

FOR THE HOMEBREWER & BEER LOVER

Zymurgy®

The Journal of the American Homebrewers Association®



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Domestic or Import?

In 1978, Charlie Papazian and Charlie Matzen founded the American Homebrewers Association (AHA) and *Zymurgy* magazine in Boulder, Colorado. The AHA remains headquartered in Boulder today, but there's no doubt that the movement the two Charlies started has spread to all corners of the globe, which is even more remarkable when you consider that globes don't have corners.

At the beginning of April, I was delighted to speak at the annual conference of the Asociación de Cerveceros Caseros Españoles (ACCE)—Association of Spanish Homebrewers—in Cádiz, Spain. The ACCE conference took place over three days and included talks by John Palmer, who discussed brewing water and total fermentation, and David Heath, who offered tips and tricks for getting the most from the Grainfather. I talked about brewing for competition in BJCP Category 27 Historical Beer. All three of us owe a tremendous debt of gratitude to Carmen María Ramírez Ciudad, who deftly translated our words to the audience in real time.

Then, in early May, I had the honor of speaking at BrewCon, the annual gathering of Ireland's National Homebrew Club (NHC) in Dublin. BrewCon was a one-day event that featured speakers by day and plenty of homebrew by night. Smock Alley Theatre, which dates to 1662, was a stunning venue (for more on BrewCon and homebrewing in Ireland, see the Sept/Oct 2016 issue of *Zymurgy*) for a lineup of presentations from Mitch Steele of New Realm Brewing Co., Fergus Fitzgerald of Adnams Southwold, Rich Kilcullen of BrewDog OverWorks, and Peter Dudley of Trevo de Caparica brewery in Lisbon. I know I speak for all the presenters at these two events when I say many thanks to the generous homebrewers in

Andalucía and Dublin who hosted us, fed us, and drove us all around.

Continuing with this global theme, the present issue of *Zymurgy* features a story by Emma Inch, whom I met last November at the inaugural UK Brew Con in London. In “The Place of Brewing,” Emma weaves together the stories of British homebrewers who contributed yeast, bacteria, and who knows what else to a collective bug blend created at Brew Con and curated by BrewLab. In “World of a Thousand Saisons,” Mark Pasquinelli gives us a homebrewer’s perspective on the family of styles from Hainaut that we think we know (but really don’t).

You’ll also find two stories that tell the story of homebrewing in Argentina from two different perspectives. In “Dorada Pampeana,” brewer and writer Marcos Ragoni examines a unique golden ale (it’s in the back of the 2015 BJCP style guide) that developed in Buenos Aires when early Argentinian homebrewers had more enthusiasm than they did raw materials. And in “Never Too Many Cooks,” Efraín Villa considers the intersection of homebrewing and craft brewing in today’s Argentina.

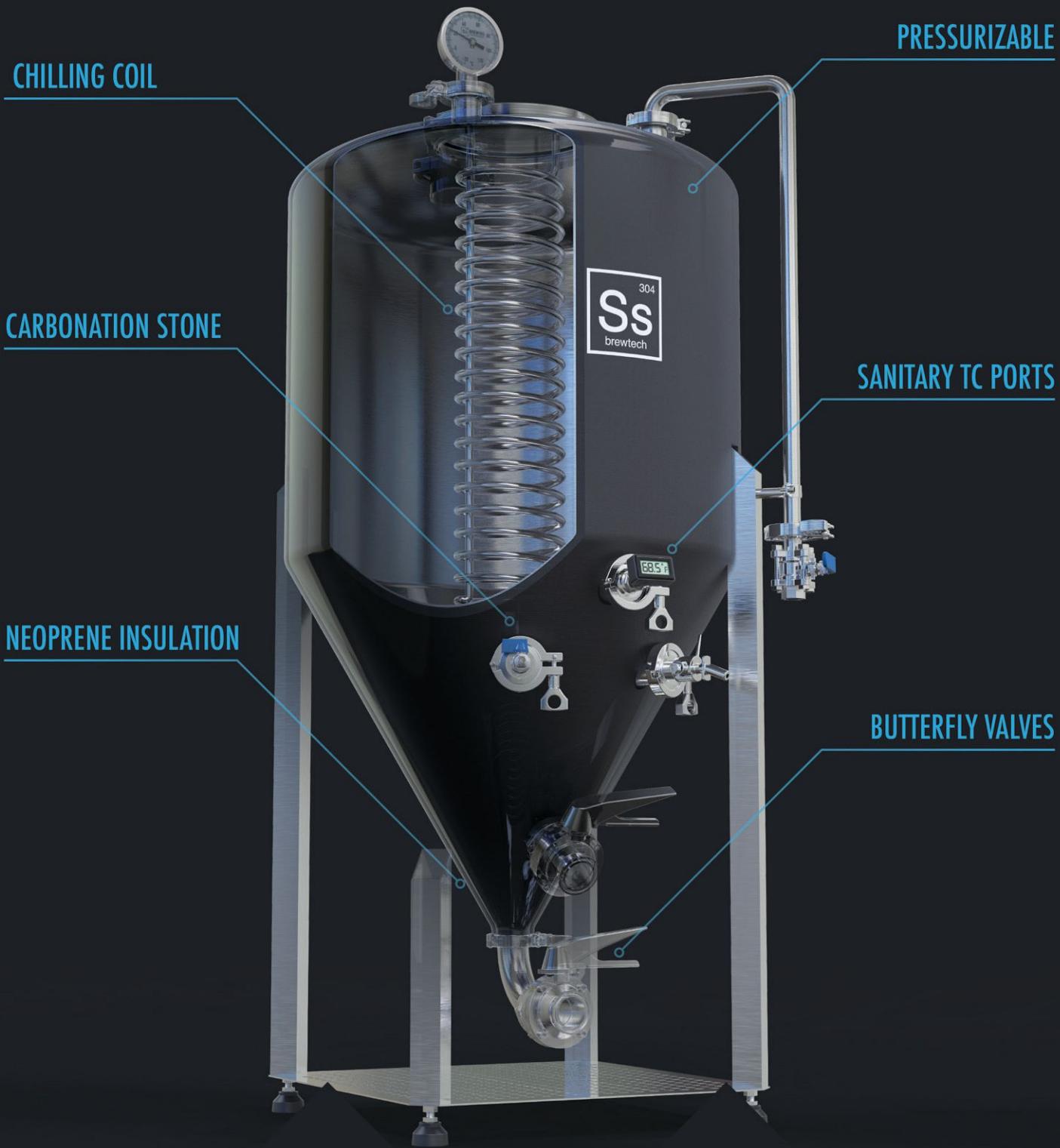
Swinging back to North America, our cover story is the 16th annual Best Beers in America survey. I’m happy to report that participation this year climbed by nearly 200 percent, and total votes increased by more than 50 percent, even though the number of responses per voter was limited to 5 (down from 20 in 2017). Thanks to all AHA members who took the time to vote for your favorite beers.

Until next time, salud, sláinte, and cheers!

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

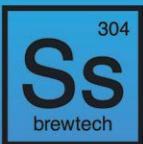


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COLUMNS

FEATURES

1 | EDITOR'S DESK

Domestic or Import?

By Dave Carpenter

9 | FROM THE GLASS

Big Brew Results

By Gary Glass

99 | WORLD OF WORTS

Drinking Deliberately

By Charlie Papazian

104 | LAST DROP

Buy the Ticket. Take the Ride.

By Brian Cohen

DEPARTMENTS

4 | BEEROSCOPE

13 | DEAR ZYMURGY

17 | DEAR PROFESSOR

23 | STYLE SPOTLIGHT

75 | WINNERS CIRCLE

80 | KUDOS / CALENDAR

87 | HOMEBREW HOMECOMING

95 | COMMERCIAL CALIBRATION

103 | ADVERTISER INDEX

28 | Zymurgy's 16th annual Best Beers in America

Beer lovers, rejoice: there's never been a better time in US craft brewing history for the pursuit of hoppiness (or maltiness, if that's your thing).

By Jill Redding

40 | The Place of Brewing: Going Wild with the Great Brettanomyces Megablend

Last November, homebrewers gathered for the very first British homebrew convention. Some of them handed over vials of yeast to be mixed into a unique blend.

By Emma Inch

48 | World of a Thousand Saisons

Few beer styles are as versatile as saison: every variable contributes to a new outcome and new possibilities. Head down the rabbit hole and into the universe of saison.

By Mark Pasquinelli

58 | Argentina: Never Too Many Cooks

Argentinians don't have that saying about too many cooks in the kitchen. When they get together to brew, homebrewers in Argentina like to have lots of cooks.

By Efraín Villa

68 | Dorada Pampeana: Argentina's Blonde Ale

Dorada Pampeana emerged a little over a decade ago near Buenos Aires, and now it's in the BJCP style guide. Get to know the history and appeal of Category X1.

By Marcos Ragoni



Exploring Craft Malt with AHA Staff

We wanted to see how two local malts compared to a German classic, so we drank homebrew for research purposes. We really love to do research.

By Amahl Turczyn

To read this special online feature, go to HomebrewersAssociation.org/ja18

QUICK RECIPE GUIDE

Caliente Tejano.....	6	Jack of All Saisons.....	56
Bigfoot Barleywine-Style Ale Clone	26	IPA Argenta	62
Old Foghorn Clone.....	26	Dorada Pampeana Estilo Cerveza Minga	72
Allagash White Clone.....	34	Dorada Pampeana Estilo 1060 Cerveza	73
New Holland Dragon's Milk Bourbon Barrel-Aged Stout Clone	36	Dorada Pampeana Estilo Cerveza Zeppelin	73
Juicy Bits NEIPA.....	38	Red Keep Bière de Garde.....	76
Count Orloque.....	50	Van Dayum!	90
Smoked Pumpkin Saison	51	Little Boss.....	92
Mad About Saison.....	52	Peaks & Priorities Juicy IPA (All-Grain)	100
		Peaks & Priorities Juicy IPA (Extract)	101



Find these homebrewing recipes and more on our website @ HomebrewersAssociation.org/homebrew-recipes



>> GET THERE!

26TH ANNUAL VERMONT BREWERS FESTIVAL

With 11.5 breweries for every 100,000 legal drinkers, Vermont ranks first in the nation in breweries per capita. The Green Mountain State is also first in per-person beer production, with 18.9 gallons brewed annually for every resident over the age of 21. They love Vermont beer, and judging from the endless parade of hazy IPA that fills our Instagram feed every day, so does just about everybody else.

The Vermont Brewers Association will host its 26th annual Vermont Brewers Festival in Burlington July 20 and 21. Four separate sessions run for four hours each: two Friday and two Saturday. Your \$43 entry fee includes 15 tasting tickets, each good for one 3-ounce (89 mL) sample of beer up to 8% ABV. To sample beers over that threshold, plus a few specialty beers, you'll need two tickets, but you can buy additional tickets for \$2 a pop.

New this year, Vermont residents can get a \$10 discount for the first session on Friday, July 20, which runs from noon to 4:00 p.m. You just need to prove your residency with Vermont billing and mailing addresses.

Expect plenty of local beer from breweries like The Alchemist, Four Quarters, Lawson's Finest Liquids, Prohibition Pig, and River Roost, plus "imports" from the likes of Allagash, Dieu du Ciel, Night Shift, and others. Attendees can enter the grounds half an hour before the start of each session to fill up the proverbial tank at one of the many on-site food vendors.

To learn more, visit vermontbrewers.com.

July 8
Farmhouse Fest
Vancouver, BC
farmhousefest.com

July 14–15
5th annual Brew Hee Haw Craft Beer Roundup
Costa Mesa, CA
brewhaw.com

July 20–29
Berlin Beer Week
Berlin, Germany
berlinbeerweek.com

July 26–27
31st annual Oregon Brewers Festival
Portland, OR
oregonbrewfest.com

July 28
9th annual Milwaukee Brewfest
Milwaukee, WI
milwaukeebrewfest.com

August 7–11
Great British Beer Festival
London, UK
gbbf.org.uk

August 10–11
Halifax Seaport Beerfest
Halifax, NS
seaportbeerfest.com

August 10–12
Burning Can North Carolina
Hendersonville, NC
oskarblues.com

August 11
New Belgium Tour de Fat Boston
Boston, MA
newbelgium.com

For more craft brewing events, go to CraftBeer.com

>> NEW INGREDIENTS

SABRO™ BRAND HBC 438 HOPS

Who doesn't love a new hop variety? The Hop Breeding Company recently announced the release of a new proprietary cultivar called Sabro (HBC 438). Bred from the *neomexicanus* line of hops indigenous to North America, Sabro is said to offer notes of tangerine, coconut, and mint, which makes us wonder if it's time we started adding little umbrellas to our IPAs.

Sabro will be available to homebrewers from YCH Hops after the 2018 hop harvest this autumn.



Photos courtesy of Vermont Brewers Festival; YCH



>> NEW INGREDIENTS

WEST BRANCH MALTS

Small-batch malt has taken off in recent years as homebrewers, craft breweries, and small distilleries seek to squeeze ever-more local ingredients into their pints and drams. One of the newest maltings, West Branch Malts, recently opened its doors in north-eastern Ohio. West Branch produces pale ale, Pilsner, Munich, and Vienna malts from Ohio-grown two-row KWS Scala barley, a variety that has performed admirably in field trials. Contact West Branch at westbranchmalts.com to find out more.

>> GREAT GEAR

IN-LINE REGULATOR

Every draught system has a primary regulator to deliver carbon dioxide from the cylinder to the kegs, and if you serve all those kegs at a single carbonation level, that's all you need. But to tap kegs with different CO₂ requirements—say a weissbier with 3.5 volumes and an English bitter with less than half that—you need another regulator to drop the pressure for keg number two (or three, or four...).

This nifty in-line regulator takes up very little space and can knock down the gas pressure to as low as 1 pound per square inch. To keep the price low and the footprint small, there's no pressure gauge, so you'll need an external gauge to measure your desired flow rate.

Available from William's Brewing at williamsbrewing.com for \$6.99.



Photos courtesy of West Branch Malts; William's Brewing

>> BEER BOOKS

HISTORIC GERMAN AND AUSTRIAN BEERS FOR THE HOME BREWER

By Andreas Krennmaier

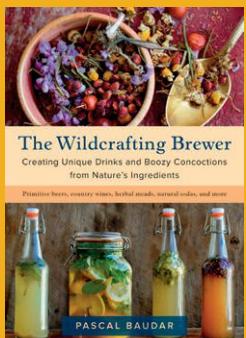
Curious homebrewers are always looking for new and exciting beer styles, and it's often the case that the latest trend is something quite old. Take Gose, Lichtenhainer, and Berliner weisse, for example. These three northern German styles were nearly lost to lager but are now enjoying a resurgence. Andreas Krennmaier has broken through the blackletter and meticulously researched piles of German-language sources to make even more Germanic beer styles accessible to English speakers in *Historic German and Austrian Beers for the Home Brewer*. This delightful, easy-to-read little book offers recipes and historical notes for Broyhan, Berliner brown beer, Fredersdorfer beer, Horner beer, and many others. Go beyond the Reinheitsgebot and try something new—which is to say, old.



THE WILDCRAFTING BREWER

By Pascal Baudar

This beautiful volume, which is as aesthetically agreeable as it is informative, is a lifestyle manual for making a wide variety of fermented potions, including beer, country wine, natural soda, and mead. From lavender and lichens to mushrooms and mugwort, you'll learn to view the world around you with culinary curiosity. Even ants, which apparently impart lemony flavors, make an appearance in one of Baudar's concoctions. If you're the sort of person who's always asking yourself "I wonder if that would ferment?", *The Wildcrafting Brewer* might be your new favorite book.



>> CLUB NEWS

BASH BREW DAY AT LAZY BEACH BREWING

By Stephen Cook

It was a dreary, gray, soggy morning near the end of February, which in South Texas is part of the three-month-long season we call “not summer.” The rain and clouds couldn’t dampen our spirits, though, for we had shelter in a spacious brewery. It was the first time many of us would get to help brew on a true 5-barrel commercial system.

Cory Matthews, owner of Lazy Beach Brewing, the first microbrewery in Corpus Christi, had invited members of the Bay Area Society of Homebrewers (BASH) to develop and brew a special beer to commemorate the 27th anniversary of our club. Cory is one of our own, a past president and still-active member of BASH. Our club has spawned six professional brewers, but Cory was the first member to open a brewery, in June 2014.

BASH was founded in early 1991 by 12 friends, four of whom are still active, and we now have more than 40 dues-paying members. In addition to the usual beer education and homebrew tastings, we enjoy a full meal during our monthly Sunday evening club meetings, which we hold at members’ homes.

Founding BASH member Paul Holder provided the base beer recipe. It was a blonde ale called “Cubano,” originally plucked from the pages of *Zymurgy* six or seven years ago. This being south Texas, we had to put a Tex-Mex fingerprint on our recipe, so, we added jalapeños to the mix.

Paul’s beer thus became Caliente Tejano, a standard-gravity, deep golden blonde ale with a healthy dose of flaked corn. With the chiles and maize, our liquid bread is more accurately liquid jalapeño cornbread.



CALIENTE TEJANO

American cream ale with jalapeño chiles

Courtesy Paul Holder and the Bay Area Society of Homebrewers

Batch Volume: 5 U.S. gallons (18.9 L)

Original Gravity: 1.058 (14.2° P)

Final Gravity: 1.011 (2.6° P)

Bitterness: 21 IBU

Color: 4 SRM

Alcohol: 6.2% by volume

Efficiency: 80%

MALTS

8 lb. (3.63 kg) US Pilsner malt

1.5 lb. (680 g) flaked maize

3 oz. (85 g) Belgian CaraMunich malt

HOPS

1 oz. (28 g) Hallertau Tradition, 4% a.a. @ 60 min

0.6 oz. (16 g) Tettnanger, 4.5% a.a. @ 15 min

YEAST

“Chico” American or California ale yeast

ADDITIONAL ITEMS

1 jalapeño chile, chopped, with seeds
vodka

BREWING NOTES

On or before brew day, make a chile tincture by soaking the chopped jalapeño with its seeds in a small amount of vodka. This will extract flavor and heat while the beer ferments.

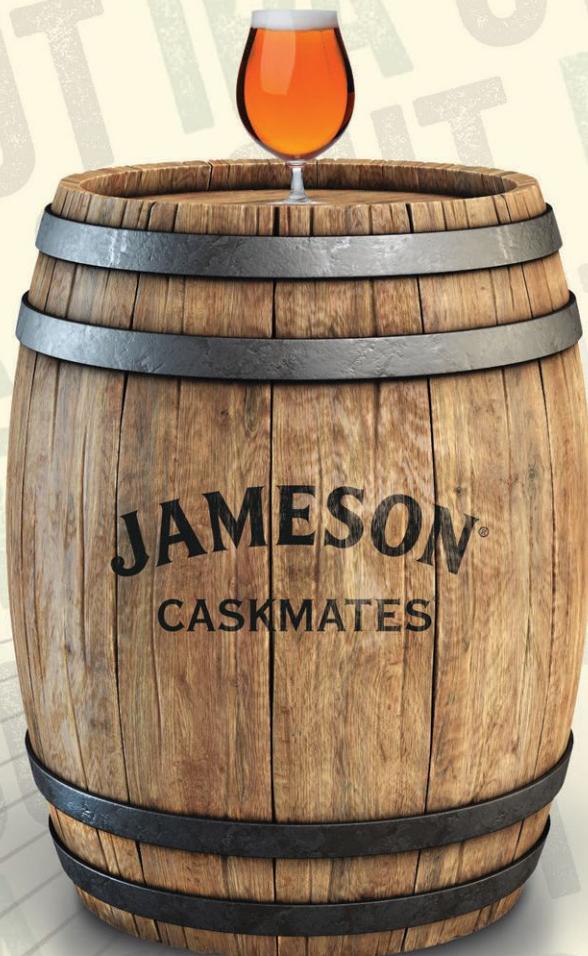
Mash grains at 150° F (66° C) for 60 minutes. Sparge at 168° F (76° C), and boil wort for 90 minutes, adding hops at stated intervals. Chill to 65° F (18° C), oxygenate, and pitch yeast. Ferment at 65° F (18° C) until final gravity is reached, and add tincture to secondary before packaging.

PARTIAL-MASH VERSION

Mash the flaked maize and CaraMunich malts with 2 lb. (907 g) of US six-row pale malt for one hour at 150° F (66° C). Dissolve 5.5 lb. (2.50 kg) Pilsner liquid malt extract in the resulting wort and proceed with boil as above.

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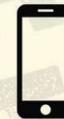
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**FILL
YOUR
GLASS.**

By Gary Glass



Big Brew Results

On May 5, 5,387 homebrewers at 309 sites brewed 10,120 gallons (38,308 liters) of homebrew for the 21st annual AHA Big Brew event honoring (Inter) National Homebrew Day. The 2018 Big Brew was truly a global event, with homebrewers in 20 countries participating.

This year's Big Brew paid homage to Charlie Papazian, who founded the American Homebrewers Association 40 years ago. Charlie will be exiting from his formal role with the Brewers Association in 2019. Thus, it seemed fitting to use two of Charlie's favorite homebrew recipes for this year's Big Brew: Rocky Raccoon Honey Lager and Dusty Mud Irish-Style Stout.

Mead Day

Hopefully you have already cleared some time in your schedule for Saturday, August 4, to combine water, honey, and yeast in honor of Mead Day. Mead is likely the original fermented beverage, and as homebrewers, it only seems right to celebrate those who first discovered the beauty of fermentation by celebrating Mead Day. Mead is a truly tasty beverage, and it's quite



easy to make. If you haven't made mead before, August 4 is the perfect day to get started. Check out the events section of HomebrewersAssociation.org for more details.

Homebrew Con 2019

This issue of *Zymurgy* mails just prior to the start of the 2018 Homebrew Con in Portland, Ore. Look for coverage of this year's event in the Sept/Oct issue of *Zymurgy*, including gold-medal-winning



recipes from the National Homebrew Competition.

The AHA is not satisfied to simply bask in the glory of a tremendously fun event in Portland, though. Preparations for Homebrew Con 2019 are already underway. We are very excited to bring the 2019 Homebrew Con to Providence, R.I.—a first for this city and only the second time in 41 years that Homebrew Con will have been held in New England.

While Providence is a great beer town, it is even better known for the amazing culinary experience it has to offer visitors. Providence is home to the renowned Johnson & Wales University culinary school. Downtown Providence offers dozens of local restaurants within walking distance of the Rhode Island Convention Center (including Trinity Brewhouse, which is just two blocks from the convention center). Given Providence's proximity to the Atlantic, you can expect to enjoy amazingly fresh seafood.



Providence is easily accessible from throughout the Northeast, just an hour from Boston and two and a half hours from New York City by train.

Homebrew Con 2019 takes place June 27–29. Start planning now to be there!

AHA Diversity Plan

Our surveys indicate that the vast majority of homebrewers in the United States are white (89 percent) and male (93 percent). AHA membership in the US closely reflects those broader hobby-wide numbers.

Given the AHA's mission of promoting the community of homebrewers, the AHA Governing Committee saw a need to broaden our ranks by looking for opportunities to reach a wider demographic.

To that end, the Governing Committee established a diversity subcommittee made up of Governing Committee and AHA members from a wide range of backgrounds. After much discussion, the diversity subcommittee has drafted a strategic plan. You can find that plan posted on the Governing Committee page of HomebrewersAssociation.org.

Many thanks to diversity subcommittee member Anthony Salazar, an AHA member from Seattle, for providing the template for the AHA diversity plan.

Homebrew Club Insurance

Since 2014, the AHA has offered AHA-registered homebrew clubs in the United States affordable general and liquor liability insurance, and in 2016 the AHA added a directors and officers insurance option. The AHA works with West's Insurance to provide this much-needed coverage for clubs. West's general and liquor liability coverage for clubs costs just \$3.50 per club member per year.

The AHA receives no compensation from West's, as we wish to keep this club insurance option as affordable as possible. However, to encourage club members to join the AHA, we will reimburse a club's general and liquor liability insurance coverage premiums if 75 percent of the club's membership, as reported to West's Insurance, are listed as members of the AHA in our database. AHA members can update their club membership status by logging



into HomebrewersAssociation.org and clicking "MY ACCOUNT" at the top of the page.

For the 2017–2018 enrollment period, the AHA is reimbursing club insurance premiums for 10 clubs, including the Buffalo Brew Club in Arizona, Diablo Order of Zymiracle Enthusiasts and Sonoma Valley Homebrewers Alliance in California, Brewers Anonymous in Florida, Bible and Brew in Iowa, Cross Street Irregulars in Maryland, Homebrewers Local 402 in Nebraska, Sussex County's United Brewers & Alchemists in New Jersey, Saratoga Thoroughbrews in New York, and Browns Point Homebrew Club in Washington.

The 2018–2019 club insurance enrollment period is open from July 1 to September 1, 2018. Don't miss this opportunity to get your club's insurance premium reimbursed and support the AHA at the same time! See HomebrewersAssociation.org/community/clubs/homebrew-club-insurance for details.

Brew Guru

I hope you have downloaded the AHA's Brew Guru mobile app and use it regularly. Brew Guru is designed to help you find breweries, homebrew shops, and, most importantly, AHA Member Deals participants. The app also puts hundreds of homebrew recipes, including National Homebrew Competition gold-medal winners and clone recipes of your favorite craft brews, at your fingertips.

The logo for H2O brew SYSTEMS. It features a stylized orange hop cone at the top, with two blue curved lines forming a wave-like shape behind it. Below the cone, the letters "H2O" are written in a large, blue, sans-serif font. Underneath "H2O", the words "brew SYSTEMS" are written in a smaller, orange, sans-serif font. The entire logo is set against a background of a blue water splash or wave.

Great Beer Starts With Great Water

*Start your brew day right
with pure water to build your mineral profile*

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A photograph of the H2O brew SYSTEMS water filtration system. It consists of a white, rectangular carrying case with a handle on top and a blue base. The brand name "H2O" and "brew SYSTEMS" are printed on the side of the case. Next to the case is a clear plastic bag containing the product's components, and a small, gold-colored hardware piece lies on the wooden surface in front of them.

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The latest update to the app includes a couple of important changes. First, the plugin that Brew Guru once used for push notifications of nearby members deals is no longer supported by the developer and had become unreliable; thus, with the updated app, the “geofencing” capability has been removed. You can still use the app to find and use Member Deals (hit refresh on the home page to get the deal participant nearest to you at any time), but it will no longer push notify app users of nearby deals. We hope to resolve this issue with another update in the not-too-distant future.

The other major update is that we have extended the trial period for nonmember users from 15 to 30 days. During the Brew Guru trial period, nonmembers who download and log into the app can experience AHA member benefits, such as AHA Member Deals, access to eZymurgy and the Zymurgy apps, and access to members-only content in the app and on HomebrewersAssociation.org (note: trial membership does not grant access to members-only event registration).

The Brew Guru trial membership is a great way to introduce friends and family to the benefits of AHA at no cost. We're confident that those who get a taste for what the AHA has to offer will see the value in joining as paid members. So, tell your friends and neighbors to download Brew Guru and launch their no-obligation free trial of AHA membership.

Government Affairs Update

In Missouri and Nevada, the AHA is investigating recent issues with homebrew competitions taking place on licensed premises. The AHA is working with the Virginia Brewers Guild, Virginia Manufacturers Association, and Virginia Alcohol Beverage Control (VA ABC) for clarification on rules for hosting similar events.

In North Carolina, the AHA, members of the North Carolina Homebrewers Alliance, and others are collaborating on input to the North Carolina Alcohol Beverage Commission on regulations for the state's new homebrew law.

In April, the AHA sent an action alert to AHA members in Louisiana on behalf of the Louisiana Craft Brewers Guild, encouraging members to contact their senators regarding legislation affecting Louisiana's craft breweries. Thanks to all of the AHA members who heeded the call and contacted legislators.

The AHA participated in the Brewers Association's Capitol Hill Reception in May. The Capitol Hill Reception allows BA member breweries to serve their beer

to members of Congress and promote small and independent breweries. New this year, the AHA added locally made homebrew to the event to help us promote the hobby of homebrewing and the AHA's annual Capitol Hill Staff Homebrew Competition to members of Congress.

Until next time, happy brewing!

Gary Glass is director of the American Homebrewers Association. 

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By Our Readers

British Love

Dear *Zymurgy*,

I have been a homebrewer since 1995 and have read *Zymurgy* for many years. In the last year, I relocated from Parker, Colo., to Cambridgeshire, UK, and I want to dispel a couple of common myths about British ales.

First, they are not served warm. Most are at a very quaffable cellar temperature of about 58° F (14° C). Many are cask-conditioned “real ale,” which is less carbonated than forced-CO₂ American beers, but not flat, as is commonly thought. British ales also aren’t boring. Since moving to the UK, I have been on a mission to explore and sample the new microbrewed British ales that are popping up across the country, and it is truly a great time to be here!

I have enjoyed the birth of black IPAs, I have brewed several, and I was pleasantly surprised to read the article “American-Style Black Ale” in the Mar/Apr 2018 issue. I was still thinking about that article when I reached into my beer cooler and pulled out a can of Glug M’Glug, a dark IPA from Black Sheep Brewery. It’s great to see the Brits brewing American and West Coast-style ales.

Enjoying my continued *Zymurgy* subscription!

Claude Carrier
St. Ives, Cambridgeshire, UK

Dear *Zymurgy*,

I just held my fifth annual homebrew cask party in Austin. We served 20 beers, from mild and bitter to stout and barleywine. I thought it might be of interest as some of us keep these traditions alive and show others what true cask beer is all about.

Sincerely,
Stuart West – Austin, Texas



Stuart West's fifth annual homebrew cask party in Austin, Texas.



Organic Ingredients

Dear *Zymurgy*,

I am a strong advocate for the organic agriculture movement. Part of the reason I got into homebrewing a few years ago was to have more control over the health qualities of the beer I drink. I’m an extract brewer, and I have been frustrated with the lack of organic malt extracts available to the homebrewer. Could you please provide any resources that could allow me to brew organic beer?

Steve Hurd
Washington, Ill.

Zymurgy's editors respond: Hi, Steve, organic malt extracts are out there, but sourcing them can take a bit of leg-work. Some places to look include Briess (Maltoferm) and Muntons, both of which produce some great organic malt extracts.

Some organic extracts might only be available in large quantities, so it’s worth getting together with some other homebrewers to divide a bulk order among friends. Your local homebrew store should be able to help. For organic hops, check out the American Organic Hop Grower Association at usorganichops.com. Several major yeast companies are now offering organic yeast—again, your local homebrew shop can help you locate the goods.





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Brody

Brew Day Companions

This is Brody. He is a retired racer and a curious, fearless boy. Here is his inspecting my grains and making sure I got an adequate crush. I love the magazine and all that the AHA does for homebrewers and homebrewing.

Frank Osborne
Lexington, S.C.



This is my brewhouse manager, Chance "the puppy." He is a 16-month-old black Lab mix who loves to distract me on brew day!

Doug Newberry
Batavia, Ill.

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READER-SUBMITTED HOMEBREW LABELS

I began homebrewing in the late '90s with little knowledge and success. I hung up my buckets for almost 20 years until my good friend bought me a gift card to the local homebrew shop up the street. With a little more money and better access to resources, I thought I would try again. Batch after batch, my second attempt at the hobby became a first attempt at a passion.

Countless books and numerous dollars later, I traded extract for all-grain and it was on. I fell in love with the freedom of creating my own recipes for the beers my friends and I like to drink. The bucket became a fermentation vessel and the bottles became kegs. The basement, which once occupied boxes of holiday decorations, slowly morphed into a personalized brewery. Now laden with vessels, refrigerators, kegs, CO₂ tanks, and tools, my passion is now an obsession.

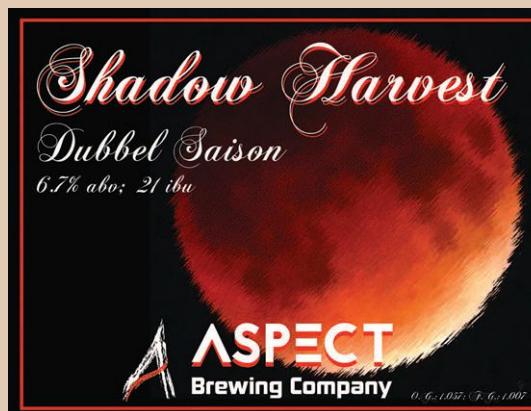
This is the label for one of my winter season beers called "Shadow Harvest." It features an image of a lunar eclipse I captured, which seemed like a perfect image for a dark farmhouse ale, a mashup of the dubbel and saison styles.

Eitan Kaplan
Seattle, Wash.

Ohio River Valley Brewing remains a homebrewery, but it is now an LLC. It is named not just for my beer, but also for the spirit of what this region has to offer. I was born in Ohio, I love Ohio, and to me, the best beer comes from Ohio. I do everything I can to source ingredients from the area and to highlight the region and its rich German history. Cincinnati was home to more than 70 breweries before Prohibition, and although those are all gone, the total is rising once again every year.

My logo highlights the great city of Cincinnati with a star, hops, barley, and the golden sun that shines on our state. Who knows what will come of ORVB down the road? For now, it is my salute to a city and a region experiencing the revitalization I dreamt about as a child. I am happy to be a small part of it.

Tom Lang
Cincinnati, Ohio



Hey homebrewers! Submit your homebrew label for the Dear Zymurgy section, at homebrewersassociation.org/magazine/submit-bottle-label.



I love your magazine, especially the brew pets! Here is my three-legged rescue brew cat, Trixie. She loves to supervise brew day. Here she is, seeming to say, "Seriously? That's all the Mosaic you plan to use?" She's a sweetheart.

Joe Meadows –Trussville, Ala.

This is Daisy Dukes, my newest brew dog, only 16 weeks old and already licking (licking?) dry stout brew day in chilly Red Lodge, Montana!

Mike Nordstrom
Red Lodge, Mont.



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

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Empowering Your Imagination



By Professor Surfeit



Three to Go Throwback

The November-December 2018 issue will be my last appearance in Zymurgy. It's been a fun and eventful journey and a learning experience even for me. Here's a fun look at a few questions and answers that appeared in earlier issues of Zymurgy from the 1980s and '90s.

Approaching Adieu,
The Professor, Hb.D.

Heard It through the Grapevine

Dear Professor,

I was recently telling a great aunt of mine about my newly found hobby of homebrewing. Knowing that homebrewing was very common before Prohibition, I asked her if her mother (my great grandmother) had ever brewed beer for the family when she was growing up in southeast Iowa. She stated that her mother hadn't brewed any, but that an aunt of hers had, and that she often helped bottle it. She said that they would drop two or three raisins in every bottle of beer before it was capped. I asked if they had put any amount of sugar in the bottles before capping and she said that they hadn't. So, I suspect that the raisins were a way of priming their beer! Can you validate this possible reason for the use of raisins at bottling time? If they were used for priming, are there any advantages or disadvantages compared to the standard methods of priming such as using corn sugar or kräusening?

Old-time raisin prime?

Bret Stewart
Austin, Texas

Dear Bret,
Makes sense 'cause there's a lot of natural sugar in them there grapes. Also a zoological menagerie of yeasts and bacteria. And

if golden raisins were used you might end up with flat beer, because more often than not they are treated with sulfur to maintain their color (and would inhibit fermentation).

No advantages here. You're safer using corn sugar boiled in a small amount of water.

And I'm just about to lose my mind,
The Professor, Hb.D.

DEAR PROFESSOR
PROFESSOR SURFEIT

The Blues on Blueberry Hill?

Dear Professor:
I have been brewing beer for almost two years. I have refined my techniques to a point where the beers I brew are very clean, not to mention well liked by friends. The problem that came up recently has to do with clarity.

Because I have several blueberry bushes in my backyard, I have made a few batches of blueberry beer. I use the same techniques that I use with my other beers. The flavor is wonderful and has met with rave reviews, but it is cloudy. I am assuming that this is due to the pectin in the fruit being suspended. Please shed some light on this problem.

Thank you,
Laurinburg, North Carolina

**Chill Haze—
The Continuing Saga**

Dear Professor:
I have a problem. I keep getting short noses and Polygyn—" Could it be in the water? Write soon.

David Marshall
Lawton, Oklahoma

Dear Professor:
Chill haze is a common occurrence and is likely one in all-mash beers. Virtually all large commercial breweries add pectinase enzymes to their beers that are responsible out of the haze. They use Polygyn® or similar kind of things.

For the homebrewer, the easiest way to eliminate the haze is to heat the beer chilled for a few weeks. The process is sedimentation. Using a small amount of yeast nutrient will help. If you are all-grain brewer and your sprout winter is too hot, you may want to consider adding a cold fermenting nutrient.

A quick boil and the addition of Irish moss or Pectinase helps reduce chill haze. But fermentation temperature is still the most important factor!

Nit too hard and not too hot.
The Professor, Hb.D.

Brew Safe, Brew Sterile

Dear Professor:
The "Wormhole tip" on page 84 of the Fall 1990 Zymurgy (Vol. 13, No. 2) has bothered me. As a brewer, I have heard many stories of contamination that went on in the early days of homebrewing. I have problems with the idea of sterilizing ice cubes by heating them in the microwave oven. I don't like the taste of the inside of the cubes.

First, I have heard of the little wormhole's other suggested means of sterilizing them. I have heard that it is because the solution obviously would not sterilize the entire cube. Secondly, the tip writer says "resterilization may be necessary" after sterilization by boiling. OK, so I have sterilization by boiling. OK, so I have sterilization by boiling. OK, so I have sterilization by boiling.

FALL 1990 ZYMURGY 49

The Blues on Blueberry Hill?

Dear Professor:

I have been brewing beer for almost two years. I have refined my technique to a point where the beers I brew are very clean, not to mention well liked by friends. The problem that came up recently has to do with clarity.

Because I have several blueberry bushes in my backyard, I have made a few batches of blueberry beer. I use the same techniques that I use with my other beers. The flavor is wonderful and has met with rave reviews, but it is cloudy. Is this to be expected from fruit beers or

am I missing a step I don't know about? I have never had any fruit beer except for my own, so I have no standard to shoot for. Perhaps the cloudiness is due to the pectin of the fruit in suspension. Please shed some light on this problem.

Thank you,
Ted Sakehaug
Laurinburg, N.C.

Dear Ted,

Yep, you're right, especially if you've boiled or near-boiled the fruit. The pectin haze is normal. Sometimes it will clear with age, but your best bet is not to boil the fruit. Adding pectin enzyme to the fermentation also may aid clarification. And then there's always filtration for those who do that kind of thing.

By the way, I love blueberry beer and pie!

With a purple tongue,
The Professor, Hb.D.

Moustaches, Beards, Beer and Brewers

Dear Professor,

I am a college senior and homebrewer of two years. With the help of Zymurgy and a few good homebrewing texts, I have brewed 20 batches of great beer.

In the "Winners Circle" of the 1990 Special Issue of Zymurgy (Vol. 13, No. 4), I noted that 66 percent (12 of 18) of the winners you pictured from the 1990 National Homebrew Competition, as well as you yourself, have a mustache. Surely this number is significantly higher than the national average. Will growing a beard and mustache improve my beer?

Sincerely,
Craig Agnor
Granville, Ohio

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Dear Craig,

Have you noticed the cover art of the book, *The Winners Circle*? That wasn't a whim. I can't figure it out. We can't figure it out, but it's true, more than the average number of homebrewers grow facial hairs. Attendance at any homebrewers gathering or National Conference confirms this.

Now if some demographic analysts had a profile of people who grow facial hair, maybe they'd have statistics valuable to those who sell homebrew products.

Beats me,
Bearded myself,
The Professor, Hb.D.

Mostly Malt

Dear Professor,

I am a recent addition to the world of homebrewing, but I already believe I have found a lifetime hobby. I am the resident hall coordinator for Dorchester Hall at St. Mary's College of Maryland. My staff and I decided at the beginning of the year that it would be fun to brew our own beer. Honestly speaking, it has turned out better than we had imagined. We have had a considerable degree of success with the Superbrau malt and have brewed Canadian lager, amber, and dark.

Could you give us young brewers a few insights into homebrewing that would further us on our way? Do you have any malts that you recommend? Also, how does the Superbrau truly measure up compared to other hopped malts?

I appreciate the time you would take to help us relax and have a homebrew!

Sincerely,
Allen Consentino
St. Mary's City, Md.

Dear Allen,

Taste is in the mouth of the beholder. There are hundreds of malts from which to choose. Which is best or better? I wouldn't dare give you my opinions, because even I haven't tried them all. What I would recommend is to look up prize-winning recipes and see what the judges have to say about the brew. Remember, good malt does not a great beer necessarily make, but it can be a good start.

I also recommend you look at the labels of the malt you buy. Some malt extracts are not all barley malt. Some list "barley, malt" and others list "barley malt." There is a difference. "Barley" can refer to barley syrup that is enzyme-produced barley sugar, not malt. Some labels will list glucose, corn syrup, caramel, and hop extract. If you experiment with these kinds of malt, note whether you like the character. If you don't, then switch to all barley-malt extracts. If you like them, then stick with them. Generally speaking, all-barley malt extracts tend to experience healthier and more complete fermentations—and better-tasting beer in my opinion. Except (there's always an exception, isn't there?) when you want to brew a lighter bodied American-style lager beer when the use of corn or rice will add to that particular character.

Remember, young brewers grow up to be old brewers. And old brewers have the option of being wise.

Wise and wizened,
The Professor, Hb.D.



Sex, Lies, and Wayward Wit Wort

Dear Professor,

Two of my last three homebrews have had very low specific gravity readings prior to fermentation. The first was an olde ale containing six pounds of malt extract syrup and two pounds of DME. My wort after brewing was only 1.030, far short of my target of 1.050. A failed attempt at a wit beer, which registered only a 1.020 after brewing. I consulted a publication for a wit beer and used exactly the same recipe: a mother wort extract, four pounds of pale malt, and three pounds (1.36 kg) of hops. I used the exact same recipe a month and received a 1.075 after brewing. I'm stumped as to the problem. Can you offer any advice?

Theresa,
Dave Erickson (fermentis@fermentis.com)

Dear Theresa,
I just doesn't seem right, does it? Life is much too short to be crestfallen, let me get this right.

You put a total of eight pounds of malt extract syrup in your wort. That's 1.36 kg. You also added two pounds of hops. That's another 0.9 kg. Total weight of your wort is 1.020. If you used a typical malt extract syrup that is 15% water, then adding two pounds of hops would have achieved an original gravity of 1.041 or better. And that's assuming your hops were actually weighed dry and weighed more than 1.020. Actually, I doubt dry hops.

Now, if it was regular malt extract, then I'd suggest adding more hops or water. But I hope, not the time, because the first time it's off by so much, it can be a real problem. But I'll tell you, Dave, the same thing has happened to me on occasion. I've never been able to determine exactly right on, and whenever my hydrometer doesn't jive with what I expected, I know I can get lazy. What I mean is, is that you've got to think that puppy won't

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registered only a 1.020 after brewing. It contained 6.6 pounds (4 kg) of weizen syrup extract and three pounds (1.36 kg) of honey. I used the exact same recipe a month ago and recorded a 1.070 after brewing. I'm stumped as to the problem. Can you offer any advice?

Thanks,
Dave Erickson

Dear Dave,
It just doesn't seem right, does it? Life is cruel, but never this cruel. Now, let me get this right. You put a total of eight pounds of malt extract syrup and dried powder into a five-gallon batch, and you get an original gravity of 1.030? If you used a typical malt syrup—that is 15% water and 85% solids—then, by my calculations, you should have achieved an original gravity of 1.061 to be sure! And your wasted wayward wit wort would've willingly weighed way more than 1.020. Actually 1.069 by my calcs.

Now, if I was regular, the first thing I'd suggest is that your hydrometer is off. But nope, not this time, because the first time it's off by 50% and the second time by about 70%. So that ain't the problem. But I'll tell you, Dave, the same thing has happened to me on occasion. My estimations and calculations are usually right on, and whenever my hydrometer doesn't jive with what I expected I know I just got lazy. What I'm telling you is that you've got to shake that puppy wort a lot. Now, don't tell me (like I tell myself), "Hell, I did shake it a lot!" Do it more and make sure you shake it in a way that mixes the bottom with the top, the warm with the cold and the denser with the lighter. That's what it is. Even after all these years of brewing, I too end up shaking more than once when my readings are bizarre.

I can only weep for your wasted wit wort. You had it, but you didn't flaunt it enough. Oh, the pain, the agony, the memory!

Dumb witted,
The Professor, Hb.D.

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By Amahl Turczyn

Barleywine

Less water. More filling. Barleywine is among the biggest of all beer styles, and while strong ales have been made since brewing began, it was the British who first coined the term *barley wine*. Bass reportedly came up with the name as a clever marketing attempt to equate its humble, working-class ale with wine's then-classier image. It soon caught on with other British brewers, who began brewing batches of the mighty ale.

English Origins

From an economical standpoint, barleywine was—and still is—an expensive beer to brew, with raw materials easily double that of standard-strength beer by weight. These extra-strong ales often tasted better after months or years of aging, and “vintage” bottles were cellared and compared. Some brewers began calling their strongest offerings old this and old that (think Burton Bridge Old Expensive and Young's Old Nick), while others designated their strongest ales with a series of Xs or Ks: the more letters, the stronger the brew.

One progenitor of British barleywine was produced in Burton-Upon-Trent and simply called Burton ale. (This is not to be confused with Ballantine Burton ale, an American strong beer first brewed in the 1930s for holiday enjoyment—it's still produced, now by Pabst.) British Burton ale was dark, probably somewhat viscous, and contained prodigious alcohol. It is thought to have first been brewed not long after hops came into common use for brewing in the mid 1600s; some records indicate it may have seen starting gravities north of 1.101 (24° P or higher), with alcohol by volume around 11%.

Burton ale was for a time a favorite of the Russian court, and in the mid-1700s, well before imperial stouts, strong porters, and

IPAs became the foreign exports of choice. Benjamin Wilson's brewery, later known as Samuel Allsop & Sons, did brisk business shipping Burton ale to Baltic ports. That trade agreement fell through when the Russian court began imposing tariffs on imported beer in 1822, but Burton ale still served a few niche markets, including a variant called Arctic Ale. First brewed by Allsop & Sons, and then taken up by Ind Coope, this heady brew was used on naval arctic expeditions, in part because it was high enough in alcohol not to freeze, but also because the finishing gravity was so high that it provided a level of nourishment rum or brandy couldn't offer.

Thomas Hardy Ale, first brewed in 1968 by Dorchester's Eldridge Pope Brewery to commemorate the 40th anniversary of the author's death, has been called both an old ale and a barleywine, but at 12% ABV, the latter distinction is more accurate. It's now brewed by Meantime in London. Bass has its No. 1 Barleywine, arguably the oldest of its kind, and Fuller's produced their Golden Pride. All of these were rich, malty beers that, for the most part, left hops as little more than an afterthought.

American Influence

American barleywine inevitably changed things up a bit. It took the traditional English malt bomb and spiced it up with often-obscene amounts of hops. Anchor's Old Foghorn was the first American craft-brewed example of the style, and although it is well

hopped with Cascade, it has the maltiness many associate with English versions. Fritz Maytag saw a market for a strong ale like barleywine, and it didn't take long for one of the brew crew at Anchor to suggest they call it Old Foghorn.

First brewed in 1975 and bottled in 1976, Foghorn was the fifth beer ever produced by the company Fritz Maytag rescued from bankruptcy and closure, after Anchor Steam, Anchor Porter, Liberty Ale, and Anchor's Christmas Ale.

Maytag had first discovered barleywine in the UK. He called his beer “barleywine-style ale” to fly under the radar of federal alcohol regulators who tend to have very specific definitions of what words like *beer*





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BIG BEER, SMALL BEER

Anchor, in keeping with the parti-gyle tradition, brews Anchor Small Beer from the Old Foghorn second runnings. It is an excellent beer in its own right, but it sadly does not have the following that its burly older brother does. Because of its low strength, it also doesn't travel well, and it's hard to find except in close-to-home markets. At only 3.3% ABV, and amber in color with plenty of Goldings hops, it is a perfectly flavorful session ale. It launched in 1997, well before session ales became popular: another case of Maytag's uncanny ability to predict what beer drinkers in the US want before they know it themselves!

and wine mean when printed on a label. This nomenclature has been duplicated by most US craft brewers who produce a barley wine, barleywine, or barleywine-style ale, all synonymous terms regardless of what the label actually says (Zymurgy favors the single word *barleywine* as a simple matter of house style).

He was right about it catching on. Craft brewers wanted a heavyweight holiday offering in their portfolios, and even in the early days, it became a friendly competition to see who could brew the strongest. Thousands of craft breweries now make their own version of "barleywine-style ale," some exclusively for the holiday season, others offered year round, as is Old Foghorn.

Sierra Nevada's cult classic Bigfoot barleywine-style ale has been around since the winter of 1983. Each new release comes out in January, and each bottle bears the year in which it was brewed. The recipe doesn't change much from year to year, but some are stronger, some hoppier, and some richer-bodied. Bottles bearing the year 1995 are widely thought to be a landmark year by many connoisseurs. Bigfoot is darker than Old Foghorn, with a firm hop presence thanks to copious "C" hops: Cascade, Centennial, and Chinook.

The BJCP style description maintains that Bigfoot set the standard for hop-forward American barleywine and relates

the story of when the beer was first sent to a lab for analysis. The lab called the brewery and said, "Your barleywine is too bitter," to which they replied, "Thank you." Whereas Old Foghorn has an oily richness that almost makes it a decadent dessert, Bigfoot has a pungency of pine and citrus peel that balances and counters the malt and balances the nearly 10% ABV brew with a massive punch of hop aroma, flavor, and bitterness, particularly when the beer is young.

Aging Barleywine

What's young for a hop-forward barleywine? Fans will get the most out of the hops in the first six months, after which time the aromas begin to settle down and the malt profile starts to broaden and become more complex. It's no wonder people cellar these beers for years, hoarding bottles, then dusting them off and having side-by-side tastings to mull over and savor each change the years have wrought.

One reason barleywines are so collectible is that burly malt profile, even more than the preservative effects of alcohol. Malt depth is what distinguishes a barleywine from a double IPA. DIPAs are all about drinkability, and they can be massively hopped, but they should be thoroughly attenuated. Barleywine needs a high finishing gravity to remain true to its roots. Residual malt dextrins play an essential role by filling in sweetness and body while allowing the beer to age gracefully, so attenuation of no more than about 75 percent is ideal.

Beers like Thomas Hardy are said to last 20 years or more; they may dry slightly as the bottle conditioning yeast chews through the remaining sugars, but even aged barleywine should retain some of its original stickiness. The aging process also brings out some dried fruit and vinous or port notes, particularly in the darker examples. Rogue's Old Crustacean is another highly hopped American barleywine-style ale, and while the hop aromatics tend to fade somewhat after several years, it's interesting to note that as with Bigfoot, the fierce bitterness never fades.

How to Brew Barleywine

Brewing an all-grain barleywine is a challenge to equipment capacity, as well as a commitment to your brewing budget, time in the brewhouse, and time in the cellar. Making your own small beer from second runnings is great if you can afford the extra hours, but there really isn't a downside to brewing with extract with this style, so you might seriously consider that route.

All-grain American versions will benefit from water treated with a good amount of calcium sulfate. Fal Allen and Dick Cantwell suggest using 125 ppm calcium, 25 ppm magnesium, and 400 ppm sulfate in their book *Barleywine: History, Brewing Techniques, Recipes*. I've had good results just adding 10 grams per gallon of gypsum and 1 gram per gallon of Epsom salts to reverse osmosis (RO) water if I'm brewing an all-grain barleywine. You obviously want to pamper your yeast with this style, so the calcium and magnesium are mainly for that purpose. With extract, skip the salts and dilute with RO or distilled.



Learn more with the book
*Barleywine: History, Brewing
Techniques, Recipes* by Fal Allen
and Dick Cantwell. Find it at:
BrewersPublications.com

A clean American ale yeast with good alcohol tolerance is best, and as you would with any high gravity beer, pitching the yeast from a previous batch is highly recommended. Barring that, a very large starter can be made. Temperature control during fermentation is critical for controlling ester and fusel production; the Chico strain, for example, should not be allowed to rise above 68° F (20° C). Cooler is better: pitch at 65° F (18° C), ramp up to 67° F (19° C), and once fermentation is mostly done, dry hop at 68° F (20° C).

You can also use a Scottish ale yeast for this beer; the McEwan's strain (White Labs WLP028 Edinburgh Ale or Wyeast 1728 Scottish Ale) has a great alcohol tolerance and won't allow the beer to finish too dry. It also adds some pleasant and very appropriate pear and apple

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esters, and occasionally a whiff of smoke phenol. It can also be fermented a bit cooler than the Chico strain; it will do just fine at 65° F (18° C).

Maris Otter as a base malt is appropriate for the English style; domestic pale two-row is fine for the American version. Ten percent or so of crystal malt will help

with color, flavor, and a sufficiently high finishing gravity. To the same end, mashing relatively high at 155° F (68° C) will really help fill out body.

BIGFOOT BARLEYWINE-STYLE ALE CLONE

Check out the recipe database at Homebrewers Association.org for another interpretation of Sierra Nevada's iconic strong ale. Just to be safe, you should probably brew both so you can try them side by side.

Batch Volume: 5.5 U.S. gallons (20.8 L)

Original Gravity: 1.096 (23° P)

Final Gravity: 1.023 (5.8° P)

Bitterness: 100+ IBU

Color: 12 SRM

Alcohol: 9.7% by volume

Efficiency: 75%

MALTS

17.75 lb. (8.05 kg) pale 2-row malt

1.75 lb. (0.79 kg) 80° L caramel malt

HOPS

1.5 oz. (42 g) Cascade, 5.5% a.a. @ 90 min (24 IBU)

1.5 oz. (42 g) Centennial, 10% a.a. @ 90 min (44 IBU)

1 oz. (28 g) Cascade, 5.5% a.a. @ 60 min (15 IBU)

1 oz. (28 g) Chinook, 13% a.a. @ 30 min (27 IBU)

1 oz. (28 g) Chinook, 13% a.a. @ 0 min (0 IBU)

1 oz. (28 g) Cascade, 5.5% a.a. dry hop 3 days

1 oz. (28 g) Centennial, 10% a.a. dry hop 3 days

1 oz. (28 g) Chinook, 13% a.a. dry hop 3 days

YEAST

"Chico" American or California ale yeast, 3L stir plate starter

BREWING NOTES

Mash grains at 151° F (66° C) and allow to rest 60 minutes. Sparge at 168° F (76° C). Bring full wort volume to a boil and boil 120 minutes, adding hops at stated intervals. Chill to 65° F (18° C) and oxygenate. Decant and pitch 65° F (18° C) yeast starter. Fit fermenter with blow-off device, allow at least 5 gallons (18.9 L) of headspace, and/or use Fermcap to control foaming. Hold at 65° F (18° C) until you see signs of active fermentation, allow temperature to rise to 67° F (19° C), and hold until terminal gravity is reached. Dry hop 3 days in primary at 68° F (20° C), then rack, package and carbonate to 2.3 vol. (4.6 g/L) CO₂.

EXTRACT VERSION

Substitute 14 lb. (6.35 kg) pale malt extract syrup for pale malt. Reduce crystal malt to 1 lb. (0.45 kg) and steep the crushed grains in a grain bag at 160° F (71° C) in reverse osmosis (RO) water for 30 minutes. Remove grains, dissolve extract completely in RO water, top off to desired boil volume, and proceed as above.

OLD FOGHORN CLONE

Based on the Old Foghorn recipe in the 2003 July/Aug issue of *Zymurgy*.

Batch Volume: 5.5 U.S. gallons (20.8 L)

Original Gravity: 1.091 (21.8° P)

Final Gravity: 1.016 (3.8° P)

Bitterness: 56 IBU

Color: 12 SRM

Alcohol: 10% by volume

Efficiency: 75%

MALTS

19.5 lb. (8.85 kg) pale two-row malt

1 lb. (0.45 kg) 60° L crystal malt

HOPS

2 oz. (57 g) Cascade, 5.5% a.a. FWH

@ 90 min (31 IBU)

1 oz. (28 g) Cascade, 5.5% a.a. @ 60 min (32 IBU)

1 oz. (28 g) Cascade, 5.5% a.a. @ 45 min (12 IBU)

2 oz. (57 g) Cascade, 5.5% a.a. dry hop 3 days

YEAST

"Chico" American or California ale yeast, 3L stir plate starter

BREWING NOTES

Mash grains at 155° F (68° C) and allow to rest 60 minutes. Sparge at 168° F (76° C). Bring full wort volume to a boil and boil 90 minutes, adding hops at stated intervals. Chill to 65° F (18° C) and oxygenate. Decant and pitch 65° F (18° C) yeast starter. Fit fermenter with blow-off device, allow at least 5 gallons (18.9 L) of headspace, and/or use Fermcap to control foaming. Ferment at 65° F (18° C), dry hop 3 days in primary at 68° F (20° C), and then rack, package, and carbonate to 2.3 vol. (4.6 g/L) CO₂.

EXTRACT VERSION

Substitute 11.5 lb. (5.22 kg) pale malt extract syrup for pale malt. Steep the crushed grains in a grain bag at 160° F (71° C) in reverse osmosis (RO) water for 30 minutes. Remove grains, dissolve extract completely in RO water, top off to desired boil volume, and proceed as above.

Hops are really up to you with American-style barleywine, although replicating the earlier brands calls for Cascade in the case of Anchor's beer, with Centennial and Chinook added for Sierra Nevada's. English styles rely on mellow orange peel marmalade varieties like Goldings, Fuggles, and Northdown.

Bottling is my preference here, as you'll be tying up keg space for years otherwise. Wait out the final gravity, give your yeast plenty of time to finish, and then prime with a good dry Champagne yeast, properly hydrated in 85° F (29° C) water. This will ensure proper conditioning, though it may still take months to reach the proper level. Then, resisting the urge to sample too often, repeat the recipe in a year so you have your own vintages of barleywine to sample back to back on special occasions. Each bottle of this decadent elixir is a potential gift.

Amahl Turczyn is associate editor of *Zymurgy*. 

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WITH RECIPES BY AMAHL TURCZYN AND NEIL FISHER

BEER LOVERS, REJOICE: THERE'S NEVER BEEN A BETTER TIME IN U.S. CRAFT BREWING HISTORY FOR THE PURSUIT OF HOPPINESS—OR MALTINESS, IF THAT'S YOUR THING.

Many Zymurgy readers tend to lean on the lupulin side, as evidenced by the hop-focused beers dominating the 16th annual Best Beers in America poll. Of the top 10 beers, seven are pale ales, IPAs, or double IPAs—but a few stouts asserted their malty presence among the best of the best.

The Best Beers in America poll is open to members of the American Homebrewers Association, who have an amazing assortment of beers to choose from with more than 6,200 U.S. craft brewers currently in operation. This year, voting was limited to just five favorite beers (down from 20) for each voter.

TOP-RANKED BEERS

(T indicates Tie)



#1
BELL'S
TWO HEARTED ALE



#2
RUSSIAN RIVER
PLINY THE ELDER



#3
THE ALCHEMIST
HEADY TOPPER



#4
BELL'S
HOPSLAM



#5T
SIERRA NEVADA
PALE ALE



#5T
FOUNDERS
CBS
(CANADIAN
BREAKFAST STOUT)

1. Bell's Two Hearted Ale*

2. Russian River Pliny the Elder*

3. The Alchemist Heady Topper*

4. Bell's Hopslam*

5. Sierra Nevada Pale Ale*

5. Founders CBS (Canadian Breakfast Stout)

5. Founders KBS (Kentucky Breakfast Stout)

8. Three Floyds Zombie Dust*

9. Founders Breakfast Stout

10. WeldWerks Juicy Bits*

10. Founders All Day IPA

12. Cigar City Jai Alai IPA*

12. Tree House Julius*

12. Deschutes Fresh Squeezed IPA*

15. Boulevard Tank 7 Farmhouse Ale*

16. The Alchemist Focal Banger*

17. Toppling Goliath Pseudo Sue*

18. Lawson's Finest Liquids Sip of Sunshine*

18. Sierra Nevada Celebration*

18. Russian River Blind Pig I.P.A.*

21. Melvin 2x4 DIPA*

22. Deschutes Black Butte Porter*

23. Surly Todd The Axe Man*

23. Goose Island Bourbon County Brand Stout

25. Ballast Point Sculpin IPA

25. Odell IPA*

"TOO MANY GREAT BEERS TO CHOOSE FROM," COMMENTED ZYMURGY READER JEFF GRUBBS OF FRESNO, CALIF. "WE ARE VERY LUCKY TO BE PART OF THIS GOLDEN AGE OF BEER!"

"Limiting the selection of the best beers to five was extremely challenging," lamented Zymurgy reader Hans Muecke of San Marcos, Calif. "My apologies to the amazing brews and breweries I had to leave off my list—thanks for constantly enlightening my taste buds by challenging what beer styles 'should' taste like."

Despite the seemingly endless options available to beer lovers, the same two beers have been battling it out for the top spot in the survey for the past eight years. For the second straight year, Bell's Two Hearted Ale bested Russian River's Pliny the Elder for the number one spot, but there's a new number three: The Alchemist Heady Topper, a double IPA, moved up from a tie for sixth place in 2017 after finishing third in 2016.



* The independent craft brewer seal is your assurance that the beer you're holding was crafted by an independent brewery.

T27. Left Hand Milk Stout Nitro*

T27. Old Nation M-43 N.E.IPA*

29. North Coast Old Rasputin*

T30. Russian River Pliny the Younger*

T30. Surly Furious*

T30. New Holland Dragon's Milk*

33. Dogfish Head 90 Minute IPA*

T34. Arrogant Bastard Ale*

T34. Ommegang Three Philosophers*

T36. Firestone Walker Parabola*

T36. Allagash White*

T36. Dogfish Head 60 Minute IPA*

T36. Fat Head's Hop JuJu Imperial IPA*

T36. Prairie Artisan Ales Bomb!*

T36. Founders Backwoods Bastard

T36. Stone Enjoy By IPA*

T43. Summit Extra Pale Ale*

T43. Founders Dirty Bastard

T43. Bell's Oberon Ale*

T43. Oskar Blues Dale's Pale Ale*

T43. Great Lakes Edmund Fitzgerald Porter*

T43. Lagunitas Little Sumpin Sumpin

T49. Odd13 Codename: Superfan*

T49. Tree House Green*

T49. Sierra Nevada Hazy Little Thing IPA*

T49. Ballast Point Grapefruit Sculpin

T49. Dogfish Head 120 Minute IPA*

T49. Sierra Nevada Torpedo Extra IPA*

T49. New Glarus Wisconsin Belgian Red*

T49. Odell Rupture*

T49. Creature Comforts Tropicália*

T49. Orval

TOP OF THE HOPS

Two Hearted Ale, an American IPA that features Centennial hops, had finished second to Pliny the Elder for seven straight years before claiming the top spot last year.

"When I think about the elements that Bell's shares with the passionate homebrewing community, the values that rise to the top include creativity, a meticulous attention to detail, and the joy of sharing thoughtfully crafted beers with friends," said Bell's director of operations John Mallett. "To be recognized for excellence by people who truly understand all that goes into creating and delivering quality beers and experiences

to our communities is a huge honor. These values are true drivers for us all."

Two Hearted Ale got its start in 1993 as a homebrewed "super IPA" by a Bell's employee. That beer became the foundation for Two Hearted, though it eventually morphed into

#5
FOUNDERS
KBS
(KENTUCKY
BREAKFAST STOUT)



#8
THREE FLOYDS
ZOMBIE DUST



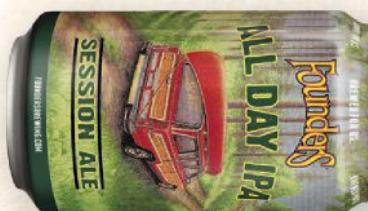
#9
FOUNDERS
BREAKFAST STOUT



#10T
WELDWERKS
JUICY BITS



#10T
FOUNDERS
ALL DAY IPA



a single-hop beer showcasing Centennial. Two Hearted checks in at 7% ABV.

"Midwest IPA perfection with tons of Centennial hops balanced with a solid malt character," described Zymurgy reader Chris (aka Crispy) Frey of Saline, Mich.

"Best balance between malt and hop on the shelves today," commented Ric Larson of Woodstock, Ill. "All Centennial hops too, keeping it simple and delicious."

Russian River's Pliny the Elder, a double IPA, is brewed with Amarillo, Centennial, CTZ, and Simcoe hops, checking in at 8% ABV. This highly coveted beer is not widely distributed but is still considered the gold standard for the style by many.

ZYMURGY READER JOE AIELLO OF SAN JOSE, CALIF. DESCRIBED PLINY AS A "PERFECT ORCHESTRATION OF HOPS AND MALT FOR THE EPITOME OF DOUBLE IPAS."

The highly sought after Heady Topper and Focal Banger (the latter checking in at number 16) are on the bucket lists of many beer lovers—but The Alchemist co-founder John Kimmich has been checking off bucket list items of his own since he started brewing Heady Topper in 2003.

"Jen and I couldn't be more thrilled with the recognition by the readers of Zymurgy," said Kimmich. "When I first discovered homebrewing in 1993, I never imagined that I would someday be in the pages of my newly discovered reading obsession. When I was hired at my local homebrew/winemaking shop, I really hit the jackpot when my boss revealed her collection of every Zymurgy ever printed. Every weekend, I would take home a new stack and read through every page. It was during that time that I first met Charlie Papazian. Who could have known that he would someday be presenting me with a medal onstage in Denver? It was quite a start to my career."

Founders Brewing in Grand Rapids, Mich. was once again a dominant force in this year's poll, with six of its beers placing



Bell's Brewery, Inc., Galesburg, Mich.

TOP BREWERIES

(T indicates Tie)

1. **Bell's Brewery, Inc., Comstock, Mich.***
2. **Founders Brewing Co., Grand Rapids, Mich.**
3. **Russian River Brewing Co., Santa Rosa, Calif.***
4. **Sierra Nevada Brewing Co., Chico, Calif. and Mills River, N.C.***
5. **Firestone Walker Brewing Company, Paso Robles, Calif.***
6. Deschutes Brewery, Bend, Ore.*
6. Dogfish Head Craft Brewery, Milton, Del.*
8. Stone Brewing, Escondido, Calif.*
9. The Alchemist, Stowe, Vt.*
10. Three Floyds Brewing Company, Munster, Ind.*
11. Tree House Brewing Company, Charlton, Mass.*
- T12. New Belgium Brewing, Fort Collins, Colo. and Asheville, N.C.*
- T12. Odell Brewing Company, Fort Collins, Colo.*
14. Surly Brewing Company, Minneapolis, Minn.*
15. Boulevard Brewing Company, Kansas City, Mo.*
16. Oskar Blues Brewery, Longmont, Colo., Brevard, N.C., and Austin, Texas*
17. WeldWerks Brewing Co., Greeley, Colo.*
18. Ballast Point Brewing Company, San Diego, Calif.
19. Lagunitas Brewing Company, Petaluma, Calif. and Chicago, Ill.
- T20. Cigar City Brewing, Tampa, Fla.*
- T20. Toppling Goliath Brewing, Decorah, Iowa*
22. Avery Brewing Company, Boulder, Colo.
23. New Glarus Brewing Company, New Glarus, Wis.*
- T24. Melvin Brewing, Alpine, Wyo.*
- T24. Victory Brewing Company, Downingtown, Pa.*

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Photo courtesy of Bell's Brewery, Inc.



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in the top 50. Its three popular versions of Breakfast Stout—KBS, CBS, and the original—all finished in the top 10, along with All Day IPA.

NEW BEERS ON THE BLOCK

Sprinkled among the many perennial favorites in the poll are some new kids on the block, including an impressive debut by WeldWerks Juicy Bits, which finished in a tie for 10th. The Greeley, Colo. brewery has rapidly gained a cult-like following for its beers, including Juicy Bits, a New England-style IPA hopped with Mosaic, Citra, and El Dorado.

"Reading through this list as a homebrewer less than five years ago, I never imagined, even in my wildest dreams, that we would have a beer in the top 10," said WeldWerks head brewer and co-founder Neil Fisher. "We have a tremendous amount of respect for the breweries that have appeared on this list in the past, so to be listed alongside them is surreal."

Another Colorado brewery, Odell Brewing, which has a perennial poll favorite in Odell IPA, saw its newly introduced Rupture land in the top 50. Rupture uses a "fresh grind" process to rupture the lupulin and release the oils inside.

"Never have I been so completely charmed by a beer," commented Zymurgy reader Janine Weber of Houston, Texas. "Rupture is addictive!"

Sierra Nevada, which has seen its revered Pale Ale place in the top 15 in all 16 years of the poll—including being voted top beer the first two years—keeps innovating as well, recently introducing its Hazy Little Thing, an unfiltered IPA with Citra, Comet, El Dorado, Simcoe, and Mosaic. Hazy Little Thing finished in a tie for 49th.

ABOVE THE REST

In the top breweries division, Bell's Brewery received the most votes in the poll for the second straight year. Bell's had three of its beers place in the poll, including Two Hearted Ale, Hopslam, and Oberon Ale.

"We truly believe that focusing on the fundamentals and making sure we take the

ALLAGASH WHITE CLONE

Recipe by Amahl Turczyn

Batch Volume: 5.5 US gallons (20.8 L)

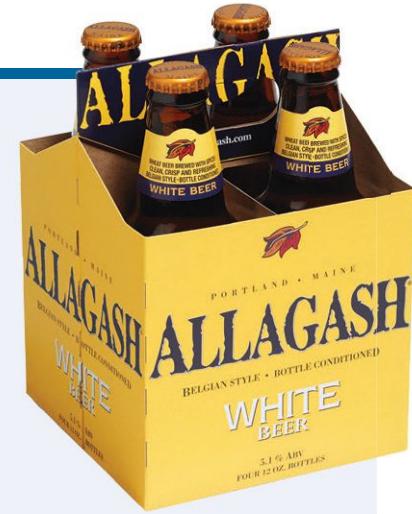
Original Gravity: 1.049 (12.3° P)

Final Gravity: 1.010 (2.5° P)

Bitterness: 13 IBU

Color: 3 SRM

Alcohol: 5.2% by volume



MALT

4.5 lb. (2.04 kg) 2° L pale two-row malt

3 lb. (1.36 kg) wheat malt

1 lb. (454 g) flaked oats

1 lb. (454 g) flaked wheat

6 oz. (170 g) dextrin malt

HOPS

0.25 oz. (7 g) Nugget, 13% a.a. @ 60 min

0.5 oz. (14 g) Crystal, 3.5% a.a. @ 10 min

0.5 oz. (14 g) Saaz hops, 4.0% a.a., whirlpool 5 min.

OTHER INGREDIENTS

7 g Indian coriander seed, freshly ground, whirlpool 5 min.

5 g Curaçao orange peel, freshly ground, whirlpool 5 min.

3 g grains of paradise, freshly ground, whirlpool 5 min.

WATER

Reverse osmosis with 1 g/gal. calcium chloride and 1 g/gal. calcium sulfate

YEAST

White Labs WLP 400 Belgian Wit ale yeast, 2L starter

BREWING NOTES

Mash grains at 150° F (66° C) for 60 minutes. Mash out and sparge at 168° F (76° C). Boil 90 minutes, adding first hops 60 minutes before flameout. Add Saaz hops and ground spices at flameout, and whirlpool 5 minutes. Chill wort to 63° F (17° C) and ferment for 7 days, allowing temperature to free rise to 73° F (23° C) and ferment to completion. Prime with 5 oz. (142 g) dextrose per 5 gallons (18.9 L) if bottling, or crash, keg, and force carbonate.

PARTIAL-MASH OPTION

Reduce pale malt to 1.25 lb. (567 g). Substitute 5 lb. (2.27 kg) liquid wheat malt extract for remaining pale, wheat, and dextrin malts. Mash flaked grains in 155° F (68° C) water with 1.25 lb. (567 g) pale two-row malt for 45 minutes, drain, rinse grains, and dissolve extract using reverse osmosis or distilled water. Top off to desired boil volume and proceed as above.



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NEW HOLLAND DRAGON'S MILK BOURBON BARREL-AGED STOUT CLONE

Recipe by Amahl Turczyn

Batch Volume: 5.5 US gallons (20.8 L)

Original Gravity: 1.096 (23° P)

MALT

12 lb.	(5.44 kg) pale two-row malt
2.5 lb.	(1.13 kg) dark Munich malt
1.5 lb.	(680 g) flaked barley
1.5 lb.	(680 g) 80° L crystal
1 lb.	(454 g) 150° L crystal
1 lb.	(454 g) 500° SRM UK black barley
12 oz.	(340 g) chocolate malt

HOPS

0.5 oz.	(14 g) Nugget, 13% a.a. @ 60 min
1 oz.	(28 g) Brewers Gold, 5% a.a. @ 60 min

WATER

Reverse osmosis with 1 g/gal. calcium chloride

YEAST

Chico ale yeast (Wyeast 1056 or White Labs WLP001) 1L slurry

BREWING NOTES

Mash grains at 156° F (69° C) for 60 minutes. The high mash temperature, caramel malt sweetness, and heft will help balance the beer when you dry it out with the bourbon/oak addition later on. Sparge at 168° F (76° C). Chill wort to 65° F (18° C), ferment for 7 days, and then allow temperature to rise to 68° F (20° C) and ferment to completion. This typically takes 10–14 days.

While you are waiting, boil 0.5 oz. (14 g) of white, untoasted French oak chips, 0.5 oz. (14 g) medium toast chips, and 0.5 oz. (14 g) heavy char chips in 8 oz. (240 mL) of water for about 5 minutes. Drain off the water, and soak the wet chips in 8 oz. (240 mL) of cheap, rotgut plastic bottle whiskey or bourbon for 1 week. Drain, donate the booze to your nearest sink (or even better, use it in a pork shoulder marinade prior to smoking) and this time soak the chips in 750 mL good-quality bourbon (cask strength is better if you are willing to make the sacrifice) for 4–7 days. You should get vanilla from the white chips, coconut from the medium chips, and dark chocolate notes from the heavy char. Begin tasting the bourbon after 3 days. After the boil in water and pre-soak in cheap booze to extract harshness, you should now get subtle, harmonious flavors and aromas from the chips.



You are looking for a good, sweet, vanilla, coconut, and chocolate character that complements both bourbon and stout. When these flavors are detectable, and work well with the bourbon, it's time to blend the soaking liquid into your finished or nearly finished stout. Add to taste—you don't have to use all the bourbon, and you don't have to add the soaked chips either, unless you feel the beer needs more oak character. Less is definitely more here—it seems like a whole lot of booze and a pitiful amount of wood, but this ratio will allow you to pull subtle, sweet barrel nuances from the chips, rather than harsh, dry tannins, charred wood flavors and bitterness. The bourbon itself will provide much of the flavor, and will bump up the alcohol on your stout a bit too, leaving you with closer to 10–11% ABV, which is right in line with Dragon's Milk. It will also dry out your beer appreciably, which is a good thing, because we've intentionally made the beer thick and sweet by mashing high.

If you choose to add the chips along with the bourbon, it will be worth monitoring the beer every few days. Chips have a lot of surface area, and the oak can very quickly become overpowering. Rack the beer off the chips when you have noticeable vanilla notes, blanketing your secondary with CO₂ to avoid oxygen pickup. After a month or two, your stout's flavors will blend and mellow appreciably.

PARTIAL MASH OPTION

Reduce pale two-row to 22 oz. (623 g). Substitute 8 lb. (4.08 kg) pale malt extract for the remaining two-row malt and 2 lb. (0.9 kg) Munich malt extract for the Munich malt. Mash chocolate and crystal malts, black barley, and flaked barley along with 22 oz. (623 g) two-row in 155° F (68° C) water for 40 minutes; drain, rinse grains, and dissolve extract using reverse osmosis or distilled water. Top off to desired boil volume and proceed as above.



BEST PORTFOLIO

(T indicates Tie)

1. Stone Brewing (33 beers)*
2. Firestone Walker Brewing Co. (29 beers)*
- T3. New Belgium Brewing (24 beers)*
- T3. Founders Brewing Co. (24 beers)
5. Dogfish Head Craft Brewery (23 beers)*
- T6. Avery Brewing Co. (22 beers)
- T6. Hill Farmstead Brewery (22 beers)*



* The independent craft brewer seal is your assurance that the beer you're holding was crafted by an independent brewery.

- T7. Boulevard Brewing Co. (20 beers)*
- T7. Trillium Brewing Co. (20 beers)*
- T9. Bell's Brewery (19 beers)*
- T9. Deschutes Brewery (19 beers)*
- T9. Odell Brewing (19 beers)*
- T9. Sierra Nevada Brewing Co. (19 beers)*
- T9. The Bruery (19 beers)*
- T9. Three Floyds Brewing (19 beers)

extra steps are the keys to our success," said Mallett. "We devote a lot of effort to bringing quality to the forefront and believe that those small details add up to create a greater whole."

Founders finished second in the brewery division, followed by Russian River.

In the Best Portfolio division, Stone Brewing once again crushed the competition, with 33 of its beers receiving votes in the poll including the newly released Scorpion Bowl IPA, a tropical offering hopped with Mosaic, Loral, and Mandarina Bavaria. Firestone Walker Brewing Company was second with 29 beers, and Founders and New Belgium Brewing tied for third with 24.

FOREIGN AFFAIRS

For the first time since 2010, a beer produced by a non-U.S. brewery cracked the top 50. Orval Trappist Ale finished in a several-way tie for 49th.

TOP IMPORTS

(T indicates Tie)

1. Orval (Belgium)
2. Unibroue
- La Fin du Monde (Canada)
3. Duvel (Belgium)
- T4. Westvleteren XII (Belgium)
- T4. St. Bernardus Abt 12 (Belgium)
- T4. Ayinger
- Celebrator Doppelbock (Germany)
- T4. Guinness Draught (Ireland)



A beer so famous that it has its own day named after it, Orval is the lone beer brewed at the Orval Abbey in Florenville, Belgium, and is bottle conditioned with Brett for its characteristic dry finish.

La Fin du Monde, a tripel from Quebec, Canada brewery Unibroue, finished second among imports, followed by another Belgian classic, Duvel.

JUICY BITS NEIPA

Recipe by Neil Fisher, WeldWerks Brewing

Batch Volume: 5 US gallons (18.9 L)

Original Gravity: 1.062 (15.3° P)

Final Gravity: 1.012 (3° P)

Bitterness: 45 IBU

Color: 4.5 SRM

MALT

4 lb.	(1.81 kg) pale two-row malt
4 lb.	(1.81 kg) Pilsner malt
1 lb.	(454 g) dextrin malt
12 oz.	(340 g) wheat malt
12 oz.	(340 g) flaked oats
12 oz.	(340 g) flaked wheat
6 oz.	(170 g) dextrose

HOPS

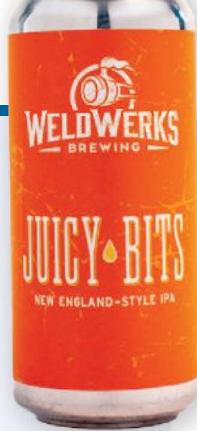
0.33 oz.	(9 g) Magnum, 14% a.a. @ first wort hop
0.33 oz.	(9 g) Citra, 12.5% a.a. @ flameout, start of whirlpool (40 min)
0.33 oz.	(9 g) El Dorado, 15.7% a.a. @ flameout, start of whirlpool (40 min)
0.33 oz.	(9 g) Mosaic, 13.1% a.a. @ flameout, start of whirlpool (40 min)
0.66 oz.	(19 g) Citra, 12.5% a.a. @ 10 min into whirlpool (30 min)
0.66 oz.	(19 g) El Dorado, 15.7% a.a. @ 10 min into whirlpool (30 min)
0.66 oz.	(19 g) Mosaic, 13.1% a.a. @ 10 min into whirlpool (30 min)
1 oz.	(28 g) Citra, 12.5% a.a. @ end of whirlpool (rest 20 min)
1 oz.	(28 g) El Dorado, 15.7% a.a. @ end of whirlpool (rest 20 min)
1 oz.	(28 g) Mosaic, 13.1% a.a. @ end of whirlpool (rest 20 min)
0.5 oz.	(14 g) Citra, 12.5% a.a. dry hop 9 days @ 5°P (1.020)
0.5 oz.	(14 g) El Dorado, 15.7% a.a. dry hop 9 days @ 5°P (1.020)
0.5 oz.	(14 g) Mosaic, 13.1% a.a. dry hop 9 days @ 5°P (1.020)
1 oz.	(28 g) Citra, 12.5% a.a. dry hop 6 days (after terminal gravity)
1 oz.	(28 g) El Dorado, 15.7% a.a. dry hop 6 days (after terminal gravity)
1 oz.	(28 g) Mosaic, 13.1% a.a. dry hop 6 days (after terminal gravity)
0.5 oz.	(14 g) Citra, 12.5% a.a. dry hop 3 days (after terminal gravity)
0.5 oz.	(14 g) El Dorado, 15.7% a.a. dry hop 3 days (after terminal gravity)
0.5 oz.	(14 g) Mosaic, 13.1% a.a. dry hop 3 days (after terminal gravity)

WATER

Epsom salt ($MgSO_4$)
calcium chloride

YEAST

Wyeast 1318 London ale III yeast, 2L starter



BREWING NOTES

Mash at 149° F (65° C) for 45 minutes (or until conversion is complete), vorlauf for 15 minutes, collect wort, and boil for 90 minutes. If desired, use Epsom salt ($MgSO_4$) and calcium chloride for water adjustments, adding half at mash and half at sparge, targeting about 250 ppm chloride and 80 ppm sulfate. Add 3 hop additions over 40 minutes of whirlpool. Knockout and ferment at 67° F (19° C) with London Ale III yeast. Add the first dry hop addition when the beer has fermented to about 2–3° P (4–6 specific gravity points) from final gravity, and then add the last two dry hop additions after terminal gravity has been reached. Use fresh, unopened, sealed bags for dry hopping when possible.

PARTIAL-MASH OPTION

Reduce pale malt to 1.75 lb. (794 g) pale two-row. Substitute 4.5 lb. (2.04 kg) liquid Pilsner malt extract for Pilsner malt. Mash dextrin malt, wheat malt, and flaked grains in 155° F (68° C) water with 1.75 lb. (794 g) pale two-row malt for 40 minutes; drain, rinse grains, and dissolve extract and dextrose using reverse osmosis or distilled water. Top off to desired boil volume and proceed as above.

RECIPES

As usual, we're providing clone recipes for some of the top beers in the poll. Zymurgy associate editor Amahl Turczyn has assembled homebrew recipes for Allagash White and New Holland Dragon's Milk, and WeldWerks' Fisher graciously provided a clone recipe for Juicy Bits.

The recipe for Two Hearted Ale appeared in the July/August 2017 issue, and Russian River's recipe for Pliny the Elder was published in July/August 2014. We've also published clone recipes in the past for many other beers in the top 50. Search the Zymurgy index at HomebrewersAssociation.org to find the specific issues for some of those recipes.

Thanks to all AHA members who took the time to vote in this year's poll, and for your insightful comments that once again helped tell the story of Zymurgy's Best Beers in America.

Jill Redding is the former editor-in-chief of Zymurgy. She is editor-in-chief of The New Brewer, the journal of the Brewers Association.

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THE PLACE OF BREWING

By Emma Inch

GOING WILD WITH THE GREAT BRETTANOMYCES MEGABLEND

It's often said that brewers make only the wort: it's the yeast that makes the beer. Of course, ever since Emil Christian Hansen discovered how to isolate individual yeast strains, brewers have gained much more control over those single-celled organisms. But creative homebrewers in Great Britain are challenging the notion that yeast must be tamed and have produced a unique blend that draws on science, history, and the very ground on which they stand. Emma Inch set out to find the source of this blend and, in doing so, uncovered a rich seam of experimental homebrewing that is rediscovering the boundaries of fermentation.

Last November, in an East London warehouse venue, homebrewers gathered for the very first British homebrew convention, Brew Con. The barely initiated mingled with the highly experienced for a day of talks and tastings that culminated in the Brew Con World Series homebrew prize. And, huddled around a microscope in one corner of the venue, some of those homebrewers handed over vials of precious yeast to be mixed together to form a unique blend.

The idea for the Great Brettanomyces Megablend was inspired by a similar project in the USA. Milk the Funk started off as a Facebook group but now boasts a worldwide following, a successful Wiki, and a podcast. It is a great resource for those interested in exploring mixed and alternative fermentations. In 2016, some of its members met up for a bottle share at the AHA Homebrew Con in Baltimore, and the dregs from those bottles—together with



Stephen Hudson



Kat's Blood Orange Saison



Kat Sewell

the expertise of Jeff Mello, “Chief Yeast Wrangler” at Bootleg Biology—went on to create Baltifunk, the first Milk the Funk Megablend.

Building on what their American counterparts had learned, British homebrewers, also linked together by a Facebook group, set up the Great Brettanomyces Megablend project. Twenty-one samples of dregs, wild yeast captures, and homebrewers’ house blends from across Britain were brought together at Brew Con London. These were assessed and analyzed by scientists at Brewlab—specialists in brewing training and analysis—who compiled the samples into a common mixture, stepped them up in wort, and then distributed the resultant Megablend, not only to those who had contributed, but also to interested homebrewers in places as far afield as Peru, Singapore, and New Zealand. The result of this work was a totally unique blend that reflects the nature of the contemporary homebrew scene and highlights some of the imaginative brewing taking place behind Britain’s closed doors.

Uncommon Garden Varieties

One of the homebrewers who contributed to the Great Brettanomyces Megablend is Kat Sewell. She lives in a lively part of southeast London and, as

I walk from the station to her home for her Megablend brew day, the cloud-grey streets are punctuated with color from the market stalls heavy with African Caribbean fruits, Middle Eastern spice, and glistening, scented street food from across the globe. Iconic red buses push through the crowds of shoppers and intermittently drown out the bass from sound systems, and the amplified sermons of the preachers who seem to inhabit every street corner.

Kat’s kitchen is warm and smells biscuity from the grain mashing in her all-in-one brewing system. Arranged in clusters around the room are demijohns and glass fermenters full of beer, some covered with white pellicles, others laden with plump orange fruits. There is even a small wooden liqueur barrel on the worktop, which she later tells me contains her clone of the Rare Barrel Golden Sour. Kat explains that she got involved with homebrewing through her grandfather, who used to make wine from the carrots and parsnips he grew on his allotment. When he had an accident and broke his hip, Kat inherited his kit and began to experiment.

Kat is keen to build on her grandfather’s tradition of making beverages from local, homegrown, or foraged ingredients, but

her distinct fragment of the diverse patchwork of London influences her brewing in other ways. She tells me about a Persian grocery store I passed on my way from the station:

“It’s like an Aladdin’s cave: every time you go in there you see something else interesting. I’ve brewed a few things with stuff from there. I did a dried Iranian lime gose which was lovely, really sherbet-y and not too sharp.”

This desire to brew with what she grows or finds in her immediate vicinity also extends to yeast, in particular the yeast she contributed to the Megablend.

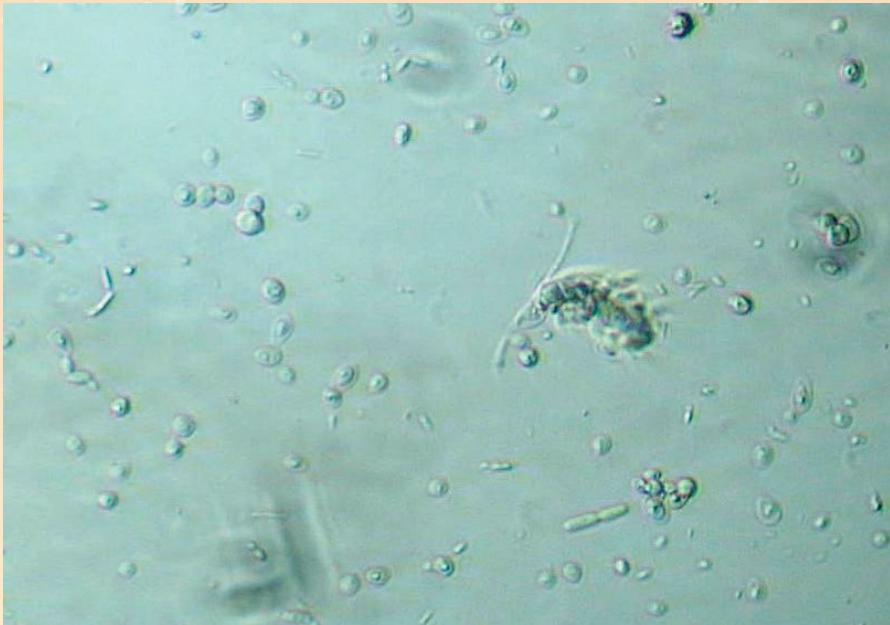
“I did a spontaneous beer in my garden,” she explains, “We’ve got a cherry tree, so I stuck it under there overnight and didn’t really think anything of it. I thought the foxes would probably knock it over, but it was still there in the morning, so I brought it in, stuck it in a demijohn, and just left it. It took over five days and then something happened. It was amazing!”

A few months later, Kat siphoned off a sample from this London spontaneous fermentation—her “Spontan Peckham”—and donated it to the Megablend at Brew Con London.



^ Megablend by Stephen's window.

▼ Microscope image of original Megablend mixture showing yeasts and bacteria.



We share a bottle of her prize-winning blood orange saison, which is beautifully conditioned and holds just enough of a citrus peel prickle to cut through the paper-dry finish, and Kat tells me about the beer she's brewing with her share of the Megablend.

"I'm going to use a saison yeast in the primary and then pitch the Megablend into the secondary," she explains. "It's just not knowing what it is...you don't know what's going to be the dominating aspect," she laughs, "I just think it will ferment everything!"

Cultural Diversity

This aspect of the unknown is often the inspiration for homebrewers involved in these projects. Brewlab's findings indicate that the Megablend contains a wide range of microbes, both bacteria—including lactobacilli, acetic acid bacteria, and streptococci—and yeast, including *Saccharomyces* and a range of wild species. But it's a one-off blend, as Brewlab's Dr. Keith Thomas explains.

"Some of these [contributions] are from soured malt fermentations, others from



ON THE WEB
Check out Stephen's wild flower yeast captures on his blog at funkyflowerbeer.com, and keep up with Kat's homebrew experiments via her blog at havelgotbrewsforyou.wordpress.com.

fruit incubations, and others from flowers. These would be unlikely to occur together in the wild, so we probably have a unique combination." As such, it's impossible to know precisely which features will dominate in different worts with different sugar profiles.

Jeff Mello, who was instrumental in the Milk the Funk Megablend, explains, "A brewer's methods and ingredients go a long way to determining how the beer turns out, but in the end the yeast or bacteria make the final product. In some ways it's about letting go of your inner control freak and letting the creativity of the culture take over!"

However, harvesting and brewing with wild yeast can come with risks, and that's one of the reasons it was vital to have Brewlab's support in this project. They were able to screen out any food poisoning pathogens, such as *E. coli* or *salmonella*, which can occur, for example, when vermin contaminate fruit.



Stephen in his garden and Megablend in the snow.



Wild fermentations also often need several months to fully ferment out. Beer packaged too early can cause exploding bottles. This is of particular concern with the Great Brettanomyces Megablend, as Brewlab detected the diastaticus gene. Yeasts with this gene can degrade dextrins after the main fermentation, leading to over-attenuated beer. Jeff Mello advises, “When you’re a wild brewer, it can really pay to be patient.”

Of Flora and Fauna

Another homebrewer with just the right combination of patience and experimentation is Stephen Hudson. He also invites me to spend a day with him brewing a Megablend beer. As I approach his cottage at the edge of thick, dark forest in East Sussex, around a mile from the 17th-century house Rudyard Kipling called home, four deer, including a young stag, jump onto the lane in front of my vehicle. Luckily, I’m travelling very slowly. I watch the deer as they skip effortlessly through the brush, and by the time I arrive at Stephen’s door I am quite excited. “I just

saw four deer!” I exclaim, before I’ve even introduced myself.

Stephen’s reaction immediately confirms that this is not an unusual occurrence in these parts. However, Stephen immediately forgives my enthusiasm: he knows he lives in a fairy-tale place. And, just like Kat in central London, his brewing is utterly embedded within its location.

“I’d love to use all local ingredients,” he explains, “I just want my brewing to become more and more of this place, because I think it’s special and I want to capture it.”

Stephen is brewing a pale farmhouse ale with Maris Otter and some unmalted grains. He hops lightly using a blend of English heritage varieties—Mathon, Cobbs, White Grapes, Early Bird and Fuggle—grown just a short walk from his house. He brews in his kitchen using a pair of electric boilers and a picnic-box mash tun. Through the window, there are spectacular views across the rolling English countryside, and on the



ON THE WEB
Read Dr. Keith Thomas’s “Carbonation & Oxidation in Traditional UK Cask Ale” in the Sept/Oct 2017 issue of *Zymurgy*, available at HomebrewersAssociation.org and in the *Zymurgy* app.

kitchen table is a cardboard box full of small jars and bottles. Stephen explains this is his “deconstructed compound gin project.”

“I’ve added juniper to a bottle of vodka, and then I’ve made these little tinctures of really strong coriander vodka or lemon peel vodka and so on. So, I can have 35 milliliters of the juniper vodka and then make up the rest of a double measure with little drops from all the different pots. Hopefully I can start foraging stuff and adding to these tinctures. And then if I want to know ‘What does wild angelica taste like?’, I can put it in a gin and tonic and think, ‘That would taste nice in beer.’”

Stephen’s other ambitious project involves harvesting yeast. Over the past year, he has found 15 edible flowers, including dande-



Kat's demijohns and the initial MegaBlend analysis at Brew Con London.

lion, gorse, apple blossom, and hawthorn, all within walking distance of his cottage, and he has cultured up yeast from each.

He explains his process: "I take one flower and put it in a test tube with a little bit of malt extract; I have about six test tubes for each flower variety. And then, when they start to fizz, I propagate up the ones that smell good into a small flask, then a big flask, and then I brew demijohns of beer with them."

As a result of these experiments, Stephen isolated the yeasts that tasted good and made three blends, two of which he submitted to the Megablend: his very own patch of England's green and pleasant land in a test tube. As he prepares to pitch the Megablend into his farmhouse ale, he laughs, "I don't often use the word, but this really is beer with *terroir*!"

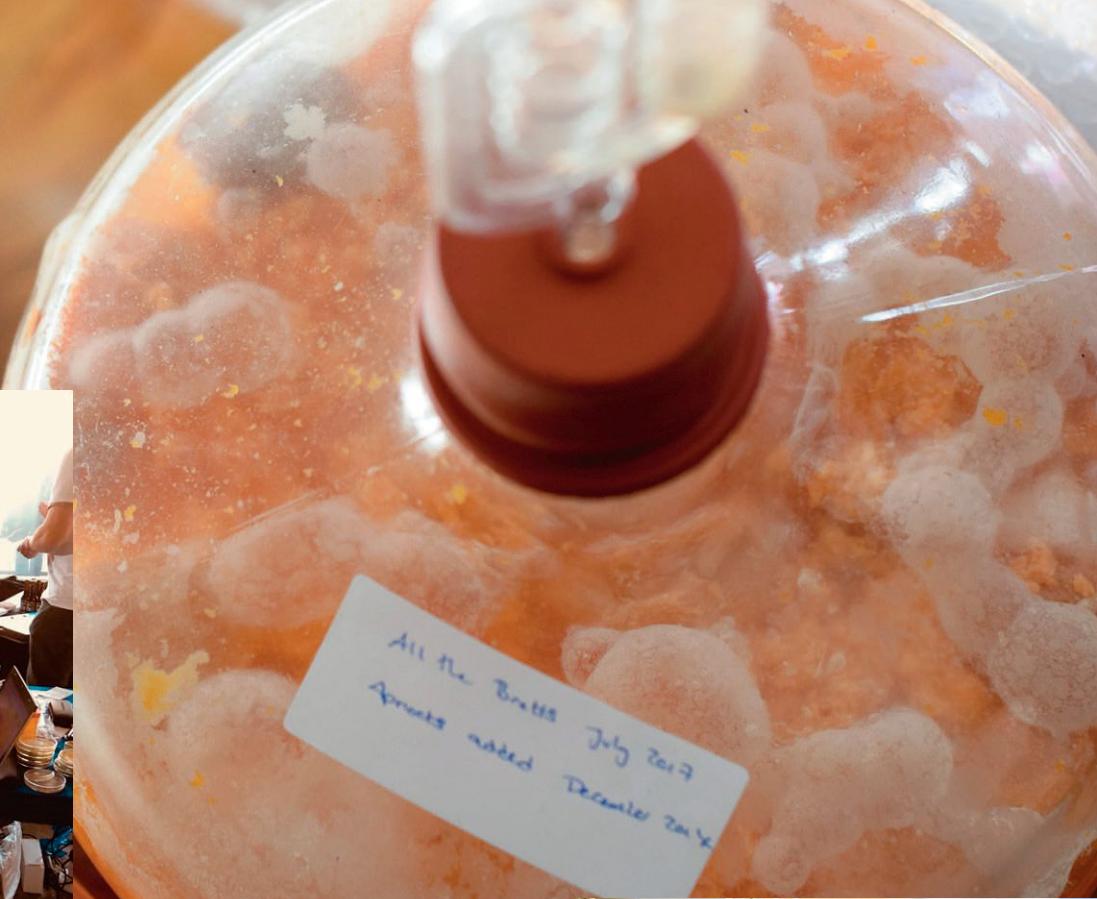
What's New is Old

In many ways, Stephen, Kat, and the other homebrewers involved in the Megablend are doing nothing new. By giving back

some control to the yeast, they are simply replicating how beer was brewed for millennia. But the Megablend they are using is infused with elements of Britain itself, from its fierce urban heartbeat through to its visceral rural backbone.

In an age in which most mainstream breweries brew with single, highly controlled yeast cultures, these Megablend homebrew experiments, and the analytical work done at Brewlab, may reveal some long-forgotten secrets about original brewing methods. At the very least, they will cause us to think more deeply about our surroundings and the way in which it is who and where we are that truly defines every beer we brew.

Emma Inch is a freelance beer writer, judge, and broadcaster based in Brighton, a vibrant seaside city on the South Coast of England. She is a member of the British Guild of Beer Writers and, in November 2017, was awarded the Maltsmiths Award for "Best Beer Communicator – Online" by the Guild.



Julio Johnson, Project Brewer at Brewlab preparing the wort.



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By Mark Pasquinelli

When all is quiet, I like to ponder the great unknowns. During one such session, I wondered, “What if there are multiple worlds—parallel universes, stacked upon each other like layers of baklava pastry—with many versions of me?” My next thought was, “I hope the homebrews there are good.”



Elderberry Saison

And what would these duplicates of me in multiple worlds be drinking? “Saison,” I answered immediately. There’s no style more versatile. A new outcome is created as the result of every tiny, yet different, quantum homebrewing variable. Saison is a metaphor—even a confirmation—for the existence of multiple worlds.

My New BFF

Saison wasn’t even a blip on the radar for most of my 20-plus years as a homebrewer. Perhaps the style was lost among myriad stouts, porters, and IPAs; or maybe the ones I sampled were unremarkable.

Unfortunately, ignorance also played a role. When told about a local brewpub’s saison and its fermentation temperature topping 90° F (32° C), I dismissed it outright, saying, “Well, that’s ruined.”

Then a few years ago, an eccentric stranger appeared at one of my homebrew club’s meetings, undoubtedly teleported from a parallel dimension. He came bearing a corny keg of saison, dry hopped with Amarillo. Out of courtesy, I had a taste.

I was blown away by its sublime assortment of flavors: citrus, earth, spicy pepper, and yeast—ending with a dry, spritzy finish. I asked him, “What is this, and how did you make it?” Thus began my love affair with all things saison and my quest to explore its nuances.

The Unusual Suspects

I knew learning the variations of saison would be a long journey, traveling through portals where the balloons that separate worlds are worn just a little thin, to visit different dimensions—all without leaving the comfort of my brewing garage. Thus, I kept my first steps simple and straightforward, exploring beyond my comfort zone—something a little unusual, at least

for me—with a plan to use the results as a springboard for further investigation.

My experiments were essentially yeast-driven: trying strains from manufacturers other than the Big Two, and comparing and contrasting my old standby with a well-known contender. As my voyage progressed, I upped the ante, using variations in hops; and additions of fruit, spices, vegetables, and even smoke.

How I Roll

Here, on the Mother World, my saison brewing regimen has served me well. It's been said you can make a fine example with only Pilsner malt, Saaz hops, yeast, and water. My recipes are a bit more

complicated. The bulk of the grain bill is Pilsner malt. Then I add light Munich malt, for a hint of color and breadiness, to an approximately equal amount of either wheat or rye malt—as a salute to saison's agrarian origin as sustenance for seasonal farm workers. Extract brewers won't have any problem duplicating my grain bills because all the ingredients are readily available in extract form.

I usually include an addition of sugar because saison must be dry. This rule is immutable; it's the biggest pitfall for first-time homebrewers. A shot of sugar supplies a dose of pure fermentables that help to ensure that requisite dry finish. Using rock-style, clear Belgian candi sugar

COUNT ORLOQUE

Batch Volume: 5.5 gallons (20.8 L)

Original Gravity: 1.090 (17° P)

Final Gravity: 1.005 (1.3° P)

Bitterness: 38 IBU

Color: 27 SRM

Alcohol: 11.2% by volume

MALTS AND SUGARS

8.25 lb.	(3.74 kg) Pilsner malt
2 lb.	(907 g) Munich malt, 10° L
2 lb.	(907 g) wheat malt
1 lb.	(454 g) aromatic malt
6 oz.	(170 g) Carafa III malt
1.5 lb.	(680 g) table sugar (sucrose)
1 lb.	(454 g) dark Belgian candi syrup 180° L

HOPS

0.85 oz.	(24 g) Magnum, 11.9% a.a. @ 60 minutes (33 IBU)
1 oz.	(28 g) Willamette, 6.0% a.a. @ 15 minutes (5 IBU)

YEAST

Omega Labs Saisonstein's Monster (slurry from 3 L starter)

BREWING NOTES

Mash grains at 150° F (66° C) and rest for one hour. Sparge at 170° F (77° C). Boil 90 minutes. Chill to 68° F (20° C), pitch yeast, and hold for two days before ramping temperature to 85° F (30° C) until fermentation is complete. Keg at 3 volumes (6 g/L) CO₂ or bottle with 5.75 oz. (163 g) corn sugar.

EXTRACT VERSION

Substitute 6.25 lb. (2.83 kg) Pilsner liquid malt extract, 1.5 lb. (680 g) Munich liquid malt extract, and 1.5 lb. (680 g) wheat dried malt extract for base grains. Steep the aromatic malt and Carafa III for 30 minutes at 155° F (68° F). Then proceed as above.



SMOKED PUMPKIN SAISON

Batch Volume: 5.5 gallons (20.8 L)

Original Gravity: 1.070 (17° P)

Final Gravity: 1.002 (0.5° P)

Bitterness: 20 IBU

Color: 5 SRM

Alcohol: 8.9% by volume

MALTS AND SUGARS

9.25 lb. (4.2 kg) Pilsner malt

2 lb. (907 g) Munich malt, 10° L

1.5 lb. (680 g) rye malt

1 lb. (454 g) table sugar (sucrose)

HOPS

0.45 oz. (13 g) Magnum, 11.9% a.a. @ 60 minutes (20 IBU)

YEAST

Wyeast 3711 French Saison

ADDITIONAL ITEMS

5 lb. (2.27 kg) pumpkin, smoked @ 60 min

1 Tbsp. ginger (fresh ground) or 1 tsp. (powdered) @ knockout

3 tsp. Saigon cinnamon @ knockout

1 tsp. nutmeg (fresh ground) @ knockout

0.5 tsp. allspice (fresh ground) @ knockout

BREWING NOTES

Roast pumpkin in smoker with wood of choice at 275° F (135° C) until tender. Remove skin and cube pumpkin. Mash grains at 150° F (66° C) and rest for one hour. Sparge at 170° F (77° C). Boil 90 minutes with pumpkin in mesh bag. Chill to 68° F (20° C), pitch yeast, and hold for two days before ramping temperature to 85° F (30° C) and holding until fermentation is complete. Add additional spices to taste with hot water in form of a spice "tea." Keg at 3 volumes (6 g/L) CO₂ or bottle with 5.75 oz. (163 g) corn sugar.

EXTRACT VERSION

Substitute 6.5 lb. (2.95 kg) Pilsner liquid malt extract, 1.5 lb. (680 g) Munich liquid malt extract, and 1.5 lb. (680 g) rye liquid malt extract for base grains; and proceed as above.

is a possibility, but I prefer good old-fashioned table sugar (sucrose). It's cheap, and it gets the job done.

I hop my standard saisons a little on the heavy side, using an approximate 0.50 BU/GU (bitterness units to gravity units) ratio. Magnum is my standard bittering hop. It's clean, and with an alpha acid content of over 10 percent, a little goes a long way. Earthy, spicy noble hops like Hallertau, Tettnang, and Saaz are traditional for flavor and aroma additions, but I prefer citrusy and tropical hops like Mosaic, Citra, Amarillo, and Azacca. Their fruity notes are the perfect complement to the saison flavor profile.

I've also had success with multiple hop stand additions, as if I were brewing a New England IPA. My standard saison recipe, heavily hopped in this manner with Azacca, was the bomb. My friends couldn't believe that no tropical fruit had been harmed in its production.

For a highly fermentable wort, I mash my grains at 148° to 150° F (64° to 66° C). In the past, I've done stepped mashes, with rests at 145° F (63° C), 158° F (70° C), and 168° F (76° C)—but the single step mash seems to work just as well.

Saison is all about the yeast, and there are many strains from which to choose, perhaps more than for any other style. Two of the most popular, White Labs WLP565 and Wyeast 3724, are considered the classic Dupont strains. Unfortunately, they're also notoriously finicky, and tend to crap out around 1.030. Sometimes fermentation restarts, and sometimes it doesn't.

Always begin with a starter, around two liters for an average-gravity saison. A large, healthy pitch rate is paramount. Don't intentionally underpitch, either, hoping to stress the yeast into producing phenols and esters.

My saison-bearing friend advised me to go with a hot fermentation temperature of 80° F (27° C) or more from the start. I've had success with his method—no stalls and excellent attenuation. In my experience, White Labs WLP565 fermented in

this manner produces predominately fruity esters in the 80s °F (upper 20s °C) and spicy phenols in the 90s °F (mid 30s °C).

Lately though, I've used a different approach that is espoused by Drew Beechum. He starts his fermentations low for a few days, around 65° F (18° C), to keep phenols and esters in balance during the yeast's growth phase before letting the temperature rise on its own.

Drew also advocates open fermentation, an idea that initially scared the microbiologist in me. *Open*, however, is somewhat of a misnomer in this case. Beechum believes the "saison stall" is caused by carbon dioxide backpressure on the yeast, which he alleviates by using aluminum foil instead of an airlock.

My method for maintaining high and repeatable fermentation temperatures is decidedly low budget. I place my carboy in a water bath inside a picnic cooler and use an aquarium heater, which is plugged into a temperature controller. I slip the controller's probe inside a combination thermowell/carboy cap to ensure an accurate fermentation temperature.

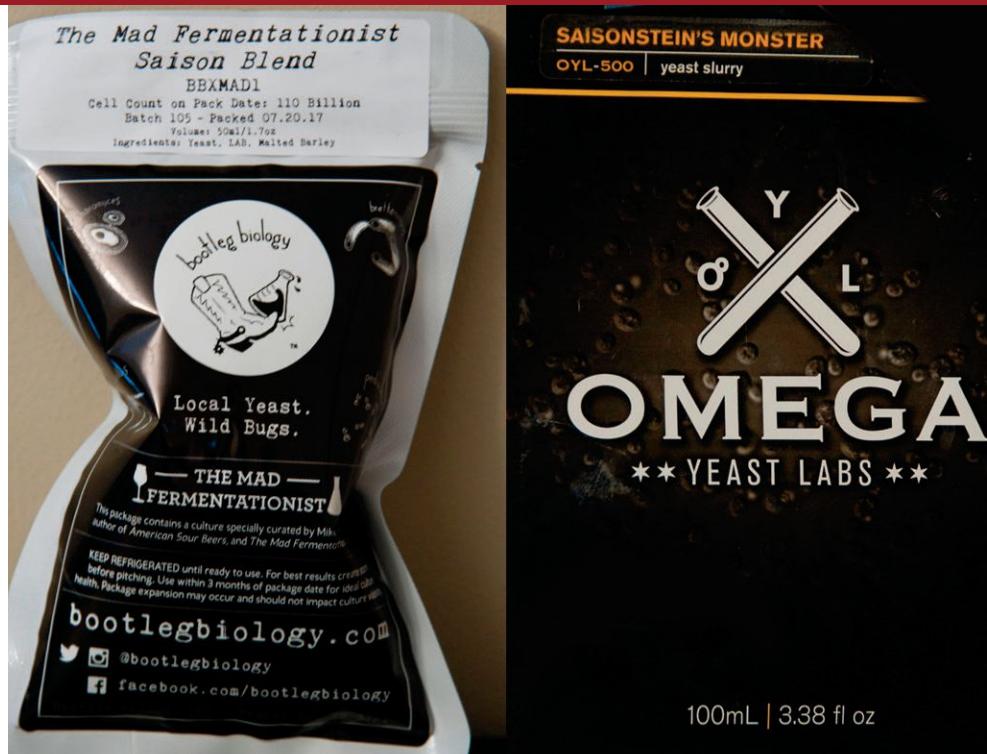
With these tenets firmly in place, I began my journey.

Mad About Saison

My first stop was the world of Funky Town. I killed two birds with one stone on this recipe, getting out of the same-old-yeast rut and brewing something more sessionable than my usual 7.5% ABV saisons. I used a yeast blend made by Michael Tonsmeire, aka the Mad Fermentationist, that's distributed through Bootleg Biology.



Tonsmeire mentioned that his yeast packs might swell during storage and not to be alarmed. His blend consists of saison yeast, wild *Saccharomyces*, *Brettanomyces*, and an opportunistic *Lactobacillus* culture. At low fermentation temperatures, his



Saison Yeast Strains

MAD ABOUT SAISON

Batch Volume: 5.5 gallons (20.8 L)

Bitterness: 30 IBU

Original Gravity: 1.046 (11.5° P)

Color: 5 SRM

Final Gravity: 1.002 (0.5° P)

Alcohol: 5.8% by volume

MALTS AND SUGARS

5.5 lb. (2.49 kg) Pilsner malt

2 lb. (907 g) light Munich malt, 10° L

1 lb. (454 g) wheat malt

0.5 lb. (227 g) table sugar (sucrose)

HOPS

0.50 oz. (14 g) Magnum, 11.9% a.a. @ 60 min (22 IBU)

0.50 oz. (14 g) Galaxy, 17.3% a.a. hop stand 20 min (8 IBU)

1 oz. (28 g) Galaxy, 17.3% a.a. dry hop 5 days (0 IBU)

YEAST

Mad Fermentationist Saison Blend (slurry from 2L starter)

BREWING NOTES

Mash grains at 150° F (66° C) and rest for one hour. Sparge at 170° F (77° C). Boil 90 minutes. Chill to 68° F (20° C), pitch yeast, and hold for two days before ramping temperature to 85° F (30° C) until fermentation is complete. Dry hop five days in the primary at 68° F (20° C). Rack to secondary to clear for two days at 68° F (20° C). Keg at 3 volumes (6 g/L) CO₂ or bottle with 5.75 oz. (163 g) corn sugar.

EXTRACT VERSION

Substitute 3.5 lb. (1.59 kg) Pilsner dried malt extract, 1 lb. (454 g) Munich liquid malt extract, and 1 lb. (454 g) wheat dried malt extract for grains; and proceed as above.



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Saison Triple Fermentation

WATER FOR SAISON BREWING

By Martin Brungard

Saison is known for being a crisp, refreshing beer with a dry finish. Brewing water chemistry influences that character.

The region along the French and Belgian border (Wallonia) that produces some of the finest saisons has waters that are moderately mineralized. A review of water quality from cities and areas in that region shows that the waters are moderately hard. The ion ranges for waters from this region are shown in the accompanying table.

TYPICAL WALLONIAN WATER

Ion	Range (mg/L) or (ppm)
Calcium (after boiling)	20–50
Magnesium	10–20
Sodium	10–30
Sulfate	20–100
Chloride	10–40
Bicarbonate (after boiling)	50–80

These concentrations assume that pre-boiled water is used for brewing. For centuries, brewing water was pre-boiled to remove temporary hardness and alkalinity. This treatment reduces calcium and bicarbonate but leaves other ions—such as magnesium, chloride, and sulfate—unchanged.

Important impressions to take from the regional water profile are that the sulfate content is higher than the chloride content, and that modest bicarbonate content is typical. This means many tap water sources can be suitable starting points for brewing saison. Starting with a very low ionic content water like reverse osmosis (RO) or distilled water is not required, but if your tap water is highly mineralized, dilution or replacement with RO or distilled water may be needed to better brew this beer style.

Ensuring that the brewing water includes more sulfate than chloride helps the beer finish dry. Aim for 40 to 60 mg/L sulfate and 20 to 30 mg/L chloride to provide dryness without a mineral taste. The sulfate concentration can be increased to near 100 mg/L if a drier finish is desired. If starting with RO or distilled water, achieving desired concentrations might mean adding 1.4 to 2 grams (1/3 to 1/2 tsp.) of gypsum and 0.6 to 1 grams (1/5 to 1/4 tsp.) of calcium chloride per 5 gallons (18.9 L) of water. Those quantities should be reduced if using tap water with significant sulfate or chloride content.

The bicarbonate content in those Wallonian waters requires adding acid to the mash and sparge water to help reduce mash and wort pH. Targeting a somewhat low mash pH of 5.1 to 5.3 helps accentuate the perception of crispness in the finished beer (wort pH should always be measured at room temperature). As is typical in Continental European brewing, lactic acid is appropriate for saison, either as acidulated malt or liquid lactic acid. A typical 5-gallon (18.9 L) saison batch might require 5 to 8 ounces (142 to 227 g) of acid malt or 3 to 4 mL of 88 percent lactic acid for the mash. Those acid additions should not impart a tangy flavor since they should be under the lactic taste threshold.

While the suggested mineral and acid additions should be refined for your mash grist and water, these quantities illustrate that the recommended additions are small. Avoid over-mineralizing your saison brewing water. Using a brewing water chemistry calculator is recommended to help refine mineral and acid additions for your batch.

With those minor enhancements to your brewing water, you can duplicate the dry and crisp flavor that characterizes saison.



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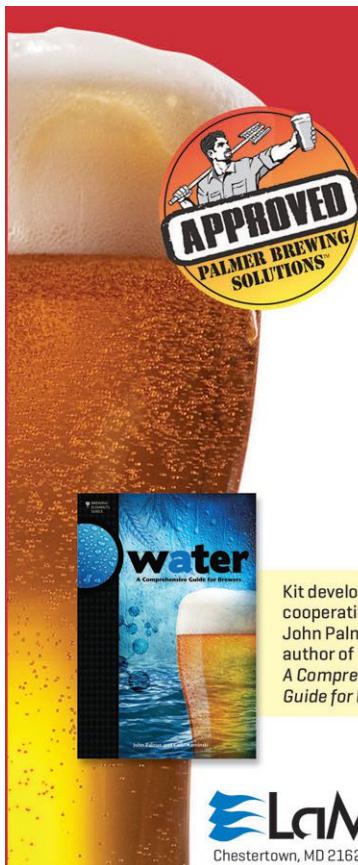


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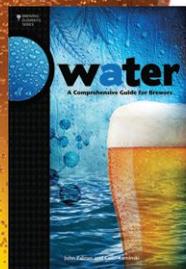
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Smoked Pumpkin Saison

blend is clean, while traditional saison temperatures bring out flavors of citrus, pepper, and clove.

The blend's flavors pair well with fruity and tropical hops, so I did a hop stand and dry hopped with Galaxy. As advertised, Galaxy's repertoire of citrus, passion fruit, and grass nicely complement Tonsmeire's yeast blend, mixing with its tart, crisp, citrus notes. The subsequent creation, Mad About Saison, was a big hit at two homebrew club meetings and became a personal after-dinner staple.

On the Dark Side

From Funky Town, I journeyed to an underworld for my next homebrewing adventure. I'd been eying several Omega Yeast products, and this was my perfect opportunity. Instead of sessionable, I went big with this saison and made a beast of a brew with Omega's Saisonstein's Monster blend. Keeping in theme, I named it Count Orloque, Nosferatu's Belgian cousin. The black hue comes courtesy of Carafa III and dark Belgian candi syrup, and it's late hopped with earthy Willamette, apropos for a dude who's known to travel with a few shovels of dirt from the old country.

Orloque's co-dominant flavors of dark fruit and tartness, combined with background notes of spice and bubblegum, made for an outstanding saison. And, like

its namesake, it moved stealthily—with its 11.2% ABV threatening to put the bite on me at any moment. Savor this high gravity behemoth slowly from a tulip glass.

Belgium vs. France

I kept a portal between worlds open for a comparison study between my old standby, White Labs WLP565 Belgian saison, and a worthy challenger: Wyeast's 3711 French saison. To make yeast the only variable, I split a batch and fermented in similar vessels with the same pitching rates and fermentation protocols. To showcase the yeasts, I kept the hops to a minimum.

To my surprise, the Wyeast 3711 fermented even drier (1.002) than the White Labs WLP565 (1.004). Remember

to always compensate for temperature when taking specific gravity readings, even if it's only a moderately warmer 85° F (29° C).

One of the curious things about saison yeast is that it produces glycerol—a sweet alcohol—as a byproduct. Glycerol imparts a sense of body and allows saisons to ferment to minuscule final gravities without tasting watery. Not surprisingly, Wyeast's 3711 strain is the biggest producer.

Perhaps the additional sense of body gave the French saison a richer and more luxurious texture—call it a certain *je ne sais quoi*—to go with its tart, earthy flavors. The WLP565 more than held its own against the challenger, with predominant fruit flavors and background spices, but I

JACK OF ALL TRADES SAISON

Batch Size: 5.5 gallons (20.8 L)

Original Gravity: 1.061 (14.7° P)

Final Gravity: 1.004 (1° P)

Bitterness: 33 IBU

Color: 6 SRM

Alcohol: 7.5% by volume

MALT

7.5 lb.	(3.4 kg) Pilsner malt
2 lb.	(907 g) Munich malt, 10° L
1.5 lb.	(680 g) rye malt
1 lb.	(454 g) table sugar (sucrose)

HOPS

0.6 oz.	(17 g) Magnum, 11.9% a.a. @ 60 min (25 IBU)
1 oz.	(28 g) Azacca, 10.8% a.a. @ 10 min (8 IBU)

YEAST

Wyeast 3711 French Saison

BREWING NOTES

Mash grains at 150° F (66° C) and rest for one hour. Sparge at 170° F (77° C). Boil 90 minutes. Chill to 68° F (20° C), pitch yeast, and hold for two days before ramping temperature to 85° F (30° C) until fermentation is complete. Keg at 3 volumes (6 g/L) CO₂ or bottle with 5.75 oz. (163 g) corn sugar.

EXTRACT VERSION

Substitute 4.5 lb. (2.04 kg) Pilsner dried malt extract, 1.75 lb. (794 g) Munich liquid malt extract, and 1 lb. (454 g) rye liquid malt extract and proceed as above.

VARIATIONS

Add 5 lb. (2.27 kg) elderberries or cranberries as described in article, or perform serial hopstands with tropical or citrusy hops for 30 and 15 minutes post-boil.

think there's a new sheriff in town. For the time being, Wyeast 3711 French saison is my new go-to yeast.

Pumpkin and Spice and...

Pumpkin saison was a journey to an unworldly realm, my pièce de résistance, bringing in almost all my experimental variables: Wyeast 3711, spices, vegetables, and smoke! The inspiration to add smoke came from one of Charlie Papazian's recent "World of Worts" columns (see the Nov/Dec 2017 issue of *Zymurgy*).

Tröegs Brewing's saison-based Master of Pumpkins is one of my favorite fall brews, and I had a bumper harvest of crookneck pumpkins on hand. This was my first attempt at a smoked beer, so I treaded lightly by roasting the pumpkin in my electric smoker with one dose of mesquite. Then I followed my normal pumpkin protocol: pumpkin in the boil and spices at knockout.

The results were nothing short of phenomenal. The spices—cinnamon, nutmeg, ginger, and allspice—melded synergistically with the flavors of French saison yeast, while the delicate smoke flavor added a touch of complexity at the finish. It was also one of the smoothest 8.8% ABV brews I'd ever made. My only regret was that the experimental batch was only 3 gallons. If you make one saison from this article, brew this one.

Tutti Frutti

My final stop found me in a lush world—a Garden of Eden. For some reason, people give my wife and me elderberries. And, when life gives you elderberries, you make elderberry saison. The fruit's tart, slightly woody flavors complement my standard Jack of All Trades saison recipe perfectly.

Elderberries are like juicy little BBs. We separate the berries from the stems by freezing first. The thawed elderberries—about a pound per gallon (120 g/L)—are then sanitized with Star San. The berries are crushed and fermented saison is racked on top for a secondary fermentation. It usually takes a tertiary racking to clear the tiny elderberries.

Around the holidays, my wife and I also like to make cranberry saison, first freezing the berries and then lightly chopping them in a food processor before adding them to the plastic bucket.

With either fruit, the flavors are delightful. And the reddish-purple elderberry saison and pink cranberry saison make great conversation pieces.

The Voyage Not Traveled (Yet)

Sadly, chapter one of my saison voyages had to end. I'd travelled far, through many worlds, with many different quantum homebrewing outcomes. Yet I realized that I'd barely scratched the potential of this versatile style. With the arrival of new saison yeast strains and different techniques, who knows how many portals to different dimensions will open in the future?

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Mark Pasquinelli 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 five felines.

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ARGENTINA NEVER TOO MANY COOKS

BY EFRAÍN VILLA



"Honestly, it's too late for me to start homebrewing," says 24-year-old Martín Bohm. "Trends are very short-lived in Argentina, and I think I missed this one. We Argentinians are exaggeratedly passionate people, and we don't really do anything unless we go all in and do it big, which means there is always the next big thing. Getting into homebrewing now would be like when old people go to nightclubs. Sometimes, you just have to know when you have shown up too late for something and move on."

Bohm lives in Buenos Aires and works at Cossab Brewpub, which he refers to as “one of the ancient veterans of brewing in Argentina.” In reality, the establishment has been open for 17 years, but in this ultra-fashionable mega-metropolis of 14 million inhabitants, fierce competition and exorbitant real estate prices mean that entrepreneurial legacies are often measured in months rather than years.

While Argentinian homebrewers, craft beer entrepreneurs, and brewing suppliers desperately try to persuade a finicky domestic market, and themselves, that craft beer in Argentina is here to stay, Bohm and many other Argentinians are not convinced.

Despite some skepticism, brewing is increasingly popular in Buenos Aires as it is in the countryside. Craft beer has been a bright spot in an otherwise bleak economic outlook for this second-largest country in South America. Economists credit pent-up demand for craft beer as the driving force bolstering growth in the lackluster beer market. Recent statistical analyses

show that craft beer sales are increasing by as much as 40 percent per year even though they make up less than 2 percent of national beer sales.

The growth in this subsector has been so rapid that politicians have begun considering craft beer in their campaign platforms. During the 2017 election for national senate, then-candidate Esteban Bullrich said one way Argentina could pull itself out of current and future economic slumps was for laid-off Argentinians to open up breweries. He also said Argentina needed more young people to become drone pilots, which set him up for derision as an out-of-touch panderer trying to score points in a popularity contest.¹

“It should not be about following the herd,” laments Bohm. “People used to drive six hours each way to taste the beer where I work because when they started brewing, there weren’t many other brewers. That’s all changed. Three years ago, there were no microbreweries in my neighborhood. Two years ago, there was one. Now there are fifteen!”

Although Bohm is likely not old enough to personally remember the rapid rise and fall of the *parripollo*—once-fashionable grilled chicken greasy spoons—the phenomenon was so intense that the “*parripollo effect*,” as it was later coined, has become part of the Argentinian ethos. It is not uncommon to see talking heads on television having spirited discussions about the need for entrepreneurs to “save themselves from the matchstick flash,” alluding to the practice of quickly divesting from a business founded on a boom-and-bust model.

When exploring the roots of the *parripollo effect*, experts and laymen alike frequently reference Argentina’s tumultuous past as the reason for their mercurial markets. After exhausting the empirical evidence that demonstrates that Argentina has always been a country of extremes where superlatives reign supreme, conversations usually end with a sigh followed by the statement: “I guess in Argentina we’re just too damn passionate.”

OUT OF THE ASHES: BEER

“In a weird way, Argentina’s disasters have set the stage for the craft beer boom,” says Fernando Aguiar, a homebrewer and spokesperson for Somos Cerveceros, Argentina’s craft brewing and homebrewing association.

Eighteen years ago, while the world was ringing in a new millennium, Argentina was in the throes of a great depression that would not stabilize until 2003. Scenes



of riots erupting as the president fled the grand federal palace in a helicopter still haunt the country's collective conscience. In the wake of the government collapse, regulatory attempts to balance trade deficits translated into lower caps on imported goods.

"During that crisis, and for a long time after, people had a hard time accessing imports of any sort," says Aguiar. "That included brewers not being able to get their hands on equipment or brewing supplies. But it also launched a new era of entrepreneurship in Argentina in which we realized we could, and should, do things ourselves. We started rigging our own brewing systems and we became innovators. We've always been agriculturists, but there was a renewed interest in growing our own malt and barley to get back to making our own beer. Sometimes you have to go through the hard times to get to the good."

Presently, 4.5 million tons of barley are produced per year in Argentina, making the country one of the world's primary barley exporters according to Cerveceros Argentinos, a coalition of beer corporations, barley growers, and malt producers.

BIG BEER'S BIG BACKFIRE

As has been common in many countries, when craft beer started growing in Argentina, Big Beer tried to get in on the action. "Industrial breweries tried buying out artisanal breweries, and when that

didn't go so well, they launched their own fake craft beer brands," says Aguiar. "They heavily marketed these fake craft beers as a different product from the industrial beers that Argentinians had always known."

Although many of the country's biggest publications continue to run ads with beer labels purported to be craft beer, not everyone buys the corporate spin. In a scathing blog entry posted on May 5, 2015 on a popular Argentinian craft beer website, Robert Shumann decried the audacity of multinational beer corporations offering their own products as "alternatives" to Big Beer in Argentina.²

In the essay, Shumann detailed the many ways in which the players in Argentina's beer duopoly, which already controls nearly 100 percent of the market, deliberately "disguise" their brands as craft products.

"I know industrial beer companies are just looking to make a profit and that we little guys have always been a rock in their shoe," says Nacho Ortiz, a nano-brewer in the Buenos Aires suburb of Luján. "But because of their heavy marketing of craft products, even if they are fake craft products, people now realize there is such a thing as beer choice and that has changed everything."





Ortiz remembers that ten years ago it was much harder to be a homebrewer. "When I started brewing in 2008, I could not easily find ingredients or brewing equipment," says Ortiz. "I was planting my own hops, and I used to use an aquarium pump to oxygenate my wort. Now I can get anything and turn my passion into my business because Argentinians

are becoming discerning beer drinkers. Whether we acknowledge it or not, industrialized beer producers had a role in that because they invested in marketing campaigns that we little guys could have never launched."

Ortiz believes cultural shifts and the willingness of young people to try new

things also contributed to the current craft beer boom. "The wine industry started trying to attract a more upscale market by making itself out to be an elitist sector," says Ortiz. "This drove many Argentinians to get into beer. We've always been a country of wine drinkers, but that's changing."

SHARE AND SHARE ALIKE

"We've always been a country of sharers, it's in our DNA, and that's not changing," says Guido Ferrari, one of the three brothers who starred in Nat Geo's reality show, *The Barons of Beer*.

When the program premiered in 2016, the mainstream reach of cable television, amplified by social media, brought the concept of Argentinian craft brewing to urban and rural audiences. For the first time, Argentinian television watchers were treated to *I Love Lucy*-style hijinks set in a homegrown brewery. Intermingled with scenes of hops fields and vats of wort, there were shots of Patagonian lakes, majestic volcanoes, and fireside philosophical conversations on how to best grill *asado* (Argentinian barbecue). Everything about the program's backdrop reinforced the notion that craft beer had become a contemporary Argentinian artifact.

"The program did a lot to promote craft beer in this country, even though craft beer was already popular and things were changing," says Ferrari. "I think the whole reason Nat Geo approached us is because they saw some authenticity in our endeavors. The reality show format has its tropes,

IPA ARGENTA

Argentine-style IPA

Recipe courtesy Daniel Rodriguez

Batch Size: 5 US gallons (18.9 L)

Original Gravity: 1.062 (15.1° P)

Final Gravity: 1.012 (3.1° P)

Alcohol: 6.5% by volume

Color: 5 SRM

Bitterness: 60 IBU

MALTS

10.1 lb.	(4.6 kg) Pilsner malt
11 oz.	(300 g) wheat malt
7 oz.	(200 g) biscuit malt
7 oz.	(200 g) dextrin malt

HOPS

0.95 oz.	(27 g) Victoria, 13.3% a.a. @ 60 min
0.88 oz.	(25 g) Cascade, 7% a.a. @ 10 min
1.06 oz.	(30 g) Bullion, 9.5% a.a. @ 0 min
1.06 oz.	(30 g) Cascade, 7% a.a. @ 0 min
1.06 oz.	(30 g) Cascade, 7% a.a., dry hop 4 days
1.06 oz.	(30 g) Victoria, 13.3% a.a., dry hop 4 days

YEAST

Fermentis SafAle US-05

BREWING NOTES

Single-step infusion mash at 151° F (66° C) for 60 minutes. Ferment at 66° F (19° C).



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but I think Nat Geo did a good job of showing what happens in a brewery day-in, day-out."

Ferrari points out that being thrust into the spotlight and sharing so much personal information about his family and their business has not changed how beer is brewed at Berlina, the family's third brewpub. "The only thing that changed is that it augmented our brand," Ferrari says. "But it's not like after the show we set up a mega factory in some industrial park in Buenos Aires and now we all drive Audis."

In terms of what makes Argentina's craft brewing scene different from other countries, Ferrari notes that in his extensive travels abroad he encounters a lot of interest in automation, a fascination that does not exist at home.

"I've gotten to visit lots of breweries in the United States and Europe, and I'm always shocked by everyone's obsession with involving less and less people in the

brewing process and standardizing everything," Ferrari says. "In Argentina it's not like that. You see people connecting and disconnecting hoses, carrying sacks of malt, mixing things, and I see it as more... I guess you could say it is more primitive, but it is also more human."

He goes on to state that another difference is that Argentinian brewers have a stronger emphasis on collective brewing than other countries. "In Argentina, from a young age we're taught to always be sharing everything," says Ferrari. "We grow up very attached to social groups and that does carry over to the way we brew beer. Brewing is not an individualistic activity here because we're not an individualistic country. Brewing with friends, and in our case with family, is part of a bigger cultural rite. We're like a *futbol* team. We are all working toward the same goal and different players have different strengths to get us there. That kind of *futbol* mentality, as you could imagine, really hits home for lots of Argentinians."

NEVER TOO MANY COOKS

"We don't have that 'too many cooks in the kitchen' saying in Argentina," says Daniel Rodriguez, a homebrewer from the city of Córdoba. "Here, the more the better. The social component of homebrewing is the most important part of the whole thing for most of us. When I brew, I invite my friends and everybody has their hands in my product. We like lots of cooks."

Rodriguez says that perhaps the most important function of Somos Cerveceros, of which he is a proud member, is organizing frequent group brew sessions. He adds that the beer expos and contests are also, at their cores, networking opportunities to meet more friends to invite to one's homebrewery. "Without friends, what would be the point of homebrewing at all?" Rodriguez muses.

Esteban Soja, a professional chef and homebrewer in La Plata, agrees. "Brewing is basically a party," says Soja. "I brew every 15 days with friends. I come from a family of bakers, and beer is basically liquid bread to me, so I approach brewing and baking the same way. You've got yeast, grains, water, and temperature control. But the most important ingredient is always love."

BEERS WITHOUT FRONTIERS

The monstrous consolidation of beer by transnational conglomerates has altered Argentinians' relationship with brands that until recently had always had a stranglehold on the market. "Years ago when the headlines read that Brahma had bought Quilmes, it was a huge shock to our national pride," recalls Ferrari. "Quilmes had always been a solidly Argentinian brand, representative of Argentinian values, but the moment that Argentina's flagship beer, decked out in our flag's colors, was sold to a Brazilian beer label, that was when the charm was gone. It might have hurt more because it was a traditional rival country, but then you realize it wasn't even really Brazil. These multinational companies don't have a homeland. They have no citizenship."

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markets throughout the world is a well-documented strategy. Now Argentinian micro-, nano-, and homebrewers are borrowing a page from the beer-producing behemoths. They are organizing across borders to raise their collective international profile. “Craft beer is betting on diversity, community, buying local and all the things that are getting more valued in Argentina and elsewhere,” says Ferrari. “It’s a global ideology that’s taken hold and I do not think this revolution shows any signs of going away.”

“I agree with my friend Guido Ferrari,” says Gisela Manufó, a homebrewer in the Argentinian city of Rosario. “For me being a brewer is about being a part of an international community. I’m a member of the American Homebrewers Association, Somos Cerveceros and several others. Some of my best girlfriends are brewers from Brazil, Mexico, and many other countries.”

Manufó believes that for all the talk she hears about brewing being a “masculine” hobby, women in particular have a lot to gain from immersing themselves in the craft beer culture. “I know it’s maybe not really common for women to brew beer in Latin American countries,” says Manufó. “But being one of the few also means being special. I have never felt discriminated against or belittled in any way as a female brewer. On the contrary, brewing has been empowering and my fellow homebrewers, both men and women, treat me like a sister.”

She adds that brewing and an appreciation for craft beer can bridge cultural gaps between societies. “There is something amazing and universal about homebrewing,” Manufó says. “As a homebrewer, you take on this role and whether you are Argentinian, American, Mexican, Chinese, man, woman, old, young, or whatever, you know you are doing something that people all over the world have been doing for a long time. You are doing something beautiful, something without frontiers.”

RESOURCES

2. <http://bodegadecervezas.wordpress.com/2015/05/05/argentina-las-cerveceras-industriales-van-por-todos-grupos-concentrados-intentan-acaparar-tambien-el-mercado-artesanal/>

Efraín Villa is a photographer, actor, writer, and global wanderer whose endless quest for randomness has taken him to more than 50 countries in five continents. His writing has

appeared on NPR's Weekend Edition, the Good Men Project, TravelWorld International magazine, Zymurgy, and Spanish-language publications. While not running his consulting firm in Albuquerque, he is busy devouring exotic foods in faraway countries and avoiding adulthood while wearing the least amount of clothes possible. More can be found on his website, AimlessVagabond.com. 



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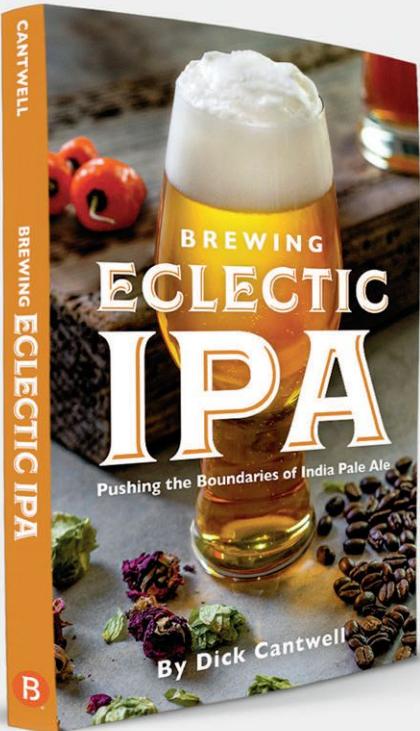
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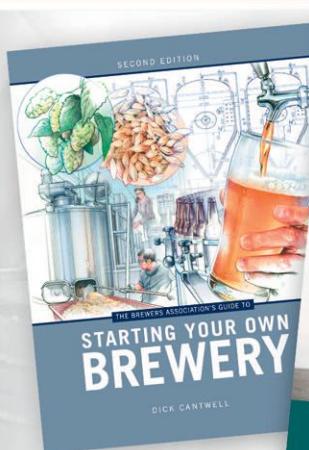
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DORADA PAMPEANA

ARGENTINA'S BLONDE ALE

By Marcos Ragoni





A

homebrewer who wants to brew a specific beer style has many options. You can search for a recipe in numerous online sources. You can review the style's qualitative and quantitative descriptions and use your brewing skills to build a recipe from there. You can even buy a beer kit and follow the manufacturer's suggestions. Results may be good, bad, unmemorable, or excellent. You might never brew it again, or you might win a medal in competition.

Do you really *understand* that style, though? To understand a beer means more than reviewing recipes or following the right steps. It helps to get to know the full story behind that beer. Beer styles take time to develop, and many factors can influence the outcome. Historical settings, physical environments, human relationships, economic and political changes, technological developments, and even geology and climate all help make a beer style unique to its time and place.

In central Europe in the mid-19th century, for example, technology, agriculture, and politics converged to create the world's first pale lager. That original Bohemian Pilsner—the common ancestor of the most-consumed beers in the world today—came about thanks to new malt-kilning techniques; affordable, mass-produced glassware; yeast smuggled in from Bavaria; excellent Bohemian hops; a soft water source; and Plzen's decision to up its quality game.

Getting to know a beer style often means digging into the past. But one recent beer style is easy to study because it can be traced to a group of homebrewers in South America. That style is Dorada Pampeana, a uniquely Argentinian golden ale that emerged a little over a decade ago near Buenos Aires.



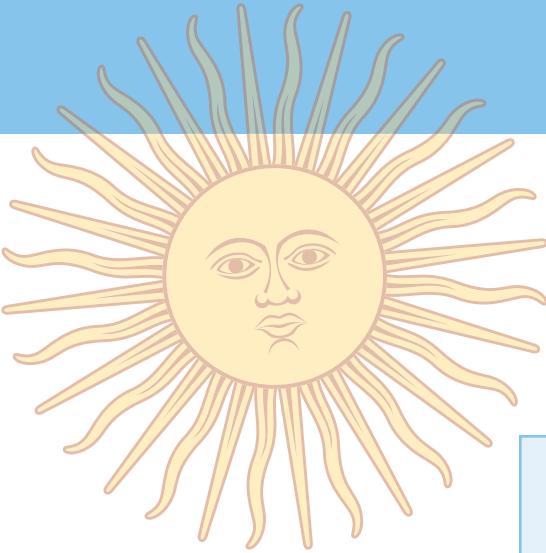
ECONOMIC AND HISTORICAL BACKGROUND

From 1991 to 2002, the Central Bank of Argentina pegged the value of the Argentine peso to that of the US dollar. This so-called Convertibility Law was one factor that led to Argentina's Great Depression in the late 1990s, with disastrous economic consequences.

During the boom years, however, many Argentines welcomed the arrival of imported beers, mostly from Europe, and discovered that there was more to beer than the pale, light, refreshing drink they were accustomed to. They began to appreciate the enormous variety of styles, flavors, and aromas offered by a drink that, for the vast majority of consumers, was completely unknown.

At that time, you could count on one hand the number of microbreweries that offered handcrafted products made in Argentina. Imported beer sold well,

Left to right: Marcos Ragoni, Marcelo Cerdán, and Diego Perrotta at the inaugural Concurso Argentino de Cervezas, 2003.



however, even though imports had inevitably aged and begun to show signs of deterioration by the time they arrived in the country's ports.

THE BIRTH OF HOMEBREWING IN ARGENTINA

Argentina is a country of scarce, if not null, historical beer culture. The economic crisis, the devaluation of the peso, and the resulting scarcity of imported beers left a hole that had once been filled with a variety of beers from Europe. Beer enthusiasts whose palates had evolved began to meet.

Some of them met in a bar located in San Telmo, a historic neighborhood in the city of Buenos Aires, full of old houses, artisans, and a bohemian spirit that invites you to visit its spaces. This bar was one of the very few that brewed its own beer, a rarity in those days in Argentina, and even more so in the city of Buenos Aires.

By that time, some of the meeting attendees had begun to experiment with producing their own beers, and they encouraged others to do the same. Thus homebrewing was born in Argentina.

When it came to raw materials, it was difficult to obtain much variety. Hops, malts, and yeasts were not sold in the small quantities necessary for homebrewers, so aspir-

DORADA PAMPEANA (PAMPAS GOLDEN ALE)

OVERALL IMPRESSION:

Easy drinkability, malt oriented.

AROMA:

Light to moderately sweet, malty aroma. Low to moderate fruity aroma is acceptable. May have a low to medium hop aroma. No diacetyl.

APPEARANCE:

Light yellow to deep gold color. Clear to brilliant. Low to medium head with good retention.

FLAVOR:

Initial soft malty sweetness. Caramel flavors typically are absent. Mild to moderate hop flavor (usually Cascade), but should not be aggressive. Low to moderate hop bitterness. The balance is normally towards the malt. Half-dry to semi-sweet finish. No diacetyl.

MOUTHFEEL:

Medium-light to medium body. Medium to high carbonation. Smooth without harsh bitterness or astringency.

HISTORY:

Early Argentine homebrewers had very limited access to supplies: there was no malt extract, and they could only source Pils malt, Cascade hops, and dry yeast, commonly Nottingham, Windsor, or Safale. With these ingredients, Argentine brewers developed a specific version of Blonde Ale named *Dorada Pampeana*.

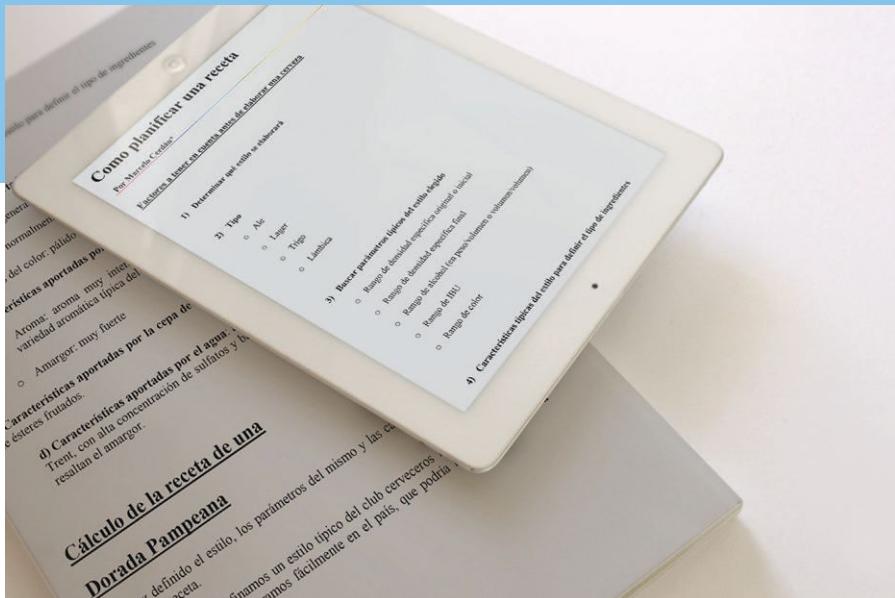
INGREDIENTS:

Usually only pale or Pils malt, although it may include low amounts of caramel malt. Commonly Cascade hops. Clean American yeast, or a slightly fruity British or Kölsch strain; usually cold conditioned.

VITAL STATISTICS:

OG: 1.042–1.054 IBU: 15–22 FG: 1.009–1.013 SRM: 3–5 ABV: 4.3%–5.5%

Lightly edited from Appendix B, Beer Judge Certification Program 2015 Style Guidelines.



Dr. Marcelo Cerdán's seminal article lay the foundation for Dorada Pampeana.

ing hobbyists had to try to get leftovers from the large industrial breweries and rely on the willingness of suppliers to divide their products in useful quantities.

Like raw materials, information about beer production was rare in those days. The internet was still relatively young and disorganized, and what little information could be found was more often in English than in Spanish.

Homebrewers who overcame these obstacles still needed a way to standardize the kinds of beers they were producing or, better yet, to describe them so they could brew them again. Enter Dr. Marcelo Cerdán, a biologist who had specialized in beer and had experienced the craft beer movement in the United States. In 1999, he joined Brad Page, a former brewer at Denver's Wynkoop Brewing Co. and a cofounder of CooperSmith's Pub & Brewing in Fort Collins, Colo., to install the brewhouse for Buller Brewing Company, which many know as the first brewpub in Buenos Aires.

Dr. Cerdán attended the weekly meetings of the homebrewers at the San Telmo bar, where he delivered talks to enthusiastic regulars. Among the questions that Cerdán answered were many concerning the kinds of styles that could be produced. Homebrewers wanted parameters to guide them for comparing batches of

different beers from different brewers. Cerdán wrote several articles in Spanish, which were practically the only Spanish-language resources for homebrewers at that time. The topics he wrote about were in response to the concerns of those attending weekly meetings in San Telmo. In his article "Como planear una receta" ("How to plan a recipe"), he offered a thorough explanation of the calculations needed to build a beer. As an example, he summarized the typical beer that Argentine hobbyists were making from the limited ingredients on the market.

The recipe, an adaptation of the BJCP's Blonde Ale, was called Dorada Pampeana. It was made from Pilsner malt (available from a local Buenos Aires malt company), Cascade hops from Argentine Patagonia, and American ale yeast, which Buller Brewing Company kindly made available to homebrewers.

THE STYLE IS ESTABLISHED

What took shape in Marcelo Cerdán's small guide for new homebrewers quickly transcended this small group of beer enthusiasts. Even as homebrewers and professionals enjoyed improved access to raw ingredients years later, Dorada Pampeana continued to be produced from the same basic raw materials.

Dorada Pampeana is simply a light golden beer with a low but persistent foam, a

malty aroma, few to no fruity esters, and low aromas of citrus hops. The balance should be moderately dry, with a soft malty finish and little hop character. The palate is light and has moderate carbonation and mild bitterness.

The grist is almost completely Pilsner or pale malt. Some brewers add small amounts of light crystal malts to enhance color and add some body. Cascade hops are standard, especially Argentinian Cascade, which, at around 7.5 percent alpha acids, is a bit more bitter and citrusy than the American variety. American yeast with high attenuation and low ester production is preferred, but Kölsch yeast strains are also commonly used.

In the year 2003, for the first time, a Dorada Pampeana competition was held, and since then, almost every beer competition includes a category for this style. A couple of years ago, the BJCP recognized it (see sidebar opposite page).

CRAFT BREWING AND DORADA PAMPEANA IN ARGENTINA TODAY

Three multinational companies currently dominate the beer market in Argentina with pale lagers meant for mass consumption. In recent years, though, an explosion in the production of and demand for craft beer has led to a craft market share of 1.5 to 3 percent. That's according to estimates



DORADA PAMPEANA ESTILO CERVEZA MINGA

Dorada Pampeana

Contributed by Alexis Balzan, brewmaster at Cerveza Minga

The balance of this refreshing, highly drinkable golden ale leans toward malt and the delicate flavor of cereal or bread. Cascade hops offer citrus notes, while the yeast gives a slight fruity character.

from some of the most important suppliers in the country; at the moment, there are no official statistics, and craft brewing remains an informal industry.

In my experience and through my contacts with microbreweries in various parts of Argentina, the volume of craft beer grew 15–20 percent annually from 2010 and 2015 before stabilizing in 2016 and 2017.

The vast majority of those Argentinian micro- and nanobreweries produce at least one style of beer that can be considered Dorada Pampeana, even if it may not use those exact words on the label. This blonde ale is the first Argentine style to be recognized internationally. Actually, it's one of two, but the other, IPA Argenta, will have to wait for another article (though you can get a taste of it on page 62).

Marcos Ragoni is a biochemist and microbiologist at the University of Buenos Aires, cofounder and teacher at CERESVIS online brewing school, and an independent consultant on quality management and control for Compañía Cervecería de Mataderos, Zeppelin, and 1060 Cerveza. He teaches at the National Institute of Industrial Technology and has home-brewed since 1999.

Batch Volume: 5.5 US gallons (21 L)

Color: 4.4 SRM

Original Gravity: 1.050 (12.5° P)

20 IBU

Final Gravity: 1.011 (2.8° P)

Alcohol: 4.7% by volume

MALTS

9 lb. (4.08 kg) Argentinian Pilsner malt

9 oz. (0.25 kg) dextrin malt

9 oz. (0.25 kg) melanoidin malt

HOPS

0.35 oz. (10 g) Argentinian Cascade, 7% a.a., FWH @ 60 min

0.35 oz. (10 g) Argentinian Cascade, 7% a.a. @ 60 min

0.53 oz. (15 g) Argentinian Cascade, 7% a.a., steep/whirlpool

WATER

The ideal water for this beer should be soft and of low alkalinity, with a low concentration of flavor ions such as sodium, chloride, and sulfate. If you need to adjust calcium, calcium chloride is recommended.

YEAST

Fermentis SafAle US-05

BREWING NOTES

Mash 60 minutes at 153° F (67° C), then 10 minutes at 169° F (76° C).

Boil 90 minutes.

Ferment at 68° F (20° C) for 8–10 days. Crash cool to clarify and carbonate to 2.3 volumes (4.6 g/L) CO₂.

DORADA PAMPEANA ESTILO 1060 CERVEZA

Dorada Pampeana

Contributed by Diego Jauregui, brewmaster at 1060 Cerveza, Buenos Aires

This beer has an intense golden color, light citrus notes, and a slightly sweet but balanced finish. High carbonation contributes to a persistent white head.

Batch Volume: 5.5 US gallons (21 L)

Original Gravity: 1.054 (13.3° P)

Final Gravity: 1.013 (3.3° P)

Color: 5 SRM

Bitterness: 21 IBU

Alcohol: 4.5% by volume

MALTS

- 8.38 lb.** (3.8 kg) Argentinian Pilsner malt
0.33 lb. (0.15 kg) caramel 30 malt
0.44 lb. (0.20 kg) dextrin malt

HOPS

- 0.35 oz.** (10 g) Argentinian Cascade, 7% a.a. @ 60 min
0.35 oz. (10 g) Mapuche, 7% a.a. @ 60 min
0.28 oz. (8 g) Argentinian Cascade, 7% a.a. @ 30 min
0.53 oz. (15 g) Mapuche 7% a.a. @ whirlpool

WATER

Ca 44 ppm, Mg 12 ppm, SO₄ / Cl ratio 0.9, HCO₃ 116 ppm.
Acidify sparge water to 5.7 pH.

YEAST

Fermentis SafAle S-04, rehydrated

ADDITIONAL ITEMS

Whirlfloc 1 tablet @ 15 min

BREWING NOTES

Mash 60 minutes at 154–158° F (68–70° C). Boil 60 minutes.
Ferment 7 days at 61–70° F (16–21° C), condition for 10 days
at 41–61° F (5–16° C). Carbonate to 2.5 volumes (5 g/L) CO₂.
Mapuche hops are grown in Patagonia and may be difficult to
source outside Argentina. Blending Nelson Sauvin and Mosaic
will get you reasonably close.

DORADA PAMPEANA ESTILO CERVEZA ZEPPELIN

Dorada Pampeana

Contributed by Diego Perrotta, brewmaster at Cerveza Zeppelin, Buenos Aires

An intense golden color with sweet malty notes and herbal, floral hops add complexity to the clean fermentation character.

Batch Volume: 5.5 US gallons (21 L)

Original Gravity: 1.051 (12.6° P)

Final Gravity: 1.015 (3.8° P)

Color: 4 SRM

Bitterness: 28 IBU

Alcohol: 4.5% by volume

MALTS

- 8.82 lb.** (4 kg) Argentina Pilsen
0.29 lb. (0.13 kg) Argentina crystal 30

HOPS

- 0.2 oz.** (5.5 g) Hallertau Herkules, 16% a.a., FWH
0.07 oz. (2 g) Mapuche, 7% a.a., FWH
0.23 oz. (6.5 g) Hallertau Herkules, 16% a.a. @ 60 min
0.23 oz. (6.5 g) Mapuche, 7% a.a. @ 30 min
0.23 oz. (6.5 g) Mapuche, 7% a.a., whirlpool

WATER

Ca 41 ppm, Mg 1 ppm, Na 63 ppm, SO₄ 58 ppm, Cl 71 ppm,
HCO₃ 92 ppm. Acidify sparge water to pH of 5.7–5.8.

YEAST

Fermentis SafAle S-04

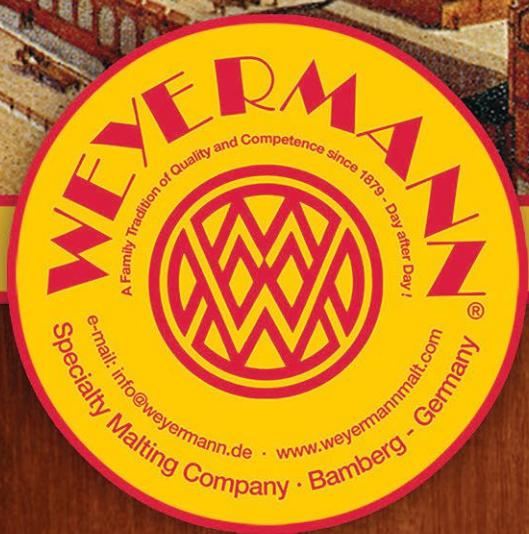
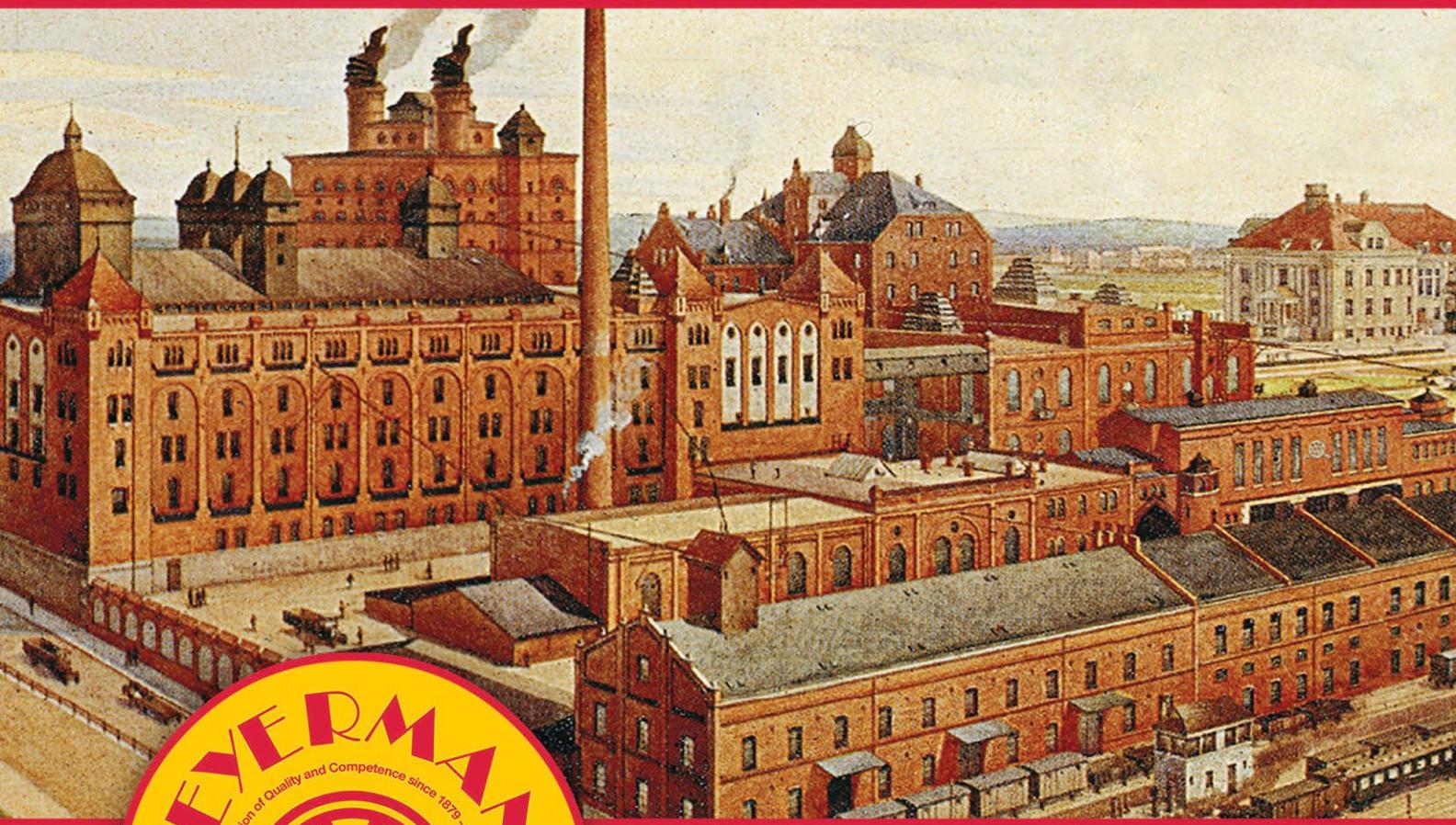
ADDITIONAL ITEMS

Whirlfloc 2 g added 15 minutes before end of boil

BREWING NOTES

Mash 60 minutes at 154–158° F (68–70° C). Boil 60 minutes.
Ferment 7 days at 60–68° F (16–20° C). Condition for 2 weeks
at 41–61° F (5–16° C). Carbonate to 2.5 volumes (5 g/L) CO₂.

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By Amahl Turczyn

The Ocean State Homebrew Competition

The Ocean State Homebrew Competition (OSHC) is a unique event. Veteran organizers Chris Meringolo and Josh Fogg of the Rhode Island Brewing Society (RIBS) explain how, and graciously provide a little background regarding how the competition came into being.

"The competition was conceived in 2010 by Jen Pereira of Johnson and Wales University, with guidance from Paul Zocco of Zok's Homebrewing, as a way to help promote Rhode Island and its culinary and brewing significance," they explained. "As an Associate Professor in the College of Culinary Arts, Pereira was quite familiar with the symbiosis between food and beer, and decided this competition was a great way to prove it. The first competitions held at Johnson and Wales were catered by aspiring culinary students—the excellent cuisine they provided during the event quickly made a name for the competition. Early on, the RIBS homebrew club became involved and eventually picked up the reins when Jen decided to move on to pursue other professional opportunities." When RIBS took over, members made sure the competition remained an event that was not to be missed.

The club itself also had modest beginnings, and although it started out small, membership eventually snowballed. The passionate membership takes its competition and dedication to community seriously.

"RIBS was founded in 2011 by five friends who met through their occupations," Meringolo and Fogg continued. "They decided to do a homebrewing exhibit at the second annual Mini Maker Faire Rhode Island. Booth popular-



The Ocean State Homebrew Competition 2018 staff.

ity at the faire met with mixed results. Reactions from the general public fell into two groups: those who thought we were witches and those who were into homebrewing themselves. We quickly decided that our motley crew needed a name to help identify us, and then hopefully fair goers would start to understand what we were about.

"Little did we know what a difference this one small change would make. The next year we exhibited again, proudly displaying our club name and a fancy new logo, and we got far better results. Suddenly people made the connection that we were all about brewing beer. It's amazing what a name can do. Since then, RIBS has undergone a surge in membership, rocketing from 16 active members in 2016 to 50 today."

A big reason for the club's popularity is its active involvement not just with the local community, but with all of Rhode Island. "With a charter that promotes acceptance, education and fun, we have started to expand the events we host and participate in," the two asserted. "For example, RIBS has started to host charity events such as Pints for PKD, an event to raise funds for the Polycystic Kidney Disease Foundation. The OSHC is also a charitable event, with all proceeds going to the Rhode Island Community Food Bank (RICFB).

"The club does Homebrewing 101 classes at local libraries throughout the state for free. These classes are part of our mission to provide education and support would-be brewers and practiced hands alike. In only its second year, Big Brew is one of the largest events we host each year. We typi-



cally have around 100 people attend and 10 or so people brewing various styles of beer. We also love social events, and host our own Christmas party, Yankee Beer Swap, bottle shares, Breakfast Day, April Sours, group brew days (of course), and brewery tours, just to name a few. During the warmer months the members also host plenty of campfires and barbecues, and homebrew is served proudly."

At this year's OSHC, organizers Meringolo and Fogg decided to help spread the workload by forming committees and staffing them with RIBS members. "John Windle served as Cellar Master Jedi, Ryan Durgin was Schwag Master Jedi and Brendan Kennedy filled the role of Provisions Overlord," they said. "Many other club members also assisted with the competition, but unfortunately I

don't think we have enough space to list them all."

Judging for the competition took place over two days with three sessions, two on Saturday and one on Sunday morning.

"We follow the BJCP 2015 Style Guidelines," the organizers continued. "Our head judge was current RIBS presi-

RED KEEP BIÈRE DE GARDE

Batch Size: 5.5 US gallons (20.8 L)

Original Gravity: 1.068 (16.5 B)

Final Gravity: 1.013 (3.25 B)

Bitterness: 19 IBU

Color: 7 SRM

Alcohol: 6.9% by volume

Total Efficiency: 75%

MALTS

13.5 lb. (6.12 kg) German Vienna malt

8 oz. (227 g) Belgian aromatic malt

HOPS

0.4 oz. (11 g) Target, 9.8% a.a. @ 60 min

0.4 oz. (11 g) First Gold, 9.5% a.a. @ 20 min

0.4 oz. (11 g) Willamette, 5.1% a.a. @ 5 min

YEAST

Wyeast 1762 Belgian Abbey Style Ale II

ADDITIONAL ITEMS

3 oz. (85 g) per 5 gallons (18.9 L) cane sugar to prime

BREWING NOTES

Mash at 154° F (68° C) with a pH of 5.3. Boil 90 minutes. Pitch a strong starter of Belgian Abbey II ale yeast and ferment at 63° F (17° C). When final gravity is reached, rack and chill beer to 48° F (9° C), and hold at that temperature for four weeks. Bottle with 3 oz. (85 g) cane sugar per 5 gallons. When full carbonation is reached, cellar for at least one month.

EXTRACT VERSION

Substitute 10 lb. (4.54 kg) liquid Vienna malt extract for Vienna malt. Steep Belgian aromatic malt in 160° F (71° C) reverse osmosis (RO) water for 30 minutes. Drain, rinse grains, and dissolve extract completely. Top up to desired boil volume with RO water and proceed as above.

dent Alex MacIntosh, and our head steward was former RIBS president, Kate McPherson. This year we added a custom category for the ubiquitous New England IPA style. It was a big hit and ended up being the largest single judging category, with 29 entries. Since OSHC is a multi-day competition, we offer our out-of-town judges small stipends to help offset the cost of the hotel rooms. Quite a few of the judges requested that we donate it instead to the Food Bank."

As with any successful homebrew competition, much thought is put into prizes, and fortunately for the Ocean State competition, there's a lot of support to make those prizes top quality. "Our awards ceremony and charity raffle come at the conclusion of the competition on Sunday afternoon," said the organizers. "We have custom-made metal medals for first, second, third, and honorable mention places in all categories, and prizes available for each. The prizes are all donated to us by local, regional, and national beer-related businesses and organizations. Almost all the Rhode Island breweries donate something to the OSHC, whether it is a gift certificate, T-shirt or even a 10-gallon whisky barrel. We are very grateful for their continued support over the years.

"This year we instituted a new rule that entrants have to be present to receive a prize. We still mail out awards and BOS prizes for entrants not present though. This has helped us save on shipping costs so that we can procure a greater donation to the RICFB. We then raffle off all remaining prizes, with raffle ticket sales proceeds also going to the RICFB. In total, this year's cash donation to the Food Bank was \$1,450 along with 309 pounds of non-perishable goods."

The competition also receives donations in other forms. "In addition to our prizes, there are also donations in terms of food and space. Most notably, The Guild, a relatively new contract brewery, has stepped in and become a huge supporter of the competition by allowing us to use their space for free on a weekend during business hours. They also work closely with us to help execute the competition. The space is awesome for our event: it's a

mezzanine overlooking the brewery floor, with its 100-barrel brewing equipment and 200-barrel fermenters. This was our third year at The Guild, and there's no sign we'll be moving any time soon."

Harkening back to the early Johnson and Wales days of culinary focus, local food providers such as Cozy Caterers and Wright's Dairy Farm also donated some excellent food to keep judges fed through all three sessions.

From its humble beginnings, the Ocean State competition now attracts impres-

sive numbers. "This year we received 452 entries, which makes the OSHC one of the largest homebrew competitions in the New England area," Meringolo and Fogg noted proudly. "As a group, we want to exceed 500 entries to solidify that ranking. The vast majority of the entries were from Rhode Island, Connecticut, and Massachusetts, but people shipped entries from all over the US. We received entries from Leesburg, Va., Festus, Mo., and Naperville Ill. The furthest entry came to us from Sparks, Nev.—it was shocking. This year, 11 states were represented."

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As for next year's competition, the organizers have already set their sights high. "We are committed to making this competition bigger and better every year. Rhode Island may be the smallest state, but we have a lot of attitude and are fiercely proud of it. This year's competition was by far the smoothest one yet, and we are already discussing plans for next year. One major change is that we are looking to partner with a local brewery to garner Pro-Am status."

And with Homebrew Con descending upon Providence in 2019, the club has every reason to believe their competition will see another bump in popularity. "A lot can happen in a year, but we're convinced OSHC 2019 will be another landmark year as the eyes of the homebrewing community turn to our little state."

Brew Haven homebrew club of New Haven, Conn., with his bière de garde. While he has been entering competitions now for three and a half years, his best of show at the Ocean State was his first.

"I've also won a number of smaller, bar-based competitions in the area with a Piwo Grodziskie, a tripel, and a Brett beer," Lasocki asserted. Although he claims this has been his most successful beer to date, he also rather humbly admitted that the Grodziskie was brewed on a commercial scale by Veracious Brewing Company in Monroe, Conn.—so that was a pretty impressive victory as well. He also likes to brew American stout, Australian sparkling ale, helles bock, Baltic porter, and saison.

"I use simple, manual equipment," Lasocki states, proof that world-class beer can be made with nothing more than a 10-gallon insulated cooler for a mash tun, a 5-gallon aluminum pot for a hot liquor tank, a steel stockpot for a kettle, and glass carboy fermenters. For inspiration, he turns to his fellow Brew Haven club members but also spends a lot of time chatting with professionals in his local craft brewing community.

"I've been lucky to get acquainted with people working in local beer businesses, and they are always extremely helpful to homebrewers. On brewery tours with my club, I've learned a lot asking questions and interacting with professional brewers. I've come to see the importance of diligence and precision in my brewing, taking great care to wash and sanitize everything, paying extra attention to controlling temperature and pH during the brewing process, and taking careful brewing and tasting notes," he explained.

Lasocki's plans for future directions in the hobby include continuing to perfect as many styles as possible and then branching out into the wild world of mixed fermentations.

"I want to build a vast brewing repertoire that includes lagers, Belgian styles, stouts, and American ales," he stated.

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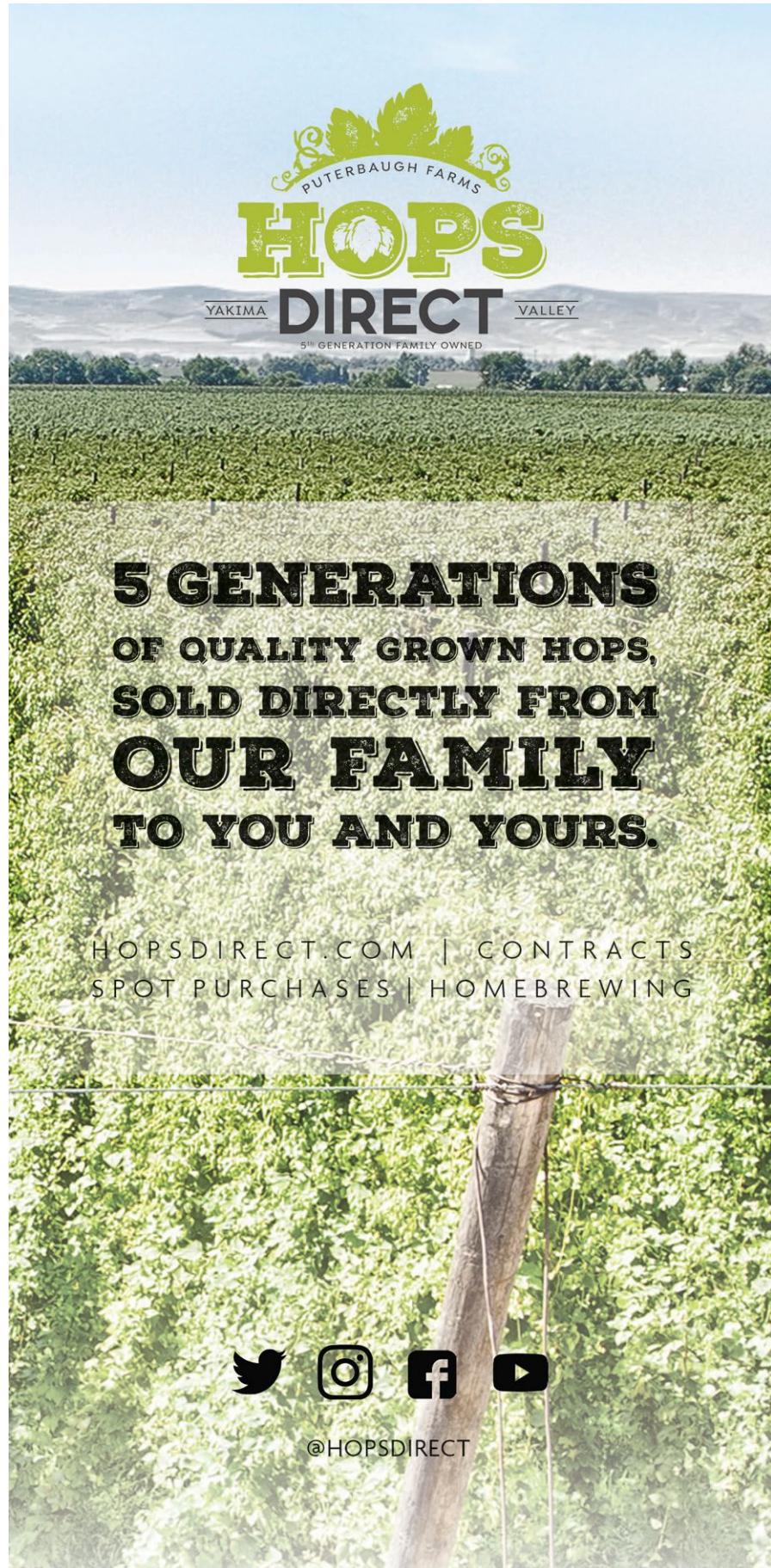
"THE COMPETITION WAS CONCEIVED IN 2010, AS A WAY TO HELP PROMOTE RHODE ISLAND AND ITS CULINARY AND BREWING SIGNIFICANCE."

"Currently I'm most successful with Belgian beers and least successful with hoppy American styles; with the exception of American stout, these still elude me. My other plan is to get involved with brewing on the wild side. To this end, I have begun to collect, plate, and isolate local wild yeast strains. I have found that many of these are surprisingly Belgian-like, and not too funky.

"Incidentally, my other winning bière de garde was fermented with a wild strain I'd isolated from my own backyard. I'm also experimenting with Brett beers using both commercial Brett strains and wild strains with a funkier edge. I plan to use these to implement an ongoing mixed fermentation blending project."

Lasocki's best-of-show beer was, he says, "an amber variant. It was brewed almost exclusively with German Vienna malt, along with a small addition of Belgian aromatic. I used the Belgian Abbey II strain (Wyeast 1762) at the lowest possible temperature. The beer was cold-conditioned for four weeks, then packaged and cellared. My tasting notes say that it was very malty and bock-like, with a slight spiciness in the finish. In addition to winning BOS at the Ocean State competition, it took second place in the Belgian Ales category at the Amber Waves of Grain competition organized by the Niagara Association of Homebrewers, advancing it to the National finals in New York City."

Amahl Turczyn is associate editor of Zymurgy.



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KUDOS—BEST OF SHOW

AHA/BJCP Sanctioned Competition Program

January 2018

2º Concurso de Cervejas Caseiras Bier Vila, 20 entries—*Eduardo Interlichia Matos, Santos, Brazil.*
KLOB KUP, 18 entries—*Steve Klok, Kalamazoo, MI.*
Concurso do 4º Festival das Confrarias de Cervejeiros Caseiros do Rio de Janeiro, 36 entries—*Fabiana Ruas, Rio de Janeiro, Brazil.*
Missouri Mashers #RISOFF2018 - Club Only, 26 entries—*Michael Wells, Kansas City, MO.*
Copa Fermentados del Sur de Chile 2018, 82 entries—*Víña Raab, Sidra Lo Orozco, Quilpué, Chile.*
Great Alaskan Beer and Barleywine Festival, 64 entries—*Frank Kassik, Kenai, AK.*
St. Cloud Craft Beer Tour Home Brew Competition, 23 entries—*Ryan Stack, Saint Cloud, MN.*
Four Leaf Brewings 2nd Annual Capture the Tap!, 34 entries—*George Turner, Warren, MI.*
1º Concurso de Cervejas Caseiras SC Homebrew Festival, 83 entries—*Alison Gomes, Rio do Sul, Brazil.*
Hop Yard 62 HOP Off Homebrew Contest for Russian Imperial Stout, 5 entries—*Scott Cook, Grove City, OH.*
Winterbrew 2018, 254 entries—*Adam Young, Crown Point, IN.*
Archibald's Brew Off, 40 entries—*Joseph Liston, Rocklin, CA.*
Barrilito de Oro, 42 entries—*Arjan Piels, Panama City.*
El Dorado County Fair Homebrew and Commercial Competitions, 149 entries—*Gordon Mauger, Walnut Creek, CA.*
Great Kiwi Beer Fest Home Brew Competition, 49 entries—*Dan Versteeg, Christchurch, New Zealand.*
2018 Doug King Memorial Competition, 67 entries—*Rob Bradfield, Claremont, CA.*
Taste of Buffalo 35th Anniversary Homebrew Competition, 56 entries—*Adam Akers, Buffalo, NY.*
Groundhogs Day Homebrew Competition, 93 entries—*Matty Ellis, Providence RI.*
Boss Hop - IPA Championship of New England, 142 entries—*Pete Kenyon, Haverhill, MA.*

February 2018

II Concurso Homebrew Birras Baixas, 47 entries—*Javier Perez Cedres, Las Palmas, Spain.*
All American Homebrew Competition, 350 entries—*Richard Romanko, Pittsburgh, PA.*

Mystery Hop Challenge, 5 entries—*Tom Hadjin, Savannah, GA.*
Domras Cup Mead Competition XX, 150 entries—*Jerzy Kasperski.*
4th Annual HRB Home Brew Competition, 24 entries—*Nick Brinson, Hampton, NB.*
LIBME February Club Pro-Am, 40 entries—*Jim Manganiello.*
Homebrew Alley XII, 593 entries—*Josh Youngman, Poughkeepsie, NY.*
Great Northern Brew Ha Ha, 261 entries—*Mike Beuning, Rice, MN.*
13th Annual Peterson AFB Homebrew Competition, 328 entries—*Bernard Jene, Colorado Springs, CO.*
Wyoming Brewers Festival 6th Annual Homebrew Competition, 58 entries—*James Estes, Evansville, WY.*
PDX Stout Bout, 105 entries—*Charles MacAluso, St. Helens, OR.*
Romancing the Beer, 261 entries—*William Barrett, San Diego, CA.*
KLCC Brewfest Homebrew Competition, 265 entries—*Doug Ballou, Portland, Oregon.*
Northern Arizona Homebrew Competition, 47 entries—*Mark Pennick, CO.*
America's Finest City Homebrew Competition, 548 entries—*Nick & Kandy Corona, San Marcos, CA.*
Hopped Up Home Brew, 16 entries—*Todd Brower, MI.*
HOZER Single Strain Showdown, 19 entries—*Megan Roworth, Hamilton, ON.*
KCBM 35th Annual Competition, 529 entries—*Rob Wilmot, Kansas City, MO.*
War of the Worts, 697 entries—*Matt King, Souderton, PA.*
2018 Monsters of Malt, 57 entries—*Eric Hoellrich, Rockbridge, OH.*
Newcastle Regional Show Brewers Championship, 50 entries—*Daniel Ivey, NSW, Australia.*
2018 GEBL IPA Bracket Challenge, 101 entries—*Dave Frombach, Poulsbo, WA.*
Beerfest, 2018, 186 entries—*Hayden Henderson, Melbourne, Australia.*
Bluff City Brewers and Connoisseurs Extravaganza, 293 entries—*Chris Norris, Lebanon, TN.*
Winter Beer Dabbler Homebrew Contest, 70 entries—*Jessica Haverly, St. Paul, MN.*

BRRR Fest Home Brew Competition, 17 entries—*Sam Snyder & Dan Voors, Fort Wayne, IN.*
Winterfest, 110 entries—*Francisco Talley, Las Vegas, NV.*
SheBrew Homebrew Competition, 121 entries—*Jenn McPoland, Portland, OR.*
Mashed in the Middle, 70 entries—*David Schumacher, Kansas City, MO.*
II Concurso Interno Acerva Baiana, 16 entries—*Osvaldo, Bahia.*
The Orange County IPA Classic, 27 entries—*Jaime Hayes, Costa Mesa, CA.*
QUAFF COC - English v. American IPA, 8 entries—*Oleg Shpyrko and Matt Barrett, San Diego, CA.*
Great Basin Brewoff, 139 entries—*Todd Leary, Sparks, NV.*
Isra - Brew, 106 entries—*Aleksey Radionov, Beer Sheva, Israel.*

March 2018

Shamrock Open XXIII, 300 entries—*Jesse Newcomer, Chesterfield, VA.*
Winter's Warmers, 58 entries—*Francis Hiller Sr, Eastampton, NJ.*
Bockfest, 66 entries—*Dunkels Bock, Bob Isburgh, Cincinnati, OH.*
BABBLE Brew off, 113 entries—*Jon Weaver, Chicago, IL.*
Hop Idol, 116 entries—*Alex Kuyper, Seattle, WA.*
Champion of the Pint, 269 entries—*Davo McWilliams, St. Louis, MO.*
Peach State Brewoff, 433 entries—*Matthew Cooper, Atlanta, GA.*
Coal Country Home Brew Competition, 52 entries—*Twila Mtez.*
Good Robot FemmeBrew Competition, 25 entries—*Drella Green-Simony, Halifax, NS.*
National Brewing Championships, 300 entries—*Daniel Jordan, Dublin, Ireland.*
WBC Auckland, 15 entries—*Darren Wood, Auckland, New Zealand.*
Fur Rondy Homebrew Competition, 52 entries—*Christophe Venot, Anchorage, AK.*
Wancup 2 Homebrew Competition, 158 entries—*Paul Brewing, Tokyo, Japan.*
California State Fair Homebrew Competition, 754 entries—*Brett Higham.*
Rocket Rod Kailua Kona Competiton, 116 entries—*Paul Escamilla, Anchorage, AK.*



KUDOS—BEST OF SHOW

AHA/BJCP Sanctioned Competition Program

Lupuleros Spring Challenge, 22 entries—Ivan Grano, Zapopan, Mexico.

11th Annual Virginia Beer Blitz, 365 entries—Paul Clifford, Smithfield, VA.

Lancaster Iron Brewer, 194 entries—Rob Knighton, Columbia, PA.

28th Annual Hudson Valley Homebrewers Competition, 355 entries—Josh Youngman, Poughkeepsie, NY.

March Mashness, 188 entries—Ryan Stack, St. Cloud, MN.

2nd Annual West Plains BrewFest Home Brew Competition, 17 entries—Gary Slate, Ava, MO.

San Diego Homebrew Festival, 35 entries—Jose Alcantar, San Diego, CA.

Drunk Monk Challenge, 667 entries—Joe Kotvan, Warrenville, IL.

Snake Saturday Irish Only Competition, 19 entries—David Burrows, Leavenworth, KS.

Homebrewers of Western Loudoun Wort Share Competition 2018, 31 entries—Michael Dinsmore, Sterling, VA.

Hogtown Winter 2018 Intraclub Competition, 10 entries—Gary-Holly-Gina-Tim, Gainesville, FL.

IPA Competition, 23 entries—Ron Deval (Rohit), Western Australia.

The Beer Shop 3rd Annual Home Brew Competition, 48 entries—Glenn Little, Longmeadow, MA.

4th Annual Stout Smackdown, 40 entries—Nah Seung Yob, Daegu, South Korea.

ISB - Amylazy Days, 95 entries—Will Morgan, Sydney, Australia.

Mazer Cup - Home, 700 entries—Michael Wilcox. Wort Hogs Summer Beer Fest, 53 entries—Mike Heydenrych, Gauteng, South Africa.

Márciusi sörforradalom, 231 entries—Szegedi Mátyás, Budapest, Hungary.

Suwance Beer Festival Home Brewing Competition, 216 entries—Jay Brantley, Peachtree Corners, GA.

Manchester Mini Competition, 50 entries—Jason Jones, Cambridgeshire, UK.

HHCBC Club only competition, 30 entries—John Smith, Baldwin, NY.

Lethbridge WertHogs WertContest, 204 entries—Alex Cochran, Langley, BC.

10th Annual Garrison Home Brew-Off, 48 entries—Dave Martin & Kent Brooks, Halifax NS.

Batsisa 2018, 114 entries—Yonatan Bendett, Ramat Gan, Israel.

Brooks Brewing/CRAFT Club Competition, 10 entries—Dan Fick.

DC Homebrewers Club Cherry Blossom Competition, 268 entries—Lee Mahony, Odenton, MD.

IBU Open, 338 entries—Tiago Dantas, Denver, CO. Charlie Orr Memorial Chicago Cup Challenge, 435 entries—Jon Weaver, Chicago, IL.

SODZ British Beerfest, 113 entries—Michael Florez & Rose Florez, Cincinnati, OH.

Elevated Brewing Competition, 22 entries—Jason Kingery, Westerville, OH.

Denali Brewing Company's Equinox Mead Competition, 36 entries—John Trapp, Anchorage, AK.

8th Annual Ocean State Homebrew Competition, 452 entries—Krzysztof Lasocki, New Haven, CT.

Prague Homebrewing Competition, 104 entries—Karel Necada, Prague, Czech Republic.

2018 Brü Route Homebrew Challenge, 37 entries—Dan Copper, Glenolden, PA.

Institute of Brewing & Distilling Scottish Section Home Brew Competition, 51 entries—Phil Sisson & Patrick Smith, Edinburgh, Scotland.

HomeBrew Showdown @ 32nd BBO Finals, 87 entries—Cane Island Alers, Houston, TX.

Northern Michigan Homebrewers Guild Homebrew Competition, 26 entries—Ben Pelletier, Traverse City, MI.

2º Concurso Interno da Acerva Potiguar, 23 entries—Fabricio Zorzi, Natal, Brazil.

Steins Beer Garden's 4th Annual Homebrew Competition "The Fifth Ingredient", 28 entries—Jon Berkland, Morgan Hill, CA.

Mashed In Homebrewer's Showcase 2018, 46 entries—Ken Morris, Edmond, OK.

Wolfgang Cup 2018, 15 entries—Anthony Smith, Cape Town, South Africa.

IMBIB Battle for the Pro-Am, 35 entries—Kevin Cox, Reno, NV.

Da Panela para o Mundo, 62 entries—Ricardo Antonio Pereira, Itajai, Brazil.

All Hail Pale, 75 entries—James Pettifor, Ipswich, Suffolk.

Mad Zymurgists / Shadow Puppet Pro-Am, 12 entries—Ed Brosius, Dublin, CA.

MCM Homebrewer of the Year Q1, 7 entries—Mike Neville, Taylor, MI.

2nd Annual Port City Plunder Homebrew Competition, 243 entries—Metts Potter, Browns Summit, NC.

April 2018

Match Beer ACCE 2018, 24 entries—Valladolid-Palencia-Bierzo.

SBE 2017 Lager Competition, 23 entries—Todd Barrett.

Thai Homebrew Competition, 113 entries—Sirisak Visessenee.

Scorpion Homebrew Competition, 76 entries—Marcus Deboard, Hagerstown, MD.

TRASH XXVIII, 375 entries—Chris Staub, Pittsburgh, PA.

South Shore Brewoff, 204 entries—Justin Holmander, East Greenwich, RI.

Fools & Fans Beer Fest, 49 entries—Anthony Smith, Cape Town, South Africa.

Columbia Trails Homebrew Competition, 74 entries—Johnny Rasmussen.

2018 Olde Hickory Brewery Pro-Am, 253 entries—David Byer, Hot Springs, NC.

Copa Fermentos Caseros, 40 entries—Naza Meza, San Jose, Costa Rica.

World Cup of Beer, 448 entries—Scott Satterthwaite, Sunnyvale, CA.

Los Angeles Belgian Brew Challenge, 67 entries—Brian Trout & Catherine Paolilo, Los Angeles, CA.

Spring Fest, 200 entries—Stuart Siegel, Phoenix, AZ.

The Western NY Homebrew Competition - "Amber Waves of Grain," 578 entries—Craig Sherwood, Rochester, NY.

Wizard of Saaz #11, 332 entries—Mike Yingling & Brian Bostaph, Northfield, OH.

Spirit of Free Beer, 343 entries—Metts Potter, Browns Summit, NC.

Jasecomp, 70 entries—Glenn Jones, Christchurch, New Zealand.

LIBME April Pro-Am, 40 entries—Justin Hansen and Mark Williams.

Jeff Sanders Memorial, 75 entries—Joshua Avery, El Segundo, CA.

25th Annual ALES HomeBrew Open, 554 entries—Trevor Armstrong, Durham, ON.

HBC: No. I The English Sessions, 45 entries—Lee Immins.

Thirsty Boy Homebrew Competition, 75 entries—Mike Thicke, Carson City, NV.

KUDOS—BEST OF SHOW

AHA/BJCP Sanctioned Competition Program

Belgian Beerfest 2018, 60 entries—Aaron Jenkins, Victoria, Australia.

Erie County Fair Home Brew Competition, 160 entries—Kevin DiTondo, Cheektowaga, NY.

VIII Concurso ACervA Mineira de Cervejas Artesanais, 70 entries—Bruno Marques, Belo Horizonte, Brazil.

TBN Homebrew Competition, 100 entries—Rich Hrytzak, Waterloo, ON.

Barley's 23rd Annual Homebrew Competition, 44 entries—Michael Salsbury, Hilliard, OH.

NC Golden Boot Award, 16 entries—Bentley Vass, Black Acre Pro-Am, 24 entries—Michael Neville, Dearborn, MI.

Muntons and CHAOS Club Only Competition - Scottish Light, 16 entries—Brandon Kessler, Chicago, IL.

Spring Fling, 328 entries—Charles Macaluso, Portland, OR.

West Virginia Craft Brew Festival, 17 entries—Dobra Zupas, Beckley, WV.

III Concurso TREMBIER de Cervejas Artesanais, 90 entries—Jonas Geiss, São Paulo, Brazil.

Carbondale Brew Fest Home Brew Competition, 79 entries—Jeremy Griffith, Murphysboro, IL. Competencia del cerveceros de Panamá, 13 entries—Roderick Esquivel, Panama City, Panama.

Canberra Brewers Comp I 2018, 41 entries—Andrew Lewis.

3. Pcsí Sörmustra, 47 entries—Rafa, Fehér Nyúl + Sirból's, Budapest, Hungary.

May 2018

Lawrence Brewers Guild Big Brew Day Brew-Off, 95 entries—Robert Rys, Overland Park, KS.

Saisonfest, 40 entries—Jon Vanderglas, Enon, OH.

Horton Ridge Malt House Open, 24 entries—Justin Clarke, Halifax, NS.

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**AHA/BJCP SANCTIONED
COMPETITION PROGRAM CALENDAR**

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



July 7, 2018

BABB's Annual Club Competition

babbrewers.com/clubchampionship

Brisbane, Australia

Entry Deadline: 6/30/2018

July 7, 2018

Copa Cuyana de Cervezas 2018

San Luis, Argentina

Entry Deadline: 6/22/2018

July 10, 2018

Red River Valley Fair

redrivervalleyfair.com

West Fargo, ND

Entry Deadline: 6/15/2018

July 10, 2018

El Paso County Fair

epcfcomp.brewbrocco.com

Colorado Springs, CO

Entry Deadline: 6/30/2018

July 10, 2018

North Dakota State Fair

ndstatefair.com/exhibit

Minot, ND

Entry Deadline: 6/29/2018

July 12, 2018

III Copa Nacional de Cerveceros en Valpo

facebook.com/copanacionalcervecerosvalpo

Valparaiso, Chile

Entry Deadline: 7/7/2018

July 14, 2018

Indiana Brewers' Cup

indianabrewerscup.com

Indianapolis, IN

Entry Deadline: 6/15/2018

July 14, 2018

7th Annual Merrimack Valley Homebrew

Competition

mvhbc.com

Lowell, MA

Entry Deadline: 6/30/2018

July 14, 2018

Amador County Fair Commercial

Invitational

brewangels.com

Plymouth, CA

Entry Deadline: 7/5/2018

July 21, 2018

The Niagara College Brewing

Competition

ncbrewcomp.brewcompetition.com

Niagara-on-the-Lake, ON

Entry Deadline: 7/18/2018

July 21, 2018

Santa Clara County Fair Home Brew

Competition

thefair.org

San Jose, CA

Entry Deadline: 6/29/2018

July 21, 2018

4º Concurso Nacional Brau Akademie

brauakademie.com.br/concurso

São Paulo, Brazil

July 21, 2018

Arvada on Tap

arvadafestivals.com/arvada-on-tap

Arvada, CO

Entry Deadline: 7/14/2018

July 21, 2018

Delaware State Fair Homebrew Contest

delawarestatefair.com

Harrington, DE

Entry Deadline: 6/1/2018

July 21, 2018

For What It's Worth

forwhatitswort.brewcomp.com

Normal, IL

Entry Deadline: 7/10/2018

July 21, 2018

Deer River Bar-B-Que & Brew Fest

deerriver.org/2018-bbq-brew-fest

Deer River, MN

Entry Deadline: 7/20/2018

July 22, 2018

Elizabeth Celtic Festival Homebrew

Competition

parker-hopaholics.com

Elizabeth, CO

Entry Deadline: 7/7/2018

**AHA/BJCP SANCTIONED
COMPETITION PROGRAM CALENDAR**

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



July 25, 2018

Copa Cerveceria Mitad del Mundo

mitadelpmundo.beer

Quito, Pichincha; EC

Entry Deadline: 7/15/2018

August 3, 2018

2018 Michigan Beer Cup

michiganbeercup.com

Auburn Hills, MI

Entry Deadline: 7/13/2018

August 11, 2018

Austin ZEALOTS Homebrew Inquisition

inquisition.brewcomp.com

Austin, TX

Entry Deadline: 7/13/2018

July 28, 2018

2018 Honey Beer Competition

honeybeercompetition.com

St. Louis, MO

Entry Deadline: 7/17/2018

August 4, 2018

Jeffco Fair & Festival Homebrew Competition

celebratejeffco.com

Golden, CO

Entry Deadline: 7/26/2018

August 11, 2018

2018 Evergreen State Fair

evergreenfair.org

Monroe, WA

Entry Deadline: 8/2/2018

July 28, 2018

7º Concurso Cervejeiro Caseiro Bierland

concursobierland.com.br

Blumenau, Brazil

Entry Deadline: 3/9/2018

August 4, 2018

Best of the Bay

Bellingham, WA

Entry Deadline: 7/19/2018

August 11, 2018

Nebraska State Fair Beer & Wine Competition

statefair.org

Omaha, NE

Entry Deadline: 7/20/2018

July 28, 2018

Arapahoe County Fair Homebrew Competition

arapahoehomebrewcomp.com

Aurora, CO

Entry Deadline: 7/21/2018

August 4, 2018

Redstick Brewmasters Clash of the Carboys 2018

clashofthecarboys.com

Baton Rouge, LA

Entry Deadline: 7/20/2018

August 11, 2018

The Dominion Cup

dominioncup-jrhb.org

Richmond, VA

Entry Deadline: 7/28/2018

July 28, 2018

Goose Island Homebrew Competition

Chicago, IL

Entry Deadline: 7/14/2018

August 4, 2018

Operation Fermentation V

cialers.org/opferm

Houston, TX

Entry Deadline: 6/21/2018

August 17, 2018

Western Idaho Fair Homebrew Competition

idbeer.org

Boise, ID

Entry Deadline: 8/6/2018

July 28, 2018

Single Shot Showdown

laramiebrew.club

Laramie, WY

Entry Deadline: 7/23/2018

August 4, 2018

ESB Fake or Real? Homebrew Competition

prstemp.wixsite.com/esbcomp

Sydney, Australia

Entry Deadline: 7/21/2018

August 18, 2018

Manitowoc County Fair Blue Ribbon Brew Competition

manitowoccounty.com/fair

Manitowoc, WI

Entry Deadline: 8/4/2018

July 28, 2018

2018 German Fest Stein Challenge

steinchallenge.com

Milwaukee, WI

Entry Deadline: 7/13/2018

August 10, 2018

Kentucky State Fair Homebrew Competition

kystatefair.org/howToEnter.html

Louisville, KY

Entry Deadline: 8/8/2018

August 18, 2018

2nd MO M.A.S.H. In

momashin.brewcompetition.com

St. James, MO

August 3, 2018

Slurp & Burp Select

strangebrew.org

Portland, OR

Entry Deadline: 7/21/2018

August 11, 2018

Chili Pepper Extravaganza 2018

reggiebeer.com/PepperExtravaganza.htm

Brighton, CO

Entry Deadline: 8/4/2018

August 18, 2018

Master Cup Home Brew Tournament of China #4

Huhehaote, China

Entry Deadline: 8/12/2018



For an up-to-date calendar
of AHA and BJCP events
go to the Events section of
HomebrewersAssociation.org



August 19, 2018

Washington State Fair

thefair.com

Puyallup, WA

Entry Deadline: 8/9/2018

August 19, 2018

Hard Redz Summer Brew-Off

sandcreeksummerdaze.com/hard-redz.html

Newton, KS

Entry Deadline: 7/19/2018

August 19, 2018

Beer & Sweat

beerandsweat.brewcomp.com

Greater Cincinnati, KY

Entry Deadline: 8/9/2018

August 25, 2018

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San Mateo, CA

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August 25, 2018

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Gawler, Australia

Entry Deadline: 8/17/2018

August 25, 2018

Beehive Brewoff

beernut.com/beercomp

Salt Lake City, UT

Entry Deadline: 8/19/2018

August 26, 2018

DBG and PUB Guild Combined Pepper Beer Competition

dunedinbrewersguild.com

Dunedin, FL

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By Zip Lehnus

Pro Brewers Reflect on Their Homebrewing Roots

Jeff Young, Blue Owl Brewing, Austin, Texas

Editor's Note: Many pro brewers continue to homebrew even after years or decades of brewing commercially. Homebrew Homecoming is a series in which we invite the professionals to reflect upon their early days as homebrewers, offering wisdom and recipes to Zymurgy readers along the way. We hope their stories inspire you to brew eagerly and brew often.

When Jeff Young opened Blue Owl Brewing in Austin, Texas, in 2015, he knew he was stepping into the unknown. Jeff was an experienced brewer who was familiar with making sour beer, and everything went well at first. However, over the course of a brewing season, the sour brew began to fail, taking longer for acidity and flavor profiles to emerge. Eventually the souring process seemed to fizzle out altogether.

Jeff contacted Matt Bochman, a molecular and cellular biochemistry assistant professor at University of Indiana who studies yeast for a living (see “The Wild, Wild World of Wild Yeast” in the May/June 2016 issue of Zymurgy). Matt is also a homebrewer and runs Wild Pitch Yeast, a company devoted to unusual brewing yeasts. Together, Jeff and Matt designed an experiment to identify the microbes in Blue Owl’s beers and see if they could determine why the souring process was becoming ineffective.

What Jeff and Matt discovered was surprising and changed how Blue Owl approaches its sour beers.

Art and Science Collide

“Out of college, I had a wide interest in careers but didn’t know what to focus on,” Jeff says. “I got a degree in mathematics, studied a couple years of electrical engineering, and eventually finished with a minor in chemistry. I started working as an industrial chemist and then fell into a gig as a pharmaceutical analytical chemist.”



Left to right: Meike Rossman, Head Brewer; Jeff Young, Executive Brewer

All these hard sciences really satisfied Jeff’s desire for knowledge, but they failed to nourish the side of him that loved to travel, create art, and appreciate the finer things in life. “Beer and brewing satisfied both sides of my brain,” he says.

“I dabbled in homebrewing right out of college,” Jeff continues. “Immediately I realized the linchpin of all my interests was brewing: engineering a beer, understanding the chemicals involved in flavor, and having other people appreciate the end result. I was hooked on the challenge of creating

good beer and started dreaming about how I could turn this passion into a career.”

When Jeff homebrewed, he never brewed according to a recipe but rather designed an experiment to test a variable. “Many beers weren’t good, but I kept learning by research, trial, and error,” he notes. “Additionally, I was able to visit brewing scenes in other countries to learn about different styles, histories, and techniques. There was no doubt in my mind that I had stumbled upon a way to get paid for doing what I love.”



MEET THE MIU MODULAR INOCULATION UNIT

While working as a lab coat chemist by day, Jeff studied and practiced over his stovetop kettle at night. He earned a brewing diploma from the American Brewers Guild, completed an apprenticeship at Founders Brewing, and then packed his bags and moved to Austin.

"I had no idea what I was going to do," Jeff admits, "but I knew I had to brew and Austin would be the place for it. Within a week of arriving there, I met a few people who wanted to open the world's first co-operatively owned and worker-self-managed brewpub. I was in."

In 2010, Jeff and his colleagues opened Black Star Co-op Pub and Brewery, where he enjoyed the freedom to create, fail, and succeed. After five years, he left Black Star to focus exclusively on pre-fermentation sour beer, a brewing path that offered a lot of room for research and development. "I started Blue Owl Brewing and designed the entire brewery around the concept of sour mashing every style of beer that goes through our brewhouse. I'm now settled in to my dream job of being able to create something at the intersection of science and art."

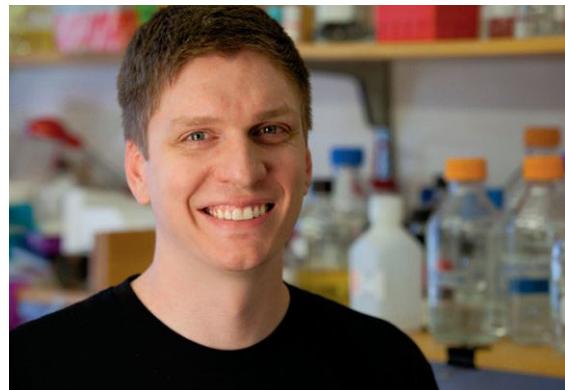
Hitting, Missing, and Crowdfunding

Microbreweries, slow food, and artisanal baking have been expanding since the 1970s. Along the way, they have revived



Left to right:

Sour-mash MIU (Modular Inoculation Unit) with Tre Miner, Cellarman; experiment setup in Doc Boc's (Matt's) laboratory; Matt Bochman, a molecular and cellular biochemistry assistant professor at University of Indiana.



traditional methods and created alternatives to mass-produced food products. Mass-produced beer, for example, demands product consistency: the raw ingredients and industrial processes must be predictable so that every can of light lager tastes exactly the same.

But craft breweries are, by definition, small. Being small means they can afford to experiment and (occasionally) make mistakes. Small breweries can take advantage of seasonal or rare ingredients and try new processes, and they can dedicate more attention to each batch and iterate as they learn.

In the case of Blue Owl, Jeff decided he would work with microbes already present on the malt.

"When we opened, all our sour mashes were going great. We were hitting our sourness levels as well as making clean, bright beer. After about six months, we noticed our sour mashes weren't getting as sour as we wanted. We tried changing our process, only to end up with hazy beers. We basically felt that we were brewing blind—we didn't know anything about the actual microbes on the grain we were using to sour the wort."

Jeff had read an article about work Matt Bochman had done with Upland Brewing, a brewery in Bloomington, Ind., that was also struggling with sour beer. Jeff began emailing Matt and peppering him with questions. It quickly became apparent that the only way to address Jeff's dilemma was to investigate the microbiome liv-



SOURING TIPS FROM JEFF YOUNG, BLUE OWL BREWING

Mill your base malt inoculant.

Many of the natural, native bacteria live between the testa (seed coat) and the outer epidermis. The microbiome on the malt's outer surface is less predictable and liable to be disturbed by factors like different malting facilities and handling processes.

Sour the wort instead of the mash.

The essence of pre-fermentation wort souring is to rely on the naturally occurring bacteria found on grain to inoculate your wort. Yes, you can do that by throwing a handful of fresh grain into the mash tun after saccharification, but why waste this nuanced technique in a tank not made for the process, or with spent (useless) grain still in contact with the wort? Instead, run off your wort, pasteurize, cool to inoculation temperature, and then add your small portion of fresh, natural, milled grain.

Temperature control is everything.

At Blue Owl, we don't sanitize any of our hot-side equipment. We do try to keep the sour tun in anaerobic conditions while souring by purging with CO₂, but we're not convinced it's that important. The most important thing for making a nice, clean sour wort is keeping the temperature in the right range. Try inoculating between 109° and 125° F (43° to 52° C), depending on what you're trying to get out of the sourness, and keep it from cooling more than a couple degrees.



Jeff Young

ing in Blue Owl's wort. DNA profiling is quicker and cheaper than ever before, but a comprehensive experiment like this is beyond the budget of most breweries.

By coincidence—or, according to Matt, through “kismet”—a new source of funding became available in the form of Experiment.com, a crowdsourcing vehicle for research funding. Experiment.com had contacted Matt to ask if he had a possible research topic, and soon, beer enthusiasts provided the funds necessary to begin work.

At the Blue Owl brewery in Austin, Jeff collected samples of the souring malt. He took samples at the beginning and the end of the souring process and took samples from worts prepared from various batches of malt.

He then travelled to Indiana to work with Matt as they investigated the populations of microbes living in each sample. Matt subjected the wort to deep sequencing, a method for identifying DNA from many species collected in a single sample. Matt also performed anecdotal, multi-sensory analysis on Blue Owl's final product, concluding, “They all taste good.”

A Surprise Guest

When the results came back, some of what they learned was expected, but there were some surprises. Jeff had gathered samples that featured four varieties of malted barley grown in diverse locations like Chile, Alberta, Germany, and the US. Not surprisingly, each sample contained a diverse microbiome.

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Top to bottom:
The Sour-mash MIU (Modular Inoculation Unit); Blue Owl Brewing taproom and brewery.

In all, Matt's lab identified DNA from more than 150 species of bacteria and more than 100 species of yeast across the samples. Some bacteria species were familiar, like *Proteobacteria*, a phylum that includes nitrogen-fixing species and nastier varieties like *Salmonella*. Many species were unknown and unnamed.

But the real insight came when they examined samples drawn at the end of the sour mash. After the souring process, all samples showed a decline in the variety of bacteria present. "We expected to see a variety of *Lactobacillus* bacteria on the different malt," Jeff said, "and perhaps variety among the different varietals of grains we were using. As it turns out, one species of souring bacteria dominated across all grains and it wasn't even a lacto strain!"

VAN DAYUM!

Sour American red ale

The souring range of 113–115° F (45–46° C) should focus the souring efforts on native bacteria that give a cleaner sourness with some esters and a bright finish. The higher finishing gravity is crucial to help balance the higher levels of sourness and bitterness, as drying out the beer too much will yield a harsher finish. This beer uses two ale strains to yield a slightly elevated final gravity with some estery English character. The balance between final gravity, IBUs, and titratable acidity can help balance your sour beer's "perceived sourness."

Batch Volume: 5 US gallons (18.9 L)

Original Gravity: 1.056 (13.7° P)

Final Gravity: 1.014 (3.6° P)

Bitterness: 32 IBU

Color: 13 SRM

Alcohol: 5.5% by volume

MALTS

7.8 lb. (3.54 kg) pale malt

13 oz. (369 g) Weyermann Abbey Malt

13 oz. (369 g) Weyermann Carared

4 oz. (113 g) Weyermann Special W

HOPS

0.6 oz. (17 g) CTZ, 14.1% a.a. @ 60 min (32 IBU)

1 oz. (28 g) Chinook, whirlpool

1 oz. (28 g) Chinook, dry hop

1 oz. (28 g) Simcoe, dry hop

YEAST

7 g Fermentis Safale S-04

5 g Fermentis Safale K-97

ADDITIONAL ITEMS

8 oz. (227 g) Pilsner malt to inoculate wort

Optional kettle finings (e.g. Whirlfloc or Irish moss) and yeast nutrient

BREWING NOTES

Mash malts at 154° F (68° C) for an hour and sparge with 170° F (77° C) water to reach pre-boil volume. Heat wort to 165° F (74° C), hold for 15 minutes, and then cool to 115° F (46° C). Mill 8 oz. (227 g) of fresh Pilsner malt into a muslin bag and drop it into the wort. Close souring vessel and purge the headspace with CO₂. Try to maintain 113–115° F (45–46° C) for 18–24 hours to obtain a pH around 3.5–3.6 and a titratable acidity of 0.65–0.70 g/L as lactic acid.

When souring is complete, boil wort for an hour, adding hops and any kettle brewing aids such as yeast nutrient (recommended) and finings. Cool wort to 65° F (18° C), pitch yeast, and allow fermentation temperature to rise to about 75° F (24° C) over 4–5 days.

Cold crash to approximately 34° F (1° C) for 7 days, keg, and carbonate to 2.75 vol. (5.5 g/L) of CO₂.

The conventional microbes for souring beer are lactic acid bacteria of genus *Lactobacillus*. Lacto is familiar and predictable. But the wild bacteria that dominated the Blue Owl samples were of a different food-friendly microbe: *Weissella cibaria*, the bacterium found in kimchi. This discovery offered Jeff a way to bring some predictability back to his souring process.

"Once we discovered *Weisella cibaria* was dominating, we were able to explore the specific attributes like metabolism and optimum pH and temperature range of that species," Jeff explains.

Now, Blue Owl brewers could tailor the souring process to suit *W. cibaria*, giving them more control over the process.

"If we needed a strong, fast souring for one of our beer styles, we could optimize the brewing conditions for the bacteria," says Jeff. "However, if we needed a brighter, cleaner sour, we might adjust some things to lessen the contribution of the *Weissella cibaria*, while getting into the correct range of other dominant bacteria. What other bacteria? We're not sure yet. We believe that there are actually many different strains that become dominant as the temperature of the souring goes from 98° F (37° C) to as high as 125° F (52° C)."

Still, Blue Owl is starting with the native biome present on the malt. Although *W. cibaria* dominates the process, minor players are contributing to the flavor profiles. "I think one reason that Blue Owl's method makes more interesting beer than 'normal' kettle souring is that they have a mix of microbes souring rather than a single or even handful of strains," notes Matt.

With more than potential 250 species of microbes in the mix, there's still a lot of room for artisanal variety, but knowing the major microscopic players gives Jeff a handle on the process.

"We're now much more *mature* about how we sour mash our beers," he says.

Zip Lehnus is a science writer, an artist, and founder of Big Stick Charcoal, which specializes in premium charcoal for artists. Learn more at ziplehnus.net.

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LITTLE BOSS

Sour session wheat ale

The souring range of 109–111° F (43–44° C) should focus the souring efforts on *Weissella cibaria* and get a nice lemony-sourdough character with a decent haze. Feel free to experiment with the primary yeast to see how sourness develops the esters (or lack thereof). The balance between final gravity, IBUs, and titratable acidity can help balance your sour beer's "perceived sourness."

Batch Volume: 5 US gallons (18.9 L)

Original Gravity: 1.036 (9.0° P)

Final Gravity: 1.007 (1.8° P)

Bitterness: 8 IBU

Color: 3.4 SRM

Alcohol: 3.8% by volume

MALTS

- 3 lb.** (1.36 kg) Weyermann Barke Pilsner malt
- 2.5 lb.** (1.13 kg) flaked wheat
- 4.3 oz.** (122 g) Weyermann Carahell malt
- 2.2 oz.** (62 g) Weyermann Munich Malt Type II

HOPS

- 0.15 oz.** (4 g) CTZ, 14.1% a.a. @ 60 min (8 IBU)
- 0.75–1 oz.** (21–28 g) Crystal, whirlpool

YEAST

- 7.5 g** Fermentis Safale K-97

ADDITIONAL ITEMS

8 oz. (227 g) Pilsner malt to inoculate wort

Optional kettle finings (e.g. Whirlfloc or Irish moss) and yeast nutrient

BREWING NOTES

Mash malts at 148° F (64° C) for an hour and sparge with 170° F (77° C) water to reach pre-boil volume. Heat wort to 165° F (74° C), hold for 15 minutes, and then cool to 111° F (44° C). Mill 8 oz. (227 g) of fresh Pilsner malt into a muslin bag and drop it into the wort. Close the souring vessel and purge the headspace with CO₂. Try to maintain 109–111° F (43–44° C) for 18–24 hours to obtain a pH around 3.5–3.6 and a titratable acidity of 0.45–0.50 g/L as lactic acid.

When souring is complete, boil wort for an hour, adding hops and any kettle brewing aids such as yeast nutrient (recommended) and finings. Cool wort to 65° F (18° C), pitch yeast, and allow fermentation temperature to rise to about 75° F (24° C) over 3–4 days.

Cold crash to approximately 34° F (1° C) for 7 days, keg, and carbonate to 2.75 vol. (5.5 g/L) of CO₂.



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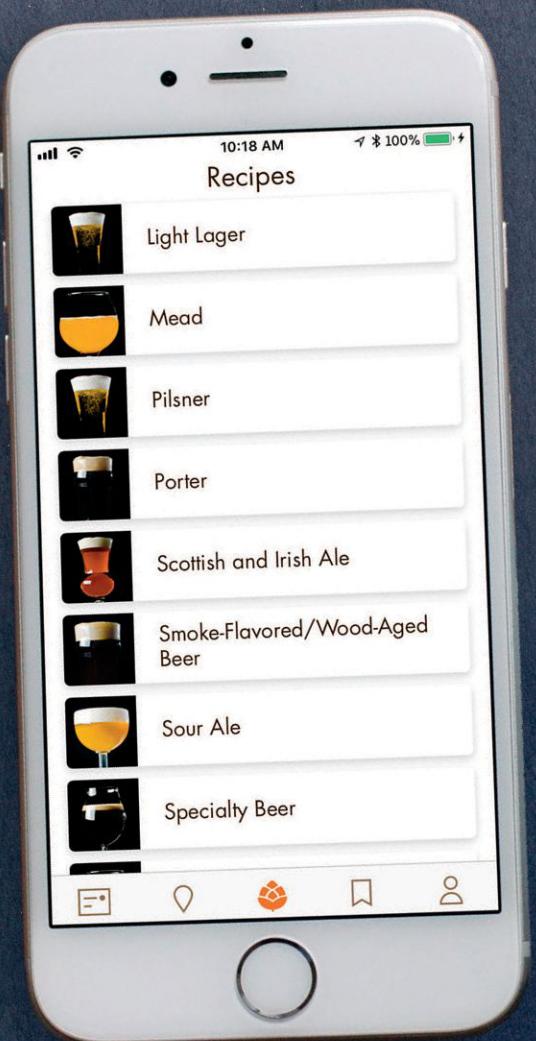
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Yes, I know, we did fruit beers just a couple of issues ago. It just sort of happened that two of the country's largest craft breweries released fruit-forward, summer seasonals around the same time. Who were we to say no?

Oskar Blues Brewery, which has production facilities in Longmont, Colo.; Austin, Texas; and Brevard, N.C., delivers our first quarry in the form of Fugli IPA. Oskar Blues admits the grist is pretty basic, with wheat and dextrin malts pro-

viding complexity, and emphasizes that this ale is all about the interplay between hops and obscure citrus fruits.

“Yuzu and ugli fruit infusions twisted together with the blueberry, tangerine notes of Mosaic make for a tangy, juicy, zesty array of aroma and flavor,” notes the brewery.

Inspired by an OB collaboration with Yo-Ho Brewing in Nagano, Japan, Fugli marries Jamaican ugli fruit, rangpur fruit from Bangladesh, and Japanese yuzu with the natural fruitiness of Mosaic hops. It carries just 5.8% ABV—surprisingly sessionable for an IPA from Oskar Blues—but boasts a respectable 60 IBUs.

Fugli is distributed nationally in six-packs of 12-ounce cans and on draft at your favorite beer bar. It's available through August.

Also available through August is Dragons & YumYums, a fruity American pale ale (APA) from Dogfish Head Craft Brewery in Delaware. Brewed with dragonfruit, yumberry, passionfruit, pear juice, and black carrot juice, this unusual APA is a collaboration brew with—wait for it—the Flaming Lips.

Dogfish Head, of course, has a bit of a record (Ha!) when it comes to musically

inspired beers. From Bitches Brew (Miles Davis) to Faithfull Ale (Pearl Jam) to American Beauty (Grateful Dead), Sam and his crew have musical tastes as eclectic as their taste in beer. This time they took a decidedly psychedelic route and concocted a mind-altering pink pale ale with a tart finish.

The Flaming Lips, in turn, built two new tracks to complement the beer. “The Story of Yum Yum and Dragon” and “Pouring Beer in Your Ear” were released on April 21, Record Store Day, on a 7" vinyl single.

Dragons & YumYums is 6.5% ABV, and with a modest 25 IBUs, it'll set your heart on fire, but not your lips.

Enjoy these fruity seasonals while you still can. After all, it's summertime!



The independent craft brewer seal is your assurance that the beer you're holding was crafted by an independent brewery.



Oskar Blues Brewery
oskarblues.com

Dogfish Head Craft Brewery
dogfish.com

BJCP Style Guidelines
bjcp.org

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

THE SCORES



Fugli IPA—Oskar Blues Brewery, Longmont, Colo.
BJCP Category: 29A Fruit Beer (base style 21A American IPA)



DAVE HOUSEMAN

THE JUDGES' SCORES FOR FUGLI IPA



SANDY COCKERHAM



SCOTT BICKHAM



GORDON STRONG

Aroma: Fruity citrus aroma dominates. Cannot distinguish which fruity notes are from hops, added fruit, or fermentation. Added fruit isn't distinctive but supports the hop esters. Light, supporting base malt presence. Malt and hops are consistent with an IPA. No overt alcohol aroma. No DMS or diacetyl. (9/12)

Appearance: Golden color. Slight haze that is OK for a highly hopped ale. Dense, white, long-lasting head. (3/3)

Flavor: High hop bitterness dominates with some sweet malt backbone. Malt appears to be Pils or pale ale malt with no crystal/caramel sweetness. There is notable fruitiness from hops and added fruit that is consistent with an IPA. Nice dry finish with high lingering hop bitterness. Some low alcohol notes. No diacetyl or DMS. (16/20)

Mouthfeel: Medium body. Lingering bitterness and some low astringency in mouthfeel. Moderate carbonation. Moderate alcohol warming. Finishes with a softness to the mouthfeel. (5/5)

Overall Impression: This is a very nice IPA, but it doesn't present as a fruit beer. The added ugli fruit and yuzu support the hops but don't stand out as unique flavors and aromas. If I didn't know this beer had added fruit, I couldn't tell from a blind tasting, so I would judge this as an IPA but not as a fruit beer with an IPA base. This needs either a more distinctive fruit or a different base beer that allows these fruits to shine in order to be declared and judged as a fruit beer. Still, it is a very good IPA that I'd have any day. As with most IPAs, this would pair well with fried foods, spicy foods, or a juicy burger. (6/10)

Total Score: (39/50)

Aroma: The aroma leads with a moderate bright, citrusy, vaguely tropical fruit character that seems to have come from added fruit but may include some hop contributions. I also get some moderate spicy and resinous notes. Moderate malt is a mix of bread and biscuit with a tinge of caramel. Fermentation character is clean. (9/12)

Appearance: The beer is medium-gold and has low haziness. A moderate, very pale ivory head is composed of fine bubbles. Head retention is good. (3/3)

Flavor: Medium-high fruitiness up front is tropical and citrusy. Hop flavor is also a bit fruity, plus more of the spicy, resinous notes from the aroma. The malt is moderate: biscuit with a bit of caramel. Medium-high bitterness is fairly clean with an ever-so-slight grassy edge. As the beer saturates the palate, the fruit flavors fade and the hop presence takes over. (16/20)

Mouthfeel: Medium bodied with medium-high carbonation that leaves a slight carbonic bite. Moderate alcohol warmth. Very low husky, pithy astringency lingers but is not unpleasant. The beer finishes off dry. (4/5)

Overall Impression: This fruit IPA is pleasant and very enjoyable. The fruit flavors and aromas intertwine with the hop aroma and flavor, making the whole mix very citrusy, but not citrus fruits I am used to having. The base beer is well crafted, and the fruit provides a nice accent without overpowering. (8/10)

Total Score: (40/50)

Aroma: Initial aroma is laden with medium-high tropical fruit and tangerine esters, followed by a powdered sugar sweetness. Medium-low pine and resin notes lie underneath with a hint of green pepper. Notes of freshly zested lime peel are presumably from the yuzu. Malt character is not very noticeable except for providing some balancing sweetness. Hops and fruits complement each other and are in balance. (11/12)

Appearance: Golden color is appropriate for the style. Carbonation is appropriate, but the head falls quickly. Excellent clarity. (2/3)

Flavor: Malt provides light bready notes and a little sweetness. Hops are marked by medium pine and resin and may add to the tangerine and grapefruit citrus. There is also lime peel and a light acidity. Bitterness is moderately high and lingers pleasantly. The finish is quite dry with some alcohol evident. (16/20)

Mouthfeel: Moderate carbonation. The body is on the low end for IPA. There is an astringent aftertaste, but this is softened a little by low alcohol warmth. (4/5)

Overall Impression: This is a very nice creation that combines some exotic fruits with American hops, which balance and complement each other. The finish is crisp with a pleasant lingering bitterness and a little excessive astringency, which seems driven more by fruit pith than by hops. If peels were used along with the fruit juices, reducing pith could smooth out the finish. The head is a little weak but may have been degraded by zest oils. Overall, quite nicely done and I would gladly drink one again. (7/10)

Total Score: (40/50)

Aroma: Bright citrusy aroma with a hint of evergreen. Fruity and hoppy, moderately strong. Clean fermentation character. Neutral, clean malt. Bright hoppy nose accentuated by citrus fruit, kind of lemony and grapefruit-like. Smells hop-forward as an IPA should. (11/12)

Appearance: Pale gold color. Clear. Effervescent. Moderate-sized white head, good retention. (3/3)

Flavor: Clean grainy malt initially, followed by strong fruity and hoppy flavors and high bitterness. Relatively dry finish, yet the palate is full. The fruit flavors mimic the aroma, complex and lemony-citrusy, with hints of orange and grapefruit. A light sweetness takes the edge off the bitterness. Citrusy aftertaste with a light malty sweetness and a fresh hop flavor. (17/20)

Mouthfeel: Medium-full body, a bit thick. Light, pith-like astringency. High carbonation. Slightly creamy. Not really getting warmth—on the lighter side for an IPA, which is OK with me. (3/5)

Overall Impression: Solid IPA—clean, bitter, and hoppy with a complex citrusy character that mostly complements the base beer. There is a little pithy astringency that distracts, and the body is a bit heavy. Light sweetness balances, though it could be drier. But these are very minor tweaks that I'm suggesting. This is a very tasty beer, and the lower alcohol makes it quite drinkable. (8/10)

Total Score: (42/50)



THE JUDGES' SCORES FOR DRAGONS & YUMYUMS



Aroma: Orange, tangerine, and mango aromas stand out—which are from hops and which are from added fruit is a mystery. Light pale ale malt supports the fruity, hoppy aroma. No overt alcohol aroma. No DMS or diacetyl. Well-balanced aroma. Very inviting. (10/12)

Appearance: Pinkish red-amber color. Brilliant clarity. Dense, pinkish-white head with excellent retention. This is a beautiful beer. (3/3)

Flavor: Bready malt presence with fairly high hop bitterness and assertive citrus, fruity notes. Finishes dry with lingering bitterness in the aftertaste. Bitterness seems high for a pale ale, and this beer presents more as an IPA. This may be more due to the malts, fruits, and dryness than the IBU level. Low alcohol evident. No DMS or diacetyl. (17/20)

Mouthfeel: Medium- to medium-light-bodied beer. Well carbonated. Carbonation and fruitiness gives this a lighter, effervescent mouthfeel similar to pink Champagne. Lingering bitterness and some low astringency. Low alcohol warmth. (4/5)

Overall Impression: Even though this appears to be more IPA than pale ale, it is very enjoyable. Harmonious blend of fruits, hops and malt. To be closer to the pale ale style, a bit more malt sweetness would help balance the finish. As a declared fruit beer, it would help if the fruit used were a bit more distinctive from hop fruitiness, but this is a well executed recipe. This would be a great beer to have for a shared celebration like New Year's Eve. The fruitiness would pair well with dark chocolate-covered strawberries. (7/10)

Total Score: (41/50)

Aroma: A moderately intense floral tropical aroma is vaguely fruit like but really hits like hibiscus. Not overtly fruity, more like tropical blossoms. Very low piney and herbal hops. Low malt is neutral and a bit grainy and bready. Bright character in the nose seems fruit derived. There is slight whiff of sulfur. (8/12)

Appearance: Lovely rosy pink color in a fairly clear beer. Moderate, pink-toned head is composed of finely beaded bubbles. Head retention is moderate. (3/3)

Flavor: Moderate dry, fruity notes mesh with floral, hibiscus-like, vinous notes, akin to white wine. Bitterness is moderate with a medium-low pithy, grassy flavor. Somewhat acidic and sharp. The only hop flavor of note is faintly resinous, but there may be more hops intermingled with the fruit character. This beer starts out lightly sweet and fruity but then dries out completely. Medium-low malt flavor is bready and supports the other flavors. (16/20)

Mouthfeel: Medium bodied with medium-high carbonation. Dry finish. Acidity and sharpness tingle the tongue and gums. Low grassy astringency and slight alcohol warmth. (3/5)

Overall Impression: This is a pleasant, summery beer. As it warms up, the fruit comes forward a bit more. The base pale ale seems a bit austere, and the sharp fruit acidity gives a wine cooler character (sans sweetness). A little more crystal malt or other grist modifications could help round out this beer and make it a better summertime sipper. (7/10)

Total Score: (37/50)

Aroma: There is a mélange of fruit flavors, as expected from the name of the beer, with moderately strong tropical fruit and grapefruit. The passionfruit notes are quite intense and contribute earthy notes and some tartness. I pick up an oaky character that could also be derived from the late hop additions. Any malt character is buried underneath the massive amount of fruit. (9/12)

Appearance: Reddish-orange color with a medium white head that fades rather quickly. The light haze is acceptable for a fruit beer. (2/3)

Flavor: Low bready notes are quickly overtaken by a medium-high fruit character that includes grapefruit peel, passionfruit, and sweet-and-sour (which presumably includes yumberry). The woody character from the aroma is present in the flavor, but less so. The finish is dry and refreshing, but ends with an assertive sourness that is a little out of balance. (16/20)

Mouthfeel: Medium carbonation and a light body with very low residual sugars. Low astringency complements the sourness but leaves a metallic aftertaste. Low alcohol warmth. (4/5)

Overall Impression: This is a refreshing beer with a unique combination of ingredients. The fruit character is quite pronounced and overpowers the beer underneath, making it seem more like an alcoholic fruit beverage. The sourness is quite intense and could be brought into balance by adding flaked oats or lactose for body and sweetness. Nonetheless, it is pleasant and refreshing and challenges the drinker to try to identify the exotic fruits used in its creation. (8/10)

Total Score: (39/50)

Aroma: Moderate fresh, hoppy aroma, a little grassy. Moderate bright fruitiness, indistinct in character but with some acidity. Slightly pungent, musky fruit. Medium-low neutral malt, light grainy sweetness, and a hint of light caramel. Clean fermentation. Fruit blends with malt and doesn't jump out. (8/12)

Appearance: Tall, pinkish-white, frothy head has fair persistence. Effervescent. Crystal clear. Pale pinkish-orange body, a bit rusty. (3/3)

Flavor: Moderate malt and fruit initially with some light sweetness and moderate floral hop flavor. Medium bitterness and an off-dry finish. Tart acidity in the aftertaste with an indistinct fruit flavor. Clean fermentation. The malt has a very light caramel flavor but the fruit dominates. (15/20)

Mouthfeel: Medium to medium-full body. High carbonation. Light astringency. Light acidity, providing sharpness. No noticeable warmth. (4/5)

Overall Impression: Passionfruit can be very distinctive, but I didn't taste much of it. The bitterness fights with the fruit flavor and caramel a bit, but the acidity helps keep it refreshing. I wish the fruit had a more pure, recognizable flavor; this tastes a bit "cooked." The clashing finish is a little distracting, but the beer is clean and refreshing. (7/10)

Total Score: (37/50)

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By Charlie Papazian



Drinking Deliberately

I once enjoyed climbing mountains. My body willing, I'm in. Twenty-five years ago I was solo in Telluride, Colo. Back then, I encountered the daunting choice I had to make: seven excellent brews, house-brewed by Archie Byers at the San Juan Brewing Company's brewpub, and I was very, very thirsty.

Ann, Sandy, Melanie, Tom, and I had just spent the better part of the day attempting to climb Wilson Peak. Telluride, tucked away in a tiny valley in southwestern Colorado, is surrounded by dozens of 14,000-foot (4,200-meter) peaks. Wilson Peak's 14,023-foot (4,274-meter) summit loomed above us in the clear morning sunshine and should have been a three-hour walk and scramble. It wasn't.

By the time we reached timberline, the billowy clouds we had seen on the western horizon surrounded us. At 12,000 feet (3,658 meters), we paused on a stretch of snow covered with pink algae and discussed whether we should proceed. Thunder rolled on the other side of the valley. The storm patterns were 4 to 5 miles on either side of us. This valley seemed to be spared the rain and storm. We proceeded.

We reached the 13,000-foot (3,962-meter) ridge and paused again, lingering over lunch and discussing whether we should proceed. The weather cleared, and on we went, taking a deliberate breath with each step and handhold.

At 14,000 feet, we were within 50 yards (45 meters) of the top. Looking down, we easily noted that we were very, very high (elevation does that to you). On a small crop of exposed rock, all five of us regrouped. Ann was putting on warmer



clothes and taking pictures. Sandy was catching her breath. Tom was gazing longingly towards the summit. Melanie seemed to intently consider the hair-raising final 50 yards. And I was gazing down, down, down to the pinpoint buildings I knew were towns, far below. I was thinking, "Now. Right now, there are people down there enjoying a beer." We all had our priorities. Life is about priorities, and in threatening circumstances we are intensely reminded of them.

**I SAVORED EVERY
WONDERFUL NUANCE
OF WHAT SEEMED
TO BE THE BEST
BEER I HAD EVER
HAD IN MY LIFE.**

We were all brought back together in discussion as the wind picked up, the sun disappeared, and it began blowing snow in July. There was a clap of thunder somewhere in the distance.

Suddenly we all had the same priority. None of us wanted to be *there*. We were booking, scooting, tearing down the mountainside. We were out of there. Tom did so reluctantly, this being his fourth

unsuccessful attempt at conquering Wilson Peak. Rain, snow, and wind had defeated him on three previous attempts. He was cursing the mountain under his breath.

It seemed all of us wanted to get down. Melanie and Tom wanted to get down faster than the rest of us. They began descending a treacherous avalanche chute. So did the rest of us, but 50 yards down, as rock scree cascaded down the mountain with every

disturbing step, I heartily embraced Annie's wisdom: "This was the stupidest thing we've tried all day." Three of us opted to go back and descend the way we had come and help assure that we would live to have another beer and try another time. Life is full of choices. This one was easy for me.

We all made it down. At the bottom of the valley, we learned that Tom couldn't take defeat a fourth time. He incredulously

Here's a forthcoming beer I'm going to brew for the first time called Peaks and Priorities Juicy India Pale Ale. It'll be different because I'm going to use a couple of hop varieties grown in France's Alsace region. Using both French Mistral and French Barbe Rouge hops, I'm anticipating an IPA with strawberry, pear, and passionfruit character. Try your own variations on the suggested hop additions and see what you get.

PEAKS & PRIORITIES JUICY IPA (ALL-GRAIN)

Batch Size: 5.5 US gallons (20.8 L)

Original Gravity: 1.060 (14.7 B)

Extraction

Efficiency: 80%

Final Gravity: 1.015 (3.7 B)

Bitterness: 55 IBU, but perception may be greater

Color: Approximately 10 SRM (20 EBC)

Alcohol: 5.9% by volume

MALTS

10 lb. (4.54 kg) Maris Otter pale malt

8 oz. (227 g) crystal malt, 10° L

8 oz. (227 g) honey malt

8 oz. (227 g) aromatic malt

HOPS

0.5 oz. (14 g) French Alsace Barbe Rouge whole hops, 9.6% a.a. @ 60 min (4.8 HBU/134 MBU)

1 oz. (28 g) French Alsace Barbe Rouge whole hops @ 10 min

1 oz. (28 g) French Alsace Barbe Rouge whole hops @ 0 min

1 oz. (28 g) French Alsace Mistral hop pellets @ 0 min
1 oz. (28 g) French Alsace Mistral hop pellets,

1st dry hop addition

0.5 oz. (14 g) French Alsace Mistral hop pellets,
2nd dry hop addition

YEAST

Your favorite IPA yeast

ADDITIONAL ITEMS

1/4 tsp. (1 g) powdered Irish moss

3/4 cup (175 mL) corn sugar (priming bottles)

or 0.33 cups (80 mL) corn sugar (kegging)

BREWING NOTES

A step infusion mash is employed to mash the grains. Add 11.5 qt. (10.9 L) of 140° F (60° C) water to the crushed grain, stir, stabilize, and hold the temperature at 132° F (56° C) for 30 minutes. Add 5.75 qt. (5.4 L) of boiling water, and additional heat if needed, to raise temperature to 155° F (68° C) and hold for about 30 minutes. Then raise temperature to 167° F (75° C), lauter, and sparge with 3.5 gal. (13.2 L) of 170° F (77° C) water. Collect about 6 gal. (22.7 L) of runoff. Add 60-minute hops and bring to a full and vigorous boil.

The total boil time will be 60 minutes. When 10 minutes remain, add the 10-minute hops and Irish moss. When boiling is finished, add "end-of-boil" hops. After a total wort boil of 60 minutes, turn off the heat and place the pot (with cover on) in a running cold-water bath for 30 minutes. Continue to chill in the immersion or use other methods to chill your wort. Then strain and sparge the wort into a sanitized fermenter. Bring the total volume to 5.5 gal. (20.8 L) with additional cold water if necessary. Aerate the wort very well.

Pitch the yeast when the wort temperature is about 70° F (21° C). Ferment at about 70° F (21° C) for about one week or until fermentation shows signs of calm and stopping. Rack from primary to a secondary and add the first charge of dry hops. If you have the capability, "cellar" the beer at about 55° F (13° C) for about two weeks. Add the second charge of dry hops one week before bottling.

Prime with sugar and bottle or keg when complete.

**“DRINK
DELIBERATELY”
FLOATED TO THE
SURFACE OF MY
MIND LIKE THE
CREAMY HEAD ON
MY NOURISHING ALE.**



Wilson Peak, Colorado.

PEAKS & PRIORITIES JUICY IPA (EXTRACT)

Batch Size:	5.5 US gallons (20.8 L)
Original Gravity:	1.060 (14.7 B)
Final Gravity:	1.015 (3.7 B)
Bitterness:	55 IBU, but perception may be greater
Color:	Approximately 10 SRM (20 EBC)
Alcohol:	5.9% by volume

MALTS

- 8.75 lb.** (4 kg) light malt extract syrup
or 7.4 lb. (3.4 kg) light dried malt extract
8 oz. (227 g) crystal malt, 10° L

HOPS

- 0.75 oz.** (23 g) French Alsace Barbe Rouge whole hops,
9.6% a.a. @ 60 min (4.8 HBU/134 MBU)
1 oz. (28 g) French Alsace Barbe Rouge whole hops
@ 10 min
1 oz. (28 g) French Alsace Barbe Rouge whole hops
@ 0 min
1 oz. (28 g) French Alsace Mistral hop pellets @ 0 min
1 oz. (28 g) French Alsace Mistral hop pellets,
1st dry hop addition
0.5 oz. (14 g) French Alsace Mistral hop pellets,
2nd dry hop addition

YEAST

Your favorite IPA yeast

ADDITIONAL ITEMS

- 1/4 tsp.** (1 g) powdered Irish moss
3/4 cup (175 mL) corn sugar (priming bottles) or 0.33
cups (80 mL) corn sugar (kegging)

BREWING NOTES

Place crushed crystal malt in 2 gal. (7.6 L) of 155° F (68° C) water and let steep for 30 minutes. Then strain, rinse with 3 qt. (2.8 L) hot water, and discard the crushed grains, reserving the approximately 2.5 gal. (9.5 L) of liquid to which you will now add the malt extract and 60-minute hops. Bring to a boil.

The total boil time will be 60 minutes. When 10 minutes remain, add the 10-minute hops and Irish moss. When boiling is finished, add the “end-of-boil” hops. After a total wort boil of 60 minutes, turn off the heat and place the pot (with cover on) in a running cold-water bath for 15 to 30 minutes, or the time it takes to have a couple of homebrews.

Then strain out and sparge hops and direct the hot wort into a sanitized fermenter to which 2.5 gal. (9.5 L) of cold water has been added. If necessary, add additional cold water to achieve a 5.5-gallon (20.8 L) batch size. Aerate the wort very well.

Pitch the yeast when temperature of wort is about 70° F (21° C). Ferment at about 70° F (21° C) for about one week or until fermentation shows signs of calm and stopping. Rack from primary to a secondary and add the first charge of dry hops. If you have the capability, “cellar” the beer at about 55° F (13° C) for about two weeks. Add the second charge of dry hops one week before bottling.

Prime with sugar and bottle or keg when complete.

went back up and made it to the top where he found the rocks humming like a beehive and his hair standing on end from the electrical charge the mountain could have released at any moment. He crawled off that mountain on his belly thinking he was about to die. He was lucky.

We each had our own priorities on the mountain. Now we were down. Our priorities changed lightning fast. First things first. We headed straight for the San Juan Brewery. Seven excellent brews. What was my priority now? I think Ann chose

the golden ale, as did Tom and Melanie. Sandy may have had the red.

I was ready for my first beer of a long day. I was tired, dehydrated, and very thirsty. It was a tall glass of India pale ale, alongside a tall glass of water. I alternated between the two and savored every wonderful nuance of what seemed to be the best beer I had ever had in my life. The rest of me savored the water. But I—the conscious, living I—had my priorities. While most of the beer-drinking world may have preferred a light beer at this moment, I chose to drink deliberately.

Drink deliberately.

Only the day before I had come across a trendy advertisement for footwear. It encouraged, “Live Deliberately.” Never mind the product they were selling, I thought, “Yeah, live deliberately I like that.”

Perhaps it was the bubbles rising in my second India pale ale (alongside another glass of water). One with the hypnotic gaze, I found myself entranced. “Drink Deliberately” floated to the surface of my mind like the creamy head on my nourishing ale.

We all have our priorities. I’ve chosen to come down off the mountain, not having reached the top, to try again another time. I don’t regret most of the choices I’ve made in my life. My priorities continue to often embrace the moment. I often think about how lucky we are in America to have so many choices. I feel sorry for the poor light beer saturated souls that complain that there are too many choices.

I wouldn’t quite say that it bothers me that many beer drinkers don’t exercise their opportunity to choose. Beer? Beer is one of those wonderful things in life. Does it dismay me that I’ve observed so many mindless choices across so many bars and dining tables? No, but I do wonder: why bother mindlessly choosing what beer to drink when there are so many wonderful adventures to try?

Priorities. I suppose at any given moment it’s all about priorities. So many wonderful beers. If people would only take a moment, just a moment, to think about their priorities.

For now, I choose to live deliberately, and when it comes to beer, I’ll take that moment to drink deliberately. It sure is worth it.

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

Charlie Papazian is founder of the American Homebrewers Association and the author of *The Complete Joy of Homebrewing*.

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Amoretti	16	Quantiperm	57	TurnKey Brewery Consulting	85
www.amoretti.com		www.quantiperm.com		www.Tkbrconsulting.com	
ANVIL Brewing Equipment	24	Sam Adams	8	U.S. Beer Crates	77
www.blichmannengineering.com		www.samadams.com		www.usbeercrates.com	
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www.atlanticbrewsupply.com		www.sierranevada.com		www.whitelabs.com	
Beer Bound Tours	14	Specific Mechanical Systems	12	Wisconsin Aluminum Foundry	77
www.beerboundtours.com		www.specificmechanical.com		www.wwafo.com	
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www.bellsbeer.com		www.ssbrewtech.com		www.wyeastlab.com	
Blichmann Engineering, LLC	89,91	Taste Vacations	82	YCH HOPS	82
www.blichmannengineering.com		www.tastevacations.com		www.ychhops.com	
Brew Perfect	18	Tel-Tru Manufacturing Company	64		
www.brewperfect.com		www.teltrubrew.com			
Brewers Association	47,98				
www.BrewersAssociation.com					
Brewers Publications	66,67,93				
www.BrewersPublications.com					
Brewers Supply Group (BSG)	74				
www.brewerssupplygroup.com					
BrewJacket	78				
www.brewjacket.com					
Briess Malt & Ingredients Company	33				
www.brewingwithbriess.com					
Cicerone Certification Program	92				
www.cicerone.org					
FastBrewing	46				
www.fastbrewing.com					
FERMENTIS By Lesaffre Yeast Corporation	19,21				
www.brewwithfermentis.com					
Five Star Chemicals & Supply, Inc.	39				
www.fivestarchemicals.com					
Gotta Brew, LLC	14				
www.gotta-brew.com					
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www.greatwesternmalting.com					
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www.growlerwerks.com					
Harper Collins	103				
www.harpercollins.com					
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www.hbrewo.com					
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www.hopsdirect.com					
Hopsteiner	102				
www.hopsteiner.com					
Industrial Test Systems, Inc.	18				
www.sensafe.com					
Jameson	7				
www.xxxxxxx.com					
Krome Dispense Pvt. Ltd.	11				
www.kromedispense.com					
Lallemand Inc.	67				
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www.govreg.us					
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www.liquidintegrity.com					
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www.micromatic.com					
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"It'll either taste great, or it's going to taste like ass."

A common refrain for most homebrewers, certainly for me. But this time I feel out of my league. This brew will be a challenge. Instead of brewing in my garage near Philadelphia, I am crafting a batch 4,500 miles away in Budapest, Hungary. With two members of the Party or Die guerilla brewing team hosting me (one of them an employee from Horizont Brewing, a top Budapest craft beer company), admitting that my brewing advice might result in horrible beer—well, that doesn't instill confidence.

I met Tamás Szalai in 2016 while writing articles on Főzdefeszt, Budapest's biennial craft beer bacchanal. He was my beer chauffeur and helped me avoid the pratfalls of the city's beer scene. We stayed connected after Tamás joined Horizont thanks to Facebook and a mutual love of beer and sports. When normal work offered me a cup-of-tea visit to Budapest, I jumped. We quickly agreed to create an international homebrew.

Budapest is a city known for intricate Baroque architecture, sculptures, and monuments, but we need to keep the recipe simple. Tamás wants a Philly-themed beer. But what does Philly taste like? Soft pretzels, cream cheese, and cheesesteaks are not attractive beer flavors.

We land on a cherry saison inspired by cherry water ice, a popular Philadelphia treat. Soon, our other brewing partner, András, is fruitlessly scouring suppliers for cherrywood barrels or wood chips. When we find none, cherrywood-smoked malt emerges victorious.

Our Philly Special brew day is a Benetton of beer, with an American mutt, two Hungarians, and a Canadian of Asian heritage (with a Hungarian spouse) all crammed into a third-floor kitchen flat.



Even the beer is a testament to free trade: smuggled cherrywood malt, flaked corn, and white wheat from the US; German base malt; Czech hops; French yeast; and, fittingly, Budapest water (the city is known for its hot springs). Lunch? "Philly" cheesesteaks made with dry-aged Argentinian rib eye covered in Hungarian cheese.



Get Bryan's Philly Special recipe online at HomebrewersAssociation.org/ja18

Still, I'm stressed. András and Tamás are taking exact measurements at every step. I soon learn they want to scale up the recipe for the brewery if it turns out well. I'm supposed to be "teaching," but I am learning as much from my hosts. No surprise in a country that has given us vinyl records, the CD-ROM, ballpoint pens, vitamin C, and the Rubik's Cube.

I reckon I am here either as emissary or as minister of planted pantry, with a high

college degree and a yearning for bourgeois respectability. My vote: the latter. But what unites all of us is a love of beer. A crazy love. And crazies always find each other, like Dr. Gonzo said.

Even in a land freed from an Iron Curtain and known for fantastic wines, palinka, and Unicum, I'm able to find like-minded homebrewers willing to open their homes to a wayward suds nut for an afternoon of brewing, craft beers, and Madden Football.

I soon note, *I'll never know how this beer tastes*. But it doesn't matter. My Budapest mates have taught me the most valuable of all homebrew lessons:

"Nyugi. Ne aggódj. Igyál egy házi sört!"

Bryan Cohen is a full-time geek, part-time beer writer, and weekend homebrewer in Philadelphia, Pa. Share thoughts, article ideas, or invites to brew at bryancohen1@mac.com.



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