4. Mash out
 at 167°F (76°C) for 10 min. Lauter. Boil 60
 min., adding hops as indicated. Chill, aerate
 and pitch yeast at 63°F (17°C). After 10–14
 days (or when fully attenuated), cold crash
 for 3 days at 35°F (2°C). Force carbonate
 at 2.4 vol. (4.8 g/L) CO₂. Cellar 2–6 months
 (longer tends to be better).

RUNNERS-UP

Silver Medal: Mike Rousseau,
 Charleston, SC

Bronze Medal: Brian Smith,
 Pottstown, PA, Bruclear Homebrew Club



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2023 NATIONAL HOMEBREW COMPETITION

Category 16

AMERICAN IPA

153 entries



Christopher Burgess
Castle Rock, CO
39N Homebrewers

"Like Falling Off a Bike"
21A. American IPA

Batch volume: 8 US gal. (30.3 L)
Original gravity: 1.062 (15.2°P)
Final gravity: 1.007 (1.8°P)
Efficiency: 66%
Color: 4 SRM
Bitterness: 72 IBU
Alcohol: 7.4%

MALTS & ADJUNCTS

19 lb. (8.62 kg) Weyermann Pilsner malt
8 oz. (227 g) dextrose (whirlpool)

HOPS

2 oz. (57 g) Mosaic, 12.5% a.a. @ 10 min.
4 oz. (113 g) Mosaic, 12.5% a.a.,
whirlpool 30 min.
10 oz. (284 g) Mosaic, 12.5% a.a.,
dry hop 6 days

YEAST

2 packs Imperial Flagship A07

WATER

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

ADDITIONAL ITEMS

0.25 tsp. Brewtan B (hydrated) in mash
0.25 tsp. Brewtan B (hydrated) in boil
@ 15 min.
1 tablet Whirlfloc in boil @ 10 min.
0.75 tsp. Yeast nutrient in boil @ 10 min.
1 mL alpha acetolactate decarboxylase
(ALDC) in primary
1 mL ALDC with dry hop
20 mL Biofine Clear before packaging

BREWING NOTES

This beer is brewed no-sparge in a Spike Solo. Target a mash pH of 5.35, pre-boil pH of 5.2 (acid likely needed), and post-whirlpool pH of 4.9 (acid likely needed). Mash at 148°F (64°C) for 50 min. and 168°F (76°C) for 10 min. Boil and add hops and other ingredients as indicated. Turn off the heat before adding dextrose. Whirlpool, covered, for 30 min. Chill to 65°F (18°C) and transfer to the fermenter, aiming for 5.5–6 gal. (20.8–22.7 L) into fermenter. Add 1 mL ALDC while pitching the yeast to prevent hop creep. After fermentation is complete, seal fermenter or add positive pressure to avoid oxygen intake, and cool to 45°F (7°C). After 1 day, dump yeast and trub, if possible. Add all of the dry hops and another 1 mL of ALDC, seal fermenter, and let temperature rise to 65°F (18°C). After 6 days, drop temperature to 38°F (3°C). Dump hops after 24 hours and again after 48 hours. Add 20 mL Biofine Clear, agitating the beer with CO₂ to mix. After another 48 hours, transfer beer to a CO₂-purged keg, taking care to avoid introducing oxygen.

RUNNERS-UP

Silver Medal: Nicholas McCoy,
Sachse, TX, Draft Punk

Bronze Medal: John & Stephanie Meerse,
Simsbury, CT

Category 17

SPECIALTY IPA

114 entries



Rob Knipper
San Marcos, CA
Society of Barley Engineers

"The Induction"
21B. Specialty IPA

Batch volume: 11 US gal. (41.6 L)
Original gravity: 1.066 (16.1°P)
Final gravity: 1.010 (2.6°P)
Efficiency: 84.1%

Color: 6 SRM

Bitterness: 84 IBU

Alcohol: 7.6%

MALTS & ADJUNCTS

11 lb. (4.99 kg) Maris Otter pale malt
6 lb. (2.72 kg) 2 row pale malt
3 lb. (1.36 kg) Munich malt 10°L
3 lb. (1.36 kg) rye malt
3 lb. (1.36 kg) flaked rye
2 lb. (907 g) rice hulls
4.96 oz. (141 g) acidulated malt

HOPS

1 oz. (28 g) Galaxy, 15.6% a.a. @ 60 min
1 oz. (28 g) Cryo Citra, 25% a.a. @ 5 min
1 oz. (28 g) Motueka, 6.5% a.a. @ 5 min
3 oz. (85 g) Galaxy, 15.6% a.a.,
whirlpool 20 min
2 oz. (57 g) Amarillo, 9.2% a.a.,
whirlpool 20 min
2 oz. (57 g) Mosaic, 11.6% a.a.,
whirlpool 20 min
1 oz. (28 g) Cryo Citra, 25% a.a.,
whirlpool 20 min

1 oz. (28 g) Motueka, 6.5% a.a.,
whirlpool 20 min

2.4 oz. (68 g) Mosaic, 11.5% a.a.,
dry hop 3 days

2 oz. (57 g) Cryo Citra, 25% a.a.,
dry hop 3 days

2 oz. (57 g) Amarillo, 9.2% a.a.,
dry hop 3 days

2 oz. (57 g) Motueka, 6.5% a.a.,
dry hop 3 days

YEAST

3000 mL starter White Labs WLP001
California Ale

WATER

Ca 97 ppm, Mg 12 ppm, Na 0 ppm,
Cl 76 ppm, SO₄ 184 ppm

ADDITIONAL ITEMS

11 g Fermaid K 1 in boil @ 10 min
2 tablets Whirlfloc in boil @ 10 min

Continued >



BREWING NOTES

Use RO water and adjust with CaSO_4 , CaCl , MgSO_4 , and acidulated malt. Mash at 148°F (64°C) for 60 min using HERMS through HLT. Mash out at 170°F (77°C). Use counterflow wort chiller, transfer to fermenter, and pitch yeast at 66°F (19°C). Ferment at 68°F (20°C) for 10 days before diacetyl rest at 71°F (22°C) until day 14. Dry hop at end of primary fermentation 3 days prior to cold crashing. Remove trub on day 14 and cold crash to 38°F (3°C) over 3 days. Allow to clear for 6 days before transferring to kegs. Force carbonate to 2.3 vol. (4.6 g/L CO_2).

RUNNERS-UP

Silver Medal: Kevin & Kazuko Masaryk, San Diego, CA, QUAFF

Bronze Medal: Kevin Kiernan, Washington, DC, DC Homebrewers

Category 18

HAZY IPA

168 entries



Jon Dieter
Concord, OH
Brewly Homebrew Club

"XXM - Double Extra Medium"
21C. Hazy/New England IPA

Batch volume: 6.25 US gal. (23.7 L)
Original gravity: 1.072 (17.5°P)
Final gravity: 1.013 (3.3°P)
Efficiency: 63%
Color: 4 SRM
Bitterness: 36 IBU
Alcohol: 8.1%

MALTS & ADJUNCTS

9 lb. (4.08 kg) Gambrinus Pilsner malt
2 lb. (907 g) Simpsons Golden Promise
2 lb. (907 g) malted oats
2 lb. (907 g) flaked oats
2 lb. (907 g) torrefied wheat
1 lb. (454 g) Pilsen Light DME
4 oz. (113 g) acidulated malt

HOPS

0.45 oz.	(13 g) Simcoe, 13% a.a., FWH
2 oz.	(57 g) Citra, 14% a.a., whirlpool 15 min
0.7 oz.	(20 g) Citra INCOGNITO, 50% a.a., whirlpool 15 min
0.7 oz.	(20 g) Mosaic INCOGNITO, 50% a.a., whirlpool 15 min
8 oz.	(227 g) Citra Cryo Hops, 18.5% a.a., dry hop 3 days
4 oz.	(113 g) Nectarom, 9.8% a.a., dry hop 3 days

YEAST

400 billion cells	Bootleg Biology BBUSA2 Classic New England
-------------------	---

WATER

Ca 82 ppm, Mg 3 ppm, Na 33 ppm,
Cl 150 ppm, SO_4 74 ppm

ADDITIONAL ITEMS

0.5 tsp. Yeast nutrient @ 15 min

BREWING NOTES

Use a no-sparge BIAB method. The large grain bill and lack of sparge lowers efficiency, so fermentables are

supplemented with DME. The larger batch size compensates for hop absorption and yields a full 5-gallon keg. Mash at 152°F (67°C) for 60 min. Add FWH, then bring to a boil for 75 min. Add DME if gravity needs a boost. Reduce wort temperature to 170°F (77°C) and add INCOGNITO and whirlpool hops. Use multiple yeast packets, or a stepped starter to achieve 400 billion cells. Begin fermentation at 68°F (20°C) and let free rise to 72°F (22°C). Soft crash to 50°F (10°C) on day 12, drop yeast, dry hop for 3 days, then drop temperature to 35°F (2°C) and perform a closed transfer to a CO_2 -purged keg. I highly recommend this Bootleg Biology strain for the attenuation and fruity esters it provides. Enjoy responsibly with friends, family, and fellow hop heads. Cheers!

RUNNERS-UP

Silver Medal: Peter Cooke, Bridgewater, NJ, Garden State Homebrewers (GSHomebrewers)

Bronze Medal: David Howell, Springfield, MO, Them Beer Knobbers



ON THE WEB

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2023 NATIONAL HOMEBREW COMPETITION

Category 19

STRONG AMERICAN ALE

107 entries



Larry & Donna Reuter
Akron, OH

Society of Akron Area Zymurgists (SAAZ)

"Big Blimp!"

22C. American Barleywine

Batch volume: 5 US gal. (18.9 L)

Original gravity: 1.096 (22.9°P)

Final gravity: 1.018 (4.6°P)

Efficiency: 70%

Color: 17 SRM

Bitterness: 100 IBU

Alcohol: 11.2%

MALTS & ADJUNCTS

19 lb.	(8.62 kg) Maris Otter
1 lb.	(454 g) crystal 40°L
8 oz.	(227 g) crystal 80°L
4 oz.	(113 g) Special B
4 oz.	(113 g) dextrin malt
1 lb.	(454 g) dextrose

HOPS

0.75 oz.	(21 g) Cascade, 5.8% a.a., FWH
0.75 oz.	(21 g) Centennial, 12.8% a.a., FWH
0.75 oz.	(21 g) Chinook, 10% a.a., FWH
1.25 oz.	(35 g) Cascade, 5.8% a.a., whirlpool
1.25 oz.	(35 g) Centennial, 12.8% a.a., whirlpool
1.25 oz.	(35 g) Chinook, 10% a.a., whirlpool
1 oz.	(28 g) Cascade, 5.8% a.a., dry hop 4 days
2 oz.	(57 g) Centennial, 12.8% a.a., dry hop 4 days
1 oz.	(28 g) Chinook, 10% a.a., dry hop 4 days

YEAST

1000 mL starter Chico

WATER

Ca 5 ppm, Mg 42 ppm, Na 60 ppm, Cl 80 ppm, SO₄ 20 ppm

ADDITIONAL ITEMS

1 tsp. Irish moss @ 10 min

BREWING NOTES

Mash at 150°F (66°C) for 90 min. Target mash pH of 5.3. Batch or fly sparge for 15 to 30 min. Boil 90 min. Chill 30 min., with whirlpool hops in the wort, to 60–62°F (16–17°C), then aerate and pitch yeast. Ferment 21 days in primary, then dry hop for 4 days. Keg with 3.5 oz. (99 g) of corn sugar in a simple syrup and allow carbonation to develop over 2 weeks. Crash cool to 30°F (-1°C) and hold 2 weeks, then age until ready to serve. Same recipe won in 2019. Enjoy!!

RUNNERS-UP

Silver Medal: Michael Moody, Jacksonville, OR

Bronze Medal: Simon Svensson, Molnlycke, Sweden

Category 20

STRONG EUROPEAN LAGER

76 entries



Kevin Olson
Raymore, MO
ZZ Hops

"Zecks Panther"
6C. Dunkles Bock

MALTS & ADJUNCTS

12.5 lb.	(5.67 kg) Mecca Grade Metolius
4.25 lb.	(1.93 kg) Mecca Grade Pelton
8 oz.	(227 g) Dingemans Aromatic
6 oz.	(170 g) Mecca Grade Opal 44
3 oz.	(85 g) Special B
1.5 oz.	(43 g) Carafa III

HOPS

0.5 oz.	(14 g) German Magnum, 14.2% a.a. @ 60 min
0.7 oz.	(20 g) Hallertauer Mittelfrüh, 3.8% a.a. @ 15 min

YEAST

606 billion Cells Omega OYL-111
German Bock

BREWING NOTES

Mash all grains except Carafa III: Protein rest at 127°F (53°C) for 20 min., then raise to 154°F (68°C) for 60 min. Remove a third of thick mash to a second vessel and perform a decoction. While decoction is coming to temperature, add the Carafa III to the main mash. After a 15- to 20-minute decoction, add that back to the main mash and proceed to 169°F (76°C) for mashout. Proceed with a 75-minute boil, adding additions as above. Cool and transfer to fermentation vessel. Oxygenate for 1 minute, then pitch yeast at 51°F (11°C). Keep at 51°F for 3 days, then slowly ramp up temperature by 1°F every 12 hours until reaching 65°F (18°C). Perform a forced diacetyl test. At that point, slowly decrease temperature by 1°F every 12 hours until reaching approximately 40°F (4°C). Dump yeast if possible, and then transfer to a CO₂-purged keg along with finings if desired. Allow to bulk age for at least 6 weeks at 40°F (4°C), then enjoy!

RUNNERS-UP

Silver Medal: Stephanie Butler, Olathe, KS with Mike Butler, Kansas City Bier Meisters

Bronze Medal: Andy Cox, Wilton, CT, Underground Brewers of Connecticut

Batch volume: 5.5 US gal. (20.8 L)

Original gravity: 1.074 (18.0°P)

Final gravity: 1.013 (3.3°P)

Efficiency: 65%

Color: 19 SRM

Bitterness: 27 IBU

Alcohol: 8.4%

ADDITIONAL ITEMS

1/2 tablet	Whirlfloc @ 10min
1/2 tsp.	White Labs Yeast Nutrient @ 10min
1/2 Tbsp.	Biofine Clear @ kegging



Category 21

STRONG UK ALE

77 entries



Lucas Orr
San Diego, CA
QUAFF

"Kilt Dropper"
17C. Wee Heavy

Batch volume: 6.6 US gal. (25 L)
Original gravity: 1.083 (20°P)
Final gravity: 1.020 (5.1°P)
Efficiency: 75%
Color: 20 SRM
Bitterness: 26 IBU
Alcohol: 8.9%

MALTS & ADJUNCTS

12 lb.	(5.44 kg) UK Maris Otter
4 lb.	(1.81 kg) UK Golden Promise
1 lb.	(454 g) Weyermann Melanoidin
8 oz.	(227 g) honey malt
8 oz.	(227 g) Munich malt
8 oz.	(227 g) American crystal 40°L
8 oz.	(227 g) flaked barley
4 oz.	(113 g) Weyermann Carafoam
4 oz.	(113 g) Briess Chocolate Malt
4 oz.	(113 g) roasted barley

HOPS

2 oz.	(57 g) East Kent Goldings, 4.5% a.a. @ 60 min
0.25 oz.	(7 g) East Kent Goldings, 4.5% a.a. @ 15 min

YEAST

2000 mL White Labs WLP028 starter

WATER

Ca 66 ppm, Mg 15 ppm, Na 29 ppm,
Cl 57 ppm, SO₄ 51 ppm, HCO₃ 176 ppm

ADDITIONAL ITEMS

1 tablet	Whirlfloc @ 15 minutes
7 mL	zinc, in fermenter
1/4 tsp.	yeast nutrient @ 15 min.
30 seconds	strong bubbles of O ₂ , in fermenter

BREWING NOTES

Start with RO water and add salt additions to mash water. Perform a single-infusion mash for 60 min. with 1.3 qt./lb. at 154°F (68°C). Vorlauf until wort is free of grain. Add salts to sparge water (with the exception of baking soda or pickling lime). Add acid to bring the sparge water to 5.6 pH then fly sparge at 170°F (77°C) until around 8 gal. (30.28 L) of wort is collected. Boil for 90 min., or until about 6.6 gal. (25 L) of wort remains. Whirlpool and chill wort to around 60°F (16°C) and transfer clear wort to fermenter. Add O₂ and zinc and pitch yeast. Chill wort to 55°F (13°C) and ferment until fully attenuated keeping temperature below 62°F (17°C). Fermentation can take a while for this big brew, so be patient. Carbonate to 2 vol. (4 g/L CO₂) and enjoy with sticky toffee bread pudding.

RUNNERS-UP

Silver Medal: Jim Satin, Brooklyn, MI, Ann Arbor Brewers Guild
Bronze Medal: Kenneth Berry, McKinleyville, CA, Humboldt Homebrewers

Category 22

IMPERIAL PORTER & STOUT

144 entries



John Heasley & Rich Hawthorne
Portland, OR
The Brewing Network

2023 Homebrewer of the Year

"Baltischer"
9C. Baltic Porter

Batch volume: 35 US gal. (132.5 L)
Original gravity: 1.088 (21.1°P)
Final gravity: 1.016 (4.1°P)
Efficiency: 80%
Color: 83 SRM
Bitterness: 30 IBU
Alcohol: 10.2%

MALTS & ADJUNCTS

35 lb.	(15.88 kg) Weyermann Munich 10
35 lb.	(15.88 kg) Gambrinus Pale
25.6 lb.	(11.61 kg) Vienna
6.5 lb.	(2.95 kg) Weyermann Caramunich III
3.3 lb.	(1.5 kg) Weyermann Carafa Spezial III
2.2 lb.	(1 kg) Bairds Chocolate 350°L
8.8 oz.	(249 g) Bairds Black Barley 400°L
2.2 lb.	(1 kg) dark candi sugar, in boil
2.2 lb.	(1 kg) blackstrap molasses, in boil

HOPS

4.75 oz.	(135 g) Nugget, 12% a.a., FWH 90 min
2.5 oz.	(71 g) Palisade, 5.5% a.a., @ 20 min

YEAST

14 packs Fermentis SafLager W-34/70

WATER

Ca 91 ppm, Mg 13 ppm, Na 11 ppm,
Cl 6 ppm, SO₄ 1 ppm, HCO₃ 92 ppm

BREWING NOTES

Mash in at 145°F (63°C) for 20 min. Homogenize the mash and pull 33% for decoction. Boil decoction 15 min. and return to mash to raise temperature to 152°F (67°C). Hold 20 min. Homogenize mash and pull 33% for decoction. Boil decoction 15 min. and return to mash to raise temperature to 158°F (71°C). Hold 20 min. or, optionally, slowly raise mash temperature to mash-out. Boil 90 min. (no protein coagulators used). Chill to 48°F (9°C), pitch yeast, and ferment at 52°F (11°C). To naturally carbonate, spund the fermenter at 1.020 SG with spunding valve set to 14 psi (1 bar). Once FG is reached, wait a few extra days, drop yeast, then chill to 28°F (-2°C) for 4 weeks. Transfer to serving vessel, age cold for 5 years, profit.

RUNNERS-UP

Silver Medal: Frank Wilkinson, Ambler, PA
Bronze Medal: Tim Bickel, Oklahoma City, OK, Red Earth Brewers



2023 NATIONAL HOMEBREW COMPETITION

Category 23

SAISON

94 entries



Keith Blanchard
Chatham, NJ

Morris Area Society of Homebrewers

"Highwayman"
25B. Saison

Batch volume: 5 US gal. (18.9 L)
Original gravity: 1.070 (17.1°P)
Final gravity: 1.016 (4.1°P)
Color: 5 SRM
Bitterness: 25 IBU
Alcohol: 7%

MALTS & ADJUNCTS

7 lb. (3.18 kg) Pilsner dry malt extract
 1 lb. (454 g) Belgian clear candi sugar
 8 oz. (227 g) Caravienne
 2 oz. (57 g) Weyermann Caramunich I

HOPS

1.5 oz. (43 g) Styrian Goldings @ 60 min
 0.5 oz. (14 g) East Kent Goldings
 @ 15 min
 0.25 oz. (7 g) East Kent Goldings @ 5 min
 0.25 oz. (7 g) East Kent Goldings,
 whirlpool 10 min

YEAST

1 pack Wyeast 3711 French Saison

WATER

Ca 75 ppm, Mg 7 ppm, Na 74 ppm,
 Cl 93 ppm, SO₄ 134 ppm, HCO₃ 76 ppm

ADDITIONAL ITEMS

0.5 oz. (14 g) Curaçao bitter orange peel
 @ 10 min
 1 tablet Whirlfloc @ 10 minutes
 1 capsule Servomyces yeast nutrient
 @ 15 min

BREWING NOTES

Three days in advance, I made a yeast starter with one packet of yeast and one can of Propper Starter, diluted with one can of water. The starter propagated at room temperature. Fermentation was warmer than normal: I ran the yeast starter at about 68°F (20°C), then chilled the wort to 78°F (26°C) before adding the yeast. Fermentation started at room temperature of 68°F (20°C), then I ramped it up to 72°F (22°C) for two days, then up to 75°F (24°C) for two days, then up to 78°F (26°C) to finish it off. I stored the beer at refrigerator temperature after fermentation was complete.

RUNNERS-UP

Silver Medal: Daniel Kukuk, Detroit, MI, Motor City Mashers

Bronze Medal: Jon Weaver, Naples, FL

Category 24

BELGIAN ALE

114 entries



Phil LaFleur
Loveland, CO
Weiz Guys

"Monk's Ration"
26A. Trappist Single

Batch volume: 2.5 US gal. (9.5 L)
Original gravity: 1.054 (13.3°P)
Final gravity: 1.012 (3.1°P)
Efficiency: 70%
Color: 4 SRM
Bitterness: 40 IBU
Alcohol: 5.6%

MALTS & ADJUNCTS

4 lb. (1.81 kg) Root Shoot Pilsner malt
 6 oz. (170 g) cane sugar (in boil)
 3 oz. (85 g) Briess Aromatic malt
 2 oz. (57 g) Briess Carapils

HOPS

0.35 oz. (10 g) Magnum, 12% a.a.
 @ 60 min
 0.65 oz. (18 g) Czech Saaz, 3% a.a.
 @ 15 min
 0.5 oz. (14 g) Czech Saaz, 3% a.a.
 @ 5 min

YEAST

1 pack Lallemand Abbaye

WATER

Ca 24 ppm, Mg 4 ppm, Na 16 ppm,
 Cl 40 ppm, SO₄ 40 ppm, HCO₃ 16 ppm

ADDITIONAL ITEMS

½ tablet Whirlfloc @ 5 min
 1 tsp. bentonite, in primary
 ¼ tsp. gelatin, 2 days before bottling
 3 oz. (85 g) corn sugar at bottling

BREWING NOTES

Mash 40 min. at 122°F (50°C), 40 min. at 156°F (69°C), and 15 min. at 168°F (76°C). Boil 60 min., adding hops as indicated. Chill to 65°F (18°C), oxygenate 60 seconds, add bentonite, and pitch yeast. Conduct an open fermentation (foil loosely covering top of carboy) at 65°F (18°C) without temperature control. On day 5, replace foil cover with "brewloon lock." Bulk age in primary an additional 23 days. Bottle condition to 3.3 vol. (6.6 g/L) CO₂ with corn sugar.

RUNNERS-UP

Silver Medal: Duane Jenness, Worcester, MA, WIZARDS

Bronze Medal: Matt & Courtney Castellino, Thousand Oaks, CA with Todd Slater, Thousand Oaks Homebrewers



Category 25

STRONG BELGIAN ALE

100 entries



Duke Austerberry
Ferndale, MI

"Whiz-Bang!"
26D. Belgian Dark Strong Ale

Batch volume: 6 US gal. (22.7 L)
Original gravity: 1.084 (20.2°P)
Final gravity: 1.014 (3.6°P)
Efficiency: 75%
Color: 19 SRM
Bitterness: 30 IBU
Alcohol: 9.8%

Category 26

EUROPEAN SOUR ALE

162 entries



Jeff Bair
Kansas City, MO

"Bière Vide"
23D. Lambic

Batch volume: 5.5 US gal. (20.8 L)
Original gravity: 1.048 (11.9°P)
Final gravity: 1.006 (1.5°P)
Efficiency: 70%
Alcohol: 5.6%

MALTS & ADJUNCTS

6 lb. (2.72 kg) Belgian Pilsner malt
3 lb. (1.36 kg) white wheat malt
1 lb. (454 g) raw white wheat

MALTS & ADJUNCTS

13 lb. (5.9 kg) Weyermann Pilsner Malt
2 lb. (907 g) Motor City Vienna Malt
2 oz. (57 g) Crisp Roast Barley
2 lb. (907 g) D-90 Candi Syrup @ 5 min
1 lb. (454 g) corn sugar @ 5 min

HOPS

0.25 oz. (7 g) Hallertau Magnum, 14% a.a.,
@ 60 min
1 oz. (28 g) Willamette, 5.8% a.a.,
@ 60 min
0.75 oz. (21 g) Czech Saaz, 3.5% a.a.
@ 20 min

YEAST

2 L starter
Wyeast 3787 Trappist Ale Yeast

WATER

Ca 70 ppm, Mg 4 ppm, Na 7 ppm,
Cl 48 ppm, SO₄ 77 ppm

1 lb. (454 g) Munich malt 10°L
4 oz. (113 g) Weyermann Carared
6.1 oz. (172 g) rice hulls

HOPS

1.5 oz. (42.5 g) aged or low-alpha hops
@ 60 min

YEASTS & BACTERIA

2 packs Wyeast 3763 Roeselare Ale Blend,
in primary
1 pack Brettanomyces Bruxellensis,
in secondary
1 pack Champagne yeast
@ bottling/kegging

ADDITIONAL ITEMS

8 oz. (227 g) flaked wheat,
steep 15 min. at end of boil
3 oz. (85 g) flaked oats,
steep 15 min. at end of boil
5 tsp. yeast nutrient,
15 min. at end of boil
4 oz. (113 g) maltodextrin,
in secondary

BREWING NOTES

Mash at 122°F (50°C) for 30 min, 152°F (67°C)
for 75 min, 168°F (76°C) for 10 min. Sparge
with 180°F (82°C) water. Boil for 90 min. Hops
used in boil included homegrown Centennial
hops aged at room temperature for 4 years,
and other low-alpha hop pellets set out at room
temperature for a few years.

BREWING NOTES

Begin stir-plate yeast starter 48 hours
before brew day. Mash at 148°F (64°C) for
50 min. and 168°F (76°C) for 10 min. Use
lactic acid to target a 5.3 mash pH. Boil
60 min. Add sugars 5 min. before flameout
to dissolve. Chill wort to 64°F (18°C) and
pitch active starter. Ramp temperature
up to 75°F (24°C) over 5 days and hold
for 6 more days or until fermentation is
complete. Crash cool to 38°F (3°C) under
CO₂, and pressure transfer into keg. Fine,
carbonate, and serve. Cheers!

RUNNERS-UP

Silver Medal: Jose Gutierrez,
Edwards, CA, Brewing Enthusiasts of
the Antelope Valley Region (BEAVR)

Bronze Medal: Mike Johnson,
Salt Lake City, UT, Zion Zymurgist
Homebrew OPerative Society

Pitched Roeselare Ale Blend and
added dregs from a few wild fermentation
beers I enjoyed. Fermented at basement
temperatures between 62°F (17°C) and 72°F
(22°C) year-round.

Brewed this five times over the course
of about 14 months with minor variations
due to ingredients on hand in order to step
up the culture by re-pitching fresh wort on
yeast cake/culture and transferring clearing
wort into secondary fermenter. When this
was done, the secondary vessel was purged
with CO₂ prior to and following the transfer.
With first addition to secondary fermenter
maltodextrin was added, along with bottle
dregs from multiple high-quality wild beers,
and a packet of Brettanomyces Bruxellensis.
Also, occasionally added bottle dregs
throughout fermentation when I came across
an especially good wild beer in order to
increase the diversity of bacteria and yeast
in the culture. Aged one year in secondary
before bottling.

Bottled using Champagne yeast and corn
sugar to 3 vol. (6 g/L) CO₂ guessing it would
end up slightly lower due to aging time.

RUNNERS-UP

Silver Medal: Joshua Cotton, Brooklyn,
NY, New York City Homebrewers Guild

Bronze Medal: Kevin Wojdak, Elk Grove
Village, IL, Urban Knaves of Grain



2023 NATIONAL HOMEBREW COMPETITION

Category 27

FRUIT BEER

144 entries



Jamye and Cody Naramore
Quenemo, KS
Kansas City Bier Meisters

"Old Man Johnson's Farm"
X4. Catharina Sour

Batch volume: 8 US gal. (30.3 L)
Original gravity: 1.045 (11.2°P)
Final gravity: 1.006 (1.5°P)
Efficiency: 70%
Color: 4 SRM
Bitterness: 7 IBU
Alcohol: 5.1%

MALTS & ADJUNCTS

7 lb.	(3.18 kg) Mecca Grade Shaniko White Wheat Malt
7 lb.	(3.18 kg) Mecca Grade Lamonta 2-Row Malt
1.5 lb.	(680 g) flaked wheat
40 g	Himalayan salt, in whirlpool

HOPS

0.3 oz. (9 g) Galaxy, 14% a.a. @ 10 min
 0.25 oz. (7 g) Galaxy, 14% a.a., whirlpool
 15 min @ 185°F (85°C)

YEASTS & BACTERIA

1 pack Omega Lactobacillus Blend OYL-605 (see notes)
 1 pack Imperial Kveiking (A44) (see notes)

WATER

Ca 75 ppm, Cl 50 ppm, SO₄ 100 ppm

ADDITIONAL ITEMS

5 lb. (2.27 kg) raspberries, in primary
 5 lb. (2.27 kg) mixed berries (raspberries, blueberries, blackberries), in primary
 raspberry juice concentrate, to taste, in secondary
 Himalayan salt, to taste, in secondary

BREWING NOTES

This is a really fun and easy kettle sour recipe. We have made it with different fruits (and some vegetables) but like the raspberry the best. When not brewing for NHC, we will generally split this 8-gallon recipe into two batches and add different fruits to each. We brew on a Spike Solo, so this is a brew-in-a-bag recipe. Start with RO water and build profile. Mash in at 149°F (65°C) and hold for 45 min. Raise temperature to 154°F (68°C) and hold for 15 min. Mash out at 168°F (76°C) for 15 min. Target a mash pH of 5.2. Boil for 10 min. Chill to 95°F (35°C). Use lactic acid to pre-acidify your wort

to pH of 4.4–4.5. Pitch the Lactobacillus. Purge the kettle headspace with CO₂. (We have a kettle lid with a camlock fitting on top, and we run a line from our CO₂ tank to the kettle and connect to the camlock. We tightly wrap the junction of the kettle and kettle lid with cellophane to attempt to seal the vessel. We purge frequently with CO₂ as the beer is souring.) Hold kettle at 95°F (35°C) for 24–48 hours for souring. Target a pH of 3.2–3.5 depending on desired sourness. Once wort has soured, heat kettle and boil for 15 min. Add hops at 10 min. Add whirlpool hops and salt and hold for 15 min. at 185°F (85°C). Chill to 95°F. Aerate and pitch yeast. Ferment at 95°F. As fermentation activity is slowing (usually within 24–30 hours), add the berries. We put the berries in mesh brew bags and drop into the fermenter. Hold for 2 weeks. Transfer beer to secondary. Add additional concentrated juice and salt to taste. Cold crash and add gelatin. After beer has cleared, rack to keg and force carbonate to 3.0 volumes.

RUNNERS-UP

Silver Medal: Will Dull, Apopka, FL, Brew Club of Seminole County

Bronze Medal: Jose Gomera, East Patchogue, NY with Albania Morales

Category 28

SPICED BEER

132 entries



Jonathan Eckles and Allison Eckles
Savannah, GA
Savannah Brewers League

"Rainforest Dark"
16A. Sweet Stout

Batch volume: 5 US gal. (18.9 L)

Original gravity: 1.060 (14.7°P)

Final gravity: 1.018 (4.6°P)

Efficiency: 70%

Color: 48 SRM

Bitterness: 36 IBU

Alcohol: 5.7%

MALTS & ADJUNCTS

9.5 lb.	(4.31 kg) Maris Otter
1.25 lb.	(567 g) black patent malt
1.25 lb.	(567 g) caramel/crystal malt
9 oz.	(255 g) chocolate malt
10 oz.	(283 g) Munich Malt

HOPS

2.5 oz. (71 g) Fuggles @ 60 min

YEAST

1 pack London English Ale

WATER

Ca 69 ppm, Mg 25 ppm, Na 13 ppm,
 Cl 5 ppm, SO₄ 15 ppm

ADDITIONAL ITEMS

2 oz.	(57 g) cocoa nibs @ 5 min
8 oz.	(227 g) cocoa nibs, at end of 7-day primary
2 lb.	(907 g) toasted coconut, at end of 7-day primary
3	vanilla beans, at end of 7-day primary
8 oz.	(227 g) lactose, in boil
1 tablet	Whirlfloc @ 10 min
1 tsp.	yeast nutrient @10 min

Continued >



BREWING NOTES

Use carbon-filtered Savannah municipal water from Floridan aquifer. Mash at 152°F (67°C) for approximately 60 min. (I sparged too cold, at 125°F (52°C) and did not get good extraction. Suggest warmer sparge.) Ferment at 65°F (18°C). Grind cocoa nibs in coffee grinder and sterilize with ethanol prior to addition. Soak vanilla beans overnight in ethanol to enhance flavor extraction. If is not sweet enough after secondary, add another 8 oz. (227 g) lactose. (Note that ethanol can be any spirit of your choice.)

RUNNERS-UP

Silver Medal: James Brameyer, Mount Airy, MD

Bronze Medal: Rob Hardisty, Fort Collins, CO, Liquid Poets

Category 29

SEASONAL SPICED BEER

39 entries



Jason Bryant
Herndon, VA
Wort Hogs

"Pumpkin Pie Ale"
30B. Autumn Seasonal Beer

Batch volume: 5.5 US gal. (20.8 L)

Original gravity: 1.072 (17.5°P)

Final gravity: 1.020 (5.1°P)

Efficiency: 74%

Color: 12 SRM

Bitterness: 16 IBU

Alcohol: 7.2%

MALTS & ADJUNCTS

8 lb. (3.63 kg) Maris Otter

5 lb. (2.27 kg) US 2-Row

2 lb. (907 g) Weyermann Munich II

1 lb. (454 g) Briess Special Roast

8 oz. (227 g) Weyermann Caramunich 1

8 oz. (227 g) 40°L crystal malt

HOPS

1.25 oz. (35 g) Sterling 12% a.a..

@ 60 min

YEAST

2000 mL starter Wyeast 1968 London ESB

WATER

Ca 50 ppm, Mg 7 ppm, Na 12 ppm,
Cl 55 ppm, SO₄ 55 ppm, HCO₃ 23 ppm

ADDITIONAL ITEMS

5 lb.	(2.27 kg) roasted butternut squash @ 60 min
1 tablet	Whirlfloc @ 5 min
8 oz.	(227 g) lactose @ 5 min
1 tsp.	ground cinnamon @ 5 min
0.5 tsp.	ground ginger @ 5 min
0.5 tsp.	ground allspice @ 5 min
0.05 tsp.	ground clove @ 5 min
0.5 tsp.	ground nutmeg @ 5 min
1 tsp.	ground cinnamon in keg
0.5 tsp.	ground ginger in keg
0.5 tsp.	ground allspice in keg
0.05 tsp.	ground clove in keg
0.5 tsp.	ground nutmeg in keg
1	Madagascar Bourbon vanilla bean, split and scraped, in keg
2 g	yeast nutrient @ 5 min

BREWING NOTES

This recipe is intended to be "pumpkin pie in a glass." The combination of malts provides the sweet, crackery crust; butternut squash provides more "pumpkin" flavor in beer than canned or even fresh pumpkin; the spices give classic pumpkin-pie flavor; and lactose and vanilla supply body, subtle sweetness, and the perception of the whipped cream on

top. Cube and roast 5 lb. (2.27 kg) butternut squash sprinkled with a few tablespoons of brown sugar at 350°F (176.7°C) until caramelized and soft, about 1 hour. Treat water with lactic acid to achieve a 5.2 mash pH. Mash at 155°F (68°C) for about 60 min. Run off and sparge as usual. Add butternut squash to the boil in a nylon bag and boil for 60 min. At end of boil, remove squash and add kettle spices, lactose, and Whirlfloc. Chill, aerate well and ferment in low 60s °F (16–18°C). At kegging, add remaining spices and the split, scraped vanilla bean—vanilla and spices are added directly to the keg, so use a bag or a dip tube screen if needed. The keys to making a standout beer are to use fresh spices, a high quality vanilla bean, and a larger pitch of yeast than you think you need.

RUNNERS-UP

Silver Medal: Scott Rauvola, San Diego, CA, QUAFF

Bronze Medal: Joel McGormley, Zionsville, IN





2023 NATIONAL HOMEBREW COMPETITION

Category 30

SMOKE-FLAVORED BEER

78 entries



Randy Daniels and KC McKinney
Des Moines, IA
Iowa Brewers Union

"Kaltrauch"
6B. Rauchbier

Batch volume:	5.5 US gal.
Original gravity:	1.053 (13.1°P)
Final gravity:	1.010 (2.6°P)
Efficiency:	70%
Color:	15 SRM
Bitterness:	25 IBU
Alcohol:	5.8%

MALTS & ADJUNCTS

4.5 lb.	(2.04 kg) beechwood-smoked malt
4 lb.	(1.81 kg) Barke Pilsner malt
1 lb.	(454 g) Barke Munich malt
1 lb.	(454 g) Bestmalz Red X malt
12 oz.	(340 g) Caramunich III malt
4 oz.	(113 g) melanoidin malt
2 oz.	(57 g) black patent malt

HOPS

1.5 oz.	(43 g) Hallertauer Mittelfrüh, 4.2% a.a. @ 60 min
0.5 oz.	(14 g) Hallertauer Mittelfrüh, 4.2% a.a. @ 10 min

YEAST

Fermentis S-23 German Lager

WATER

Ca 65 ppm, Mg 7 ppm, Na 20 ppm,
Cl 120 ppm, SO₄ 75 ppm, HCO₃ 100 ppm

BREWING NOTES

Mash at 115°F (46°C) for 15 min. and 154°F (68°C) for 60 min., targeting a mash pH of 5.58. Lauter, sparge, and boil 60 min., adding hops as indicated. Chill wort to 56°F (13°C) and ferment for 17 days. Allow the fermenter to naturally rise to room temperature for a 2-day diacetyl rest.

RUNNERS-UP

Silver Medal: Keith Loats, Seven Hills, OH
Bronze Medal: Michael Beck, Griffith, IN,
Illiana Beer Rackers Union (IBRU)

Category 31

WOOD-AGED BEER

103 entries



David Moore and Doug Brown
Carlsbad, CA
QUAFF

"Goats in a Tree in a Mezcal Barrel"
33B. Specialty Wood-Aged Beer

MALTS & ADJUNCTS

6 lb.	(2.72 kg) Weyermann Munich I malt
6 lb.	(2.72 kg) Bonlander Munich malt
5 lb.	(2.27 kg) German Pilsner malt
3.5 lb.	(1.59 kg) chit malt
2 lb.	(907 g) Weyermann Caramunich II malt
1 lb.	(454 g) melanoidin malt
8 oz.	(227 g) Special B malt
4 oz.	(113 g) Weyermann Carafa II Special malt

HOPS

0.65 oz.	(18 g) Magnum, 14.2% a.a. @ 60 min
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YEAST

200 mL slurry Imperial L133 (Global)

WATER

Ca 81 ppm, Na 13 ppm, Cl 88 ppm,
SO₄ 77 ppm, HCO₃ 33 ppm

BREWING NOTES

Mash 10 min. at 128°F (53°C), 60 min. at 148°F (64°C), 10 min. at 158°F (70°C), and 10 min. at 168°F (76°C). Pitch yeast at 45°F (7°C), ferment in primary for 3.5 weeks, then age in a mezcal barrel to taste.

RUNNERS-UP

Silver Medal: Joel McGormley,
Zionsville, IN

Bronze Medal: Mark DeBreaux,
Wimberley, TX

Batch volume:

5 US gal. (18.9 L)

Original gravity:

1.087 (20.9°P)

Final gravity:

1.023 (5.8°P)

Efficiency:

86.8%

Color:

24 SRM

Bitterness:

18 IBU

Alcohol:

8.4%



ON THE WEB

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



Category 32

AMERICAN WILD ALE

91 entries



Sean C. Thomson & Mark Pennick
Denver, CO
The Brew Crew

"SFB 21"
28C. Wild Specialty Beer

Batch volume: 5 US gal. (18.9 L)
Original gravity: 1.057 (14.0°P)
Final gravity: 1.005 (1.3°P)
Efficiency: 70%
Color: 22 SRM
Alcohol: 7.0%

MALTS & ADJUNCTS

First Beer

7.63 lb. (3.46 kg) Pilsner malt
1.25 lb. (567 g) white wheat malt
8 oz. (227 g) aromatic malt
8 oz. (227 g) flaked barley
8 oz. (227 g) spelt
8 oz. (227 g) crystal 60
2 oz. (57 g) Weyermann Carafla III malt

Second Beer

5.56 lb. (2.52 kg) Pilsen dried malt extract
1.65 lb. (748 g) Vienna malt
1.13 lb. (510 g) torrefied wheat
10.56 oz. (299 g) Briess Carapils malt

HOPS

First Beer

2 oz. (57 g) Strisselkasten, 2% a.a.
@ 60 min

Second Beer

0.66 oz. (19 g) Magnum, 11.2% a.a.
@ 60 min
0.75 oz. (21 g) Saaz, 3.7% a.a. @ 10 min
0.75 oz. (21 g) Nelson Sauvin, 12% a.a.
@ 10 min
0.75 oz. (21 g) Saaz, 3.7% a.a. @ 2 min
0.75 oz. (21 g) Nelson Sauvin, 12% a.a.
@ 2 min

YEASTS & BACTERIA

First Beer

1000 mL starter	House Blend
1 pack	Wyeast 3763 Roeselare Ale Blend

Second Beer

1000 mL starter	White Labs WLLP568 Belgian Style Saison Ale
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ADDITIONAL ITEMS

1.32 L Cabernet Sauvignon grape juice concentrate from a 1-gallon wine kit

BREWING NOTES

This is a blend of two beers, refermented with grape juice concentrate from a 1-gallon winemaking kit.

The first beer is a Flanders red-style ale. Mash 60 min. at 152°F (67°C). The only hop addition is 2 oz. of low-alpha Strisselkasten at 60 min. Chill to pitching temperature of about 70°F (21°C), and pitch House and/or Roeselare blend of microbes. Primary 30 days in an HDPE container. (Some natural oxygen ingress through the HDPE during primary is desirable for the style.) Secondary at least 6 months, or as much as 18 months in stainless steel.

Mash: You can alter the mash temperature higher or lower. Because this recipe calls for a blend of *Saccharomyces*, *Brettanomyces*, *Lactobacillus*, and *Pediococcus*, all sugars will be metabolized in time. A lower mash temperature will mean more easily digestible sugars for the *Saccharomyces* and a cleaner beer. A higher mash temperature means more longer chain sugars and more influence from the non-*Saccharomyces* microbes.

Hops: You can use different hops, as Strisselkasten is not always available. I recommend a variety with a floral or herbal aroma, and keep the IBUs around 10. More IBUs than that may inhibit *Lactobacillus*, which is the primary souring microbe.

Microbes: My Flanders red lives in a 10-gallon stainless steel keg, which is a single-vessel solera. Every year, I remove 5 gal. from the tank to blend into a final product and replace the removed volume with 5 gal. of new beer I make after I let it primary in the HDPE. (Let the microbes settle in primary and rack; you don't want the yeast cake in the solera keg to increase every year).

The microbes in my solera are a house blend that gets more complicated with each yearly cycle. At this point, it includes wild-caught yeast, which I isolated from a homebrewed, spontaneously fermented lambic-style ale; commercial blends from various yeast labs; and bottle dregs from commercial sours and wild ales. If you use bottle dregs, make sure they aren't from breweries that pasteurize or use

a killer strain to bottle condition. The Milk the Funk Wiki has a list of breweries whose bottles have good dregs for this purpose.

I recommend a solera, as the product you will have for blending becomes fractionally more mature and complex each year. I am on year 5 of my solera, and in my opinion the product now rivals my favorite commercial sour ales. However, you don't need a solera to make a great sour. My favorite commercial blend for this style is Roeselare Blend from Wyeast. I have made great beers with this blend alone, but it does take time to mature.

After a long time maturing, the Flanders red may become too sour to be enjoyable on its own, so I blend it with a second "clean" beer to cut the acidity, and reintroduce some malt backbone, sweetness, and complexity.

The second beer this year was a saison. My brew club friend Mark Pennick had a simple house saison that had just finished primary fermentation. Mark has won NHC gold in the past for his specialty saison. He gave me 2.5 gal. of his basic saison. He says:

In a grain bag, steep specialty grains in 158°F (70°C) water. Use a 10-gallon kettle with enough room for full volume boil of extract. Pre-boil volume of 7.5 gal. (28.4 L) to make 6.5 gal. (24.6 L). Hop per schedule. Pitch 1 L starter of WLP568 to have at least 265 million cells. Pitch at 72°F (22°C) and hold at that temperature for at least 10 days, maybe up to 14 days.

I pasteurized the Flanders red because I didn't want those microbes to sour the clean saison addition. I heated the red to 135°F (57°C) and held for 30 min. I then chilled it to 70°F (21°C) and blended it with the saison. We sampled different blending ratios and liked 1:1 the most.

I had some Cabernet Sauvignon grape juice concentrate from a 1-gallon wine kit I had never made and decided to experiment. I added the 1.32-liter bag of concentrate to ferment the blended beer. After it was done, I added priming sugar to achieve about 2 vol. (4.5/L) of CO₂ and bottled. Let the bottles condition for at least a month, but longer is better.

Crafting sours is more of an art than a science. You can alter many of these steps and make an exceptional product. Don't be afraid to taste test over time, experiment with something new, and change course as you go.

RUNNERS-UP

Silver Medal: Billy & Theresa Wilks, San Diego, CA

Bronze Medal: Dwayne Haynes, APO, AE



2023 NATIONAL HOMEBREW COMPETITION

Category 33

SPECIALTY BEER

90 entries



Mike and Stephanie Butler
Olathe, KS
Kansas City Bier Meisters

"Between 18 and 50 Ryezenbock"
31A. Alternative Grain Beer

Batch volume: 5 US gal. (18.9 L)

Original gravity: 1.080 (19.3°P)

Final gravity: 1.021 (5.3°P)

Efficiency: 70%

Color: 14 SRM

Bitterness: 22 IBU

Alcohol: 8.3%

MALTS & ADJUNCTS

5.69 lb. (2.58 kg) rye malt

3.25 lb. (1.47 kg) Pilsner malt

3.25 lb. (1.47 kg) Weyermann Munich II

1.94 lb. (879 g) dark wheat malt

1 lb. (454 g) white wheat malt

13 oz. (369 g) flaked rye

8 oz. (227 g) Weyermann Caramunich III

1 oz. (28 g) Weyermann Carafa Special II

HOPS

1.87 oz. (53 g) Hallertauer Mittelfrüh,
2.8% a.a. @ 60 min

1.87 oz. (53 g) Hallertauer Mittelfrüh,
2.8% a.a. @ 10 min

YEAST

365 billion cells Omega OYL-022
Hefeweizen Ale II

WATER

Ca 65 ppm, Mg 1 ppm, Na 2 ppm,
Cl 96 ppm, SO₄ 32 ppm

ADDITIONAL ITEMS

4.0 mL Lactic acid, in mash

BREWING NOTES

Mashed in BrewEasy at 144°F (62°C) for 30 min., then decocted for 156°F (69°C) for 30 min. Added lactic acid to hit mash pH of 5.4. Boiled 90 min. Ferment ramped from 62°F (17°C) to 70°F (21°C) over 8 days. This beer has literally scored between 18 and 50... judges either love it or hate it!

RUNNERS-UP

Silver Medal: Brian Stulak, Palm Harbor, FL, Pinellas Urban Brewers (PUB) Guild

Bronze Medal: Peter Graham, Fishers, IN

Category 34

TRADITIONAL MEAD

33 entries



Steve Fletty
Falcon Heights, MN
Saint Paul Homebrewers Club

"Brazillionaire"
M1B. Semi-Sweet Mead

HONEY

10 lb. (4.54 kg) Brazilian Marmeleiro blossom honey

YEAST

6 g Melody

ADDITIONAL ITEMS

4 gal. (15.14 L) water

4 g diammonium phosphate

5 g Fermaid K

5 g potassium sorbate

1/4 tsp. potassium metabisulfite

MEADMAKING NOTES

Mix honey and water, stir in nutrients. Pitch yeast. After primary fermentation at 68–72°F (20–22°C) completes, stabilize mead using 5 g postassium sorbate and 1/4 tsp. potassium metabisulfite. Back-sweeten to taste, fine, keg, and carbonate. This mead finished at 1.014 (3.5 Bx), too dry for a semi, so was back-sweetened to 1.024 (6 Bx) using more of the same honey.

RUNNERS-UP

Silver Medal: Michael Wilcox, Wichita, KS, Kansas City Bier Meisters

Bronze Medal: Shane & Susan Kammerer, Shawnee, KS, Kansas City Bier Meisters





Category 35

CYSER & PYMENT

34 entries



John Pagano
Carpinteria, CA
SantabarBEERians

"Fresh PRINZ"
M2A. Cyser

Batch volume: 6 US gal. (22.7 L)
Original gravity: 1.102 (24.2 Bx)
Final gravity: 1.049 (12.2 Bx)
Alcohol: 7.9%

HONEY

1.3 lb. (590 g) Manuka honey
 2.6 lb. (1.18 kg) Manuka honey
 3.9 lb. (1.77 kg) Manuka honey
 5.2 lb. (2.36 kg) Manuka honey

YEAST

1 pack Lalvin Sav Blanc QA23

ADDITIONAL ITEMS

7 tablets Campden, 4 months
 2.5 Tbsp. potassium sorbate, 6 months

MEADMAKING NOTES

I probably made this more complicated than I needed to. It started as a test. In a previous life, I was the director of import sales for Pacific Resources Inc., the largest importer of Manuka honey from New Zealand. I wondered what Manuka would taste like in a cyser, so they gave me some to test with. Because I wasn't sure how strong the flavors would be, I started by making four 1-gallon batches by diluting Manuka honey into apple juice; 1.3 lb., 2.6 lb., 3.9 lb., and 5.2 lb., topping off each jug with apple juice. Obviously the OGs were crazy high for the last two, but I went with it: 1.076 (18.5 Bx), 1.110 (26 Bx), 1.170 (38.25 Bx),

1.200 (43.9 Bx). I added the QA23 to each and let them ferment separately for four months yielding the following FGs: 1.000 (0 Bx), 1.004 (1 Bx), 1.054 (13.25 Bx), 1.134 (31 Bx). Upon tasting, the batches were on a continuum of astringent/bitter to very sweet, as they were still high in sugars. I played with different combinations of mixing the four, and finally settled on just racking all four of them to a 6-gallon (22.71-L) carboy along with 2 gal. (7.57 L) of unfermented apple juice and some Campden tabs. Then I popped it into the fridge for a cold crash. Once everything settled, I added some potassium sorbate and racked to a sanitized keg, where I forced carbonated it. Finally, after it was fully carbonated (a little over carbonated to compensate for bottling), I used the Last Straw to bottle the cyser for sharing!

RUNNERS-UP

Silver Medal: Ashley Earle, Concord, CA, Diablo Order of Zymiracle Enthusiasts (DOZE)

Bronze Medal: Stephen Wilson, Syracuse, NY

Category 36

FRUIT MEAD

58 entries



Shane & Susan Kammerer
Shawnee, KS
Kansas City Bier Meisters

"Tupearolo"
M2E. Melomel

Batch volume: 5 US gal. (18.9 L)
Original gravity: 1.058 (14.3 Bx)
Final gravity: 1.000 (0.0 Bx)
Alcohol: 7.8%

HONEY AND JUICE

5.1 lb. (2.31 kg) Tupelo honey
 192 fl. oz. (5.68 L) Knudsen pear juice

YEAST

1 pack Imperial A44 Kveiking

ADDITIONAL ITEMS

Enough spring water to bring volume to 5 gal. (18.9 L)
 2.5 tsp. pectic enzyme
 18 g Fermaid O, pre-pitch
 1.5 g potassium metabisulfite, before back-sweetening
 3.2 g potassium sorbate, before back-sweetening
 approx.
 3 lb. Tupelo honey, pre-packaging/post fermentation/stabilization (back-sweeten)
 tartaric acid to taste, before packaging
 2-step packet SuperKleer KC, before packaging

MEADMAKING NOTES

Clean and sanitize all equipment before making mead. Mix 5.1 lb. (2.31 kg) honey, 6 qt. (5.68 L) pear juice, and enough spring water to reach 5 gal. Add pectic enzyme and nutrients. Because kveik yeast works so quickly at high temperatures (this mead finished in less than a week), treat the must as high YAN (yeast-assimilable nitrogen) and

add all nutrients (i.e., do not stagger) before pitching yeast. Oxygenate (or stir vigorously) for about a minute prior to pitch. No starter was used, just pitch the pouch. This mead was fermented in a bucket wrapped in a honey warming blanket. The blanket maintains a fairly consistent temperature of around 100°F (38°C). If you don't have a blanket, we have also made this mead by fermenting in our garage in the July/August Midwest heat. The temperature is not as consistent due to ebbs and flows from day to night, but it was still warm enough to do the job. Stabilize with potassium metabisulfite and potassium sorbate before back-sweetening. The honey for back-sweetening was about 3 lb. (1.36 kg), adjusted to around 1.025 (6.25 Bx), but this is personal preference. Use tartaric acid to adjust acidity of final mead, again to preference. Clear with SuperKleerKC. This mead is pétillant and was carbonated in a keg. Cheers!

RUNNERS-UP

Silver Medal: Steve Fletty, Falcon Heights, MN, Saint Paul Homebrewers Club

Bronze Medal: Bill Boyer, Kennesaw, GA, North Georgia Malt Monkeys



2023 NATIONAL HOMEBREW COMPETITION

Category 37

SPICE MEAD

49 entries



Travis Hammond & Jessica Oliver
San Diego, CA
QUAFF

"Frankenbutter!"
M3A. Fruit and Spice Mead

Batch volume: 5.5 US gal. (20.8 L)
Original gravity: 1.158 (35.8 Bx)
Final gravity: 1.084 (20.2 Bx)
Color: 38 SRM
Alcohol: 12.5%

HONEY AND JUICE

8 L (2.1 gal.) Vineco California Pinot Noir wine kit, aged 3 years in a hot garage
12 lb. (5.44 kg) orange blossom honey, aged 2 years in a hot garage

YEAST

1900 mL White Labs WLP002 English Ale Yeast slurry
1 packet Lalvin K1-V1116
1 packet Lalvin EC-1118

ADDITIONAL ITEMS

8 cups (1.89 L) hot tap water, primary
1 oz. (28 g) oak chips, primary
0.5 tsp. Wyeast Yeast Nutrient, primary
1 packet Kiesosol/Chitosan, secondary
0.25 tsp. wine tannin (chestnut extract), dissolved in 20 mL water at packaging (36 eye dropper drops per 12 oz. bottle)
1 tsp. citric acid, dissolved in 50 mL water at packaging (48 big medicine dropper drops per 12 oz. bottle)
24 mL Skrewball Peanut Butter Whiskey per 12 oz. bottle at packaging

MEADMAKING NOTES

After racking an English dark mild to a keg, we decided to put some old orange blossom honey and the must and oak chips from an even older wine kit on top of the mild's yeast cake. Fermentation was sluggish, so K1-V1116 was directly pitched on day 2 of primary fermentation. Fermentation stopped at 1.087, so we made a starter of EC-1118 yeast with a little honey and pitched it at high kräusen. The mead only dropped to 1.084 and was sticky sweet, like grape jelly. We balanced the sweetness with citric acid and wine tannin and added the peanut butter whiskey to give it a PB&J flavor. It was still sweet, so we carbonated it to 1.5 vol. (3 g/L) CO₂ in a 2-liter bottle with a carbonation cap just prior to bottling for competition, and something really changed. There are many ways to achieve balance in a mead, and we are glad we finally figured this one out!

RUNNERS-UP

Silver Medal: Matthew Mead, Grand Rapids, MI, Michigan Mead Coalition
Bronze Medal: John Aitchison, Northridge, CA, Maltose Falcons

Category 38

SPECIALTY MEAD

46 entries



Todd Donnelly
Chardon, OH
Society of Northeast Ohio Brewers (SNOB)

"Over the Falls in a Gin Barrel"
M4C. Experimental Mead

Batch volume: 5 US gal. (18.9 L)
Original gravity: 1.124 (28.9 Bx)
Final gravity: 1.020 (5.1 Bx)
Alcohol: 15.6%

HONEY

9 lb. (4.08 kg) clover blossom honey
9 lb. (4.08 kg) eucalyptus blossom honey

YEAST

2 Packs Lalvin 71B

ADDITIONAL ITEMS

12.5 g GoFerm Protect for yeast rehydration
7 g FermAid O @ 24 hours
7 g FermAid O @ 48 hours
7 g FermAid O @ 72 hours
7 g FermAid O @ 7 days
Sparkolloid to clarify after racking

MEADMAKING NOTES

I did this as two separate honey fermentations (clover and eucalyptus) that I blended together, but you could do them together if that's easier. For a 5-gallon batch, use 9 pounds each and dilute with water to hit an OG of 1.125, assuming that you'll get about 100 gravity points of attenuation from the yeast. You can always back-sweeten to whatever level of sweetness you prefer, I like this to be

semi-sweet and 1.015–1.020 final gravity. Rehydrate 10 g (2 packs) of Lalvin 71B in 250 mL warm water with 12.5 g GoFerm. Use staggered nutrient additions of 7 g Fermaid O at 24 hours, 48 hours, 72 hours, and 7 days. Primary will take 21–30 days, then rack and clarify (I like Sparkolloid). I used a 5-gallon used whiskey barrel seasoned with 750 mL locally-sourced gin, but you could also use oak cubes, spirals or chips. Let it sit and taste every few days until you are happy with the oak and gin contribution—that was 30 days for me. You want the mead flavors to be present with the gin botanicals and oak as pleasant contributors. Keg or package as you prefer and enjoy over time as the flavors continue to develop.

RUNNERS-UP

Silver Medal: Steve Fletty, Falcon Heights, MN, Saint Paul Homebrewers Club
Bronze Medal: LaVaughn & Yakima Barker, Brookfield, WI



Category 39

STANDARD CIDER OR PERRY

48 entries



Annie Johnson
Seattle, WA
North Seattle Homebrewers

"Norman"
C1C. French Cider

Batch volume: 6 US gal. (22.71 L)

JUICE

6 gal. (22.71 L) French Cider Apple Juice
Blend: Frequin Rouge, Muscadet de Dieppe & Binet Rouge

YEAST

1 tsp./gal. Epernay II

ADDITIONAL ITEMS

3 tablets Campden

CIDERMAKING NOTES

I got a blend of juice and this was the breakdown. Ask your local homebrew store to get juice or shop online. The French harvest is October to December, so juice is usually available in late fall. Varieties were Frequin Rouge, Muscadet de Dieppe,

and Binet Rouge. If you can't get these varieties, use low-tannin culinary apples, which you can balance with tannins later in the process. Juice kicks off with a natural fermentation. On day 3, add the cultured yeast. Fermentation is slow. Ferment cool at 60–64°F (16–18°C).

Rack several times for clarity, and then condition on French oak cubes (I leave the cubes in for one to two weeks). Carbonate and keg or bottle—you can pasteurize bottles.

RUNNERS-UP

Silver Medal: Richard Shoff,
Baldwinsville, NY

Bronze Medal: Jeff Carlson,
Grand Rapids, MI, PrimeTime Brewers

Category 40

SPECIALTY CIDER OR PERRY

66 entries



James Werner
New Berlin, WI
Beer Barons of Milwaukee

"Fight Fire with Fire"
C2F. Specialty Cider

Batch volume: 1.5 US gal. (5.7 L)

Original gravity: 1.165 (37.2 Bx)

Final gravity: 1.074 (18.0 Bx)

Alcohol: 15.4%

JUICE

5 gal. (18.9 L) unpasteurized apple juice

YEAST

1 packet Lalvin 71B

ADDITIONAL ITEMS

Go Ferm for yeast rehydration
3 g Fermaid K, in primary
6 g DAP, in primary

CIDERMAKING NOTES

Start with a good-quality, well-balanced, unpasteurized apple juice. Mine was from a local orchard and pressed from modern apples such as Gala, Wealthy, Honeycrisp, McIntosh, Johnathon, and Cortlands. In a large pot I slowly heated the juice to a gentle boil. I boiled for several hours, reducing the juice to around 1.5 gal. (5.68 L). After the juice cooled to room temperature, I oxygenated with pure O₂ for 2 min., then pitched 1 pack of Lalvin

71B yeast that was rehydrated with Go Ferm according to directions. I also added 3 g of Fermaid K and 6 g of DAP yeast nutrients on the first day as well. Ferment at about 62°F (17°C). When fermentation was over, I racked, cold crashed, and aged the cider for several months. I kegged, force carbonated, and bottled. This cider should age well for several years if packaged and stored properly.

RUNNERS-UP

Silver Medal: Jeff Carlson,
Grand Rapids, MI

Bronze Medal: Jeff Carlson,
Grand Rapids, MI





Rites of Spring, Summer & Autumn

LAGER AND THE BIRTH OF
THE BAVARIAN BEER GARDEN

BY FRANZ D. HOFER



It was one of those days when the sunbaked paving stones of Munich radiated an infernal heat. We needed a beer, and quickly. It just so happened that the Augustiner-Keller beer garden was a short walk away from the center of town. Away we went.

The summer heat melted away the moment we crossed the threshold into the beer garden. We threaded our way past stalls selling bratwurst and pretzels to a counter where a barkeep was tapping beer straight from the barrel. Frothing beers in hand, we headed into the beer garden to partake of a venerable tradition: an al fresco Maß (liter) of beer in the shade of the chestnut trees.

This sublime rite of the warmer months blossomed in nineteenth-century Bavaria. In 1812, King Maximilian Joseph of Bavaria profoundly shaped beer garden culture with a Solomon-like decree that diffused tensions between Munich's innkeepers and brewers. The dispute had its roots in a set of liberalizing reforms that Maximilian had enacted, first as duke, and then as king. Some of these reforms favored private brewers, and breweries began to proliferate along the Isar River. During the summer months, the citizens of Munich took to spending more time at the beer cellars on the banks of the Isar, preferring these shaded groves to the stuffy inns where the beer was less fresh.



Innkeepers were incensed. They petitioned their good King Max, an epicurean friend of brewers and innkeepers alike, to intervene. On 4 January 1812, he decreed that brewers could keep right on selling their beer fresh from the cellars beneath their leafy gardens. But in a nod to the innkeepers, he limited beer gardens to the sale of beer and bread.

WHAT'S IN A DATE? ST. GEORGE, ST. MICHAEL, AND THE BIRTH OF LAGER

Now, as for those beer cellars that gave rise to beer gardens?¹ Beer gardens in Bavaria and beyond are difficult to imagine without lager. The history of both are tightly interwoven.

In brewing lore of yore, the Feast of St. George on 23 April marked the historical end of the brewing season. The sealing of the brew kettles for the summer influenced both the evolution of lager beers and the leafy beer gardens where Bavarians drink them.



In the centuries before the invention of mechanical refrigeration, brewers sunk cellars on the grounds of their breweries or in nearby embankments, filling them with ice hewed in February and March from the still-frozen lakes of the region so they could store beer through the summer.

Even though monasteries had been storing their beer in cellars and caves since the Middle Ages, the sinking of cellars in Bavaria began to accelerate in response to a decree promulgated by Duke Albrecht V in 1553 banning summer brewing. One reason for this decree prohibiting brewing between the Feast of St. George (23 April) and the Feast of St. Michael (29 September) was a fear of summer fires caused by hot brew kettles. More importantly, by the early 1500s brewers and regulatory authorities had learned a fair amount about the salutary effects of cool fermentation and cold maturation on beer quality.

Cold storage in cellars—what we now call lagering—also helped brewers ensure a steady supply of fresh and stable beer during the summer months when their kettles were sealed. As a further means of keeping the temperature of their cellars cool, brewers planted broad-leaved and shallow-rooted horse chestnut trees above

their ice-laden cellars. From there, it wasn't an enormous leap from the cellar to the shade. Gradually, enterprising brewers began setting out tables and chairs under the leafy canopy shading their cellars, and voilà: the beer garden.²

THE SUMMER BREWING PROHIBITION: NATURE MEETS CULTURE

Lager is a relatively recent phenomenon in the history of beer, a phenomenon that benefited from the convergence of natural and cultural forces. Brewers came to realize that fermentation and maturation in cold cellars resulted in cleaner-tasting beer. As scientists later confirmed, cooler fermentation temperatures between 4 and 10 Celsius inhibit the production of microbes that ruin beer. Top-fermenting yeast (what we now call ale yeast) goes dormant at these temperatures, which favored the evolution of bottom-fermenting strains of yeast. Conversely, ale yeast is happiest above 15 Celsius, but so, too, are the microbes that can turn beer sour.

Bottom-fermenting yeast might not have carried the day in Bavaria if not for the dynamics of power and culture. Bavarian authorities were initially reluctant to embrace bottom-fermented beer, and the Munich city council even continued to oblige brewers to brew top-fermented beer (ale) as late as 1502. But this antipathy toward bottom-fermented beer soon faded, for even the authorities knew a good beer when they tasted one.

Promulgated by Dukes Wilhelm IV and Ludwig X as part of the Bavarian State Ordinance of 1516, the "Reinheitsgebot" (Purity Law) implicitly fosters the development of bottom-fermented lager by stipulating the maximum prices for beer sold during the summer (Sommerbier, also called Märzen) and winter (Winterbier).³ A key passage prescribes that a Maß (roughly a liter) of beer could cost up to one pfennig from Michaelmas in September through the Feast of St. George in April, while beer sold during the summer could cost up to two pfennigs.

Why is this important? Thanks to their advisors, the dukes were aware that the beer brewed in springtime required more malt, more hops, and more time to mature in cold cellars so that it would hold up over the summer months. It was only fair that brewers could charge more for these higher-quality Märzen beers that had been fermented cool and lagered cold for several weeks or months.

Significantly, the dukes immediately follow this passage with another that explicitly names Märzen: "But whosoever brews

or would otherwise have [for sale] a beer other than Märzen shall in no circumstance serve or sell this beer for more than one pfennig per Maß.”⁴ What’s more, this declaration, by limiting the price a brewer or innkeeper could charge for non-Märzen beer, implicitly discourages the brewing and sale of top-fermented beers.

Despite the vaunted “Reinheitsgebot,” not all Bavarian beer was gold. The language of 1516 may have discouraged summer brewing (and its attendant bad beer), but it didn’t explicitly prevent it. In response to persistent beer quality issues in the intervening decades, Duke Albrecht V proclaimed in 1539 that brewers were to provision the city of Munich with beer through September. What’s more, they were “not permitted to brew beer after the Feast of St. George” in April.⁵ (It’s worth noting that this ordinance also explicitly prescribed bottom fermentation.)

Language prohibiting summer brewing was eventually codified as part of the revised Bavarian law code of 1553. Duke Albrecht V’s ordinance sought to limit the ever-present threat of spoiled beer. It also empowered authorities to make the rounds in the spring to seal the brew kettles. They didn’t return until Michaelmas in the fall to break the seal.

The Bavaria-wide Sommersudverbot (summer brewing prohibition) of 1553 contributed much to the history of lager. In particular, by recognizing that beer brewed during the summer was much more susceptible to spoilage, the framers of the ordinance explicitly promoted robust bottom-fermented Märzen (“March beers”) that would last the summer and keep Bavarians in beer till late September.

But how did we get to bottom-fermenting lager yeast? To answer that question, we need to step back about seventy years.

A DISPUTE BETWEEN BREWERS AND BAKERS OVER YEAST

At first blush, the Munich Baker-Brewer Dispute might look like a curious footnote in the annals of late medieval history. But this dispute, which flared up occasionally between 1481 and 1517, opens a window onto one of the most momentous shifts in brewing history, the emergence of lager. When we focus on what the decades-long dispute was all about, we notice something interesting: yeast. Not only does this dispute confirm that medieval brewers and bakers knew what yeast was, it also reveals that Munich’s brewers were beginning to practice a new kind of brewing, one that involved cooler temperatures. Brewers soon

grasped that the resulting beer was resistant to souring during fermentation, kept longer, and, most importantly, tasted better.

This newfound knowledge didn’t help bakers, who were obligated by charter to purchase their yeast from brewers. Unhappy with the yeast yielded by this hopped and bottom-fermented “Bohemian beer,” the bakers lodged a complaint with the authorities in 1481.⁶ Among other things, the yeast’s lower active temperature meant longer rise times for bakers, making it less efficient for baking than top-fermenting (ale) yeast.

The conflict surfaces sporadically in decrees and ordinances over the next several decades. One particular ducal proclamation stands out as a significant signpost on the road to lager. In 1500, the duke required brewers to set up a common cellar “where the different yeasts can be inspected at any time,” signaling an awareness that the kind of beer played a role in the quality of yeast for bakers.⁷ The ordinance further obligated brewers to produce extra yeast “in the event of a yeast shortage during the hot months”—a clear indication that summer brewing was tapering off as brewers embraced cool fermentation and cold lagering.

Dukes Wilhelm IV and Ludwig X finally put an end to the dispute in 1517. Recognizing how dramatically the realities of brewing had shifted, the dukes restricted the brewers’ yeast-making privilege to the winter months, permitting the bakers to prepare yeast from April through August.

If the ducal decision handed down in 1517 reflected the rapid rise of lager beer, the proclamation of the Sommersudverbot two decades later in 1539 cemented the dukes’ promotion of bottom-fermented beer. Ultimately, the revised Bavarian law code of 1553 extended this prohibition to the entire Bavarian realm.

Which brings us back full circle to the need for beer cellars—and eventually to the birth of the beer garden.

THE BEER GARDEN ON THE HILL

It may have taken awhile for the beer garden to arrive on the scene, but flourish it eventually did. A map of Munich’s Haidhausen district from 1850 depicts beer cellars lining the streets of the Isar River’s eastern embankment chock-a-block. To the right of the map, a legend lists forty-two Bierkellers that existed by 1803. Though not every Bierkeller





boasted a beer garden, the concentration of beer cellars earned the district the nickname “Kellerstadt” (Cellar City).

A decade later, Joseph Pschorr began work on what would become Bavaria’s largest Bierkeller. It took him over ten years to build, but upon completion it was christened with the epithet “Bierfestung,” or “beer fortress.” One contemporary described it as a colossal structure, “like a German oak with roots that reached deep into the ground.”⁸

Not to be outdone, prominent Munich brewers built their own “beer castles,” structures that locals and visitors alike compared to the palaces of the aristocracy. In an account from the 1840s, the Munich writer Ludwig Steub marveled at the “enormity of the majestic vaults” that “bore on their backs mighty buildings resembling manor houses and castles.” Steub continued: “These castles rise up in the midst of a broad grange with numerous different features. Most striking are the many, many benches for thirsty guests in search of refreshment, all arranged in a painterly fashion under the canopy of old lindens and proud chestnuts.”⁹ (One particularly fine example of this “castle architecture” that still exists is the Löwenbräu Keller just to the northwest of Munich’s city center.)

These magnificent and wildly popular Bierkellers may be fewer and farther between these days, and the Kellerstrasse that still runs through Haidhausen an echo of the district’s halcyon past. Yet that doesn’t mean Munich is devoid of shady groves for spring and summer drinking. Far from it. You’ll still find historic beer cellars at places like the Hofbräukeller and Paulaner’s Salvatorkeller (and many more in Franconia to the north), even if the beer garden has largely left its perch atop the cellar to leaf out across Bavaria’s cities and countryside.

A NOTE ON SOURCES

All direct quotes are from secondary sources that draw upon archival material housed in the Bavarian State Archive and the City Archive of Munich. These sources include: Karin Hackel-Stehr, “Das Brauwesen in Bayern: vom 14. bis 16. Jahrhundert,” Ph.D. diss. (1987); Michael Stephan, “Münchener Brauer zwischen Stadtrat und Landesherrn: Die Entwicklung der Münchener Braulehen vom Mittelalter bis 1814,” in Eymold, (ed.), *Bier.Macht.München* (2016); and Astrid Assel and Christian Huber, *München und das Bier* (2009). Secondary sources on the early history of hops and bottom fermentation include Franz Meussdoerffer and Martin Zarnkow, “Biere des Mittelalters,” in *Bier in Bayern* (2016), and Michael Nadler, “Reinheitsgebot und Staatssäckel,” in *Bier in Bayern* (2016). I am also grateful to Matthias Trum and Christian Fiedler for their help in trying to find a bridge between the Sommersudverbot of 1553 and the later proliferation of beer gardens.

NOTES

1. I use the terms “beer cellar” and Bierkeller here interchangeably. The German plural of Bierkeller is Bierkeller, but I write the plural here as Bierkellers—apologies to any German speakers in the crowd. And with apologies to my Franconian friends, I use beer garden (Biergarten) and Bierkeller interchangeably as well.
2. If beer gardens were already popping up in Munich in the eighteenth century, their number exploded in the nineteenth century, thanks in no small part to King Maximilian’s reforms. What’s missing in the sources is a “bridge” from the Bavarian Sommersudverbot (summer brewing prohibition) of 1553 to the emergence of beer gardens in the 1700s in Bavaria and Franconia, which was absorbed into Bavaria between 1803 and 1806. The first records we have of beer gardens in the region date to 1728.

in Munich and 1739 in Bamberg. (See Ursula Eymold, ed., *Bier.Macht. München*, p.161, and Christian Fiedler, *Bamberg: Die Wahre Hauptstadt des Bieres*, p.18.) Fiedler cites evidence of cellars used to store beer as early as 1697, and lists several breweries with beer cellars that show up in the records between 1708 and 1719 (Correspondence, 16 February 2023). We can thus assume that the practice of lagering beer was fairly widespread in Franconia by the 1700s. But absent hard evidence that people were serving and consuming beer in the groves atop beer cellars before that, we're left to conjecture that the seeds of the beer garden planted by the *Sommersudverbot* had to wait for an ideal set of historical convergences to sprout during the eighteenth century. If the forces of modernity—industrialization, urbanization, and a romanticizing of nature in the face of these rapid transitions—spurred the proliferation of beer gardens in the nineteenth century, the question still remains as to why they appeared in the first place, and rather belatedly at that. At any rate, the Bavaria-wide codification of the

- Sommersudverbot* in 1553 stimulated if not necessitated the expansion of lagering space in cellars throughout Bavaria, and possibly in neighboring lands like Franconia as well.
3. Known as the Reinheitsgebot since the early twentieth century, this small section of the Bavarian law code is actually the culmination of over a century's worth of beer ordinances that appeared in cities across Bavaria, Franconia, and the Oberpfalz.
 4. Jennifer McGavin, "German Reinheitsgebot Text and Translation." This source renders the Reinheitsgebot in modern German. Here as elsewhere, all English translations of German sources are mine.
 5. See "A Note on Sources" at the end of this article.
 6. Introduced into Munich around 1480 by Bohemian brewery hands, "Bohemian beer" involved both cooler temperatures and higher hopping rates than were common in Bavaria at the time. To be sure, hopped beer was already widely available in places like the Hansa cities of the thirteenth century, and sporadic references to bottom fermentation had cropped up in

sources in Franconia and the Oberpfalz as early as the fourteenth century. But "Bohemian beer" is significant in that it constitutes one of our first records of hopped and bottom-fermented beer, the antecedent of today's lager.

7. Recall that in 1502 the Munich city council had obligated brewers to brew top-fermented beer. The dynamics of the power struggle between the city council and the duke is beyond the scope of this article.
8. Cited in Eymold (ed.), *Bier.Macht. München*, p.160.
9. Ludwig Steub, *Allgemeine Zeitung* (23 July 1841), cited in ibid, p.160.

Franz D. Hofer experienced a beer conversion during his first study year abroad in Germany, where he learned that there was more to life than Labatt's. From that moment he began honing his appreciation of beer, stoking his passion even more after becoming a homebrewer in grad school. Franz is a cultural historian, beer judge, and author of the Tempest in a Tankard blog (tempestitatankard.com). When not brewing, teaching, or writing, Franz enjoys hiking and cycling—preferably when there's beer involved along the way.

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THE RETURN OF THE GREAT PUM





By Mark Pasquinelli

PKIN

*Linus never got to see
the Great Pumpkin,*

but the craft beer community is a more fortunate lot. We've already witnessed his arrival and bided our time while he took a breather, and now we're about to experience pumpkin beer's triumphant return, rising once again from the most sincere breweries and resuming its rightful place as America's favorite seasonal brew.

It feels like many lifetimes ago since I last wrote about pumpkin beer (See "Pumpkin Beer: The Holiday Crowd Pleaser," Zymurgy, Nov/Dec 2008). The style was becoming "a thing," about to explode onto the craft and homebrew beer scenes. In those halcyon days, it was easy to pluck a few dozen outstanding examples from bottle shop shelves for a tasting party. →



Then, just as suddenly, the boom went bust. Pumpkin beer haters, like Linus's sister Lucy, rejoiced, saying, "I told you blockheads so."

What happened? Too much of a good thing, perhaps—the style a victim of its own success? My belief is that many of the breweries weren't sincere and brewed pumpkin ale out of a sense of obligation rather than love, as some brewers now do with IPA. The commensurate drop in the style's quality showed in the marketplace.

Yet I saw this correction as the best possible scenario. The herd needed thinning, and now pumpkin beer—a wonderful but strangely polarizing style—is poised for a comeback, reborn with renewed vigor, with a chance to bounce back even stronger.

Two local brewpubs confirmed my beliefs, citing robust sales last fall. Bolstering those reports, tastings of several regional selections—Southern Tier's Pumking, Cigar City's Great Gourd, and Tröegs' Master of Pumpkins—proved that the style is better than ever.

Homebrewers shouldn't miss out on this resurrection, either. So, let's hop aboard the Great Pumpkin Express and brew your own.

HISTORY

Before getting into the nitty-gritty, a little history is in order. William Owens of Buffalo Bill's Brewery in Hayward, Calif., is credited with having created the modern craft style in 1985. Inspired by one of George Washington's recipes, he roasted homegrown pumpkins, which were then chopped and added to an amber ale mash. Unfortunately, the resulting brew had little flavor, a problem Owens solved by adding pumpkin pie spice. Almost 40 years later, Buffalo Bill's still brews its creation, plus an imperial version. Yet the good gourd's historical roots go much deeper, to colonial times, making pumpkin ale America's first indigenous beer.



For the resource-strapped colonists, pumpkin (or *pompion*) wasn't a long-awaited seasonal treat. It was used for practicality's sake, a literal matter of survival. Wheat and barley were scarce and targeted for bread. Oats and cereal grains went for cooking and livestock feed.

That left pumpkin—an American fruit unknown to Europe before the 16th century—to fill the void. It was plentiful, it grew like weeds, and it went into everything. According to a 1791 history of Connecticut targeted for a British audience, this included "bread, custards, molasses, vinegar, and, on thanksgiving day, as a substitute for what the Blues Laws brand as antichristian minced pies."

And it also made good beer, probably as the entirety of the mash. There don't appear to have been any go-to spices or flavorings in those early recipes. Like the grains, they were probably scarce and expensive to boot. But additions like spruce and molasses did find their way into those early ad hoc recipes. The colonists simply made do with what they had, much the same way the Belgians brewed their farmhouse saisons.

In keeping with the cyclical pattern of the style, pumpkin beer's popularity began to wane in the early 19th century. There are several possible explanations. Quality malt was more accessible, concurring with the arrival of German brewers, who were more comfortable using traditional fermentables. Social shaming by influencers of the day also can't be discounted. As the United States shifted gears from an agrarian to industrial society, the gourd became shunned, regarded as gauche.

Later in that century, pumpkin reappeared in beer—this time as a flavoring, but it never achieved its previous popularity, until Owens resurrected the style 100 years later.

MY VISION

Like Owens' creation, my first pumpkin ale was inspired by a beer: Shipyard Brewing's Pumpkinhead Ale. Having no information on how to clone it, I guessed and added crystal 40 to a pale malt base, hopped lightly, added spices, and fermented with Kölsch yeast. Like Pumpkinhead, no pumpkins were harmed. To my surprise, it was a huge hit

< Crookneck squash, also known as yellow squash, is a cultivar of *Cucurbita pepo*, the species that also includes some pumpkins and most other summer squashes.

THE EVERY CHANGE BEING MADE TO TRANSLATE MY VISION OF PUMPKIN PIE IN A GLASS INTO REALITY.

at a homebrew club meeting, and pumpkin beer became a seasonal staple in my homebrewing repertoire.

That was almost 20 years ago. Since then, my recipe has been tweaked numerous times, with every change being made to translate my vision of pumpkin pie in a glass—both in appearance and flavor—into reality.

CRAFTING THE RECIPE

Pumpkin is amenable to many beer styles. I've enjoyed ones using stout, porter, and brown ale as a base. One of my favorite homebrews was a saison I made with

smoked pumpkin and spices (see "World of a Thousand Saisons," *Zymurgy*, Jul/Aug 2018). But after all was said and done, I needed a style that was true to my vision of a homebrew that mimics pumpkin pie in every way. Thus, amber ale was the no-brainer choice.

My pumpkin ale is a robust brew, needing a solid malt foundation to support generous pumpkin and spice additions. The grain bill's base is primarily Maris Otter, fortified by light Munich, to ensure a complexity of rich, bready malt flavors. And since these malts are readily available in liquid form, my recipe is easy to convert for extract users.

Next come the specialty malts. Aromatic malt intensifies the maltiness and also adds a touch of color. Since discovering honey malt at the Pittsburgh Homebrew Con, it's found its way into my recipe (and into several other of my homebrews). A healthy dose provides for bakery flavors reminiscent of pie crust.

Light brown sugar is the final fermentable, boosting both the gravity and color. Some of my earlier pumpkin beer renditions were more desserty and alcoholic, with ABVs approaching 8%. But as a concession to age and wanting to quaff a few in a sitting, I've progressively low-

ered my recipe's original gravity to a more sessionable level, resulting in an ABV just over 6%.

I love making IPAs, so hopping pumpkin ale feels atypical. Restraint (something I'm not known for) is in order. All that's needed is a small bittering dose—just under 20 IBUs. Virtually any hop will suffice. I currently use my old standard Magnum—replacing Fuggle—to decrease the vegetal load.

The choice of yeast is important. Many homebrew recipes call for the standby California Ale yeast. It's a fantastic product, but it ferments too dry. My recipe requires some residual sweetness and nothing works better than White Labs WLP002 English Ale yeast. You can't beat the strain's sublime flocculation, either. It's also my go-to for brews like winter warmers and pastry stouts. I make a 2-liter starter and pour the supernatant off the slurry before starting fermentation 68°F (20°C) and gradually ramping to 72°F (22°C) to ensure complete attenuation.

THE STAR OF THE SHOW

Like making an omelet, one can't brew pumpkin beer without breaking a few pumpkins. However, it must be the proper type of pumpkin.

The traditional jack o' lantern variety doesn't have enough meat and lacks flavor. I use crookneck pumpkins, which are used for pies and (I'm told) and by a well-known manufacturer for its canned pumpkin. For lack of a better word, the crook-neck looks like a cashew on steroids and can easily be homegrown. Where I live in Pennsylvania, they're readily available at grocery stores and farm markets. For city dwellers, canned pumpkin will more than suffice. All I request is that you refrain from brewing until after Labor Day—prematurely promoted pumpkin beer is one of my pet peeves.

I prep the fresh pumpkin a few days before brewing and store it in the fridge. I aim for an addition of about a pound of pumpkin per gallon, which translates into about two medium sized crooknecks. Adding a little more to the recipe won't hurt a thing—or the excess pumpkin can be frozen for longer term storage.

Cut the pumpkins vertically into several sections and then horizontally

< Place the pumpkin sections on a foil-covered cookie sheet, liberally sprinkle with brown sugar, and roast at 350°F (180°C) until tender, which usually takes about two hours for the heftier pieces.



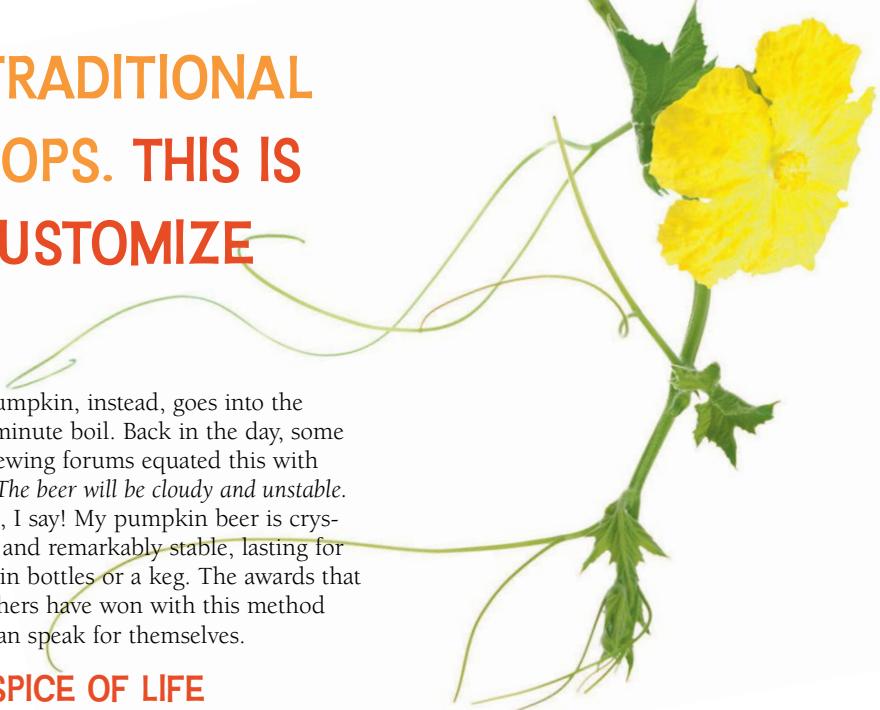
SPICES REPLACE THE TRADITIONAL FLAVOR AND AROMA HOPS. THIS IS AN OPPORTUNITY TO CUSTOMIZE YOUR PUMPKIN BEER.

half those sections. I used to toss out the seeds (and surrounding pulp), but I've found that roasting them produces some wonderful nutty nuances. Place the pumpkin sections on a foil-covered cookie sheet, liberally sprinkle with brown sugar, and roast at 350°F (180°C) until tender, which usually takes about two hours for the heftier pieces.

I'd always been worried that not separating the skin from the pumpkins would lend bitterness to the brew, but this doesn't seem to matter. A local brewpub, Eclipse Craft Brewing, slices its pumpkins like lunchmeat—unskinned—then roasts, and presses the product to extract the juice—with no ill effect. However, I'm still a creature of habit and trim the skin before cubing the pumpkin to expose more surface area.

The hard work has already been done for canned pumpkin users. They only have to roast the meat until the brown sugar caramelizes.

At this juncture, opinions diverge about where to add the pumpkin, with some homebrewers becoming passionate. Many insist that the pumpkin must be mashed, supplemented by large amounts of rice hulls. However, as William Owens discovered and the colonials already knew, mashing extracts only sugars and little flavor.



My pumpkin, instead, goes into the full 60-minute boil. Back in the day, some homebrewing forums equated this with heresy: *The beer will be cloudy and unstable*. Rubbish, I say! My pumpkin beer is crystal clear and remarkably stable, lasting for months in bottles or a keg. The awards that I and others have won with this method more than speak for themselves.

THE SPICE OF LIFE

Spices replace the traditional flavor and aroma hops. This is an opportunity to customize your pumpkin beer. For example, I don't care for cloves. Another friend doesn't like nutmeg. The key thing to remember is that, regardless of your chosen profile, don't settle for pie spice blends. They're formulated to appeal to bland, mass-market tastes and deliver accordingly.

Cinnamon is my dominant spice, and the Saigon variety is my go-to for its fragrance and fiery flavor. It's usually on sale around the holidays. Nutmeg is next, and fresh ground is best. Ginger lends supporting notes. Again, I use freshly grated. If using powdered ginger, decrease the amount from a tablespoon to a teaspoon. The use of allspice has been a point of contention for me. My earlier iterations didn't include it (although I'm pretty sure

my wife may have sneaked some in). I've since relented and include a few crushed berries. In small amounts, I must confess that it lends a certain *je ne sais quoi*—a little bite that wakes up the flavors.

There is one caveat to the above additions: I spice aggressively. If the quantities I use seem scary, cut back. You can add more later in the form of a "tea" made with the spices dissolved in a small quantity of hot water. Just remember that once too much of something is in, it's impossible to take out—which leads to the final spice.

Vanilla is my wild card. It's added a few days before kegging or bottling—not so much for its taste, but for its ability to blend the flavors and add creaminess. It's a subtle addition—something that's not readily apparent, but it would be missed if excluded. Thus, I add a small amount—about two teaspoons, tops. And it goes without saying to use the good stuff, not imitation.

I don't recommend adding a whole bean. Vanilla is easy to over-do; it will dominate the flavor profile and never mellow with age. An alternate suggestion, however, would be to use a vanilla bean-vodka tincture and add it drop by drop to taste.

PUTTING IT TOGETHER

Everything is straightforward from this point. Mash the grains at 155°F (68°C) to achieve a more robust body, sparge, and then put the pumpkin into a mesh bag (unless you want a huge mess) and boil



< My pumpkin goes into the full 60-minute boil.

for 60 minutes. Be sure to include the residual juice. I keep my mesh bag slightly raised by tying it to one of the kettle handles to ensure that the pumpkin doesn't touch the bottom of the kettle and scorch. Add the light brown sugar with about five minutes remaining in the boil. The spices are stirred in at knockout, and the aromas will be heavenly.

White Labs WLP002 is an absolute beast. Fermentation will be fast, furious, and essentially done in three days, but I let mine go for about a week. Now's the

opportunity to taste and perhaps add more spices. Those wonderful aromas that are unleashed at knockout also mean you're losing volatile flavors. For me, a second spice addition—cinnamon and nutmeg—is a must.

Throughout any extra spice additions, be sure to taste every few days and don't be afraid if the flavors seem wonky at first. You can take it to the bank that, as if by magic, the spices will gel, transforming your homebrew into pumpkin pie in a glass.

Kegging and bottling is straightforward but be careful not to over-carbonate so your homebrew doesn't become spritzy. Once packaged, the flavors are remarkably stable, with only slight mellowing. Batches I brew in the fall are still tasty the next summer.

I prefer to savor my pumpkin beer from a goblet, and I must admit one of my guilty pleasures is pre-coating the glass rim with a mixture of cinnamon and Demerara sugar before kicking back, savoring, and enjoying the Return of the Great Pumpkin at my most sincere homebrewery.

RESOURCES

1. Grimm, Lisa, "Pumpkin Beer History: Colonial Necessity to Seasonal Treat," March 24, 2020, www.seriousseats.com/pumpkin-beers-colonial-necessity-to-seasonal-treat-beer-history-brewing
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3. Weikert, Josh, "The Origins of Pumpkin Beer," September 7, 2020, www.beerconnoisseur.com/articles/origins-pumpkin-beer

Mark Pasquinelli is a regular contributor to Zymurgy. He resides in the bucolic town of Elysburg, Pa., where he spends his time in varying degrees as a husband, writer, homebrewer, microbiologist, and manservant for seven felines.

Brew This!



Return of the Great Pumpkin Ale

Batch volume: 5 US gal [18.9 L]
Original Gravity: 1.062 [15.2°P]
Final Gravity: 1.014 [3.6° P]
Efficiency: 72%

MALTS

7.0 lb. [3.18 kg] Crisp Maris Otter malt
 2 lb. 6 oz. [1.08 kg] Weyermann Light Munich malt

HOPS

0.35 oz. [10 g] Magnum 14.0% aa @ 60 min

ADDITIONAL ITEMS

5.0 lb. [2.27 kg] pumpkin, prepared as directed @ 60 min
 0.5 lb. [0.23 kg] light brown sugar @ 5 min
 0.5 tsp. Wyeast nutrient @ 10 min
 1 tablet Whirlfloc @ 5 min

YEAST

2 L starter White Labs WLP002 English Ale

BREWING NOTES

Add 1 tsp. calcium chloride for soft water or adjust to your water profile. Mash at 155°F [68°C] for 60 minutes and sparge to collect 6.0 gallons [22.7 L] of wort. Boil 60 minutes, adding additional items as directed. Chill and ferment at 68°F [20°C], gradually ramping to 72°F [22°C] until fermentation is complete. Spice again if needed and add vanilla at packaging. Cold crash to 38°F [3°C] and keg or bottle at 2.3 vol [4.6 g/L] CO₂.

EXTRACT VERSION

Steep the specialty grains for 30 minutes at 155° [68°C] in 5.75 gal [21.8 L] of water. Add 5.25 lb. [2.38 kg] Maris Otter liquid malt extract and 2 lb. [907 g] Munich liquid malt extract and follow all-grain directions from boil. Top off volume if necessary.

Bitterness: 19 IBU
Color: 13 SRM
Alcohol: 6.4% by volume

2 lb. 14 oz. [0.85 kg] Briess Aromatic malt
 2 lb. 14 oz. [0.85 kg] Briess Honey malt

4 Tbsp. Saigon cinnamon @ knockout
 2 tsp. nutmeg [fresh ground] @ knockout
 1 Tbsp. Ginger [fresh ground] @ knockout
 ½ tsp. allspice @ knockout
 2 tsp. vanilla extract before kegging or bottling



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a
Crack
where
Sister Louie





SEPARATION OF

CHURCH AND BEER?

North Georgia's Holy Brewers
and Faith-Based Drinkers

By David J. Schmidt

**"God made yeast,
as well as dough,
and loves fermentation
just as dearly as he
loves vegetation."**

—Ralph Waldo Emerson,
Unitarian minister

Folks don't often imagine beer and church together—especially in a place like the Bible Belt.

Any mention of "religion" and "the South" may conjure images of caricature: a backwards, legalistic church; a fiery, fundamentalist preacher who rails against the evils of alcohol, secular music, and Harry Potter novels. Having grown up in California, I used to paint Southern culture and religion with this simplistic brush as well—until my brother moved to Athens, Georgia, and I started flying out to visit him.

After spending a good deal of time there, I've developed a much more nuanced view of the region. To paraphrase an old-timey hymn, "I have seen the light." Not only is Georgia home to a burgeoning craft beer scene, but some of the most innovative leadership in the state's brewing comes from communities of faith themselves. During my latest trip to Athens early this year, my brother and I traversed many of the breweries and taprooms of North Georgia, exploring the fascinating crossroads between church and beer.





Whimsical, irreverent decorations inside the bar, "Sister Louisa's Church."

RESTRICTIONS AND PROHIBITIONS IN GEORGIA

"An individual Christian may see fit to give up all sorts of things for special reasons—marriage, or meat, or beer, or cinema. But the moment he starts saying the things are bad in themselves, or looking down his nose at other people who do use them, he has taken the wrong-turning."

—C.S. Lewis

Like many outsiders, I am constantly amazed by how diverse Georgia is, right down to its topography: from the red clay and tall pines of the heartland, to the high mountain forests of Appalachia in the northwest, to the subtropical, palm-lined Atlantic coast. Georgia is rich in different cultures: the ancestral home of the Cherokee civilization, it includes the urban hub of Atlanta, rural mountain traditions of the Blue Ridge mountains, and historic Black communities along the Atlantic coast of the Low Country, including the unique Gullah-Geechee culture of the South Sea Islands.

This same diversity applies to religion as well.

Mainline Protestant denominations—Presbyterians, Lutherans, Methodists, and others—are ubiquitous throughout Georgia. Roman Catholic communities have long inhabited coastal towns like Savannah. Likewise, the state is home to multiple Jewish synagogues, Islamic

mosques and community centers, Buddhist temples of various ethnic stripes, and neo-Pagan gatherings.

To be sure, there are plenty of conservative and fundamentalist churches in Georgia as well. In fact, one of the country's last surviving snake-handling churches is in the town of Kingston, featured in Dennis Covington's 2009 book, *Salvation on Sand Mountain*.

Author Charles W. Bamforth discusses the attitudes toward alcohol among such fundamentalist congregations in his book, *Beer is Proof God Loves Us : Reaching for the Soul of Beer and Brewing*. Bamforth quotes a Georgia preacher, Bill Walker of Dug Gap Baptist Church, who said, "We are at a loss to find any good that alcohol as a beverage does in our society. I haven't heard anyone say that it does good."

Such conservative, prohibitionist voices persist to this day, supporting some of the most draconian laws that still regulate alcohol in Georgia and many neighboring Southern states.

One of the most common, religiously inspired restrictions can be found in the ubiquitous "blue laws": prohibitions against selling alcohol on Sundays. Such laws have been on the books for centuries. Up until 2011, retail stores across Georgia were forbidden from selling alcohol on Sundays. Even after Governor Nathan Deal approved legislation that year that left the decision up to local communities, many Sunday restrictions remained in effect. I can recall a time, not long ago, when the beer and wine aisles of Athens's supermarkets were roped off on Sundays; this county-wide restriction was only lifted in 2016. As a bartender in downtown Athens explained to me recently, bars are now allowed to open on Sundays, but only if 51 percent of their proceeds come from food.

Beyond these "blue laws," 12 counties in Georgia are still semi-dry and restrict the sale of distilled spirits on any day of the week. Neighboring states have similar prohibitions on the books. Alabama has 26 counties that are partially dry, while the entire state of South Carolina prohibits the retail sale of alcohol for off-premises consumption on Sundays. Individual cities and counties in South Carolina can choose to permit the sale of beer and wine, but voters must specify this through a special referendum. Beer over 6% ABV was illegal in Alabama until the Gourmet Beer Bill was passed in 2009. For that matter, homebrewing itself was illegal in some Southern states well into the 21st century! The last states to legalize it, Mississippi and Alabama, didn't do so until 2013.

Some of these attitudes toward alcohol are understandable when we look at history. Many early restrictions were focused on cheap, distilled liquor, a major cause of social decay in the 18th and 19th centuries. President Thomas Jefferson himself wrote, in 1815, that he wished beer would become popular, "instead of the whiskey, which kills one third of our citizens and ruins their families."

Furthermore, many rural preachers in the South railed against alcohol in communities that were plagued by the chronic abuse of homemade moonshine. Like many illegal drugs in rural communities today, white lightning was cheap, potent, and potentially dangerous. A volume in the Foxfire series quotes a Georgia moonshiner, James Speed, who chuckled about the potency of his product. "It don't take much," he said. "It's like Brylcreem: a little dab'll do you." I can attest—as someone who has tried his fair share of moonshine in Georgia and other parts of the world—that the experience often ends quite poorly.

The times are changing, however. Even the oldest moonshining families of Georgia have gone legit in recent years. The book *North Georgia Moonshine: A History of the Lovells & Other Liquor Makers* describes, in detail, the transition of several families to the legal distillery business. Up until recently, the Moonshine Bar of downtown Athens offered customers “flights” of various brands of legal moonshine.

Parallel to this trend, the craft beer movement has exploded across Georgia, blossoming like a white kudzu flower. Back in 2015, Georgia only had 45 craft breweries; the state now has 155, according to the Brewers Association. A large concentration of these breweries are located in the north of the state. Of the Georgia watering holes highlighted by the book *The Great American Ale Trail: The Craft Beer Lover’s Guide to the Best Watering Holes in the Nation*, six of the seven are located in North Georgia. The relatively small college town of Athens has six of its own breweries. The Historic Athens Welcome Center offers drinkers a “passport” to stamp at each brewery, giving a free souvenir pint glass to anyone who collects all six stamps.

Despite these modern developments, there are still plenty of draconian, 100-year-old laws on the books. These regulations affect craft breweries and small establishments in a disproportionate manner, and many of them have nothing to do with religion anymore. Rather, they draw from a very different sort of devotion: the almighty dollar. Corporate monopolies and big distributors are running the show these days.

During some of my first visits to Georgia, breweries were not even allowed to sell a flight of tasters to customers. In order to obtain a “free” flight of tiny tasters, visitors had to pay for a brewery tour first. (At a certain brewery, the trick was to make friends with whomever was pouring and hope their hand would get a little heavier as a result.) It wasn’t until 2017 that Governor Nathan Deal signed Senate Bill 85, which finally allowed breweries and distilleries to sell directly to consumers, up to 3,000 barrels a year.

To this day, however, Georgia’s breweries face major roadblocks regarding the distribution of their product. Brother and I first learned of this during a visit to the tasting room of Normaltown, a fairly new brewery north of downtown Athens. (As I usually do, I introduced him to folks simply as “Brother.”) We chatted with Joe, a young bearded man next to us, whose shaggy dog curled up beneath his barstool.

“The problem,” Joe told us, “is that I’m not allowed to buy a keg from these guys.



Whimsical, irreverent decorations inside the bar, “Sister Louisa’s Church.”

If I’m having a party, I can’t come in here and order it, much less order it delivered to my house. Everything’s got to go through the middlemen, the big-name distributors. Then it goes to a retail store or supermarket, and I can only buy it after it’s undergone all that mark-up.”

This was confirmed by Derek Heersink, a brewer with Authentic Brewing Co. “Distribution is our main challenge,” he told me via email. “People don’t understand that, to sell beer to restaurants and bars—even if they share our parking lot—we still have to send it to Atlanta first. The Georgia Brewers Guild is working hard, trying to let smaller brewers self-distribute [...] It would be great if smaller brewers had the ability to self-distribute, even in small quantities.”

This is all the result of the three-tiered distribution system. According to a 2022 article, published by Chris Butler on the Georgia Public Policy Foundation website, this system divides the beer industry into three tiers: breweries constitute one tier; wholesale distributors are the second; and retailers are the third.

Butler’s article quotes craft industry consultant Crawford Moran as calling this three-tiered system “the most onerous part of Georgia law.” If you own a brewery, Moran states, “you can only operate in that tier, and you cannot be a wholesaler and you cannot be a retailer. You have to sign up with a wholesaler and when you sign up with a wholesaler under the franchise law then they own the [distribution] rights to your brand forever. And that ends up being, as you can imagine, ridiculous.”



Brewers in other regions face similar bureaucratic challenges to distribution. The dynamic in Georgia reminded me of the impractical challenges faced by brewers in Hawaii, who are forced to ship any foreign products through a far-off port on the U.S. mainland, rather than importing directly. (See “Brewing in the Aloha Spirit,” *Zymurgy*, May/June 2022.)

“If you do publish this article,” Joe told me at the Normaltown tasting room, “I sure hope somebody in the Georgia legislature is listening.”

Although such restrictions are more political and economic than religious, people still remember the puritanical traditions that first brought these restrictions into place. One Georgia bar is designed as a massive, elaborate satire of just this kind of old-time religion.

SISTER LOUISA AND HER HOLY BOOM BOOM ROOM

"It is undoubtedly a fact, however, that neo-prohibitionism is alive and kicking in the US, to my mind a fearsome example of intolerance."

—Charles W. Bamforth,
author of *Beer is Proof God Loves Us: Reaching for the Soul of Beer and Brewing*

There is nothing subtle about the irreverent decorations of the bar, "Sister Louisa's Church." A neon sign hangs beneath the entrance, announcing, "IT'S A GLORY HOLE."

When I walked into the Athens location one Wednesday afternoon, the first thing I noticed was a velvet portrait of Jesus on the wall, painted over with the caption: "I want to be inside you." On the opposite wall hung a wood panel with a hole cut out in the center, beneath the text, "Come on in, precious!" Nearby, a bronze plaque—quite possibly stolen from an actual Catholic church—read, "CONFessions 5:00 – 7:00 DAILY."

The interior of the bar was covered in wall-to-wall religious-themed kitsch: a church bowling team jacket from 1988; an old church's Vacation Bible School sign; a green street sign for "Church Path"; a "Truckin' for Jesus" license plate cover; a toilet seat hung from the wall that said, "Flush away your sins." A working photo booth stood in the corner, with a decorative "King of Kings" Jesus curtain. Religious statues, candles, and icons were everywhere, along with velvet Jesus paintings adorned with various sacrilegious slogans.

The original bar stands in the Old Fourth Ward of Atlanta, located between the Martin Luther King Center and Our Lady of Lourdes Catholic Church. It first opened in 2010 under the mouthful-of-a-name, "Sister Louisa's Church of the Living Room & Ping Pong Emporium." Weekly activities include a ping pong tournament every Monday night, tarot card readings on Tuesdays, and "church organ karaoke" on Wednesdays, complete with mock choir robes to wear. Customers are often referred to as "parishioners."

The bar was founded by Grant Henry, a seminary dropout. When he was close to completing his Master's of Divinity in Pastoral Care, the bar's website states, he realized that "life was too short, said 'fuck it,' and started expressing himself authentically and artistically."

Henry began creating his trademark, religiously themed folk art in the 1990s under the alter ego of "Sister Louisa." Her fanciful back story is painted on the wall of the ping pong room in the Athens location, labeled "Sister Louisa's Boom Boom Room." The writing on the wall claims that Sister Louisa was a former nun from Baton Rouge, Louisiana. She left her convent "in disgrace, having fallen in love with 'Luscious' Lamar Thibideau, the convent's janitor, in June, 1978."

Over 200 pieces of "Sister Louisa's" art now adorn the walls of both the Atlanta and Athens locations. As Henry told the publication *Oddity Central*, "I'm more of an artist than a bartender. I turned it into a bar basically for my art. It's more like an art gallery that sells alcohol."

The Atlanta location has now been featured in dozens of publications, including the *New York Times*, *Huffington Post*, *USA Today*, *Wall Street Journal*, *People*, and *Atlanta Magazine*. Celebrities come in when filming in Atlanta; Lady Gaga, Ben Stiller, and Vince Vaughn have been known to frequent the spot. In 2011, Henry posted photos on social media of himself playing ping pong with Ben Stiller, with the caption: "Celebrities. They're just like us! But richer and better at ping pong."

During my visit to the Athens location, I chatted with the young bartender, Jim, a clean-shaven man in his late twenties. The bar is open every day of the week, he told me—except Sundays, of course. Still no way around some of those local regulations.

Blue laws aside, however, Sister Louisa's Church still manages to be an exceptionally liberal, open place. "It's not exactly a 'gay bar,' per se," Jim told me, "but it's very LGBT friendly. It's well-known as a bar that's open to everyone."

Despite its iconoclastic tone, "Sister Louisa's" art is never mean-spirited or hostile. Irreverent and sarcastic, sure—one painting of the Nativity bore the text, "Who's your daddy?" above the manger. However, much of it suggests an authentic spirituality, one based on love and radical inclusion. Bright neon signs inside the bar announce, "Jesus loves a crack-whore," and "JESUS HEARTS GAYS!" A mirror reads, "Religious people fear Hell, spiritual people have been there." One velvet painting of the Sacred Heart of Jesus includes the Cesar A. Cruz quote, "Comfort the disturbed, disturb the comfortable."

Sister Louisa's story on the wall of the "Boom Boom Room" concludes on a positive note. "She is no less connected to God, maybe even more. Sister Louisa says 'God Bless You' to all who see her art and feel

the power of God's true love." The staff listed on the bar's website are a motley crew, including agnostics, spiritual people, and the son of traveling Church of God missionaries. All have a place at Sister Louisa's Church, as the bartender Jim told me.

"Whoever you love," he said, "whoever you are, you're welcome here. We only have one commandment here: don't be an asshole."

HOLY BREWERS

"Taste the barley or the hop as they have matured in the field, and you will not sense delight. But transformed, respectively, by malting and by the boiling process in the brewhouse, then we see the magnificence of our God's deliverance."

—Charles W. Bamforth

Sure, Sister Louisa's Bar was inspired by a unique brand of Bible thumpers and fundamentalists. This is hardly the end of the story, however, when it comes to religion in Georgia.

Plenty of congregations fully embrace responsible and moderate drinking, pointing to the many positive references to alcohol in the Bible, including Proverbs 31:6, "Give beer to those who are perishing, wine to those who are in anguish."

Charles W. Bamforth's book quotes the Reverend Dean Taylor, of St. Mark's Episcopal Church in Dalton, Georgia: "The Episcopal church believes there is nothing innately wrong with alcohol consumption [...] Alcohol is part of God's creation and, as such, it is not evil. It is only what we do with it. Over-consuming to the point that we hurt ourselves or other people—that's when it becomes an evil."

Bamforth himself has ties to the Episcopal Church in the United States, which he describes as speaking "with a mindful and compassionate voice" regarding alcohol. I also recall an old joke, told in many seminaries across the South: "Anytime you get four Episcopalians together, there's always a fifth." (Of liquor, that is.)

The Episcopalians aren't the only ones who enjoy a nice brew, either. Throughout Georgia, communities of faith of all stripes have been strongly involved in the craft beer movement. In fact, one Atlanta brewery started off as a Bible study.

Beginning in 2006, a group of friends—Jeff, Joel, and Jonathan—would gather on

Monday nights to socialize, study the Bible, and brew beer. As time went on, their beers became more complex and sophisticated. Friends and neighbors joined in for this joint beer-and-Bible venture, gathering around the pot of steeping wort on the friends' front driveway.

In 2011, Jeff, Joel, and Jonathan finally quit their white-collar day and launched their brewery in Atlanta. The brewery's logo is an image of that loosened necktie, which, as their website states, is "a symbol of doing what you love with your career, and making every day (not just weekends) exceptional."

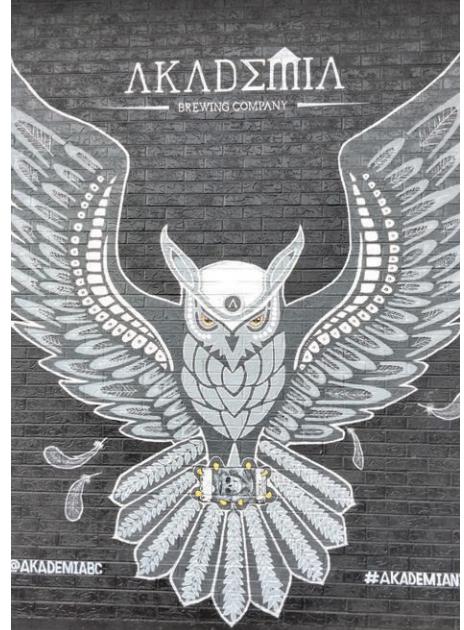
The religious origins of Monday Night are no secret. When I spoke with one bartender in downtown Athens, he replied, "Oh, yeah. That's the brewery that started as a church thing. We used to buy from them a lot; we would serve their beers on tap here." And yet, there is nothing preachy about the brewery itself. You won't find Bible verses hidden on the bottoms of their cans and bottles, and their brewpubs don't play instrumental versions of Contemporary Christian music.

While faith is still a significant part of the men's lives, their primary goal isn't to preach or make converts—they're simply out to produce creative, high-quality brews. Monday Night has expanded from its first location in West Midtown, focused on core beer production and small batch hoppy beers, to include a second facility in southwest Atlanta, which produces barrel-aged brews, sour beers, and new experiments.

In the town of Woodstock, just an hour north of Atlanta, Reformation Brewing has a similar origin story as a group of friends brewing beer on their front porch. Before this venture, both of the founders, Spencer Nix and Nick Downs, studied at Southern Baptist seminary. Considering the Baptists' historically prohibitionist views of alcohol, Nix and Downs weren't sure how their coreligionists would respond. "We didn't really know if we had any friends who would 'come out of the closet' and drink with us," Nix told Chris Morris of the Marriott Bonvoy Traveler. "But it turns out, we did."

Nix and Downs eventually found investors and launched the brewery. Parallel to this process, Nix was also planting and pastoring "Isaac's Keep," a non-denominational evangelical church. In his interview with Morris, he noted the many similarities between starting a church and starting a brewery.

"If you have planted a church in the last 20 years, you have every gift and everything you need to start up a brewery," Nix said. "I credit a lot of our success to being agile. I didn't know a lot about this industry, but I



didn't know about running a church, either. The willingness to learn and adapt fast all translates well to a start-up."

In an interview with Georgia Public Radio, he mentioned struggling with prohibitionist attitudes towards alcohol. "We are still fighting some of those narratives here in our context. We want to draw attention to the good things that a well-made product can bring, the community that it fosters, and the conversations as well." Despite this history of religious legalism, he describes the reactions from fellow believers as being primarily positive. He also explains that, from a historical perspective, the teetotaller approach to alcohol is "a very, very small part of the narrative of how the church has viewed alcohol and how society has viewed alcohol."

Nix stopped pastoring the church in 2016, devoting himself fully to his work as CEO of the brewery. Although his faith is still a central part of his life, he clarified to Georgia Public Radio that "we are not a 'Christian brewery.' And not because we are ashamed of it, but this brewery has a lot of different partners and we don't all share the same moral view and perspective. I think that's what makes it more beautiful as well, being able to have those conversations and arguments and fight for our values and visions. It makes us better overall as a company."

This nuanced approach is clear in the messaging on Reformation's website, which emphasizes its role as a "values-based company," and stresses moderation and community. Without preaching specifically religious language, their promotional video reflects a clearly faith-based worldview. "We're all searching for some light in the dark," the narrator's voice affirms. The video expresses the importance of feeling loved and accepted just as we are, and even evokes the lyrics



Akademia Brewing Company in Athens, GA.

of the old hymn, "Down by the Riverside," saying, "We all need a place to lay down our worries for a while." (Emphasis mine.)

At a certain point, the line dividing faith communities from brewing communities in Georgia blurs. In interviews, the co-founder of the Cumming, Ga., brewery No Fo, Bryan Miles, has discussed the role of his faith; he has also explained that his family simply wanted a safe, wholesome place in the community to hang out with friends. Meanwhile, Wild Heaven brewery in Decatur includes plenty of religiously suggestive language in the names of their beers: Ode to Joy, Ode to Mercy, Invocation. Their IPA, Wise Blood,

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bears the name of a novel by Georgian author Flannery O'Connor's, a book heavy in religious themes.

As a bartender in downtown Athens told me, "Georgia is a place where you can't throw a stick without hitting a church. Why, there are two old churches just a block away from here! Church is just an integral part of the state's identity."

This focus on community is palpable in the breweries of the region. As Brother and I learned during our multiple visits, the brewpubs of North Georgia are some of the most friendly, welcoming places in the community. Customers represent a broad scope of ages and backgrounds. Many of the pet-friendly breweries feel like a visit to an old general store, where an assortment of hound dogs lounge about on the floor. They are easy places to meet strangers; at Akademia, I played a whole round of trivia with new friends. At Normaltown, a customer pulled out a cloth bag from the local farmer's market and offered us all a taste of his recent purchases: fresh farmer's cheese, homemade sausage, a hearty loaf of peasant bread, and a bottle of artisanal mead. The bartender pulled out a platter and a knife, and we passed the snacks around.

Strangely enough, we never seemed to run out. No matter how much we ate, there was somehow always more to share.

CRAFTING BETTER DADS AT THE BREWERY

"[Beer is] an element of this life that for the longest time has brought contentment, community, and—it is increasingly recognized—healthful comfort to those who indulge respectfully."

—Charles W. Bamforth

There's another space in Georgia where the overlap between beer and church is notable: in the innovative community groups that gather at breweries. One of these, "Dads on Tap," began with a very simple goal: to bring dads together, have a few beers, and figure out how to be better fathers and husbands. As the group's motto says, "We exist to *craft* better dads."

The founder of Dads on Tap is no stranger to the church scene. Scott Mawdesley

is an ordained pastor with over 30 years experience in the ministry, having worked with four of the largest megachurches in the United States. He long dreamed of creating a supporting space for the men in his community, especially the kind of men who wouldn't normally attend a church service.

"When you tell people you're a pastor," he explained to me during a phone interview, "it can turn into the 'Relational-Kiss-of-Death.' People freeze up and shut down. 'Oh, I'm so sorry I cursed in front of you,' they say. They don't feel comfortable being themselves. I wanted a place where guys would feel comfortable enough to open up with each other and be authentic. And what better place than a brewery?"

The group first met inside the facilities of the Slow Pour Brewing Company in Lawrenceville, Georgia. Scott pitched the idea to the owners and they agreed. "We'll give it a try, and see if anyone shows up."

Not only did people show up—they showed up in droves. The group rapidly grew and decided to invite guest speakers to their gatherings: psychologists and counselors, community leaders, athletic figures, authors, and educators. "We basically invited anyone with something to say that dads were interested in," Scott says.

The concept caught on quickly, and new chapters popped up. Seven different breweries across North Georgia have hosted Dads on Tap, with three new locations coming soon. The group was registered as a non-profit organization in 2019, and they have discussed creating a starter package—"Dads on Tap in a box," as Scott describes it—for people interested in creating their own chapter anywhere in the world.

For now, those who don't live in North Georgia can enjoy Dads on Tap remotely through the group's podcast. I listened to a couple episodes myself while writing this article, as I sipped a nice local IPA. Topics range from family dynamics and mental health to leadership and practical life skills. One episode wrestles with complex issues of racial injustice and inequality.

I asked Scott what role his faith has played in his work with Dads on Tap. "I don't currently work at a church," he said, "but I'll never stop considering myself a pastor. At the same time, I recognize that the evangelical church has so much baggage that gets in the way, that turns people off. A lot of people have been hurt and wounded by the church. Dads on Tap isn't about trying to make converts or 'get butts into pews,' as they say. It's not for people of any particular faith or belief system—it's a group for dads who care about becoming better dads, period."

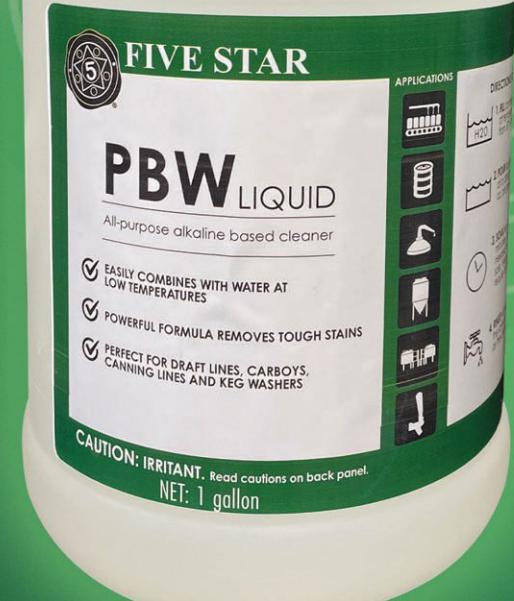


Bluegrass, beer, and fellowship at Revival Hall Taproom.

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To be sure, Dads on Tap chapters often work in close tandem with a particular church congregation, and many group members also attend church together. At the same time, Scott has been careful to keep the groups independent and open to everyone, religious or not.

"We don't want anyone pulling a 'bait and switch,' trying to use the group just to funnel people into a church. In fact, a lot of people come to Dads on Tap to talk about precisely the things they don't feel they *can* talk about at church. All too often, people feel pressured to put on a good face and give the 'right answer' at church... But the 'right answer' isn't always the real answer, or the honest answer. We want a place where we can wrestle with hard questions that don't always have an easy answer." He paused to chuckle. "And where we can be honest about all the dumbass things we've done as dads."

Like many of the breweries mentioned above, Dads on Tap emphasizes the importance of moderate drinking. Alcohol is not seen as an end to itself, something to "drown your sorrows in"; rather, breweries are places where healthy, healing communities can develop.

EVERYONE WAS LAUGHING AND CORNHOLING TOGETHER

**"And what wondrous economy:
some of the new yeast can
be used to 'pitch' the next
fermentation. No wonder the
medieval brewers called this
stuff that they saw collecting
on their fermentations
'godesgoode.'"**

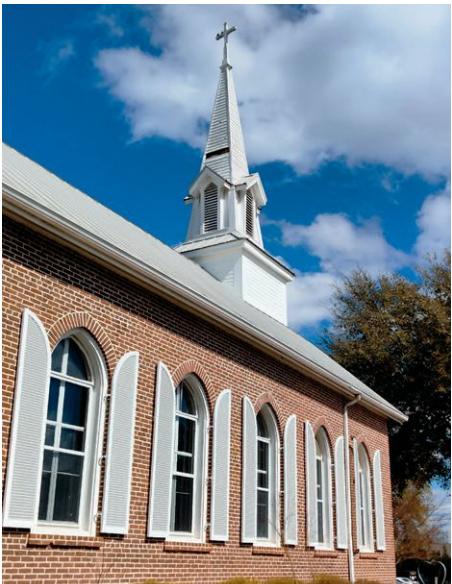
—Charles W. Bamforth

The same can be said about Revival Hall Taproom, a watering hole built inside an old church building. In fact, of the many community gatherings hosted by this bar, one is a weekly sobriety support group.

Revival Hall Taproom was the last bar I visited before leaving Georgia. I trekked out to the small town of Jefferson, in Jackson County, alongside Brother and our Dad, late one rainy night in February. As we drove down the town's picturesque Main Street, we were met by the image of a vintage, 1950s-style postcard painted on the side of a building, announcing "Greetings



Traditional Georgia cabin, located at Andalusia, the family estate of author Flannery O'Connor.



Sacred Heart Catholic Church, the home parish of author Flannery O'Connor in Milledgeville, Ga.

from Jefferson.” Red-brick buildings lined the street, along with an old monument to fallen Confederate soldiers. The light rain cast a haze over the yellow streetlights, as a train whistle sounded in the distance.

The red brick building of Revival Hall, located in a small strip mall alongside a few other storefronts, had previously been a church building. The decals on the front window hinted at the building’s religious past: “SERVE PEOPLE, BLESS THE CITY.” We walked in from the rain and found a lively crowd of folks of all ages gathered around the bar. The walls were decorated with old vintage hymn books and gospel-music vinyl records by Johnny Cash, Pat Boone, and Loretta Lynn. The logo of Revival Hall itself, prominently displayed behind the bar, provided a graphic representation of this con-

necting point between church and beer: the symbol suggests both “the great hall of an ancient church,” as their website says, as well as the shape of a hops blossom.

One beer on the menu caught our eye: “Sweet Baby Jesus Porter.” This seemed like a fitting first beer in this old church building. After we’d had a couple pints at the bar, the bartender introduced us to Mike Martin, the owner. Like so many people in the Georgia beer scene—Scott Mawdesley of Dads on Tap, Spencer Nix of Reformation Brewery—Mike was also a former pastor.

He had been driven to create this bar as a hub for the community. “It seemed appropriate to set up shop here, in a former church sanctuary,” he said. “Our goal was to keep it a community gathering place, to give more back to the community than what we have taken. We’re always hosting charity and benefit events. For instance, we recently hosted a cornhole tournament.”

Mike noticed my confused expression and clarified that *cornhole* was the name of a game involving beanbags.

“The cornhole tournament wasn’t just for fun, though—the proceeds went to a local family with a premature baby. Tomorrow, we’ll be doing another event to help out a different family. We want this to be a family-focused place, a space that the whole community can enjoy.”

Mike was a clean-cut man in his late 30s, with a trim, red-brown beard. I pointed out that he looked like a much fitter version of Brother and me, minus the beer belly. There was a reason for that: Mike was drinking Bud Zero. This particular bar owner doesn’t drink alcohol at all.

He isn’t the only one, either. One of the many community groups hosted by Revival Hall is a sobriety-recovery support group,

led by Mike himself. To some people, a bar may seem like an unusual, “triggering” spot for such a gathering to meet in. On the other hand, we noted, it could also afford the opportunity to develop new, healthy associations with a bar, to realize that a bar community can be developed without drinking alcohol at all. Spencer Nix of Reformation Brewing has expressed a similar sentiment, saying that church folks often tell him, “I had a father who was an alcoholic, and to see your approach has freed me from viewing everyone who partakes in alcohol as being of the devil.”

Although the night was getting late, Mike invited us to come back the following day, when the bar would be hosting a “bluegrass jam.” The next day offered a pleasant, sunny Sunday afternoon. The weather had turned unseasonably warm for late February: a balmy breeze caressed the skinny Georgia pines, broad clusters of eager buds appeared on tree branches, and the late afternoon rain showers left a thick, tropical smell in the air that reminded me of the jungles of Central America.

A large number of families gathered at the Revival Hall that afternoon, with a healthy number of children and dogs. The sobriety group held their meeting at a table on the front patio, while a crowd of musicians sat inside the front room of the bar. With several banjos, fiddles, guitars, and mandolins, they played improvised versions of well-known, old-timey tunes: “Old Joe Clark,” “Arkansas Traveler,” and “Cripple Creek.”

In the side room known as the “Fellowship Hall,” the cornhole tournament was just wrapping up for the day. The players were a diverse Georgia crowd: young Black college students with fashionable tattoos; heavy-set middle-aged white men in red UGA t-shirts; and a blond, ten-year-old boy who somehow played better than all the adults combined. The camaraderie amongst the motley group was palpable. To paraphrase an episode of *Arrested Development*, “everyone was laughing and joking and cornholing together.”

Brother and I walked in and struck up an instant friendship with Tim and Jeremy, a father-and-son team of professional cornholers who had played in countless tournaments. They spoke with true, “good ol’ boy” country accents of Jackson County, dropping the R when pronouncing the word “throw.” They taught us the proper technique for tossing a beanbag, and played with us for a couple hours, with genuine friendly hospitality.

“We’ve known the owner, Mike, for years now,” Tim said. “We actually used to go to

his church. He started off as our pastor," he chuckled, "and now he's our bartender."

Toward the end of the afternoon, the bluegrass musicians at Revival Hall broke into a series of old-timey hymns. "Leaning on the Everlasting Arms" and "This Little Light of Mine" got an especially positive reception. They ended on a rousing rendition of "I'll Fly Away," with patrons singing along, clapping, and smiling. The toe-tapping hymn concluded to a round of thunderous applause. Once the crowd died down, a gray-haired banjo player called out, "Boy, sure makes y'all feel better about skippin' church today, don't it?"

THE ACTION OF GRACE

"So in my beery world, may I tolerate those folks who like their beers smothered in hoppiness just as I would hope they would tolerate the skill devoted by the big brewers to making bland lagers so consistently well. [...] And, likewise, may each of us tolerate black and white, straight and gay, rich and poor. Let us recognize that the selfsame humanity resides in a president and a panhandler, in a CEO and a janitor, in man, in woman, in child."

—Charles W. Bamforth

A few days before I left Athens, I drove south to visit the home of author Flannery O'Connor. This native daughter of Georgia embodied many of the complexities of her home state's heritage and history. She came from old money, and yet constantly spoke out against economic exploitation and racial injustice; she was a devout Catholic Christian and also a fervent critic of religious hypocrisy, legalism, and judgmentalism.

Her most fiery critiques were leveled against religious folk who felt smugly satisfied in their own righteousness. In her stories—set against the red clay backdrop of her homeland, among the Georgia pines and kudzu vines—the characters who most experience redemption are the outcasts of society, those who live in a world of violence and marginalization. She often said that she

preferred to write about "the action of Grace in territory largely held by the Devil."

O'Connor's words reminded me of so many comments I had heard from Georgia's brewers and brewpub communities over the previous month. "In my years working with churches," Scott Mawdesley told me, "I always longed to engage guys *outside* of the church. In a place where we could all just work on doing better, as dads and husbands, whether or not they even wanted to set foot inside a church."

Spencer Nix of Reformation Brewing echoed this sentiment in his GPB interview, stating that people "are just as messy in the church as they are out in the world [...]. In the brewing industry, in some ways it's a little easier, because most people know they are a mess. That's a good place to start a good conversation."

One can't help but feel that Flannery O'Connor would be proud of the work many of her fellow Georgians are doing. Breweries and faith communities continue to interact in new and surprising ways. Scott Mawdesley told me that one pastor in Swanee has started a new church that meets, not in a sanctuary or a rec hall, but inside a brewery. The pastor has spoken with Scott about involving Dads on Tap in multiple new church plants, all of them based out of breweries and taprooms.

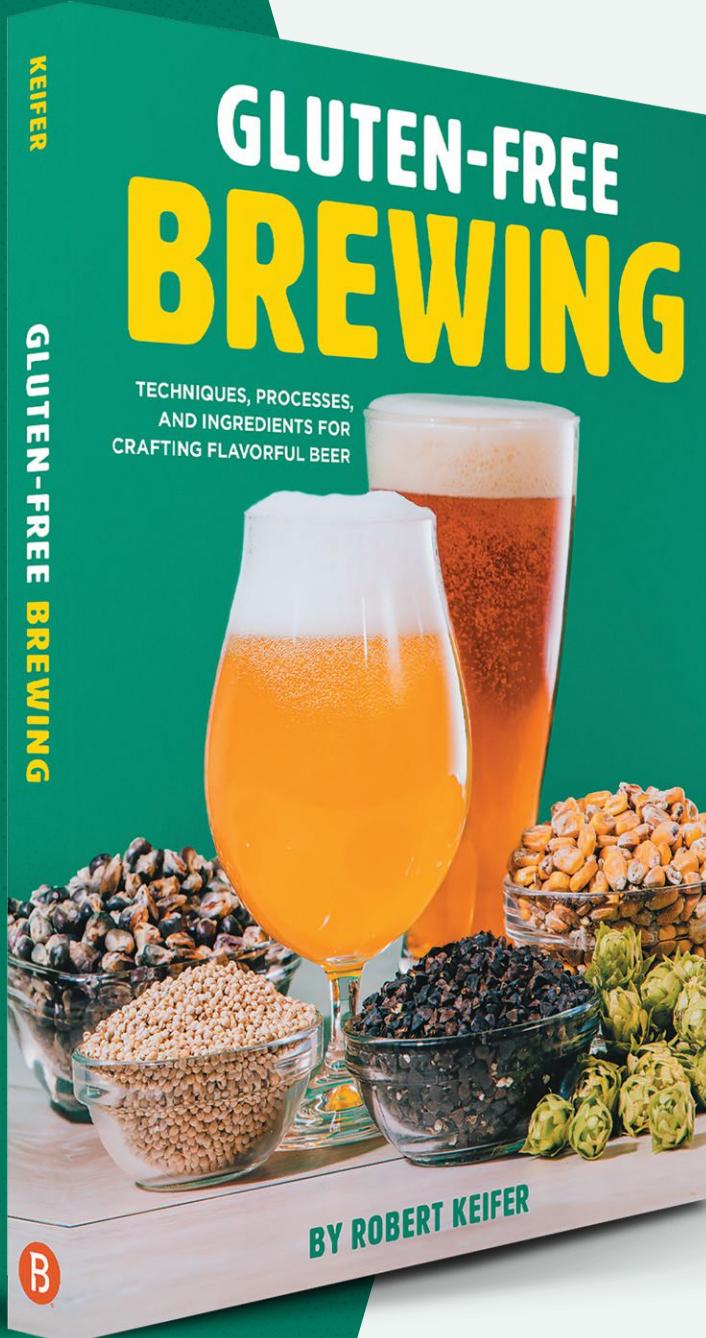
Only time will tell what new developments will emerge among the tall Georgia pine trees, at this unusual intersection between the holy and the profane, between new community spaces and old-time religion: at the crossroads between church and beer.

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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 12 languages and has spent the past 15 years traveling throughout rural Mexico, Latin America, and Africa in search of ancient folk brews, making him a veritable Indiana Jones of home brewing. (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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HOW TO HOST A CIDER FEST

By Scott Riseley

Have you ever been to a cider fest? Quite simply, it is an event where friends gather to crush apples and make cider. These events are a blast in and of themselves, but they also grant many opportunities to an enterprising brewer. In the following article I will outline my process for hosting a cider fest and for processing up to 55 gallons of cider, and I also hope to demystify cider brewing and show that delicious cider is relatively simple and cheap to make.

In September 2022, my wife and I held our fourth annual cider fest, wherein we crushed and juiced over 1,000 pounds (454 kilograms) of apples and made 43 gallons (163 liters) of hard apple cider. This plain cider is great on its own, but it is also a wonderful canvas onto which any number of additional flavors can be added, and last year we made a total of ten different cider variations. →





HARDWARE AND HELP

The first step to hosting a cider fest is to procure an apple crusher and a fruit press, and you will want to order your machinery well ahead of your cider fest, as things sell out pretty fast approaching autumn. You'll need to choose between an electric apple crusher or a manual one, with the former being quite a bit more expensive. We have a manual crusher, and I will be completely honest, it is the worst. Cranking on the handle to crush fruit all day is grueling, and—with my particular model at least—the grind is very coarse and much of the juice is therefore not extracted. I have been to other cider fests where electric grinders are used, and they are absolutely the way to go if you can afford it.

As to juice extraction, the two styles that I have worked with are centrifugal and bladder presses. For the former, you will need a centrifugal clothes dryer, which can be had for 100 to 200 dollars online. To operate them, you simply fill a muslin bag with ground apple pulp—called *pomace*—and spin it in the dryer and collect the juice from the drain. These are fast and easy, but hard to clean and their extraction is not great. We have since upgraded to a bladder press, a machine that presses the pomace between a stainless-steel grate and an expanding water bladder. This method is slower but provides a better juice yield.

You will also need to recruit a solid workforce. I have found that it is important to have at least four “primary” workers. These are people you can count on, the ones who enjoy the process and who can remain active for the entire day. If you do not have these core workers, it is going to be a lot harder. “Secondary workers” are also welcome to join the event. These are the people who will be there for part of the day and who can step in to do small jobs, or to take over a key job for a short time. They are typically happy to simply be a part of the event.

FINDING FRUIT

The second step to hosting a successful cider fest is procuring your fruit. Here is where that demystifying element comes in. I have bought a number of books and have read many articles on the art of making hard cider, and much is said about which apples are acceptable, and which aren't. They recommend using traditional cider apples, which are simply not available in many, if not most, areas. If you can get your hands on cider apples then use them, by all means, but I have found that you can still make a delicious hard cider without them.

I live in the Wenatchee Valley of Washington State, the self-styled “Apple Capital of the World,” and I happen to have

large-scale fruit warehouses nearby. Not all readers are this fortunate. If you don't live in orchard country, then the full-scale cider fest that I describe probably will not be possible for you. There may be options for getting the large number of apples needed for a cider fest, though, such as by growing them yourself, or by befriending an orchardist or a local grocer. Be that as it may, delicious cider can be made from bottled apple juice; just pick the one with the fewest added ingredients. I have had wonderful results with Tree Top brand juice.

If you do live in an apple producing region, I recommend contacting the fruit warehouses in your area well ahead of time and asking what their process is for selling bins of fruit to private buyers like you and tell them when you plan to have your cider fest. The warehouse will hopefully be able to tell you what apple varieties they will have available on the week of your event, and then it is up to you to research the varieties and decide which ones will best suit your needs. Books and Google are very helpful here. I have gotten good results simply by buying one bin of sweet apples and another of sour. This year we used Sweetango apples almost exclusively and the cider turned out quite well.

The warehouse will have different levels of apples for sale, and what you are looking for are, “processor grade sort outs” or “culls.” These are the apples that do not meet the requirements to be sold to grocery stores in that they are bruised or have surface defects, but which are, nonetheless, perfectly good to eat. As a point of reference, the going rate for these culls in September 2022 was 10 cents a pound, and I paid \$96.10 for a 961-pound bin.

PRESSING AND PROCESS

The third step is making a yeast starter and getting your cider fest location. For best results, make a yeast starter the day before, following manufacturer recommendations. I have forgotten this step and simply dumped the dry yeast on the surface of the fresh cider and everything turned out well. I have used Red Star Cote Des Blancs yeast exclusively and have been very happy with the results. As to setting up your location, keep in mind that apple bins weigh between 800 and 1,000 pounds (360 to 450 kilograms), so you will need something that can haul that much. You will also need a way of disposing of the used pomace, and you will want amenities such as electricity and running water. Don’t forget to provide food and drink for your workforce as well.

On the day of the cider fest, it is helpful to have one of your primary workers at each of the main stations, such as one who simply operates the press, and a team of others who operate the grinder. Your workers can, of course, swap in and out, and secondary workers are encouraged to take a turn at the grinder. As host, I often find myself coordinating the work by floating between positions and putting out fires as they arise.

An important lesson I learned at our last cider fest is to always have spare parts on hand. The bladder in our bladder press burst and we would have been dead in the water had it not been for a friend in town who lent us his press. You may need to have a fruit cutting station as well. The culls should be good enough to simply throw into the grinder, but it is good to be prepared to cut out any rot that you encounter. Also, you may find that your grinder does better with apple halves or quarters rather than whole fruit, so be prepared to cut the fruit if necessary.



Clean Train Cider

This is the standard “base cider” from which we will build other variations.

Batch volume: 5 US gal. (18.9 L)

INGREDIENTS

100 lb. (45 kg) apples (your choice of variety) –or– 5 gal. (18.9 L) Tree Top apple juice pectic enzyme per manufacturer’s recommendations
1 packet Cotes des Blancs white wine yeast
yeast nutrient per manufacturer’s recommendations
corn sugar, if bottling
sodium metabisulfite, if back sweetening
potassium sorbate, if back sweetening
12 fl. oz. frozen apple juice concentrate, if back sweetening

CIDERMAKING NOTES

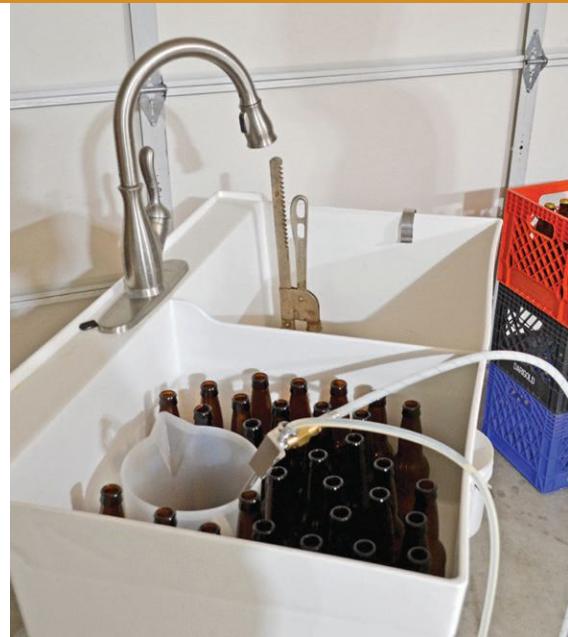
Obtain your juice and fill your fermenter. Stir in the pectic enzyme and yeast nutrient and aerate well. Pitch yeast and ferment for one week, or until final gravity reaches 1.000. Cold crash the cider for several days before filtering it through a 1-micron filter, if possible.

Option 1: Dry Cider

Transfer chilled cider to a secondary vessel (bottling bucket or keg) and add enough corn sugar to reach your desired carbonation level. If bottling, fill and cap your bottles and leave them at room temperature for a week or so to bottle condition. If kegging, simply combine cider and sugar in a keg and force carbonate to your desired level.

Option 2: Sweet Cider

Add the sodium metabisulfite and potassium sorbate to a small amount of liquid such as sweet cider or water and stir to dissolve it. Prime your keg with this mix and with the thawed apple juice concentrate. Then transfer your chilled cider, which mixes with the other ingredients as it fills the keg. Return the keg to the kegerator to keep it chilled and prop open the keg’s pressure relief valve to allow the metabisulfite to off-gas in the kegerator for 24 hours, then seal your keg and force carbonate the cider to your desired carbonation level.



All that said, if you have planned well and the fates are kind, a cider fest itself is fairly straightforward, and you can usually just continue crushing and pressing apples until you fill your fermenter or run out of apples. Be prepared for your guests to take home fresh apple cider, but try to weigh this against your need to fill the fermenter and your remaining daylight.

I periodically sprinkle pectic enzyme into the fermenter throughout cider fest. This is not according to manufacturer recommendations, and I probably add too much, but everything has always turned out alright.

The enzyme helps bring out more flavor and clear the final product. At the end of the day, add yeast nutrient to the fermenter according to manufacturer's recommendations.

Check the gravity of the apple juice—called *must*—periodically throughout the day, and as you near the 75% full mark, decide how alcoholic you want your cider to be. I didn't do this on an early cider fest and ended up with a lineup of ciders that were all around 10% ABV, which was not at all what I was going for.

As you reach that 75% full mark, check the gravity, run the numbers, and see what

the final ABV will be. You may need to add water to your must to lower the overall sugar content. I have added 8 to 10 gallons (30 to 38 liters) of water in the past and have not noticed any negative impact on overall taste. Conversely, you may find that your gravity is very low and that you need to add sugar.

At the end of cider fest, clean your equipment as soon as possible, or else you will spend twice as long later trying to remove rock-hard apple bits. It is also important to dump your pomace immediately, or you will be the center of a massive fruit fly infestation. I failed to do this last year, and it was horrible.

If everything was clean and the apples were of good quality without much decay, you can simply pitch your yeast starter at the end of cider fest and attach a blow-off tube to the fermenter. If sanitation or the fruit left something to be desired, then you will want to delay the start of fermentation to sanitize the must. I use sodium metabisulfite, which takes 24 hours to sanitize the must before dissipating. Add the yeast after the manufacturer's recommended treatment time has elapsed. I have been describing my process for brewing 55 gallons (208 liters) of cider at a time, but these steps can be used for smaller batches as well.



Brew
This!



Rainier Cherry Cider

Batch volume: 5 US gal. (18.9 L)

FERMENTATION AND FINISHING

If you can control fermentation temperatures, keep within your yeast's recommended temperature range. I call the cider in the primary fermenter my "base cider," and it will be used to create all of my other cider varieties. As fermentation begins, you will want to plan out what cider varieties you wish to make, if you have not done so already. Some varieties require additional ingredients such as honey or brown sugar and will need to go through a secondary fermentation outside the main fermenter.

After one week of fermentation, I record the gravity which has usually almost reached a final gravity of 1.000 (0°P), though the yeast is still alive and well and thoroughly infused into the must. I then transfer cider from the main fermenter to smaller fermenters for the varieties that require secondary fermentation. I add the secondary ingredients to the smaller fermenters before I transfer in the cider so that the cider mixes with these ingredients as it fills the fermenters.

For instance, my cyser requires additional honey, dates, and raisins, so I begin by heating the honey in a small amount of unfermented apple cider to make a simple syrup, which I pour into the bottom of the secondary fermenter. I then put my raisins and chopped dates into a muslin bag and drop them into the secondary fermenter as well. When the cider is transferred from the primary fermenter it will mix with these additions, and I take another gravity reading when the secondary fermenter is full.

I then allow everything to ferment for another week. This is a great time to prepare any other fruit additions that you would like to make. This step involves processing fruit into puree and adding pectic enzyme. For instance, for my Rainier cherry cider, I pit washed cherries and put them in a blender with pectic enzyme and a small amount of unfermented cider. I then put this mix into the fridge to allow it to further break down and extract flavor over the week. This can be done well ahead of time, too, if you freeze your puree.

When this third week of fermentation comes to an end, I put the purees into muslin bags which I then put into empty kegs. I check the gravities of my base cider

INGREDIENTS

100 lb. (45 kg) apples (your choice of variety) –or– 5 gal. (18.9 L) Tree Top apple juice
3–5 lb. (1.36–2.27 kg) Rainier cherries, fresh or frozen
pectic enzyme, per manufacturer's recommendations
1 packet Cotes des Blancs white wine yeast
yeast nutrient, per manufacturer's recommendations
sodium metabisulfite
potassium sorbate
12 fl. oz. frozen apple juice concentrate

CIDERMaking NOTES

Follow the directions for making Clean Train Cider, and once your cider has reached its final gravity, cold crash your fermenter for several days. During this time prepare your cherries by washing them thoroughly, pitting them, and then using a blender or food processor to make a puree. Add pectic enzyme to this puree, seal it, and leave it in the fridge for several days.

Sanitize a muslin bag and secure it around the mouth of your keg, then pour in your cherry puree. Tie off the bag and then transfer in your chilled cider. Return the keg to the kegerator to keep it chilled and steep for one week.

Remove the cherry puree from the keg. Add the sodium metabisulfite and potassium sorbate to a small amount of liquid such as sweet cider or water and stir to dissolve it. If filtering, prime a second keg with this mix and with the thawed apple juice concentrate. If not filtering, simply add the above to your original keg. Then remove the bag of cherry puree and filter the cider into the primed keg. Return the keg to the kegerator and prop open the keg's pressure relief valve to allow the metabisulfite to off-gas in the kegerator for 24 hours, then seal your keg and force carbonate to your desired carbonation level.

and my secondary fermentations. By this time the base cider has typically completed fermentation, though my secondary ferments may require more time. I then transfer the base cider with as little splashing as possible into these kegs on top of the puree mixes and move the kegs into my keezer, where they cold crash to 40°F (4°C).

I let these steep for another week, and then I remove the fruit purees and prepare to filter the cider through a 1-micron filter. I dissolve a mixture of sodium metabisulfite and potassium sorbate in a small amount of sweet cider and add it to the bottom of the empty kegs that will receive the filtered cider.

If I wish to back-sweeten the cider, I will also add one can of thawed, frozen apple juice concentrate, which adds sweetness and additional apple flavor and aromatics. I then filter the cider varieties into their new kegs. With all that fruit puree, there is typically a lot of sediment in the cider, and this year I added a second filter to my system.

Now my cider travels through a 10-micron filter to remove the large particles before it reaches my 1-micron filter. As it enters the new keg, it mixes with the sodium metabisulfite—which kills off all of the yeast and any bacteria in the cider—and the potassium sorbate, which will prevent yeast from reactivating in the future. After giving the metabisulfite 24 hours to work, I begin force carbonating the cider in my keezer. When the secondary fermentations are complete, I repeat the steps outlined above.

On week five, we begin to bottle the cider. For this step it is important that you have someone to help you, especially if you are making 55 gallons (208 liters). Bottling by oneself is time-intensive, tedious, and leads to loss of CO₂ and to possible oxidation, as you have to switch back and forth between filling the bottles and capping them. With two people, one can operate the beer gun while the other caps the bottles. Keep a count of how many bottles of each variety you have as you go along, as this will help later when you make labels.

Brew
This!



Cyser

Batch volume: 5 US gal. (18.9 L)

INGREDIENTS

100 lb. (45 kg) apples (your choice of variety)
—or— 5 gal. (18.9 L) Tree Top apple juice
3 lb. (1.36 kg) honey
2 lb. (907 g) chopped dates
3 lb. (1.36 kg) raisins
3 lb. (1.36 kg) frozen raspberries
pectic enzyme, per manufacturer's recommendations
1 packet Cotes des Blancs white wine yeast
yeast nutrient, per manufacturer's recommendations
sodium metabisulfite, if back sweetening
potassium sorbate, if back sweetening
12 fl. oz. frozen apple juice concentrate, if back sweetening

CIDERMAKING NOTES

Follow the directions for making Clean Train Cider, and after one week do the following.

Combine the honey with 2 cups of sweet cider and create a simple syrup by heating and stirring. Sanitize a muslin bag and fill it with the dates and raisins and place it in your secondary fermenter along with the simple syrup. Transfer base cider from the primary fermenter into the secondary and allow it to ferment for another week, or until it reaches final gravity (around 1.000). Cold crash the cyser for several days.

Put your raspberries in a muslin bag and the bag into an empty keg. Transfer your chilled cyser into the keg and return it to the kegerator. Allow the berries to steep for one week.

If filtering, add the sodium metabisulfite and potassium sorbate to a small amount of liquid such as sweet cider or water and stir to dissolve it. Prime a new keg with this mix and with the thawed apple juice concentrate. Then remove the bag of raspberries from the old keg and filter the cyser into the new primed keg. Return the keg to the kegerator and prop open the keg's pressure relief valve to allow the metabisulfite to off-gas in the kegerator for 24 hours, then seal your keg and force carbonate to your desired carbonation level.

As to labels, I have found that Avery address labels work very well. You can design and print your own labels at home using Avery's free-to-download label-sheet templates, or you can use the label

design feature on their website and then print them yourself, free of charge. These labels are great because they come off the bottles easily after only a short soaking.

Once all my bottles are labeled, it is just

a matter of sorting them and creating variety packs, and then it is time to start making deliveries. I always give the bulk of what I've made to the people who helped at the cider fest. The rest of the bottles make wonderful Christmas gifts for your friends and family.

APPLES TO APPLES

There you have it, my process, start to finish. I explained it in simple, week-by-week, steps, but to be honest, I have never been able to do it that fast. Life happens, and if you're forced to leave the cider in the fermenter or the keezer for a week or two more than you planned, it's OK. It will survive.

Making cider does not have to be overly complicated or esoteric, and you don't need to break the bank procuring rare ingredients. Curiosity and culls will get you most of the way, and friends and flexibility will see you through.

Author's note: I would like to especially thank my lovely wife, Anna, for assisting me in processing copious quantities of cider for three years straight—with cold hands and all—and my friend Tim who enthusiastically jumped in and assisted me with the whole process last year.

Scott Riseley is a pediatric alienist in Wenatchee, Wash., and has been brewing since 2012. His current brewing interests include crafting European lagers and surviving cider season.

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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.

BREWING WITH ZYMURGY

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

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!)

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 (66.7–67.2°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 – US beer barrel (31 US 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

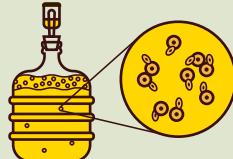
SMM – S-methyl methionine, precursor to dimethyl sulfide (DMS)

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. 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

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Seriously, Relax

LAST
Drop
BY ANDREW SANDERS

We all know Papazian's Golden Rule: Relax. Don't Worry. Have a Homebrew. But why does this rule exist? It's because, I believe, something must go wrong on a brew day.

Do I want something to go wrong? Of course not! But when a brew day does go perfectly, I begin to panic. It means I've missed it, and if I have missed it, it will show up in the fermentation.

There are two ways things can go wrong on brew day: (1) general mistakes due to losing one's concentration for just one second and (2) forces of nature.

My first reaction to a mistake is to turn to the internet to predict what the impact will be or find potential fixes. When I forgot to add a Campden tablet to my water, I googled if I could add it later in the brew and found a post on Reddit posing the same question (the answer is no, by the way).

Because this is the internet, one responder proceeded to berate the poor person who'd asked the question and then posted the 50-point checklist they have for their brew days. If anyone needed Papazian's law, it was this guy. So, instead of worrying, I put down my phone, poured myself a beer, and got on with my brew day—the beer turned out great, with no issues.

Now, not every mistake is a screw up. Once when I was brewing my citrus wheat, a lovely light springtime beer, I misremembered the yeast I was supposed to buy. I had meant to pick up an American strain and instead bought English (as an Englishman living in America, maybe this was subconscious). This was also during some supply chain issues, and I was unable to get the citrus I wanted, so I went ahead and brewed with what I had. This beer turned out wonderfully. It was light, fruity, and very crushable.

Some mistakes are just learning curves. When I started with my electric system (more on that later), I really didn't know what I was doing, particularly with the recirculation arm. Beginning the mash, I left it pumping the wort through at full blast. Big mistake. The wort couldn't get through the grain quick enough, and I noticed too late.

After frantically stirring the grain with a paddle and turning down the arm, I saw at the end of the brew I had scorched the bottom. This caused two panicked questions: Had I ruined the beer, and I had ruined my

new toy? Fortunately, the answer was no on both accounts, but there was a lot of scrubbing with vinegar in my future to get rid of the scorch mark.

Forces of nature create totally different scenarios. You cannot fight these. Rather, you must accept your fate and react accordingly. On one beautiful day, I was brewing out in the backyard and enjoying a successful brew session. The weather was great, my process had gone just right, and it was a recipe I felt I had perfected.

Just as I had cooled the wort and was about to transfer it to my sanitized fermenter, a gust of wind deposited a healthy batch of leaves into it. After some bad language, I fished the leaves out and realized I only needed to re-boil for a few minutes to kill off any nasties that might have landed in the wort.

Speaking of things that don't belong in beer, I was once gifted some lovely wild honey from Spain, so I decided to use it to make a honey wheat ale (with the correct yeast). As I was boiling the wort and adding the honey, a bee with apparently nothing to live for anymore divebombed into the kettle. Fishing a dead bug out of boiling liquid is not the world's easiest

task, and as it was right at the end of the boil, I added 10 minutes for good measure. This beer earned the name Dive Bomb Bee Wheat (see the recipe on page 11).

Then there are things that happen outside of the brew day. Remember the electric system? I decided to buy myself a Grainfather S-40, a lovely bit of kit. The day came and it arrived—I couldn't wait to open it! It was then I learned that I needed a 240-volt outlet. Let's just say my understanding of electrical is beyond limited. After more bad language and an expensive visit from an electrician, I was up and running. This mistake is a bit of a running joke in my house.

These are just some of my misadventures with brewing, and in the years I have been in this hobby, I have truly learned the meaning of Papazian's Rule. So, next time something goes wrong on a brew day (and it will, even on yours, Mr. 50-Point Checklist), just take a breath, pour yourself a beer, and say it with me. **Relax. Don't Worry. Have a Homebrew.**

Originally from the UK, Andrew has lived in Denver for 15 years and has been brewing for 10 of those. He's made a lot of brewing mistakes but also likes to think he's made a lot of good beers, too.





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