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ISSUE 55

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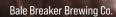
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IWAS LISTENING TO A PODCAST RECENTLY in which the host shared a startling statistic—one in seven men in the United States doesn't have a close friend. Naturally, I sought out the source of that statistic—the American Perspectives Survey from May 2021—and it outlined a number of dramatic shifts in the way we organize our social relationships.

Friendship has changed remarkably since the survey was conducted in 1990. In 30 years, the number of people who report having no close friends has climbed from 3 to 12 percent. The percentage of people reporting 10 or more close friends dropped from 33 to 13 per-



cent. Americans, across the gender spectrum, have fewer friends now than they did 30 years ago—yet those with more friends report significantly greater satisfaction with their friendships.

What does this have to do with beer? Beer, at its core, is a social beverage. It's most often consumed with friends, with family members, with coworkers after a shift, or as part of a larger social occasion. If friendship wanes, so does beer, but we often look at certain statistics that identify the symptoms—such as topline IRI

sales numbers or an uptick in brewery closures—rather than looking at the broad social trends that may be driving those statistics.

When I think about my own friend group, the activities I participate in and the communities that surround them have created space for significant and deep friendship networks. We may be spread across the country and around the world now, but I still get together with mountain-biking buddies I met in New York City 17 years ago. Ansis Puriņš, who has drawn our Whalez, Bro comics since our first issue, has been a friend since the mid-'90s, when we were both wrapped up in the ska music world. Today, my closest local friends—the guys on group text whom I get together with just about weekly—are all friends I made through beer itself.

The world of beer trading and sharing takes shade from the snarkier elements of the beer-savvy social-media sphere, but lost in that critique are some of the positives that come from joining together over a shared interest. I've made great friends with whom I might not have crossed paths otherwise, had we not connected through regional groups dedicated to beer. Now, as life goes on, we may drink more pilsner than pastry stout, but beer was the impetus for the connection. It provides a background reason to continue to get together to share, explore, and connect. It is, in a way, our own recontextualized take on the Stammtisch—digital most days, in-person some days, but connective, with beer at its core.

Taprooms and bars also have a valuable role to play in this sphere of social connection. They're not just spaces in which to meet existing friends, but they can also be places to create friendships and connect with those who share similar interests. The act of drinking together is fundamentally social, and we shouldn't lose sight of just how important that is—not just for the industry, but for humanity.

Whether you socialize while drinking beer, while making beer, or by sharing snarky beer memes on the internet, I hope you enjoy this and every issue—after all, we make them for you.

ow

Jamie Bogner

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- JEREMY DECONCINI, FOUNDER, MOTOSONORA BREWING COMPANY, TUCSON, ARIZONA



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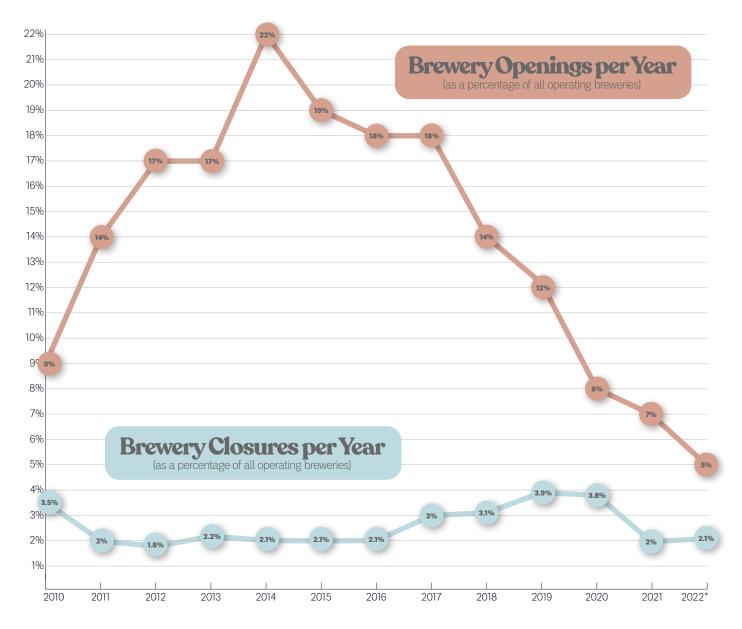


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| THE MASH |

An Open and Shut Case

A new year-end report from the Brewers Association sheds light on the state of U.S. brewery openings and closings in 2022. The data suggest that while closings have stayed fairly steady as a percentage of overall operating breweries, the rate of new openings has been declining at a relatively consistent pace.



Editors' Picks

Quiz Card Game

For the real beer lovers

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Beer Trivia, Books, and Inline Filtration

Beerscovery Quiz Card Game \$19.99, peertobeer.net/shop

Education can be fun when there's a bit of friendly competition involved, but beer trivia games are time-intensive to create yourself. This deck of 100 cards with questions and answers from Charles Nouwen, an experienced brewmaster and brewing consultant, ranges across the wide world of beer, from brewing arcana to glassware and some of the more whimsical aspects of beer culture. If your goal is to get teams working together and solving problems, this game should make for a great icebreaker activity without the need to spend hours digging up good (and accurate) questions and answers of your own.

If you need some structure to an evening at the brewery with friends, or you're looking for another beer-centric way to entertain guests in the taproom, sets of these cards offer a fun way for guests to challenge each other. Some questions are dead simple, others require more brewing knowledge, but the combination of technical knowhow, pop culture, and historical knowledge makes the deck broad enough for different types of beer fans.

Bouncer ProD Inline Filter \$135.95. bouncer.beer

The sheer amount of stuff we put into beer these days necessitates an incredible amount of cleaning, and let's be honest some things are easier to clean that others. That's the thinking behind the new Bouncer ProD inline filter, a riff on their standard filter ostensibly marketed to distillers (as it can handle the high alcohol content of distilled spirits) but also perfect for brewers who need a filter that can handle hot-side liquid at up to 212°F (100°C). Want

to pre-filter wort to clear out hop matter before it hits your chiller? Or pack in some herbs for a quick infusion at knockout? The ProD has you covered.

Like the standard Bouncer Pro, it features three different screens of graduated fineness (950 microns, 304 microns, and 40 microns) so you can dial in optimal flow to filtration, or you can run multiples in-line for a staged approach. The increased temperature range precludes the clear housing of the regular Pro model, but it maintains the same basic structure and ease of breakdown and cleaning.

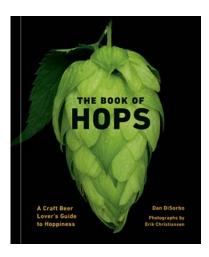
Whether you're a professional distiller filtering out barrel char when racking out barrels, a homebrewer tired of getting hops lodged in your plate chiller, or any brewer infusing a small but potent ingredient in knockout, the ProD fits a particular use case at a reasonable price point that makes it a useful tool.



Brown Beer, Brown Beer, What Do You See? By Joe Quinlin & Josh Graves, \$10,

thebigfriendly.com

Anyone with young kids is familiar with the ubiquitous children's book Brown Bear, Brown Bear, What Do You See?. so this humorous take from the folks behind Oklahoma City brewery the Big Friendly has broad appeal. Perfect as a gift for those beer-loving friends who are expecting, it hits all the notes, from the color-driven narrative to the hefty board-book format. However, the best feature is the double-take it ensures when the recipient realizes what you've just given.



The Book of Hops By Dan DiSorbo, \$27.50, Ten Speed Press

HOTOS: JAMIE BOGNER; COURTESY TEN SPEED PRESS

Need a gift for that hophead in your life, or are you just looking for a beautifully photographed coffee-table book that signifies your love of beer? This photo-driven volume from Dan DiSorbo is reasonably deep in its broad explanation of what hops are and how they work, and it offers some hop-by-hop history and detail perfect for that beer lover who just loves Citra hops but doesn't know why. The photos make the book—juicy hop eye candy abounds. -Jamie Bogner

The Rundown

The latest events, podcasts, and more from the Craft Beer & Brewing Magazine® team

Upcoming Craft Beer & Brewing Events and Appearances

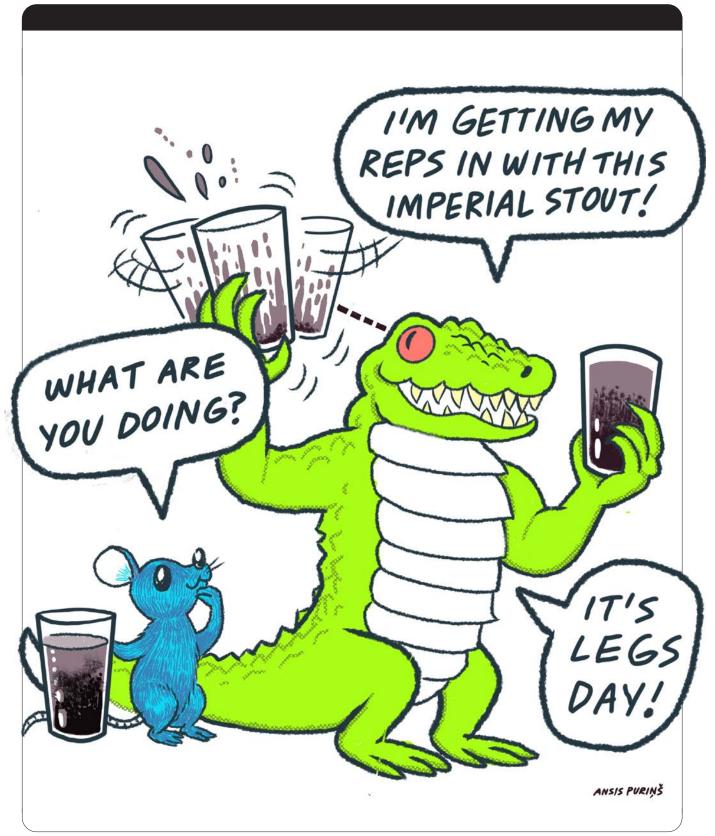
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Apr 1, 2023	The 6th annual Minnesota Craft Beer Festival returns to the Minneapolis Convention Center. Enjoy an inclusive, craft-centric experience with some of the best brewers from Minnesota and across the country. minnesotacraftbeerfestival.com
May 21–24, 2023	The 10th anniversary edition of the Craft Beer & Brewing Brewers Retreat will be held in Santa Rosa and Windsor, California, as some of the most creative and inspiring brewers from around the country gather to brew on small systems on the back patio of Russian River Brewing. With brewing luminaries from across the country, it's an experience not to be missed. The event is sold out, but you can join the waiting list to be notified as any tickets become available. brewersretreat.com
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Ep.269	GABF Gold! Deadwords and Wye Hill Talk Winning
Ep.270	with Light Lager and Hazy Pale Ale Sapwood Cellars Turns Research into Creative Practice with Hoppy and Wild Beers
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Ep.273	Top Critics and Writers Discuss Their Best in Beer of 2022
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Ep.280	Jon Shari of Little Cottage Makes Big Beers in a Small Way

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Seward Seward, Alaska

A local dive as only Alaska can do it. plus great beer

What it is: If you find yourself in the charming coastal Alaska town of Sewardperhaps to visit Kenai Fjords National Park—Seward Alehouse is the unassuming downtown beer bar in which to swap adventure stories. It has a full bar, but the draft list is succinct and locally focused. On the tap list, "Local Beer" comes from nearby Seward Brewing or Stoney Creek BrewHouse; "Alaska Beer" comes from in-state breweries such as Alaskan, Broken Tooth, and King Street; and "Other Beer" is only PBR and Guinness, with the occasional Old Rasputin or Stone IPA. The bottled beer selection has more international options: You might not expect to find bottles of Delirium Tremens in a farflung town of 2,600 people, but there it is. Why it's great: Seward Alehouse is just the right amount of quirky and rougharound-the-edges to fit its remote environs. (Draft beer is served in Mason jars-no fancy chalices here.) On my visit, a grizzled halibut-fishing captain chatted with me about the week's weather forecast while Whitney Houston's "I Wanna Dance with Somebody" pumped through the sound system. This is a local hangout where camo-clad patrons bring their own cues to use at the free-to-play pool tables. No food on the menu, but outside grub is welcome; the adjacent Lone Chicharron does real-deal street tacos, quesadillas, and homemade paletas. ---Kate Bernot

Hours: Noon-2 a.m., daily Address: 215 4th Ave., Seward, Alaska Web: facebook com/sewardalehouse alaska



lendale Tap Glendale, California

Loads of drafts with a homegrown retro feel in Los Angeles

What it is: Before the L.A. craft-beer scene really started booming, there was the Glendale Tap. The bustling taproom and bottle shop drips with vintage design elements-note the bar top made from reclaimed bowling lanes-but its 52 taps and accompanying bottle and can list go far beyond the old school, offering brews from around the corner as well as around the world. Just don't call it a mere bar. "It's like an extension of my backyard," says owner Glyn Samuel, where dogs, kids, beer nerds, and everyone else is welcome. Why it's great: When Samuel took over the space 10 years ago, he inherited a now-extinct liquor license that allowed him to sell beer to-go. That helped the Glendale Tap to weather the pandemic, but it also sets it apart from almost every other L.A. bar. Other distinctions include weekend happy hours from noon to 3 p.m., lots of limited beer releases and small batch collaborations, and a "Kids Special" offering of juice and Goldfish crackers to keep the young ones busy and content. There are plenty of goodies for the grown-ups, too. "If you're into beer, we're going to have something you want, haven't had, have been dying to try, or haven't heard of," Samuel promises. —Beth Demmon

Hours: 5 p.m.-11 p.m., Tuesday; 4 p.m.-midnight, Wednesday; 2 p.m.-midnight, Thursday; 1 p.m-1 a.m., Friday; noon-1 a.m., Saturday; noon-11 p.m., Sunday; Address: 4227 San Fernando Rd., Glendale, California Web: theglendaletap.com



Diorama Florence, Italy

Italian craft beer and European highlights in a cool, cozy pub

What it is: This very, very small pub not far from Florence's more touristy areas features a handful of Italian craft beers on draft, a cooler of ever-changing fresh cans from Italian brewers, plus some choice European beers from top producers such as Cantillon. The smart, focused selection pairs perfectly with the generous plates of *salumi*—for beer lovers, this is an ideal spot for *aperitivo*.

Why it's great: The beer love runs deep at Diorama, and what it lacks in size it makes up for in focus. It's a great spot to try stuff from some of the better independent Italian brewers, as the lineup on draft and in the small fridge changes often. If gueuze is your thing, the Cantillon bottles are priced reasonably. The snacks seem eerily inexpensive for the quality and quantity—we over-ordered, on the assumption that any menu item priced so low couldn't be so substantive. It's a great place to savor a beer and a snack—or to fall down the Italian craft rabbit hole, as you while away the night. —Jamie Bogner

Hours: 4 p.m.-1 a.m., Sunday-Thursday; 4p.m.-2 a.m., Friday & Saturday Address: Via Pisana 78/R, 50143, Florence Web: dioramafirenze.com



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Sierra Nevada Torpedo Extra IPA

It's a fresh look for Torpedo, the "Extra" West Coast IPA that barreled onto the scene in 2009 and charges full hops ahead today. The iconic recipe is unchanged, while the bold new design matches the beer's intensity. Taste explosive hops with Torpedo's notes of citrus, tropical fruit, and pine, all cranked to max flavor through the custom Hop Torpedo dry-hop device.

sierranevada.com/ beer/torpedo-extraipa/



Firestone Walker IPA Mixed Pack Featuring Psychedelic

Arcade 6.3% ABV

Introducing Psychedelic Arcade—a golden rye West Coast IPA that goes full tilt on flavor. First created at our Propagator R&D brewhouse in Venice, California, Psychedelic Arcade was levelled up for this special release. A base of two-row and rye malts sets the tone with expansive textures, while a blend of Galaxy, Strata, and Nectaron hops delivers mind-blowing flavors of tropical fruit, blueberry, and grapefruit. An IPA that you can bank on sip after sip. Other beers included in the mixed pack-Mind Haze (6.2% ABV), Hopnosis IPA (6.7% ABV), Union Jack (7% ABV).

firestonebeer.com/ beer/psychedelicarcade/





Firestone Walker Parabola 2023

13.5% ABV

A Firestone Walker legend returns with the 2023 vintage of Parabola, the brewery's signature barrel-aged imperial stout. Parabola is always a beast of a beer, with intense flavors of black cherry, dark chocolate, vanilla, and roast coffee-yet each annual release also bears its own subtle imprint. For this latest edition, Firestone Walker aged the beer for a year in an equal combination of eight-year-old Blanton's bourbon and 12-vearold Weller wheated-whiskey harrels. The wheated-whiskey barrels accentuated Parabola's signature richness with fine notes of cereal grain, while the bourbon barrels imparted their classic notes of toasted coconut and cocoa nibs. A tour de force barrel-aged beer

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DIRECT FIRE

Direct Fire: Decoction inct

In these excerpts from our special Direct Fire podcast episodes, Firestone Walker brewmaster Matt Brynildson and WeldWerks cofounder and head brewer **Neil Fisher** tackle your questions about lager-mashing regimes and which adjuncts can pump up the mouthfeel of stouts.

Mashing for Great Lager

Q: Hi, Matt. I have a question about mash schedules for lagers. When do you see it useful to do a single-infusion versus a step mash versus a decoction mash? -Mo in Denver

MB: I've had the great fortune to predominantly work in breweries with mash mixers, so I've always had step mashing available to me. So, just about every beer we make involves some type of a step mash. Even if we're doing the equivalent of a single infusion, we add a mash-off step. But when it comes to lagers, I'll just tell you straight out what our mash program is, and then we can work around that. So, we actually mash in [for] a protein rest at 122°F (50°C). One, you get to take advantage of proteolytic enzyme activity. There may be some other enzyme activity that's at work there, but it also allows you the ability to get all in below [saccharification] temperature, and then ramp up and control your complete conversion program-whatever that might be.

Most of the lager we brew these dayseven our Oaktoberfest-we want to be pretty dry. And often we're mashing for maximum fermentability or attenuation. So, we would then ramp up to 145°F (63°C) in our program, and we would adjust the timing there. For Pivo, [for example,] we're standing at about 45 minutes. And then I like to ramp up to some place north of 155°F (68°C), so that we can finish conversion. What we find with some of the European pilsner malts is that they like an even higher temperature—something closer to 162°F (72°C). And then a final rest, a relatively low mash-off rest. Some might argue it's not high enough, but we've traditionally gone to only about 169-171°F (76-77°C) for our mash-off temperature. To take a step back, we spend 45 minutes at 145°F (63°C). In this particular regimen, we might spend 20 or 30 minutes at the higher saccharification temperature-the alpha-amylase temperature—and then when we get to mash-off, we don't spend a lot of time at

that rest. We're then dropping to the lauter tun as quickly as we can after that.

So, we always do step mashes. We've integrated this protein [rest] in just about every one of the lagers we do. I think you could legitimately argue that there isn't a lot of need for a protein rest, especially with modern malts, and that quite possibly you're doing a little bit of damage to foam-positive proteins. However, it's always worked for us, and we've been able to make these really lean and elegant lager beers that way. So, to answer your question about single-infusion mashing, I would probably employ that only when I had to, if I had a mash-lauter combo or your tools wouldn't allow [a step mash]. And I think you can make a perfectly beautiful lager that way. I'm sure there are plenty of examples. But we would lean toward the step infusion.

I've never been a huge decoction fan. Funnily enough, I did a lot of it when I was homebrewing. Because I had to create step mashing, I would do decoction to do my steps. And then once I got into steam-driven mash mixers, I kind of forgot about it. But Sam [Tierney, at the Firestone Walker Propagator brewery] has been having some really big success [with decoction]-his system is set up for it. So, a lot of the beers that he's been brewing lately on the lager side have incorporated some decoction. And I had a really great trip to Prague in the Czech Republic recently, where I tasted a number of the top decocted beers that were beautiful. So, no doubt, great beers can be made that way. Is it necessary? I



don't know. I haven't tried decoction with Pivo—don't ask me why. Maybe we should try it. Eric Toft [at Schönramer in Bavaria] always says that every year he does a brew without decoction, but he always goes back to the modified single decoction. He claims he gets better attenuation when he does the decoction. He's not looking to add a lot of flavor that way, although I think he does get some malt complexity, no doubt. But he's doing it for attenuation reasons, which I think is really interesting and legitimate. Here in the United States, you might argue, there are enzymes that do that for you, if you really need that. So, a couple of different ways to skin a cat, depending on what you're looking for.

Adjuncts in Stouts

Q: I was wondering about making a stout. What grains or adjuncts do you like to use to thicken your beer? —*Josh from Afterglow, a brewery-in-planning in Norfolk, Virginia*

NF: I'd say mouthfeel is the most important single area to focus on when producing and designing recipes for stout. I think that's the biggest delineation between *really good* stouts and *just okay* stouts. And it's not exclusive to barrel-aged stouts—it's across the board. Whether you're brewing a 4 or 5 percent [ABV] oatmeal stout or sweet stout, all the way up to 12 to 15 percent barrel-aged stout, I think the ones that really start to stand out are ones that focus on mouthfeel. It's not just sugar, it's not just attenuation, it's not just how much residual gravity's left. It's a mouthfeel component.

For Medianoche, in particular, we still depend on oats a lot-flaked oats. They're just under probably 8 percent of the total grist. Our gravities are pushing sometimes as high as 38 to 40°P (1.169–1.179), [but] we're probably averaging closer to 35°P (1.154). And then, how we attenuate, we're actually using dry yeast [Fermentis SafAle US-05] for Medianoche, mainly because of how high a pitch rate we need to get. Our attenuations can range, and that has a big impact on mouthfeel as well. What we're really trying to avoid is [being] dependent too much on final gravities for your mouthfeel. That's where you'd lose a little bit of that design and intentionality with stout.

I think oats are great. But there are plenty of other malts that would add to it. We've done some wheat-focused batches of Medianoche, if we know we're getting wheated-bourbon casks-Weller, for example-or even some wheat-whiskey casks. We really try to accentuate the base barrel character and put a little bit more emphasis on the wheat. So in those recipes, we use flaked wheat. We've used wheat malt as well. And those two tend to have-just like wheated bourbons-a more distinct mouthfeel. It's not thicker or fuller, but it definitely seems a little bit more distinct from our base oatmeal style. So, you can play around with a lot of different options for malt for mouthfeel.

When we're designing smaller stouts with mouthfeel in mind, we're depending on the



LISTEN UP!

For many more questions and answers with these two brewers, check out **Podcast Episode 254** with Neil Fisher and **Podcast Episode 265** with Matt Brynildson.

GOT A Brewing Question?

Or is there a particular brewer you want to ask? This is your chance to ask the pros. Contact us at **podcast@beerand brewing.com** and let us know. grist even more, and targeting the right attenuation-we don't want it cloyingly sweet. [We're] trying to make sure we're fully attenuating those beers. We have a lot of tolerance with Medianoche because we know we have blending, we know we have age and all these other components that aren't on our side with a fresh beer. For a 7 or 8 percent [ABV] pastry stout or something else that we're going to do some adjunct treatment to, we'll make changes with those adjuncts in mind. So, if [it's] coffee,

we'll dial back on the roasted barley or even chocolate malts a little bit. And we can even push some of those roast characteristics if we know we're going to be adding sweeter adjuncts, [such as] coconut, for balance.

Flaked products [oats, wheat, etc.] are all pointing toward the same thing, as is dextrin malt, your Carapils. [These are] malts that we know are likely not going to attenuate very far. You don't have to just use flaked oat, flaked wheat, flaked rye, or anything else. Rye's another one though. Chocolate rye, in particular, is probably one of my favorite malts in stout because it has that roast character. The expression of chocolate rye compared to some other chocolate [malts]-even some of the lighter chocolates-definitely comes across a little bit more milk chocolate-driven, which is a little bit more in line with what you're looking for in something that's not going to age forever. And it also does have a mouthfeel component to it. That's distinctly different from your pale or dark chocolate malt, so we'll use that in tandem.

We haven't done a lot of trials with corn or flaked corn, but I have talked to others who have said flaked corn has a distinct component. If we wanted to really dive into that, we'd probably see what kind of expression we get from corn. The connection between corn and bourbon is not quite the same as what it is with malt and beer, but there are definitely some of those flavor components.

Questions and answers have been edited for length and clarity.

SPECIAL INGREDIENT

Lemongrass

Exotic but familiar, the tropical plant lemongrass is far from being one of the traditional beer ingredients ... yet its flavor and aroma fit right in with the others. **By Joe Stange**

WE SEE THE WORD all the time in beer reviews, especially in those of hop-forward beers: "lemongrass." It's a useful descriptor, and it lazily comes to mind when your senses are sending your brain signals that say "lemony" but also "grassy." It's easy to mash those words together into one.

And, to be fair, real lemongrass can be both of those things. I have a stalk of it in front of me now—we had a few in the fridge—so I twist and tear it open. This is what I smell: definitely sweet lemon, like pleasant lemon-drop candies; also perfume-like, reminding me of furniture polish or car wax; there's also a ginger note, but it's soft and not sharp; finally there's a wilder, weedier aspect to the aroma, like an unmowed field baking in the summer sun. It is a grass, after all. Notably, grains come from grasses, too. And this particular grass happens to smell something like hops—or vice versa. It's no wonder that some brewers use it as an ingredient in beer. What's a bigger wonder is that more of us haven't done so.

About Lemongrass

There are different types of lemongrass all under the genus *Cymbopogon*—with different types being more dominant in different regions. Various cultures have hailed it as a folk remedy, without (as usual) much scientific evidence to support that. Some industries use lemongrass to make essential oils and perfumes to scent all sorts of products, including wood polish and air fresheners.

"Lemongrass, Szechuan pepper, and Sorachi Ace hops seemed like a combination that could work together. The Szechuan pepper brings a little sharpness next to its citrusy flavor and matches with the fresh lemongrass character." Of course, it's also used in cooking, especially in Southeast Asia. The bright Thai flavors of *tom yum* and *tom kha gai* soup wouldn't be the same without it. Lately, we've seen a few beers that imitate the flavors of tom kha (usually minus the *gai*, which means chicken). In fact, Shades Brewing of South Salt Lake, Utah, won bronze at the World Beer Awards in 2022 for its tart and herbal Kveik Thai Tom Kha ale.

Brewing with Lemongrass

Poking around on Untappd and similar listings reveals more beers that get "lemongrass" as a descriptor than those that actually get it as an ingredient. However, there are some notable exceptions, including a couple of them from Hawaii. Kona Brewing makes a beer called Lemongrass Luau, a blonde wheat beer that includes lemongrass and ginger.

Meanwhile, since 2013, Maui Brewing has occasionally produced its Lemongrass Saison in collaboration with California's The Lost Abbey.

Maui says the beer gets local lemongrass as well as Cascade and El Dorado hops. Its grist includes a pilsner base plus wheat and oats. In 2017, the brewery said it used 40 pounds (18 kilos) of lemongrass for 100 barrels of beer—that's a bit more than one ounce per five gallons, or around 30 grams per 20 liters. The beer's strength is 5.2 percent ABV, with a listed bitterness of 15 IBUs.

Another popular example is pretty far from Hawaii—the saison called Mannenliefde, a core beer for Oedipus Brewing in Amsterdam and relatively easy to find in bars and shops around the city. Brewed since 2012, the beer's name translates to



PRESENTS THE

















MAKE IT



HOPS & ADDITIONS SCHEDULE

60 minutes [20 IBUs]

10 minutes [10 IBUs]

flameout/whirlpool

0.2 oz (6 g) lemongrass at flameout/whirlpool

whirlpool

out/whirlpool

0.7 oz (20 g) Sorachi Ace at

1 oz (28 g) Citra at flameout/

1 oz (28 g) Sorachi Ace at flame-

0.2 oz (6 g) Szechuan pepper at

1.1 oz (31 g) East Kent Goldings at

Oedipus Mannenliefde

With thanks to Sander Nederveen, cofounder and head brewer at Oedipus in Amsterdam, here's a homebrew-scale recipe for one of their core beers: Mannenliefde, a dry and spicy yet hop-forward saison brewed with the highly compatible flavors of Sorachi Ace hops, Szechuan pepper, and lemongrass. This beer also has won two silver medals at the World Beer Cup in the Specialty Saison category—in 2018, and then again in 2022.

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.048 FG: 1.002 IBUS: 30 ABV: 6%

MALT/GRAIN BILL

5.3 lb (2.4 kg) Belgian pilsner 3.1 lb (1.4 kg) white wheat malt 7 oz (198 g) biscuit malt

YEAST

Lallemand Belle Saison or Wyeast 3711 French Saison

DIRECTIONS

Mill the grains and mash for a highly fermentable wort, either step mash or single-infusion aimed at high attenuation. For a step mash, here's the Oedipus regime: Mash in at 131°F (55°C); raise to 144°F (62°C), rest 30 minutes; raise to 154°F (68°C), rest 30 minutes; raise to 162°F (72°C), rest 15 minutes; then raise to 172°F (78°C), rest 5 minutes, and mash out. For a single-infusion mash, mash at 148°F (64°C) for 60 minutes, then mash out. Recirculate until the runnings are clear, then run off into the kettle. Sparge and top up as necessary to get about 6 gallons (23 liters) of wort, depending on your evaporation rate. Boil for 60 minutes, adding hops, pepper, and lemongrass according to the schedule. After the boil, chill to about 68°F (20°C), aerate the wort, and pitch the yeast. Allow the temperature to free rise during fermentation, but no higher than 82°F (28°C). When fermentation is complete and the gravity has stabilized, crash, condition cold, and carbonate to a relatively high level.

BREWER'S NOTES

Lautering: There is a decent portion of wheat in the grain bill, so be careful collecting wort—rice hulls can help.

Spices: The quantities are scaled down from our commercial batches; you may get different results at a smaller scale. You can make a tea to test quantities and see where you like it.

Yeast: These strains are diastatic. (For more about diastatic yeast strains, see "Under the Microscope: Dealing with Diastaticus in the Brewhouse," brewingindustryguide.com.) If you're concerned about cross-contamination with other strains in your brewery, you could choose another strain or use separate equipment to be on the safe side. On the homebrew scale, diligent cleaning and sanitation will minimize any risk.

| THE MASH: SPECIAL INGREDIENT |

"We use stalks that we break open by hitting them-not cutting it up completely, but just breaking the stalks so the flavors can be released a bit easier."

"man's love," and the brewery says it was "born from the idea that beer is for everyone." Since then, the beer has won two silver medals at the World Beer Cup, most recently in 2022.

Cofounder and head brewer Sander Nederveen says the idea for the recipe started with thinking about what could complement the spicy, peppery, fruity fermentation character of a typical saison yeast.

"Lemongrass, Szechuan pepper, and Sorachi Ace hops seemed like a combination that could work together," Nederveen says. "The Szechuan pepper brings a little sharpness next to its citrusy flavor and matches with the fresh lemongrass character." To the Sorachi Ace, they also add a touch of Citra for a tropical push, "to end up with a dry beer with a range of spicy and fruity flavors."

At Oedipus, they add the lemongrass and pepper at the end of the boil. For the lemongrass, Nederveen says, "we use stalks that we break open by hitting them—not cutting it up completely, but just breaking the stalks so the flavors can be released a bit easier."

When it comes to the question of how much to use, Nederveen says it depends on the goal of the brewer. "In Mannenliefde, we want the spice character to be subtle and bring a bit of extra complexity to the beer, and to enhance the spicy and citrusy flavors that are already present in the hoppy saison.

"I often describe it as a more Belgian way of using spices in beer, as opposed to the modern craft-beer use of adjuncts, where the adjuncts are often on the forefront. It took quite some time to get the dosing of all the ingredients in this beer right, and it is—apart from personal preference—also dependent on the potency of the lemongrass and the brewhouse design."

Whether you add the lemongrass (or other spices) to the kettle, the whirlpool, or even a hopback could affect how much you want to use. Dry hopping with it or making a tincture or extract are other options, Nederveen says.

"I would suggest brewers think first about what they want to achieve with the spices in what type of beer," he says, "and will the spices be used more as support, or will they be at the forefront? Then it can help to do some trials, steeping different doses in some wort or hot water, to see how it turns out.

"With lemongrass, I would try to stay on the safe side, to prevent the beer becoming too perfume-like, or reminiscent of the stuff people clean their bathroom with."

On the other hand, done well and with a judicious hand, it can also amplify some elusive and genuinely pleasant qualities that come from beer's other ingredients.

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PICK SIX

Inspiration in Flavor and Story

Jess and **Doug Reiser**, cofounders of Asheville's **Burial Beer**, share a thoughtful six that have inspired their own personal journeys and shaped the beers that they now produce.

FOR JESS AND DOUG REISER, a focus on story, connection, and significance is as important as flavor and technical execution when it comes to making and selling beer. For those who've visited the Burial breweries and taprooms or purchased their exquisitely and obtusely named beers, this should be obvious—the tone and mood of the brands and the place create the right atmosphere in which to properly enjoy those beers. You can't separate the liquid from the experience.

Not surprisingly, the breweries and beers that have inspired them hew closely to that philosophy, representing moments when they gleaned deeper insight about what beer—and the experience of beer—could be.

"My approach is rooted in what inspired me in the beginning of getting into craft beer," says Jess Reiser, "beers that opened my eyes to craft and that take me back to that time and place that jumpstarted this chapter in my life."

These six beers tell a story about the early inspiration and later evolution of Burial into what it is today.

De Dolle Stille Nacht

(Esen, West Flanders, Belgium)

"Stille Nacht was the beer that helped me understand just how much complexity beer can have, and it also felt like a rarity-it was my first dive into this idea of beer not being always accessible or beer being seasonal. I transitioned from drinking macro beers that are consistent in flavor, generally lighter in flavor, and available everywhere all the time, all year. In contrast, Stille Nacht was this inspirational beer that you couldn't always get, so when it came back around or someone gifted it to you, that really felt like something special and something to savor-like a nice bottle of wine you might get and age. The ability to age it, the complexities of the flavor, and this notion of it not always being available were definitely eye-opening and something that caused me to start gravitating toward, or having a better understanding of, craft beer and what it meant." -Jess Reiser

La Cumbre Beer (Albuquerque)

"I'm going to give incredible props to and you might hate me for this—Busch Light. And the reason I say Busch Light is that all of us go through this period of introduction to drinking the thing we know as beer. For me, it was what I snuck from my dad's fridge early on, and that was Busch. I also snuck MGD [Miller Genuine Draft], but I was not ready for premium draft beer at 17 or 18 years old when I was doing this. Busch Light was the first one I actually liked—it provided some balance between my perception of beer flavor as harsh and bitter and something that was drinkable and somewhat refreshing when hanging out with friends.

"The right beer to say, though, is La Cumbre Beer.

"Eight or nine years ago—it was in our third year-we made a 3.5 percent ABV light lager called Innertube, which has become probably our most beloved beer internally for the team. Certainly within our community, people love this beer because it's 3.5 percent ABV and is actually delicious. But I think that I would never have gotten the chops to do it had I not visited a Craft Brewers Conference out in Colorado and had my first La Cumbre Beer and said, 'This is it. This is exactly the lightness, the drinkability, the perfect craft take on otherwise cheap adjunct macro lager.' It's something that should be celebrated as 'craft' because clearly a ton of thought and ingenuity went into La Cumbre making that beer. I remember reading an article by their head brewer Jeff Erway about how much thought he put into trying to get the simplest ingredients for that beer. It inspired me to make Innertube, and it really started turning our mental wheels and got us thinking about taking on a lot of these underappreciated lager styles." — Doug Reiser

Boundary Bay Cyclops 1 Eye.P.A.

(Bellingham, Washington)

"When we lived in the Belltown neighborhood of Seattle, we lived about two blocks away from this place called Cyclops. Boundary Bay made a beer exclusively for the bar called called 1 Eye.P.A. It was another step in my ongoing quest to understand craft beer—both stylistically by getting



more into the hoppier side of things, but also culturally with this idea of collaboration, because you had a brewery and a bar collaborating on a beer brand. But for us, it was a matter of time and place—this was a place that we went often in our mid-20s, as we were getting into craft beer, and that beer was always available at that particular bar and just became an association, right? It helped lead us to the realization that when you go to a place, it's about the atmosphere, and beer can play such a big role in the overall experience of a place. As I think about it now. I can still taste it, and it takes me back to that time in our lives, that place of Belltown in early 2010s, and it's meaningful and special how one beer could signify so much and bring so much back. We see it now where people will reference an experience they had at Burial or an experience they had with a Burial beer, and there's real meaningand longevity to that meaning-for people. Cyclops 1 Eye.P.A. is that beer for us-it definitely meant that to me and again brought my attention to this additional layer of what craft beer is for people. It's not just any old beverage; it has a lot of meaning." -Jess Reiser

Alpine Nelson (Alpine, California)

"I wrestled among inspirational hoppy beers because hops were the reason I decided to get into beer, start brewing, and inevitably start a brewery. I was absolutely fixated on them because we lived in Seattle, and we used to visit the Fresh Hop Ale Festival in Yakima, Washington. I could go on and on about all the fresh-hop beers, and I almost picked a fresh-hop beer for this list, but ultimately it was Alpine Nelson that inspired and drove me to brew IPA.

"The reason I had to dig this deep was that in the mid-2000s, IPA was pretty much four or five hops. I could go on about the beers that I loved-Port Brewing Hop-15, Port Brewing High Tide Fresh Hop IPA were incredible-but it was Simcoe, Centennial, Columbus, Amarillo, and Citra hops. When Alpine put out Nelson, everybody was like, 'What the hell?' Nelson Sauvin is this weird funky hop from New Zealand, nobody knew much about it, and Alpine were the first people to stake their reputation (and a major brand) on a hop from the South Pacific. They showed that these South Pacific hops can drive craft beer and make some of the best IPA out

there. That beer, Nelson, specifically was brewed with Nelson Sauvin and Southern Cross, another New Zealand hop. It was a banner-carrier for most of us who were making IPA a decade or more ago, 12, 15 years ago. And I think it probably is the reason that South Pacific hops really caught on, and we got outside of our little bin of C-hops and American trademarked hops and started widening the world that is hop-growing today." —*Doug Reiser*

Cantillon Kriek (Brussels)

"I have to go back to Belgian beer here and pick Cantillon Kriek, but I think it really is just a nod to Cantillon in general. In the very beginning when Tim Gormley, our business partner, turned me on to craft beer, it was this realization of the deep history behind craft beer that inspired me to dig deeper and find more meaning behind beer as culture, history, and experience. I loved all the intention that goes into it and what that means for people and for places. To see that culture and history connect with wild yeast and the science of fermentation-Cantillon just embodies all of that, the coming together of those things. For us, it also signified a trip or pilgrimage, if you will, to the motherland. Doug, Tim, and I did go visit Cantillon, and that visit helped solidify our nascent idea that we all wanted to shift careers and open a brewery together. That trip, and going to Cantillon-where it really is its own ecosystem and where there are mice running around, and there are cats hanging out, and there are spiders and cobwebs-it just exists as this beautiful brewery. It felt so not-modern, and the subtle nuances and delicate flavor profiles of their beers were a fascinating parallel for me. Their embrace of the history of beer through the museum was something I gravitated toward." - Jess Reiser

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| PICK SIX |

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Anchorage The Ghosts in Their Eyes (Anchorage, Alaska)

"I really struggled with this last one, but I felt that it was crucial to talk about our evolution into what most people consider East Coast or modern IPA. We probably came at this from the most improbable space. Our evolution started with some Northwest-inspired IPAs when we first made IPA, but inevitably, we were obsessed with Brettanomyces. Most of that obsession came from funky, proteinheavy beers. I think back to Boulevard Tank 7 or OG Tropic King from Funkwerks, even New Belgium Le Terroir. Mixed-fermentation, hoppy beers where the beer-unlike West Coast IPA-was not almost entirely about the hops; it was about the expression of the yeast as well, and the proteins that go into the beer. Those farmhouse stylings with the hops presented this phenolic piece that I don't think could have ever pushed itself into popular culture. Those beers always had their audience, but they didn't grow into IPA.

"But for us, The Ghosts in their Eyes by Anchorage was the first Brettanomyces IPA that I had on the West Coast when we were still living in Seattle, and I was like, 'Oh my god.' The marriage of these big, high-alpha hops with pungent, expressive, estery Brettanomyces fermentation at high temperatures where the phenolics aren't very present, and weedy aromas with this slightly hazy body—it was profound. At the time, it was only slightly hazy, because everybody was conditioning the haze out intentionally. But what Anchorage was doing was the most profound grouping of beers for Burial, because nobody in the East was messing around with that mixed fermentation or Brettanomyces in what was typically a Saccharomyces style. It culminated in our first ever—what we *thought* was a *Brett* IPA at the time, called Massacre of the Innocents. It was superhigh-protein, with wheat and oats and even lactose at the time (because we were trying to fight against the Brettanomyces), and Citra and Galaxy hops. Of course, all the genome sequencing happened with White Labs, and that yeast that everybody thought was a Brettanomyces strain turned out to be Sacch Trois. So, we realized we were making Saccharomyces beer, and essentially, that was the evolution for us. We were making all these Sacch Trois IPAs, and they evolved into us making what is now the highest percentage of what we produce at Burial—these modern IPAs. I would be remiss not to speak of that different origin for our evolution into those spaces, because it certainly came from a love of CB the expression of yeast in hoppy beers." -Doug Reiser

ISTENIN

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STYLE SCHOOL and returned to the brewers. The returned beer wasn't merely sour-it was foul. His report was part of a long discussion that

Dark, smoky, and well-hopped, yet low in strength, "ship's beer" was the daily ration of Danish sailors in the 18th and 19th centuries—and it hasn't completely disappeared. From written sources of that time, here's what we know. By Lars Marius Garshol

> IN 1710, THE REMAINS of the Danish fleet returned from the Battle of Køge Bay to Copenhagen. The crews and officers were deeply unhappy, not only because their mission had failed nor even that the flagship Dannebrog had been lost. No, their complaint was that a quarter of the crew had been sick before they even sailed, and many had died of illness at sea before they ever met the Swedes. The admiral blamed the skibsøl-literally, "ship's beer"-which was an important part of the fleet's provisions.

> The navy's commissar-general investigated the issue, and he found that throughout the year there had been many examples of skibsøl being found spoiled

had already run for many decades about how to ensure a reliable supply of skibsøl that did not go bad.

People pointed to various causes of the problem: The beer was too weak, the wood for the casks was too fresh, or the casks had been washed in seawater, and so on.

Skibsøl was very much part of the provisions of Danish sailors at the time, who were by regulation supposed to receive three quarts of skibsøl daily-that's roughly three liters of beer, per man, per day. It's just as well that the skibsøl was relatively low in alcohol.

Dark & Smoky: **A Rough Sketch**

Although the style has been almost completely forgotten today, skibsøl is a long-lived tradition. Already in the 18th century-and probably earlier-it was a fairly well-defined type of beer. The oldest written descriptions we have of how it was made are from the late 18th and early 19th centuries, so I rely on those for this description. The beer eventually lost its role





as a provision beer of military importance, and brewers somewhat modernized how they made it. However, its basic outlines appear to have remained much the same.

The malt for skibsøl was barley, dried in a kiln known as an earth-kiln (jordkølle), which was very similar to the såinn used in Stjørdal in Norway as well as the kilns used by the Austrian steinbier brewers (see "The Cult of the Kiln" and "Fire and Brew-Stone," beerandbrewing.com). The malt was dried over a fire, which blazed in a brick-lined chamber on the lowest floor. Its heat and smoke rose through a floor of perforated planks to dry the malt lying on top. This floor sloped up toward the middle, rather like a house roof. The smoke finally made its way out of a chimney in the gables at the opposite end from the fireplace.

In other words, skibsøl must have been powerfully smoked, rather like stjørdalsøl and steinbier—although, in this case, mainly with beechwood. However, ash, willow, birch, alder, and maple could also be used as firewood, and the wood used would of course affect the flavor.

Skibsøl appears to have been consistently smoked throughout its entire existence, and some claim this is because smoked beer keeps better. It may be that the Danish navy believed this, and that's **Left:** The Danish ship Dannebrog caught on fire in the "Battle of Køge Bay" (1710) by Christian Mølsted

why they used smoked malts. Many sources also say that the sailors at the time believed that darker beer was stronger, so the color added by smoking the beer helped keep the sailors satisfied that they were getting strong beer.

The actual brewing process most likely was a step mash, although at what temperatures is unclear. After runoff, the brewers boiled it for three to four hours, which would have concentrated it and added caramel flavors.

Brewers boiled the hops in water separately—i.e., a hop tea—and then

mixed that into the beer. What hop varieties they used is unknown, but it appears to have been a mix of Danish-grown and imported (mostly German) hops. Any hop aroma would have been closer to Noble than anything modern.

After boiling, brewers cooled the wort in a wide, shallow basin very much like a coolship, as was common at the time. The brewers pitched the yeast when the wort was "milk-warm," meaning roughly body temperature. Thus, it's unlikely to have been anything like modern ale yeast and must have been something more like kveik and other farmhouse yeast. Brewers apparently switched to more modern ale yeasts in the 20th century, but it's not clear which strains they used.

The exact strength is difficult to determine. At one point, a royal decree required a proportion of three barrels of skibsøl from one barrel of malt. At normal attenuation and an estimated 50 percent efficiency from old-style malts, it may have been about 5 percent ABV—however, it's more likely that skibsøl was usually weaker than that for several reasons.

More Hops, Less Alcohol

Hopping rates are not known in numbers, but sources widely agree that skibsøl was

strongly hopped, and they are very clear on why: so that the beer would keep and not spoil. If that makes skibsøl sound a bit like IPA, realize that a relatively weak, highly smoky beer fermented with farmhouse yeast must have been quite different.

IPA was not a particularly strong beer for its time, even if it was stronger than skibsøl. Anyway, longer keeping wouldn't have been why IPA was brewed stronger. In general, beers brewed for export were relatively strong simply because this gave the greatest return on the cargo. So, it was really the hops that did the job of preserving both IPA and skibsøl, more than the alcohol.

Most likely, naval captains didn't particularly want to give their crews strong beer, with all the consequences that might have. It seems likely that naval discipline was the principal reason that skibsøl was relatively weak. Also, it apparently was common for unscrupulous brewers to supply under-strength skibsøl, giving the officers a couple of casks of stronger beer so they would accept the deficient skibsøl without complaint.



The Significance of Skibsøl

The proof that skibsøl was seen as a resource of real military importance is the amount of attention the Danish bureaucracy paid to it. The king even established a large brewery of his own, known as Kongens Bryghus (The King's Brewhouse) specifically to supply the fleet with beer. In the 18th century, the king reorganized the entire brewing industry in Copenhagen into an absurd monopoly scheme that protected brewers against bankruptcy. Why? To ensure that the city could always produce enough skibsøl for the fleet. This scheme gave the brewers no incentive at all to produce quality beer, which made the people of Copenhagen hate it with a passion.

Lager beer came to Denmark in the mid-19th century, and it quickly became very popular, displacing earlier Danish beer styles based on ale yeast. Skibsøl was among the many brewing traditions to suffer under the onslaught of lager—yet it lingered on through the 1980s. The last commercial Danish skibsøl went out of production in 1991.

By the 20th century, skibsøl was still dark, strongly hopped, and powerfully smoked. It typically was about 2.25 to 2.8 percent ABV. Sources widely agree that skibsøl was strongly hopped, and they are very clear on why: so that the beer would keep and not spoil. If that makes skibsøl sound a bit like IPA, realize that a relatively weak, highly smoky beer fermented with farmhouse yeast must have been quite different.

To add some context, skibsøl was only one member of a larger Scandinavian family of commercially brewed beers in the 18th and 19th centuries that were all dark, sweet, and relatively weak. This included the Danish hvidtøl, the Norwegian pottøl, and the Swedish svagdricka. (Note: Swedish commercial svagdricka and farmhouse svagdricka are not the same thing.)

Skibsøl didn't die out completely. In 1994, a small Danish brewery started making it again. This was Refsvindinge Bryggeri, a family-owned brewery in Nyborg, on the east coast of the island of Funen. The brewery dates to 1885, and for much of its history it brewed beers such as skibsøl. In fact, it only began brewing modern lagers and ales in the 1980s.

Last year, Refsvindinge received a diplo-

ma from the Danish Academy of Gastronomy for their skibsøl. The brewery's "beautiful renewal of a classic product" was given as the rationale for the award.

Receiving the diploma, brewery director Ellen Skjødt Rasmussen said they brew the skibsøl "not because it makes a lot of money" but because of its historical importance. In fact, the beer sells only a few hundred bottles a month—yet to make it in the traditional way, they buy local barley and malt and dry it themselves to get the right smoky flavor. It's clear that there's real determination behind the brewery's effort to keep skibsøl alive.

So, while you can still taste this classic, historical Danish style of beer, there's a real sense that its time may be running out.

Buy it—or brew it—while you can.



STYLE SCHOOL: SKIBSØL

BREWER'S PERSPECTIVE Shipspale Braying Shipsber Shipsber Today Keyen 194. That ber i topfermented, and made own beechwood-smoked

For those willing to take on a dark, low-strength, smoked beer, this historic Danish style may be the way to go. Yet there's a question you must answer for yourself: How traditional do you want to make it? **By Joe Stange**

ON THE DANISH ISLAND of Funen, the small town of Nyborg—population 17,525—is best known for Nyborg Castle, first built in the 12th century and historically important: A Danish king signed the country's first constitution here, and its first parliament convened here, both in the 13th century.

The castle survives in Nyborg, and so does another Danish tradition: brewing skibsøl. Nyborg is the home of family-owned Refsvindinge Bryggeri, founded in 1885—originally as a farm and malthouse to supply other local breweries. Its own beers followed soon after, including those brewed from their own smoked malts.

Skibsøl isn't even close to being Refsvindinge's most successful beer—that would be No. 16, an easygoing brown ale of 5.7 percent ABV. About 20 years ago, Ale No. 16 was one of Denmark's best-known craft beers, and it maintains a following. Today, Refsvindinge brews a range of easygoing ale and lager styles, both modern and traditional.

The brewery made skibsøl in the old days—and it revived the style with a new

recipe in 1994. That beer is 2.4 percent ABV, top-fermented, and made entirely with their own beechwood-smoked malts. They don't sell much of it, but they keep brewing it anyway as an act of historical preservation.

Anne Skjødt Bang—part of the fifth generation to operate the brewery since her great-great-grandfather Hans Poul Rasmussen started it—says the skibsøl recipes have varied over the years, but they've always been low in alcohol. She describes the beer's intensity: "The aroma is very smoked, like the way your clothes would smell after spending a night around the bonfire. Also, you notice a bit of sweetness, but the smoke pretty much dominates the aroma of the beer. The flavor is also mostly smoke, with a very subtle bitterness at the end and a bit of sweetness in the mouth."

Refsvindinge buys barley for malting from local farmers. Skjødt Bang says they put 500 kilograms (1,100 pounds) in a large water tank for two days, changing the water once. Then they spread out the barley on the malting floor in a relatively thin layer, turning it by hand three times a day. "We throw it into the air using a wooden shovel, making sure all of it gets plenty of air," she says. "After four days, we put it in a room with a grate as the floor. Here it gets smoked using beech. The oven we use has a long chamber to make sure the flames don't reach the malt, so that only the smoke will pass the grate. Here it stays for two days."

When brewing skibsøl, Refsvindinge adds its hops to the boil—Perle, to the

tune of about 15 IBUs. The yeast is a dried English ale strain; the particular strain may not be all that important because the predominant trait of the finished beer is that intensely smoky character.

"Be critical selecting the smoked malt that you want to use for your beer," Skjødt Bang says. "Since the taste and aroma are dominated by the smoked malt, it is important to select one that you like."

And, she adds, skibsøl is not for everyone: "Have a backup beer in the fridge to offer to your guests!"

An American Take on Skibsøl

As rare as skibsøl is in Denmark, it's even rarer abroad. Nevertheless, Right Proper took a stab at the style in 2015 at its brewpub in the Shaw neighborhood of Washington, D.C.

"We have always been super-fascinated with flavorful beers that are also low in alcohol," says Right Proper cofounder Thor Cheston. One of the brewery's mainstays, for example, is Ornette, a grisette of 3.7 percent ABV. "We took a lot of inspiration from historic recipes for farm beers, ship's beers, table beers, etcetera."

Untappd scores and local press clippings suggest that Right Proper Skibsøl was well received. "If I remember, it was pretty popular among us nerds," Cheston says. "It was a fun, low-alcohol beer with a huge mouthfeel and bursting with complex malty flavor."

The head brewer at the time was Nathan Zeender, who was deeply interested in farmhouse and traditional beers and had a free hand to pursue them. In May 2015, a post on the national security–focused website War on the Rocks—because, hey, this is D.C.—featured an interview with Zeender about his interest in historically inspired recipes, including skibsøl.

In the interview, Zeender explains that in 2009 he was traveling in New England with his friend Michael Tonsmeire—author of *American Sour Beers* and, more recently, cofounder of Sapwood Cellars in Columbia, Maryland. In the Boston area, they stopped at a barbecue joint called Redbones, where there was a highly unusual beer on tap called Imperial Skibsøl. As it turned out, the beer was a collaboration between Will Meyers of Cambridge Brewing and Anders Kissmeyer, a wellknown Danish brewer who at that time was still with Nørrebro Bryghus. According to an online listing from that time, their Imperial Skibsøl was 6.3 percent ABV.

That beer was what inspired Zeender to find out more about skibsøl—and to eventually brew a version whose strength is closer to the historical standard.

At Right Proper, Cheston was able to dig up the grain bill from Zeender's Skibsøl brew day in 2015. In that brew, about one-third of the grist is smoked malt—mostly beechwood, with some cherrywoodsmoked, too—with a roughly equal portion of pilsner malt to form the base. The rest is layers of specialty malts, including rye, Caramunich, chocolate malt, and oats. While not traditional, it's a recipe that might have broader appeal than one brewed with 100 percent smoked malt.

These days, Zeender is making wine and cider at Rocklands Farm in Poolesville, Maryland—and his side projects include the occasional hopped cider or wine. "I've always had a sort of soft spot for old folk beverages," he says, "so skibsøl pressed all the buttons."

MAKE IT

Right Proper Skibsøl

Courtesy of cofounder Thor Cheston and the production team at Right Proper Brewing in Washington, D.C., here is a homebrew-scale recipe based on the skibsøl they first brewed in 2015. While it's low in alcohol, the range of specialty malts here delivers a bigger, smoother malt profile than would have been traditional—though it might have easier appeal than going with 100 percent smoked malts.

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.034 FG: 1.009 IBUS: 24 ABV: 3.3%

MALT/GRAIN BILL

2 lb (907 g) Weyermann Pilsner 1.4 lb (635 g) beechwood-smoked malt 12 oz (340 g) cherrywood-smoked malt 8 oz (227 g) Weyermann Caramunich II 8 oz (227 g) rye malt 6 oz (170 g) Weyermann Caraaroma 6 oz (170 g) chocolate malt 6 oz (170 g) flaked oats 4 oz (113 g) Weyermann Carafa III

HOPS SCHEDULE

0.5 oz (14 g) Magnum at 60 minutes [24 IBUs]

YEAST

Fermentis SafAle US-05 or other Chico strain

DIRECTIONS

Mill the grains and mash at 155°F (68°C) for 45 minutes. Recirculate until the runnings are clear, then run off into the kettle. Sparge and top up to get about 6 gallons (23 liters) of wort, depending on your evaporation rate. Boil for 60 minutes, adding hops according to the schedule. After the boil, chill to about 68°F (20°C), aerate, and pitch the yeast. Ferment at 68°F (20°C). When fermentation is complete and gravity has stabilized, crash, package, and carbonate.

BREWER'S NOTES

Or, go traditional: For a more historically accurate version, you could opt for a grist of 100 percent beechwood-smoked malt. However, commercially available varieties tend to be pale; a handful of Carafa or debittered black malt could adjust that color to a darker brown with relatively low flavor impact. (Of course, to take the concept further, you could always smoke your own malt over a beechwood fire.) Go relatively high on the IBUs, and ferment with your favorite kveik because the traditional yeasts for skibsøl were likely similar.

The Reinvention of American

A ruddy '90s pint is reappearing with modernized flavors—and it has a lot to say about the evolution of American craft brewing. **By Jeff Alworth** **THE TAP LIST OF THE MID-1990s** brewpub contains a trove of near-forgotten styles—extra pales, honey wheats, nut browns— any of which might suggest the nature of American brewing at the time. Ask for a style that represents that era, though, and I'll give you an amber ale.

That was the midpoint of the "chromatic ales" that were the standard then. They started with golden ales and trotted through the color spectrum: pale, amber, red, brown, and finally ending with a porter or stout. It was an easy, intuitive way to introduce people to a beverage that many people still thought began and ended with pale, low-flavor lager.

So, why are amber ales the key metaphor for the age? Because they capture both the approach to recipe design and brewing process common to the '90s and because they highlight the palate of the American drinker a generation ago. They were sweet, sometimes under-carbonated, and always full of caramel/toffee flavors. While sweetness has become popular again, the flavor of caramel has not. So, for many people, amber ales are like doowop or disco or grunge music—emblems of an earlier age.



2.

| STYLE SCHOOL: AMBER ALE |

MALT

Wait, What Is "Caramel Steam"?

In nearly nine years of publishing this magazine, we have not published a recipe that includes an ingredient called Caramel Steam—until now. For this Style School article on American amber ale, two separate brewers kindly agreed to share recipes with our readers—and *both* of those recipes include Caramel Steam.

In Gigantic's recipe for Mecha Red (opposite), owner-brewer Van Havig included a note next to that ingredient in the malt bill: "very important—less oxidative, helps prevent sticky caramel goo bombs."

Maybe this concern is top-of-mind because we're also featuring pale ale in this issue, but a caramel malt that's less sweet and less prone to oxidation flavors strikes us as having a lot of potential—especially for certain throwback American craft styles.

Great Western Malting first developed Caramel Steam about five years ago. (Disclosure: Great Western is one of our advertising partners.) Scott Garden, the company's director of research and technical services, says the process for making Caramel Steam is unique because it's done in a traditional malting kiln rather than in the roaster used for comparable caramel malts.

"During the process, steam is introduced to the malt bed to 'activate' components in the malt for color and flavor development," Garden says. After the steam, the malt undergoes a carefully controlled drying phase that is longer and lower in temperature than the typical process for producing caramel malt of a similar color (40 SRM, or about 30°L).

So, can this malt help produce beers that are less prone to oxidized flavors as Havig contends—as compared to beers made with caramel/crystal malts of similar color? If so, that might be because of the gentler sweetness and softer flavor profile—and, anyway, that will be up to brewers to decide.

"Oxidation can be a complicated process," Garden says, "and involves mechanisms and process conditions that may not be directly attributable or controllable by malt. [I] think it is always best for a brewer to try the malt for themselves and make their own determination on the malt's potential and advantages for their brew."

—Joe Stange

"Oh my God," he says, recalling how brewers would start at 15°P (1.061) and aim to finish at 5°P (1.020), so the beer would finish around 5.4 percent ABV. "So, you're putting in 15 percent crystal malt, and then you're mashing at like 157°F [69°C]," he says. "Yikes!"

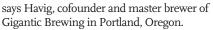
Yet amber ales, transformed, are slowly creeping back onto tap lists. They *look* much the same, and as a mid-alcohol pub beer, they serve the same purpose they did back in the day. However, almost everything else about them has changed.

If we look a little closer, amber ale can tell us a story about how American brewing has evolved over the past few decades.

American ESB, Sort Of?

The origins of American amber ales are obscure. As far as I'm aware, no one has rushed forward to claim the first example—a testament to the style's low station. Many examples of amber-colored beers pre-date the American brewpub staple, but we don't have to look far past Britain to find the likely inspiration.

When I sit down with longtime brewer Van Havig to discuss amber ales, and I suggest ESB as a precursor, he agrees immediately and vehemently. "It's *entirely* true,"



Havig started brewing in the mid-'90s, during amber's heyday. He began his career in Minnesota and then spent time brewing at Rock Bottom brewpubs in Maryland and Oregon. Amber ale, he says, "was British beer made by people who didn't know what British beer tasted like."

Before we besmirch the honor of those pioneers who toiled away on their chromatic ales, part of the difference was also a question of ingredients.

Unlike British brewers, who had funky, old ale yeasts that evolved in the flat, square, and sometimes open fermentors of their Victorian breweries, Americans mostly used Chico or similarly "clean" ale yeasts that took a back seat to other ingredients. They also didn't have lovely old malthouses turning out base malts of barley varieties optimized for flavor and color. They used pale two-row, and they flavored their recipes with specialty

malts—of which far fewer were avail-

able—thus crystal malt was a major workhorse. Pale ales had a healthy dollop of it, amber ales had even more, and brewers also used it in greater or lesser measure in browns, porters, and stouts. The microbrews of the '80s and '90s tasted like caramel.

"You've got to remember what we came out of," says Havig, our emissary from a bygone era. "All beer was highly attenuated, thin, low-flavor. Now, suddenly you have this beer that's got body and it's got a rich, malty flavor. Very simply, it was a different flavor in beer."

The flavor of caramel may have been surprising in a beer, but it was otherwise familiar and comforting. People love sweetness—Havig notes the fashion for hazy IPAs and

MAKE IT

tiki-inspired beers today—and they found amber ales to be an easy access point into the new world of craft beer.

The Hop and Malt Shift

As another emissary from the old days, I can tell you ambers were *sweet*. Even to my unsophisticated palate, they seemed a mite unbalanced.

Havig says he brewed amber ales everywhere he went—and he makes one today at Gigantic, which he cofounded with Ben Love a decade ago. Although he didn't make them ultra-sweet, that was once common. "Oh my God," he says, recalling how brewers would start at 15°P (1.061) and aim to finish at 5°P (1.020), so the beer would finish around 5.4 percent ABV. "So, you're putting in 15 percent crystal malt, and then you're mashing at like 157°F [69°C]," he says. "Yikes!"

As they were maxing out residual sugar, brewers also were dialing back the hops. They used relatively mild American varieties—often Willamette or Cascade—in small proportions ("maybe half a pound-ish" per barrel, Havig says). A standard hop schedule, then, would have been at the start of the boil, another addition at 30 minutes, and one near the end of the boil. Grists and hops would vary from brewery to brewery and shift over time, but overall, that was a typical approach to brewing in the 1990s.

Things started changing around the turn of the century. Brewers were learning from each other how to get more interesting results from American hops; they also were drying out their beers, moving away from crystal malt. Havig says he had started using whirlpool hops by the late '90s. Dry hopping became more common by the late '00s. By the teens, brewers had shifted their entire approach to brewing. Techniques have evolved so that today's brewers tend to use a light hand with kettle hops, instead emphasizing whirlpool and dry-hop additions. That started with IPAs, but it's common to see even lagers and classic pub ales made this way now. Malt bills also have shifted pretty radically from the mid-'90s. Drinkers like paler, drier beers, and the flavor of caramel seems more dated than familiar.

Toward a More Modern Amber

Seattle's Reuben's Brews turned 10 in 2022, and one of the celebration beers was an amber ale called Metamodern, a collaboration with Georgetown Brewing.

Gigantic Mecha Red

"Mecha Red is a modern amber ale intended to be malty and caramelly, but not a sticky caramel bomb," says Van Havig, cofounder and master brewer at Gigantic in Portland, Oregon. "It's mildly fruity from hops and esters and finishes with a hint of chocolate."

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.051 FG: 1.009 IBUS: 30 ABV: 5.5%

MALT/GRAIN BILL

8.8 lb (4 kg) pale ale 9.5 oz (269 g) Great Western Caramel Steam 4.5 oz (128 g) British crystal 120L 1.5 oz (43 g) chocolate malt

HOPS SCHEDULE

0.3 oz (9 g) Nugget at 90 minutes [14 IBUs] 0.75 oz (21 g) Mosaic at 15 minutes [16 IBUs] 1.3 oz (37 g) Crystal at flameout



YEAST

Wyeast 1728 Scottish Ale, White Labs WLP028 Edinburgh/Scottish Ale, Imperial A31 Tartan, or similar

DIRECTIONS

Mill the grains and mash at 153°F (67°C) for 40 minutes. Recirculate until your runnings are clear—about 20 minutes—then run off into the kettle. Sparge and top up as necessary to get about 6 gallons (23 liters) of wort, depending on your evaporation rate. Boil for 90 minutes, adding hops according to the schedule. After the boil, chill the wort to about 73°F (23°C), aerate the wort, and pitch the yeast. Ferment at 73°F (23°C) to encourage ester development. Wort should fully attenuate in 3 to 4 days. Once fermentation is complete and the beer has cleared diacetyl testing (see "Hunting for Diacetyl," beerandbrewing.com), cool to 50°F (10°C). Two days later, rack off the yeast and crash to 33°F (1°C). Condition 5–7 days before clarifying. Package and carbonate to about 2.35 volumes of CO₂.

BREWER'S NOTES

Scottish Ale Yeast: Why anyone uses another ale yeast, I'll never understand. **Water**: We *never* do any water chemistry at Gigantic. Our water here in Portland is very soft, and we make it work for all our beers. Every brewer everywhere can buy the same malt, hops, and yeast as you, but they can't get your water unless they live in the same neighborhood. You want a sense of place in your beer? Brew *with* your water, not *against* it. Ignore all the books. Accept the beer you can make with your own water if you want any kind of regionality, terroir, sense of place, whatever you want to call it. If everyone made the same beer, what would be the point? Just my opinion.

Hop it up: Want to make this more of a traditional Pacific Northwest amber ale? Double the bittering addition of hops. That middle hop addition won't be as important—you can kind of do as you please there—different hop, more of it, whatever. Change out the Crystal for a more aggressively citrusy or piney hop such as Centennial, Simcoe, Amarillo, or Citra, and double that, too.

MAKE IT

Reuben's Brews Little Fox Red Ale

"Our approach to a modern amber ale brings in elements that are found in modern IPAs," says Thor Stoddard, innovation manager at Reuben's Brews in Seattle.

"All of our IBU pickup is from a large whirlpool to maximize flavor and aroma but [keep] the IBUs in check. Our dry-hop focus is on citrus and pine, using newer hops like Citra and classic hops like Cascade. We also keep the caramel malt in check by using a dehusked roasted malt—Weyermann Chocolate Rye—to get the color we're looking for without all the cloying caramel malt. Lastly, we ferment our amber with a lager strain at a warmer temp, to keep it tasting crisp."

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.054 FG: 1.010 IBUS: 35 ABV: 6.5%

MALT/GRAIN BILL

7.8 lb (3.5 kg) pale two-row
1.2 lb (544 g) Vienna
9 oz (255 g) Great Western Caramel
Steam
9 oz (255 g) Caramel Munich 60L
5.5 oz (156 g) Weyermann Chocolate Rye

HOPS SCHEDULE

1.7 oz (48 g) Cascade at whirlpool [15 IBUs]
0.75 oz (21 g) Chinook at whirlpool [20 IBUs]
1.3 oz (37 g) Cascade at dry hop
1.3 oz (37 g) Citra at dry hop

YEAST

Imperial L17 Harvest

DIRECTIONS

Mill the grains and mash at 153°F (67°C) for 60 minutes. Recirculate until your runnings are clear, then run off into the kettle. Sparge and top up as necessary to get about 6 gallons (23 liters) of wort, depending on your evaporation rate. Boil for

60 minutes. After the boil, do a whirlpool step: Stir or recirculate for 5 minutes to create a vortex, add the whirlpool hops, and allow 20 minutes to steep at about 205°F (96°C). Chill to about 58°F (14°C), aerate well, and pitch the yeast. Ferment at 58°F (14°C). When the gravity has dropped to about 1.028 (7°P), raise the temperature to 65°F (18°C). Add the dry hops on Day 7, raising the temperature to 68°F (20°C) for at least 3 days. Optionally, do a forced diacetyl test (see "Hunting for Diacetyl," beerandbrewing.com). Then crash to 32°F (0°C) and remove or rack off the hops. Package and carbonate to about 2.6 volumes of CO₂.

BREWER'S NOTES

This recipe targets a balanced water profile. Aim for a chloride-to-sulfate ratio of 1.2:1.3. Aim for a mash pH of about 5.2–5.3 and post-boil about 5.1, adjusting if necessary. The last runnings shouldn't go below 3°P (1.012) in gravity.

Modern ambers have a full, malt-forward body with some sweetness, a hint of caramel, and a saturated, if low-impact, citrusy hopping. They're easy-drinking pub ales, yet they taste like a product of their time.

(Disclosure: Reuben's is a past sponsor of my blog, Beervana.)

Reuben's innovations brewer Thor Stoddard describes Metamodern, an example of amber's evolution: "Our approach to a modern amber ale brings in elements that are found in modern IPAs," he says. "All of our IBU pickup is from a large whirlpool to maximize flavor and aroma but keep the [bitterness] in check."

GW-CSTM

Caramel Steam

35-45 L

Not much about these beers looks the same. Stoddard says he prefers citrusy hops for the style, a nod to first-gen ambers—although Metamodern gets those flavors from Galaxy, Nelson, and Citra rather than Cascade or Willamette. Besides caramel Munich and caramel steam malts, Stoddard adds a little color with dehusked roasted malt.

That's also what Lincoln Slagel does at Emancipation Brewing in Fairbury, Illinois. "Our recipe consists of less crystal malt, with most of the color coming from debittered dark malt, like Blackprinz. So it's far from syrupy raisin-caramel in character."

The brewers like a little caramel, though—for many, it's still an important piece of the flavor profile.

In Manhattan, Torch & Crown makes an amber called Transverse. Brewer Will Burkhardt describes the profile: "We used a blend of a small amount of classic American crystal malt with a larger amount of German caramel Munich to add more malt depth than the classic toffee bombs I grew up drinking."

Easy Likeability

Amber ales have never been a style so much as a category, broadly including "red ales," too. As in the '90s, they range from fairly pale to deeper red and may contain anywhere from 5 to 7 percent ABV.

Yet the way that brewers think of them now is decidedly modern. They are malty beers, but far drier than in the '90s. They have some caramel flavor but it's an accent, not the dominant quality. And, finally, they use that toffee sweetness to balance a fuller, more saturated hop presence that comes from later hop additions—typically citrus-forward.

Modern ambers have a full, malt-forward body with some sweetness, a hint of caramel, and a saturated, if low-impact, citrusy hopping. They're easy-drinking pub ales, yet they taste like a product of their time.

It's a pretty serious style renovation that nevertheless satisfies older drinkers who remember ambers fondly. Havig says he's found that younger drinkers, unaware of the "toffee bombs" of the '90s, also like them.

"The weird thing is [young adults] are starting to drink ours because they've never seen one before," he says. "'This is amazing, it's malty!'"

Because of their dated reputation among older drinkers and unassuming identity to modern drinkers, amber ales garner little attention and certainly no buzz. Yet breweries across the United States are watching them quietly find an audience. And why not? Everything about them may have changed since their '90s heyday, but they're just as effective as they were then: They're beautiful, approachable, and tasty, and they make for a wonderful session down at the pub, or the beer bar, or the brewery taproom.

EDITORS' PICKS

Amber & Red Ales

Whether they're smooth, malty throwbacks or hopdrenched progressives in crimson tuxedos, here are some of the best American amber and red ales we know.

Little Brother Local 947



An enticing nose fully melds mellow caramel with classy herbal hops, while the sip avoids overt fruit in an old-fashioned way that feels fresh and new, dialing up the bitter edges for interest and drying out nicely in the finish.

ABV: 5% IBUS: 40 Loc: Greensboro, North Carolina



Montauk Arrowhead Red

Another commendable take in classical form, combining caramel-toffee malts with Noble, herbal-tobacco hops and polishing them into a crisp, clean, lager-like frame—assertive yet highly drinkable.

ABV: 5% IBUs: 23 Loc: Montauk, New York



ATTAC

MadTree Happy Amber

This West Coast–style amber from Ohio manages great drinkability for its strength, loading up on toasted-bread malt and orange-marmalade hops without ever getting too heavy or verging into austere IPA territory. Big flavors, wonderful balance. **ABV:** 6% **IBUS:** 30 **Loc:** Cincinnati

Lawson's Mad River Maple

This big, ruddy ale borrows a trick from breakfast stout's adjunct game, as a malt-forward amber proves to be the perfect canvas for maple syrup—indulgent and comforting yet relatively dry, offering a hint of the familiar.

ABV: 8% IBUS: N/A Loc: Waitsfield, Vermont

Port Brewing Shark Attack

This West Coast double red is a resilient blast from a past decade, delivering big citrus-hop flavors rounded by rich crystal malt and fruit-forward esters—all balanced by formidable bit-terness and a drying finish to drink well below its strength. **ABV:** 9% **IBUS:** 70 **Loc:** San Marcos, California



Editors' Note: More styles, more advice, more recipes—welcome to our newly expanded Make Your Best series. Each issue, we'll continue to publish two of Josh Weikert's own recipes alongside his expert guidance. Plus, Josh is seeking out two more recipes and practical tips from the pros who brew the most iconic and delicious beers in the business. Our goal, as always: To help you Make Your Best.

Make Your Best...

Get to the heart of every beer style, as **Josh Weikert** shares both his own tips and perspectives from pros for brewing the very best.

Oatmeal Stout

In the Style of Rogue Ales & Spirits of Newport, Oregon

WHEN SOMEONE TELLS ME they want to "try a craft beer—but not an IPA," I nudge them toward something like oatmeal stout. It's full-flavored without being aggressive, it showcases a lot of great beer ingredients, and it checks in at a modest 5 to 6 percent ABV. It has easy appeal.

Yet oatmeal stout is far from boring, and a great example of that—and one of my all-time favorites—is Rogue Shakespeare Oatmeal Stout, a beer that uses its signature ingredient—oats—to soften and balance a bigger, bolder (and thus more American) interpretation of the style.

I got some helpful insights into this beer from Danny Connors, senior innovation

manager at Rogue. Here are his tips for making your own high-intensity oatmeal stout. **Notes from the Pro:** Connors points out that the defining ingredient in oatmeal stout really opens a lot of doors in terms of the grist. "The oats give a great balance to some of the bitterness from the roasted malts," he says. "As they mellow each other out, you can kind of amplify both elements to make a very flavorful beer."

This kind of recipe savvy and awareness always makes me go all googly-eyed; a hallmark of great brewing is knowing not only what ingredients taste like together, but also what *options* they create within the recipe design itself. Oats—thanks to a big helping of beta-glucan—soften and smooth out the flavor profile of a beer, expanding the options in choosing from a range of chocolate and roasted malts. "The added creamy texture is a nice finishing touch," Connors says. Rogue further accentuates that creaminess whenever this beer is served on nitro. There is a downside to using a big dose of oats, however: This can be a tough lauter. "All of the dark and roasted malts in stouts

can be very sticky in the lautering step, and oats will only make things worse," Connors says. If you haven't had the joy of a stuck lauter or sparge, you're missing out—this is a real concern. "So," he adds, "sometimes some rice hulls are necessary to help with the run-off."

Translation and Applica-tion: When you're thinking about applying Rogue's approach to your own oatmeal stouts, there are some things to keep in mind.

First, Rogue's approach really leans into the sharper flavors. Compared to my own recipe (see "Snowfall Oatmeal Stout," beerandbrew ing.com), the amount of oats is similarabout 10 percent of the grist-but Shakespeare uses more simply-roasty standard chocolate malt and roasted barley, whereas I lean into pale chocolate malt for my roastiness. In practical terms, this makes Shakespeare Oatmeal Stout more assertive on the palate—and, of course, it works beautifully. However, if you hit your recipe with the heavier dose of dark malts, adjust your expectations accordingly. You'll find that the profile more closely matches your version of an American stout, with its stronger roast



MAKE IT

Rogue Shakespeare Stout

Brewed since 1988, when Rogue Brewery got its start in Ashland, Oregon home of the Oregon Shakespeare Festival—this is the OG of American oatmeal stouts. "Brewed with a heavy dose of Cascade hops," the brewery says. "Bitter and sweet balance each other with a nice, creamy oatmeal finish."

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.061 FG: 1.017 IBUS: 60 ABV: 5.7%

MALT/GRAIN BILL

8.1 lb (3.7 kg) pale two-row 1.35 lb (612 g) crystal/caramel 120 1.35 lb (612 g) chocolate malt 1.1 lb (500 g) flaked oats 8 oz (227 g) rice hulls 6 oz (170 g) roasted barley

HOPS & ADDITIONS SCHEDULE

2.4 oz (68 g) Cascade at 60 minutes [54 IBUs] 1 tsp (5 ml) yeast nutrient at 10 minutes 1.5 oz (43 g) Cascade at whirlpool [6 IBUs]

YEAST

Wyeast 1764 Pacman, Imperial A18 Joystick, or White Labs WLP051 California V Ale

DIRECTIONS

Mill the grains, except the flaked oats and rice hulls. Add the oats and mash at 148°F (64°C) for 50 minutes, then add the rice hulls, raise the temperature to 172°F (78°C), and mash out. Recirculate until the runnings are clear of particles (8–10 minutes), and run off into the kettle. Sparge and top up as necessary to get about 6 gallons (23 liters) of wort. Boil for 60 minutes, adding hops and yeast nutrient according to the schedule. After the boil, do a whirlpool step: Stir or recirculate to create a vortex; if possible, cool to 180°F (82°C), add the whirlpool hops, and allow 20 minutes to settle. Chill to about 60°F (16°C), aerate the wort, and pitch the yeast. Once fermentation is complete, cap the fermentor and rest 3 days. Then crash to 33°F (1°C), package, and carbonate.

BREWER'S NOTES

Carbonation: We currently nitrogenate all our Shakespeare stout. (*Editor's note:* If you want to do the same, see "How to Serve Beer on Nitro," beerandbrewing.com.) If you don't have the equipment to nitrogenate, don't worry. Just carbonate this beer on the lower end. Shoot for no more than 2.2 volumes of CO₂.

flavors, even if it's at the lower end of that ABV range. The oats will soften flavors, but the shift in them will be noticeable if tasted side-by-side.

Second, *definitely* go with those rice hulls if you have any doubts about the ability of your grain bed to drain well. This isn't a standard step for me, but I suspect that has more to do with dumb luck and my mash-tun geometry (wider than it is tall). An ounce of prevention is worth a pound of cure, after all, and rice hulls are cheap. Half a pound or so into the mash for a five-gallon batch will all but guarantee that you won't spend a ton of time and pain trying to coax your wort into the kettle.

Third, Rogue's beer doesn't get its bitterness only from those roasted malts. Don't be afraid of the bittering here— Shakespeare clocks in at a whopping 70-ish IBUs. That far outstrips my own version (and what style guidelines typically call for), but the oats will absorb a lot of that bittering impact, just as they do with the dark malts. It also makes for a beer that ages well; even if your IBUs fall off significantly with time, you're still left with a beer that has good balance despite the sweet-and-silky oat flavor profile.

Last, a note on the nitro option. It's true that serving on a CO₂-nitrogen gas mixture is a great way to soften the edges of this beer—but it's not an option everyone has. If you don't have access to a nitro system, consider reducing the bittering by about 10 to 15 IBUs and serving at no more than two volumes of CO₂. This should protect you from going too far down the sharp-and-bitter path, because it will keep the carbonic acid levels a bit more in check (and the lower carbonation will create a softer mouthfeel).

Final Thoughts: Rogue Shakespeare Stout truly is a classic. If you have a home nitro setup, there are few beers that would be better suited for it—but even if you don't, this is still a winner. It may also serve as a great base recipe for your American stouts: Just bump up the late hopping, and you'll be well on your way. "For," as Shakespeare once wrote, "a quart of ale is a dish for a king."

PHOTOS: MATT GRAVES/MGRAVESPHOTO.COM





American Lager

In the style of Creature Comforts of Athens, Georgia

PALE LAGERS HAVE A dull reputation ironic, considering the most-copied type of beer in the world (pilsner) is a pale lager, and a revolutionary one at that. When it comes to American standard and light lagers, that reputation goes from "dull" to "bad" among many craft-beer enthusiasts, as folks conjure up images of rapidly produced, mass-market beers with little craft in them and less flavor to support them.

However, in recent years, we've all witnessed the tide turning with these

styles, as more independent breweries have picked them up as traditions and produced versions that balance flavor with high drinkability. A great American lager offers a crisp, easygoing frame with more than enough flavor to keep us entertained.

One such is Classic City Lager from Creature Comforts in Athens, Georgia. It's not only popular locally—a jury of peers at the 2022 Great American Beer Festival awarded it a gold medal in the American Pilsner category. So, I reached out to the team at Creature Comforts, to find out more about what makes Classic City shine amid the pale lager crowd.

Notes from the Pros: Brewing such an apparently simple beer is anything but simple. Technical competence, drinkability, quality ingredients, and consistent process all need to join in concert to make this style work.

Speaking of concert: That's the analogy that Blake Tyers, senior director in the Catalyst Division at Creature Comforts, uses when asked about what makes the light, pale Classic City Lager such a sublime beer. "It's like going to a coffee-shop jazz show versus a metal show," Tyers says. "The crowd—off-flavors from poor yeast health or bad brewing practices can much more easily distract from the performance in that coffee shop."

When the flavors are this subtle and cleanliness is paramount, there is virtually no margin for error—and that's where the technical competence comes into play.

The "drinkability" part is easy enough to understand: A clean pale lager of 4.2 percent ABV is always going to be a candidate for more than one pour. What's interesting here is that Creature Comforts gets there without using any of the traditional body-lightening adjuncts that typically go into American pale lagers, such as corn or rice. In Classic City, there's just a bit of wheat, and the rest is all barley. I take a similar approach in my own American lager-not with wheat, but a bit of Vienna-and I've never once gotten feedback that it's "too heavy." In a beer like this, the "lightness" can come from a low gravity and sufficient attenuation without skipping the malt flavor.

Other distractions from our classy coffee-house performance can derive from more fundamental sources, such as lower-quality or stale ingredients. Light lagers use simple recipes—in this case, Tyers says, "barley, wheat, Hallertau Blanc, Saphir, and our house lager yeast. Simple, classic ingredients for a simple, classic beer." Meanwhile. those aroma hops are somewhat unusual choices for the style and no doubt help to give Classic City its own distinct vibe. So, we have

a light frame, quality ingredients, a kiss of some distinctive hops, all in harmony with technical competence—including quality control and ample process review.

"Our lab does a lot of work to ensure the consistency is there, batch to batch," Tyers says. "That goes all the way from a robust sensory program to analytical checks ensuring that each step is spot on, starting with checking the raw materials when they come in and ensuring the yeast is healthy and ready to go when we brew." That's the final contributor, Tyers says: "a nice, clean lager fermentation. Your raw materials can't shine if your fermentation isn't good."

Sounds like a lot of work for a "boring" light lager, right? But obviously, when done well, these beers are anything but boring. **Translation & Application:** We start by getting the best raw materials we can get.

In a way, this is one of those times when life is a lot easier as a small-batch brewer: We make one beer at a time, usually using ingredients that we intentionally bought for that brew. At Creature Comforts, Tyers advises us to "avoid cutting corners or using stale ingredients." That *should* be easy for us to do, as long as we take care to buy from shops and suppliers with good pull-through rates. Taking a stab at an American pale lager is *not* the time to clean out the dregs of your grain buckets or toss in the last few pellets of leftover hops from the freezer. (Save those for your next American stout or dark IPA.) Here, we want nothing to stand in the way of our clear, light grain flavors and light floral hops notes, and so we owe it to ourselves to help them put their best foot forward.

Likewise, we arguably have an easier time of it in the "cellar." We don't need to temperature-manage hundreds or thousands of gallons but can fit five gallons in our keezer or fridge. Start nice and cool and take your time, leaving the beer at 50–60°F (10–16°C) for the first week or so, then allow it to rise steadily to room temperature to encourage healthy attenuation and discourage diacetyl. It's wise to eliminate other sources of yeast stress, such as under-pitching or lack of oxygen, which can lead to noticeable off-flavors. Aerate your wort thoroughly and pitch plenty of healthy yeast. You don't need to go crazy and add three or four pouches

of yeast or a giant starter—just one healthy pack and some good aeration-by-agitation will do nicely. (But if you happen to have an oxygen rig on hand, then by all means, use it.)

Final Thoughts: Speaking for the team at Creature Comforts, Tyers makes a great point about the mission of a beer in this style space: It doesn't have to be the center of attention.

"We don't believe a beer like this has to be the focal point of your experience," he says, "but more of a complement to people coming together. Our mission is to foster human connection, and we certainly hope to do that with a beer like Classic City Lager." Choose good ingredients, help them reach their potential, and you'll be well on your way.

MAKE IT

Creature Comforts Classic City Lager

With thanks to the team at Creature Comforts in Athens, Georgia, here's a recipe for their clean, crisp, easy-drinking American lager that won gold at the 2022 Great American Beer Festival.

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.040 FG: 1.009 IBUS: 21 ABV: 4.2%

MALT/GRAIN BILL

7.1 lb (3.2 kg) Canada Malting Superior Pilsen 3 oz (85 g) soft red wheat flakes 3 oz (85 g) acidulated malt

HOPS SCHEDULE

2 oz (57 g) Saphir at whirlpool [14.5 IBUs] 0.3 oz (9 g) Hallertauer Blanc at whirlpool [6.5 IBUs]

YEAST

White Labs WLP833 German Bock Lager

DIRECTIONS

Mill the grains and mash at 156°F (69°C) for 60 minutes, then raise to 172°F (78°C) and mash out. Recirculate until the runnings are clear, then run off into the kettle. Sparge and top up as necessary to get about 6 gallons (23 liters) of wort, depending on your evaporation rate. Boil for 60 minutes. After the boil, do a whirlpool step: Stir or recirculate to create a vortex for 10 minutes, add the whirlpool hops, spin for 10 more minutes, then allow 30 minutes to steep. Chill to about 53°F (12°C), aerate the wort thoroughly, and pitch plenty of healthy yeast. Ferment at 53°F (12°C) for 24 hours, then raise to 55°F (13°C). Once the gravity has dropped to 1.024, raise the temperature 65°F (18°C) until fermentation is complete and gravity has stabilized (around Day 11). Crash, package, and carbonate to about 2.72 volumes of CO₂.

BREWER'S NOTES

We have a neutral water profile, and we use salts to get about 150 ppm chloride, 50ppm gypsum. Use zinc for yeast nutrient. Our total hop load for this beer on our system is about 12 oz (340 g) per barrel (1.2 hl); this recipe includes a slight increase to account for homebrew-scale efficiencies.

Altbier

I don't think there's a type of beer I brew more often than German altbier. I almost always have one on tap at home. In my mind, it's the perfect beer—not "the best beer you'll ever have" kind of perfect, but the "lets you taste and enjoy every aspect of what beer is" kind of perfect.

Style: Altbier strikes the perfect chord of all the flavors and impressions of beer-a range of malt, bitterness, hop flavor and aroma, a touch of ester but the crispness of a lager-it's all there. The "old beer" retronym refers to the stubborn use of ale yeast long after lager had conquered Germany-but this is still Germany. This is a hybrid, typically fermented at cooler temperatures and conditioned like a lager. (As if to prove it has a bit of everything, altbier's got both ale and lager in its makeup.) There are lots of flavors in play, but we need to hit them just right. We're pressing down on lots of the keys on the piano; if we space out our fingers properly, we get a huge harmonic note, not a discordant mess. Ingredients: Some will tell me this recipe is no good for an altbier-too much roast, too much bitterness, not enough of this, too much of that. I'll say this once: I don't care. This beer is a home run. It's won more medals than any other recipe I've made—lots of golds-advanced to the finals at National Homebrew Competition (NHC) (and made it to mini-Best of Show on that table), and it also won Best of Show at one large homebrew competition. You can criticize it, but you can't say it doesn't work. It's the beer equivalent of Napoleon Dynamite. This recipe produces a semifirm bitter beer with a rich yet dry and earthy maltiness, a reasonable Noble hop flavor, and a light touch of berry ester.

We'll start with a base of Maris Otter and German pilsner, leaning a tad toward the former. I'm not always a fan of pils, for that honey touch it brings, but it works here. On top of that, we add a layer of Munich and handfuls of Carafa II, Caramunich, and pale chocolate malt. (You can also opt for chocolate rye here, which can mimic or echo the spicy flavor of No-



ble hops.) The hops, meanwhile, are pretty straightforward. Get about 35 IBUs from a clean, high-alpha bittering addition and then some German Noble hops at 5 minutes; Tettnanger works well here, but Hallertauer hops also work well.

For our yeast, it's good old Wyeast 1007 German Ale. There are other altbier yeasts out there from various labs, but I've never found that they work better. **Process:** The mash and boil here are pretty standard; the fermentation is the trickier part. How cold do you go? You want a low level of ester formation, but that's it. The yeast will help, but you'll still need to find that sweet spot for your pitch rate, oxygen levels, and thermometer quirks. Start at 60°F (16°C) and adjust from there. Too much fruit? Reduce the temperature. No ester at all? Increase the temperature. But 60°F (16°C) will get you in the ballpark. Once you know your temperature, give it lots of time to ferment off completely. (I leave mine for three weeks.) The yeast cells will work a bit more slowly at that temperature, and you don't want to rush them. **CB** MAKE IT

Is It Cold in Here or Is It Just Me Altbier

This is a beer you can age, especially if you brew it on the high side for bitterness; it will remain style-accurate even as the IBUs fall off and the malt comes forward. The pale chocolate should keep it from becoming overly sweet or toffee-like, even if it's not as bitter as it once was.

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.057 FG: 1.011 IBUS: 37 ABV: 5.8%

MALT/GRAIN BILL

5 lb (2.3 kg) Maris Otter 4 lb (1.8 kg) German pilsner 1 lb (454 g) Munich 4 oz (113 g) Carafa II 4 oz (113 g) Caramunich 4 oz (113 g) pale chocolate malt

HOPS SCHEDULE

0.75 oz (21 g) Hallertauer Magnum at 60 minutes [35 IBUs] 1 oz (28 g) Hallertauer Mittelfrüh at 5 minutes [2 IBUs]

YEAST

Wyeast 1007 German Ale

DIRECTIONS

Mill the grains and mash at 152° F (67°C) for 75 minutes. Recirculate until the runnings are clear, then run off into the kettle. Sparge and top up as necessary to get about 6 gallons (23 liters) of wort, depending on your evaporation rate. Boil for 60 minutes, adding hops according to the schedule. After the boil, chill to about 60°F (16°C), aerate well, and pitch the yeast. Ferment at 60°F (16°C) for about 3 weeks. Crash, package, and carbonate to about 2.25 volumes of CO₂.

BREWER'S NOTES

Patience: This isn't a lager, but it *ferments* like one. Give it plenty of time in primary, even if it seems like you're "done." There's no rush in getting this into the fermentor, and when you do, you want to have left behind most of the yeast and proteins—you might even consider a gelatin hit on this before packaging.

Hops: For a fun experiment, try subbing in Brewer's Gold or Northern Brewer at 5 minutes for some interesting woody-spicy flavors that complement the profile.

Belgian-Style Dark Strong Ale

These "smooth and dangerous" ales-to quote the BJCP guidelines—are some of the best-drinking and most enjoyable beers you'll ever make. They can also be surprisingly easy to brew if you build a good recipe and adhere to a few key brewing practices. I can't promise you that you'll have the same following as Westvleteren 12, but I promise you can make a beer that'll be pretty darned close. Style: Dark, strong Belgian ale is a Cadillac style-it shows off the lengths to which beer can go, in both flavor and alcohol, and still be enjoyed by the chalice. It's warm (not hot), going as high as 12 percent ABV and using that alcohol as a restrained flavor component. It features fermentation character, with plenty of esters and phenols (more pepper than clove). It should be lighter-bodied and more effervescent than other types of strong ale; it also should be relatively dry in the finish. That dryness can be tough to achieve; we count on spicy character, carbonation, and simple sugar to help keep the beer from becoming too sweet and heavy. There's a lot going on here, but it doesn't have to be especially complicated to make. The monks are big on simplicity, and we'd be wise to take their lead on this one.

Ingredients: The grist is simple, especially given the complexity of the final product. We want a hefty base of pilsner plus some Munich to increase the melanoidin profile. To that we add a handful of Special B, but not so much that it fattens the body. That's it for the grains, but we're going to get additional strength and attenuation from a large proportion of highly fermentable Belgian dark candi syrup. (If you're adventurous, sub in a pound of blackstrap molasses for an interesting burnt-sugar flavor that complements the grist beautifully.) We're looking for an ABV around 10 percent. Hopping isn't complicated either; about 30 IBUs worth of a Noble Hallertauer Hersbrucker at 20 min-

utes plus some Styrian Goldings at flameout (or whirlpool) will add some gentle floral and herbal aromatics.

Finally, yeast. Lots of recipes will steer you toward the Trappist High Gravity strain, but I detect an odd flavor there that isn't in keeping with the style. Instead, I prefer Wyeast 1214 Belgian Abbey. It's an attenuation monster while producing lots of interesting fruity notes and a mild pepper phenol. It does seem to take a while to clear, however, so plan on hitting it with some finings.

Process: Mash this one low and slow, going for higher attenuation; it can't hurt and might help. I add my sugars at runoff to help ensure that they fully dissolve, but make sure your flame's not on. Fermentation starts relatively low but ramps up quickly; we want clean alcohols and some fermentation character, but letting it start too warm will increase your risk of fusels—it just isn't worth it. When packaging, carbonate to a nice, high 2.75 volumes of CO₂ (or more) for that bright, spritzy Belgian mouthfeel.

MAKE IT

Vervierfachen Belgian-Style Dark Strong Ale

Don't be shy about trying out more intense versions of this recipe—if you can produce it with more character malts, higher ABV, and more hops while still preserving its smooth and drinkable character, go for it. However, here's a relatively easy-to-produce version that hits all the key points and minimizes your risk.

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.088 FG: 1.017 IBUS: 28 ABV: 10%

MALT/GRAIN BILL

11 lb (4.9 kg) pilsner 3 lb (1.4 kg) Munich 4 oz (113 g) Special B

HOPS & ADDITIONS SCHEDULE

2 lb (907 g) Belgian dark candi syrup at first wort 2.5 oz (71 g) Hallertauer Hersbrucker at 20 minutes [28 IBUs] 0.5 oz (14 g) Styrian Goldings at flameout/whirlpool

YEAST

Wyeast 1214 Belgian Abbey

DIRECTIONS

Mill the grains and mash at 149°F (65°C) for 90 minutes. Add candi syrup to the kettle, but no heat. Recirculate until the runnings are clear, then run off into the kettle, allowing the warm wort to fully dissolve the candi syrup. Sparge and top up as necessary to get about 6 gallons (23 liters) of wort. Boil for 60 minutes, adding hops according to the schedule. After the boil, chill to about 62°F (17°C), aerate thoroughly, and pitch the yeast. Ferment at 62°F (17°C) until visible activity begins, then increase by 1°F (-0.5°C) per day until you reach 70°F (21°C) and hold there. When fermentation is complete, crash the beer to 35°F (2°C), package, and carbonate to about 2.75 volumes of CO₂.

BREWER'S NOTES

We want a *fully* attenuated beer here, and that long, slow mash and ramped fermentation will help us get there. The yeast should do the heavy lifting; starting cool but promptly beginning the slow rise should encourage a full expression of fermentation characteristics to complement the complex dark-sugar flavors. These beers are best when the alcohol is noticeable but not hot and when the body is light—"digestible," as the Belgians say. | COOKING WITH BEER |

coking with beer The Fine Art of Finger Food

Whether you're getting peckish while bunkering in for the winter, having beers with loved ones, or looking for a fun treat to take to that Bowl party, these nibbles are all easy to throw together. Each gets a splash of American pale ale or barleywine—a couple of old friends, ideal for sharing with old friends. **Recipes and Photos by Christopher Cina**

Bacon-Wrapped Goat-Cheese Poppers with Sour-Cream Dipping Sauce

MAKES: 10 poppers

5 large jalapeño peppers 5 oz (142 g) goat cheese 3 Tbs (45 ml) citrus-forward pale ale 2 Tbs (30 ml) chives, minced 10 slices bacon 3/4 cup (177 ml) sour cream 2 Tbs (30 ml) lime juice, fresh 2 Tbs (30 ml) green onions, minced Salt

Remove the stems of the jalapeños and halve the jalapeños lengthwise. Using a spoon and starting from the top, scrape out and discard all the ribs and seeds. In a small mixing bowl, combine the goat cheese, pale ale, chives, and a pinch of salt. Mix well.

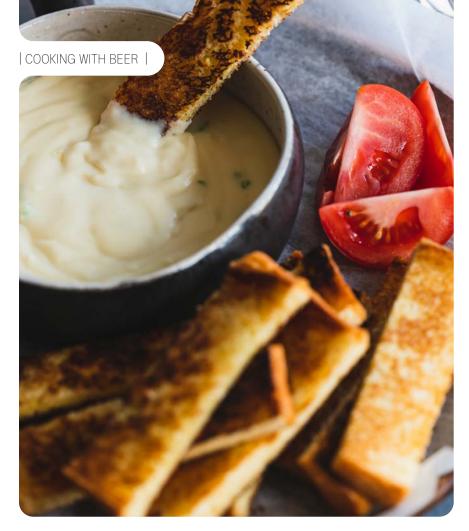
Stuff each jalapeño half with 1½ Tbs (22 ml) of the goat cheese mixture. Then, wrap each jalapeño half in one slice of bacon and secure the end with a toothpick. Place the poppers on a baking sheet lined with baking parchment.

In a small bowl, combine the sour cream, lime juice, green onions, and a pinch of salt. Mix well and set aside.

Preheat the oven to 400°F (204°C). When the oven is preheated, slide in the baking sheet and bake the poppers until the bacon is cooked to your liking. (You can also cook the poppers in an air fryer at 400°F/204°C for 12 minutes.)

Remove the poppers from the oven and allow to cool. If desired, carefully remove the toothpicks and serve the poppers warm with the sour-cream dipping sauce. **Beer Tasting Notes:** At the table, this has all the makings of one of the world's great beer-and-snack combinations-spicyearthy Mexican flavors and zesty American pale ale. As a pairing, it's almost impossible to go wrong with smoky, crispy bacon, the sharp yet manageable heat of the jalapeño, and that rewarding, salty creaminess stuffed inside, all washed down with a cool, bubbly liquid that balances citrus flavors with moderate bitterness and a mellow malt sweetness. As an ingredient, pale ale simply adds a splash of interest, lightening and brightening the creamy mixture while perhaps adding a subtle grapefruit-caramel tang that will find echoes in your beverage. Beer Suggestions: For sweeter and juicier, try Tree House Lights On (Charlton, Massachusetts) or Parish Envie (Broussard, Louisiana). For a firmer bitterness and old-school grapefruit notes-but still with juicy qualities-try 3 Floyds Zombie Dust (Munster, Indiana) or Toppling Goliath Pseudo Sue (Decorah, Iowa).

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Thai-Style Street Fries with Hoisin, Sriracha, Hoppy Mayo, and Crushed Peanuts

SERVES: 3-4

1 egg 11/2 tsp lemon juice 2 Tbs (30 ml) American pale ale ³/₄ cup (177 ml) canola oil ¹/₄ tsp Tabasco 2 lb (907 g) frozen French fries 3 Tbs (45 ml) hoisin sauce 3 Tbs (45 ml) sriracha sauce 10-12 slices fresh chiles, such as Thai bird's eye chiles 12 cilantro leaves 3 Tbs (45 ml) crushed roasted peanuts Salt

Break the egg and separate the yolk from the white. Reserve the egg white for another use. Place the egg yolk in a small mixing bowl with the lemon juice and pale ale. Whisk the egg-yolk mixture for one minute, until it becomes light and frothy.

In a slow, thin, steady stream, whisk the canola oil into the egg-yolk mixture until mayonnaise has formed. Add the Tabasco and a pinch of salt and mix well. Hold in the refrigerator. (If you are concerned about raw egg yolk, you can make much the same recipe by using 3/4 cup/177 ml of store-bought mayonnaise and adding the beer, lemon juice, Tabasco, and salt.)

Cook your fries to the specifications listed on your package (oven, fryer, or air fryer). Once the fries are hot and crispy, remove from the heat, place in a large mixing bowl, and toss with salt to taste.

Place the fries on a platter and drizzle the hoisin sauce, sriracha, and hoppy mayonnaise over the fries. Garnish with the sliced chiles, cilantro leaves, and crushed peanuts.

Beer Tasting Notes: Here it's time to reach for the classic—a fresh, bright, golden-amber showcase of grapefruity Cascade hops and that soft kiss of caramel malt. Besides being an easy-to-find and unpretentious drink to enjoy with your spicy loaded fries, as an ingredient here you want a bit more character-in the form of bitterness and malt-so that its flavor can stand up to your creamy, tangy mayonnaise and still have something to say. Beer Suggestions: Sierra Nevada Pale Ale (Chico, California), Oskar Blues Dale's Pale Ale (Longmont, Colorado), Maine Beer Peeper (Freeport, Maine), or DC Brau The Public (Washington, D.C.).

Deconstructed **Grilled Cheese with Toast Points**

SERVES: 2-3

2 Tbs (30 ml) butter 1 tsp garlic, minced 2 Tbs (30 ml) all-purpose flour ¹/₄ cup (59 ml) barleywine 3/4 cup (177 ml) milk 1 tsp salt 6 oz (170 g) Emmi Swiss Cheese, shredded 2 Tbs (30 ml) green onion, minced 6 slices Texas toast/brioche loaf 4 Tbs (59 ml) butter, melted 1 tomato, cut into wedges

In a small saucepan, melt the 2 Tbs (30 ml) of butter over medium heat. Add the garlic and cook just until it begins to turn white. Add the flour to the pan and stir constantly with a whisk until the mixture becomes a paste. Add the beer and stir constantly until the mixture thickens. Add the milk and stir constantly again until the mixture thickens. Reduce the heat to low and cook for 5 minutes. Stir in the salt.

Remove the pan from the heat and stir in the shredded cheese until smooth. Add the minced green onion. Keep the cheese sauce warm until the toast is made.

Heat a cast-iron skillet over medium heat. Brush the bread slices on both sides with the 4 Tbs (59 ml) of melted butter. Toast the bread on both sides on the skillet surface. Remove the toasted bread from the skillet and cut into "fingers."

Pour the warm cheese sauce into a bowl and serve with the toast fingers alongside. Garnish the plate with the fresh tomato wedges.

Beer Tasting Notes: Here's a comforting dish to warm you in winter, as the deepest, richest beer style in the canon adds Maillard depth to this simple but unusual toast-and-cheese preparation that evokes Welsh rarebit or fondue. The barleywine may contribute caramel, berry-like fruit, bourbon, and a comforting touch of alcohol depth to the cheese sauce. As a pairing, it may work-barleywine loves cheese, and vice versa-but you might be better off saving the snifter of ale for dessert. Beer Suggestions: Firestone Walker Sucaba (Paso Robles, California), Pelican Mother of All Storms (Pacific City, Oregon), Perennial Vermilion (St. Louis), De Dochter van de Korenaar L'Ensemble (Baarle-Hertog, Antwerp, Belgium), or any local favorite or cellar treasure you're C. ready to crack open.

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BEYOND BEER

Pineapple Express

Tepache is the fast, fun, and nearly foolproof fermented drink you'll want to blend into your next brew—or sip solo. **By Kate Bernot** **THERE'S A STRAIN OF** evangelism that infects people when they get hooked on a new streaming show, or they learn about a certain indie band, or they buy an air fryer. You know how it goes: "Did you hear me? You *have* to try this!"

That's how people get when they discover tepache.

"Why isn't everyone making this?! It's pretty foolproof," says Jazzton Rodriguez, an Oklahoma-based bartender and cofounder of Very Good Drinks, a cocktail test kitchen and bar consultancy company.

So, what is tepache? It's a fermented beverage of Mexican origin made by combining pineapple rinds with piloncillo sugar, water, and spices, and letting the yeast and bacteria on the pineapple's skin naturally ferment the liquid into a tangy, earthy, lightly sweet, and refreshing alcoholic drink—one that's often mixed with beer or distilled spirits.

Tepache enthusiasts stress three reasons why it's the ultimate DIY fermentation:

- It's relatively simple compared to, say, brewing beer or baking sourdough bread.
- It's ready quickly, with fermentation time ranging from three to 10 days.
- Finally, the largely noncommercial history of tepache means it's traditionally been a homemade product, with endless variations and flavors.

"You're not going to find tepache gatekeepers," says Jesse Valenciana, a cookbook author and food writer who lives in Nashville. "Make it, do it! This is not some sacred recipe. Make it your own."

Mixed Cultures

Tepache has a long history rooted in Mexican homes and markets. According to Julia Skinner, author of *Our Fermented Lives: A History of How Fermented Foods Have Shaped Cultures & Communities,* there's evidence that tepache existed in

"Tepache is still incredibly relevant, both as a traditional drink that reflects Mexico's long, rich culinary history and as a food that is affordable and easy to make. It doesn't require special starters or equipment, and it relies on ingredients already available nearby."



DO IT YOURSELF

Nat West's Home Tepache Fermentation Method

This method produces a relatively strong tepache that can be back-sweetened with pineapple juice and spiced with an infusion of cinnamon, cloves, and allspice.

First, start with 2–5 "golden" variety whole pineapples. Most companies use the same "golden" moniker for a range of great pineapples, all descended from the MD-2 pineapple variety. (Don't use canned pineapple juice for the fermentation, but you *can* use it for sweetening the drink afterward.)

Don't clean the outsides of the pineapples—not at all—and don't peel them. (Besides the yeast and bacteria, the skin adds its own flavors that make tepache unique.) Just remove the green spiky crowns, then cut the pineapples into chunks. Use a food processor to grind up the pineapple into a coarse slurry, something like chunky-applesauce-meets-oatmeal. If you grind it too small, the filtering step will be more difficult.

At the start of fermentation, add one 8 oz (227 g) cone of piloncillo (or panela) sugar for every 2 pineapples used. Put the sugar and pulp in a 5-gallon (23-liter) bucket (*not* a carboy or corny keg). Add 1 cup (237 ml) of water per pineapple used. Find a lid of some kind—a piece of wood works well, with a towel between the bucket rim and the lid to let gas escape and keep bugs out.

Wait 5 to 10 days for fermentation to complete, stirring every day. The juice will naturally fall out of the pulp, and the pulp will float. Once a day, mix that pulp back into the juice to get more contact between the fermenting juice and the skin. Before mixing each day, you can pull samples of the fermenting juice from the bottom of the container to taste and determine whether the fermentation has finished. Note: It will be zero gravity. You won't be able to determine the starting gravity, thus you won't be able to determine total ABV, but it should finish between 5 and 10 percent ABV.

When fermentation completes, stop mixing and wait about 2 days for the pulp to float up and settle into a fairly firm cake atop the finished tepache. Use a piece of tubing to siphon the tepache from the bottom of the bucket. Scoop all the pulp into a big mesh bag, cheesecloth, kitchen towel, or strainer/colander, and squeeze as much juice from the pulp as you can. (By this point, you've introduced a lot of air and wild bugs floating in the air into your finished tepache. Don't stress: Tepache is not a clean process. Sanitation and oxidation are not concerns—save those worries for your brew days!)

Now, you have a fully dry, fermented pineapple juice, likely with some bits floating in it. It may taste terrible, with all kinds of volatile acidity (such as vinegar-like acetic acid), various sulfuric compounds (like hot plastic), and usually some acetone aromas. This is all to be expected—don't panic.

Here comes the secret: Make a "tea" of cinnamon, cloves, and allspice with some water in a saucepan on the stove. (Spices such as these and nutmeg have a storied history of use to cover up wine faults, and they work like magic in tepache. I prefer making a tea instead of adding the spices to the fermentation, so that you can pour in the right amount of finished tea to taste.) Use 1 cinnamon stick, 3 cloves, and 3 allspice balls per

2 pineapples used. Add water to 1 inch above the spices and simmer for 1 hour or so. Remove the spices and cool the tea. Add an equal amount of pineapple juice as you have finished tepache. Buy it in a can or run some whole pineapples through a juicer, but don't buy concentrate. Mix equal parts dry, alcoholic tepache and fresh, sweet pineapple juice, add the spice tea to taste, and serve it immediately. Once you've blended in the sweet juice, there's no way to consistently stabilize tepache-at least, not on a home scale. At Reverend Nat's, we pasteurize our kegs and bottles. Campden tabs and potassium sorbates won't work, nor will keeping it cold (short of freezing). -Nat West, founder and cidermaker, Reverend Nat's Hard Cider



Nat West, stirring a tepache fermentation.

pre-Columbian Mexico, though it has so far proven impossible to pinpoint when, exactly, it was first brewed. Skinner says fermented fruit drinks such as tepache exist in various forms around the world; many feature wild fermentation, in which naturally occurring yeast and bacteria on the fruit's skin crowd out potentially pathogenic microbes.

"Tepache is still incredibly relevant, both as a traditional drink that reflects Mexico's long, rich culinary history and as a food that is affordable and easy to make," Skinner says. "It's a way to cut down on food waste by creating a useful product out of the skins and cores of pineapples. It doesn't require special starters or equipment, and it relies on ingredients already available nearby."

For Aaron Duran, a homebrewer and comic-book author living in Portland, Oregon, homebrewing tepache has been a way to explore his Mexican-American heritage while playing with additional flavors, such as tamarind and chile. He says he feels free to experiment with ingredients and spice additions because there is no canonical recipe for tepache among Mexicans; families have their own preferences and spins. There are some bottled versions of tepache available at Mexican grocery stores. However, Duran says, when people in Mexico buy tepache, it's more likely to come from a street vendor serving it in plastic bags or cups from the back of a bicycle cart.

"It's not like trying to crank out a regionally specific German pilsner, where the amount of gypsum in your water or the pH is going to screw it up," Duran says. "Tepache is whatever you want. As with so many classic Mexican dishes, you're never going to find a family that makes it the same way."

Fermenting Tepache

Last year, Duran teamed up with Portland cidermaker Nat West of Reverend Nat's Hard Cider for a tepache-cider collaboration called 400 Rabbits. West is—unsurprisingly—also a massively enthusiastic tepache devotee who, before the pandemic, hosted an annual event at Reverend Nat's called Night of 1,000 Tepaches complete with a Golden Pineapple trophy for the winning blend of beer and tepache.

In West's view, there's no beer that wouldn't taste delicious when mixed with tepache. He says it plays off lighter styles such as lagers and hefeweizens as easily as it does off of Westvleteren 12, Three Floyds Dark Lord, and Samuel Adams Utopias. (Yes, West has blended tepache with all three of those.)

"Tepache is the only reason I keep this business alive sometimes," West says joking, probably. "I love it and have made many flavored variations. I can talk about tepache forever."

After first encountering tepache a decade ago in a food magazine, West says, he made about 10 batches over the course of six months, tweaking ingredients and adjusting his method to be able to brew it at scale. Yet there's a critical difference between his commercial version and homemade ones: Traditionally, tepache is consumed fresh, not packaged, because at home there's no obvious way to stop its fermentation. Once you taste the batch and find it to your desired sweetness level, you'll want to drink it within a day or two, lest the yeast continue to produce alcohol and dry out the sugars.

Rodriguez describes the fermentation as "low-intervention." West agrees, describing a process just short of set-it-and-forget-it. For a DIY version, there's no need to take gravity readings or use a hydrometer—just taste the liquid via straw every day until it's at your desired sweetness level.

Most tepache enthusiasts would advise against worrying too much about the specific strains of yeast and bacteria living on your pineapple skin. Whatever they are, they're likely to contribute to a unique and delicious beverage.

However, if you must dive deeper, a 2022 study published in the journal *Microbiological Research* provides some insight: Researchers from Tecnológico Nacional de México in Chiapas analyzed the biological components of tepache fermentation after 72 hours and found it to be dominated by—are you ready?—*Lactobacillus, Leuconostoc, Acetobacter,* and *Lactococcus* bacteria, along with *Saccharomyces, Gibberella, Zygosaccharomyces, Candida, Meyerozyma, Talaromyces, Epicoccum,* and *Kabatiella* fungi. Lactic and acetic acid

MAKE IT A COCKTAIL

Tepache en Huaraches

Jazz Rodriguez of Very Good Drinks shares this cocktail recipe that includes a splash of your own homemade tepache.

Cinnamon-Piloncillo Syrup

1 cone (8 oz/227 g) piloncillo sugar 8 fl oz (237 ml) water 2 cassia cinnamon sticks

Add piloncillo and cinnamon sticks to water in a saucepan. Simmer on medium heat for 15–20 minutes, stirring occasionally as the sugar dissolves. Allow to cool before use, optionally leaving the cinnamon sticks in the syrup to continue infusing. Keeps in the refrigerator for 1 month or more.

Tepache en Huaraches Cocktail

0.5 fl oz (15 ml) cinnamon-piloncillo syrup 0.75 fl oz (22 ml) lime juice 1.5 fl oz (44 ml) tequila reposado 2 oz (59 ml) homemade tepache Tiny pinch of salt

Add syrup, lime, and tequila to a cocktail shaker with ice, and shake vigorously for 10 seconds. Strain into a Collins glass over fresh ice. Top with 1.5–2 fl oz (44–59 ml) of tepache. No garnish necessary, but some fresh mint is a nice touch!

are typically both produced, mainly dominated by lactic acid.

Rodriguez says he went down a rabbit hole of blogs and YouTube videos about tepache fermentation when he first began making it. (His advice: "The less English the video uses, the better the tepache recipe is going to be.") Ultimately, that research proved less helpful than hands-on experience. Now that he's made multiple batches, he can anticipate by tasting the liquid when it will come to the dryness level and flavors he wants.

"You really develop a relationship with tepache," Rodriguez says. "You start to get a feel for what the yeast are doing and what's happening in there. It's like a motherly instinct. It's really empowering to be able to make something that way."

Make It Your Own

The resulting flavors vary—especially since most people add spices such as cinnamon or cloves, or even Valenciana's favorite, Earl Grey tea—but they're generally some combination of earthy, sweet, and tart, to varying degrees. Making tepache is empowering because it requires a series of individual decisions that are in the hands of the maker: which spices to add, how sweet or dry to ferment the beverage, whether to blend it into a cocktail or serve it solo.

Most freeing of all, there are practically no wrong answers.

"It has to begin and end with fermenting pineapples," West says. "But anything else goes." **BEYOND BEER**

One of beer's signature ingredients is adding interest and depth to one of the world's great fermented drinks. Here's how and why some cidermakers are embracing hops.

By Courtney Iseman

HOPPED CIDER—IS IT STRAIGHT gim-

mickry, meant to attract beer drinkers? Or could it be something greater than the sum of its parts?

The cidermakers who are doing it know exactly where they stand in that discussion.

"My approach to hopping cider is not to consider it a 'hopped cider," says Yann Fay, head cidermaker at 1911 Established Cider House in Lafayette, New York, "but

"My approach to hopping cider is not to consider it a 'hopped cider, but actually coming at it from the angle that it's a fruit cider, where the fruit component is coming from the hops rather than another fruit itself." actually coming at it from the angle that it's a fruit cider, where the fruit component is coming from the hops rather than another fruit itself."

"When somebody tries [hopped cider] without knowing there are hops in it, they actually really love it," says Nick Gunn, who founded BenchGraft Cider Consulting after running Wandering Aengus Ciderworks in Salem, Oregon, with wife Mimi Casteel. Gunn brewed beer for a long time before he began cidermaking, and his Anthem cider was one of the first commercially available hopped ciders back in 2007.

"Most of the time, hops are really complementary flavors, bringing out a lot of depth, fruity notes, a floral category." Hops and fruit, he says, "play really well together." However, the word "hops" can cause some confusion—and, perhaps, some unpredictable expectations—when it appears on a can or bottle of cider.

Gunn says that some cidermakers are even incorporating hop flavors without necessarily broadcasting it—hopped cider, on stealth mode. That strongly suggests that hops have much more to add to fermented apples than a marketing gimmick or recognizable word on the label.



Familiar Ingredients, New Flavors

It's been a while since anyone picked cider to be a hot trend, but the reality is that it's been a steadily growing category-including during the pandemic. NielsenIQ market research found that cider, overall, has continued to trend upward in the past two years after growing more substantially over the past decade.

Broadly, drinkers have been prioritizing flavors over types of drinks and looking beyond beer-for example, seeking alternatives without gluten. Drinkers are exploring drinks such as seltzers, kombuchas, sodas, cocktails-and cider. Hops offer an enticing gateway to those drinkers who are more familiar with beer.

However, does adding hops risk putting off drinkers who were trying to get away from beer in the first place? It's unlikely, says Beth Demmon, a writer (and frequent Craft Beer & Brewing Magazine® contributor) who's currently working on a book titled The Beer Lover's Guide to Cider. due out in Fall 2023.

"I don't think cider as an industry needs to worry as much about alienating existing cider drinkers as they should about how to attract new cider drinkers," Demmon says. "Hopped cider can be an entry point for someone trying to find a familiar foothold. [It isn't] an exact replacement for hoppy beer. Hops are used completely dif-

"I generally don't add hops until the cider is dry because I feel like fermentation is a very violent activity. It will blow off a lot of those critical aromas we're looking for. I like as much surface area as possible, so [I] recommend not putting hops inside a hop cannon or hopback but [throwing] them into the tank for a direct soak anywhere from one to two weeks."

ferently in cider than they are in beer, and I think the real value of hopped cider is for beer drinkers to be able to experience hops in a brand-new way."

Hops in Cider Are Not the

Cidermakers are capitalizing on hops' flavor contributions (and not only their label appeal), allowing those flavors to attract new drinkers. Many describe the finished product as one in which the drinkereven one well-versed in beer-doesn't actually pick up on the presence of hops. The focus, rather, is on the distinctive flavor-and-aroma bouquet achieved by combining fruit and hops.

Integral to this flavor-and-aroma component is understanding that hops behave differently in cider than they do in beer.

"If you take hops and put them in water, and take hops and put them in apple juice, the expression is going to be different," savs Nat West, founder of Reverend Nat's Hard Cider in Portland, Oregon. "What is different between those base liquids?" Mainly, he says, that difference is acidity.

Patrick Combs, beverage director at Stem Ciders in Lafayette, Colorado, explains more about why and how that acidity matters. Cider apples are more intense, he says, with more tanninsperfect for fermenting dry with funk, tartness, and complexity. However, those apples can be more difficult for cidermakers to source. Stem, for example, uses culinary apples—and those have more acidity than cider apples. The aromas of hops react differently to that acidity than they do beer's malty sweetness. "I would liken it more to a sour IPA than a normal IPA," Combs says, "because we have all that malic acid from the apples."



Because the cidermaking process doesn't normally include a boil, bitterness isn't a big part of the equation; some acidity and restrained astringency are built into the fruit. Instead, what cidermakers want from hops are their fruity and floral aromas.

For example: West says that while Cascade hops can add bitterness and pine to West Coast–style IPAs, their character that really shines in cider is grapefruit.

"I have a cider that has four different citruses, so we amplify grapefruit with Cascade," West says. He compares this to beers such as Ballast Point's Grapefruit Sculpin IPA, where actual citrus gets layered with citrus-forward hops.

On the flipside of layering is complementing—which is how West uses Idaho 7 hops to add tropical-fruit notes to the straightforward apple of his Revival Hard Apple; or how he taps Mosaic hops for peach notes, getting a sweetness from them that works well with tartness and acidity.

In the view of Fay, at 1911 in New York State, Noble hops are off the table. Those earthy, herbaceous notes are not a proper fit. "Once cider becomes herbaceous," he says, "you start trending into the fault realm of ciders, compared to beers."

Because cider's usual process doesn't include a boil and because cidermakers mainly want those fruity and floral notes, dry hopping is the usual method—but there are exceptions.

> At 1911, Fay does incorporate a boil for some ciders. He adds dry hops post-fermentation with hops that are high in alpha acids. During that time, he takes a portion of that cider and does a light boil for isomerization, and then he blends it back in. Fay says he does this to make a cider that gets "more than just the aromatic compounds" from its hops. "We do want bitterness, but we don't want it to be over

> > the top," he says. Those partial boils "make the cider slightly more beer-like without crossing that line."

BenchGraft's Gunn says he sees the merit of adding that bitterness—especially if cidermakers are using culinary apples that lack the tannins and astringency of cider apples. It may be tricky to balance because cider ferments to dryness and lacks beer's residual sugars. However, a cider with a few IBUs may indeed be the kind to appeal to beer drinkers.

Dry-Hop Permutations

While dry hopping is the main method, there are plenty of decisions to make based on the aromas and intensity desired.

At Bad Seed Cider in Highland, New York, cofounder Devin Britton says they wait until their cider is just about ready to package—the last three or four weeks of secondary fermentation—and then start tasting, to fine-tune when it's ready to transfer to the brite tank. "The hops will be in there two weeks minimum, usually in the two- to three-and-a-half-week window."

Says Gunn: "I generally don't add hops until the cider is dry because I feel like fermentation is a very violent activity. It will blow off a lot of those critical aromas we're looking for. I like as much surface area as possible, so [I] recommend not putting hops inside a hop cannon or hopback but [throwing] them into the tank for a direct soak anywhere from one to two weeks." Less than a week won't yield enough extraction, Gunn says, while going much longer than two weeks doesn't seem to offer much advantage.

At Stem, meanwhile, Combs finds that dry hopping much longer than four days starts to yield more vegetal flavors. He tends to dry hop once the cider is fermented and filtered, at about 55°F (13°C). There are exceptions to these times and temperatures, of course, depending on the hop varieties and yeast strains. Combs says that Stem dry hops at warmer temperatures when using a strain ideal for biotransformation, which can contribute some of those tropical hazy IPA–style flavors. The Stem team tastes the tank daily to decide the best duration for each specific hop-andyeast combo. "You're putting [hops] in a very acidic liquid—3.6 to 3.7 pH," Combs says, "and all that acid [tends] to extract things out of those hops [that] normally you wouldn't necessarily extract in beer."

Filtration also affects when cidermakers dry hop. Many use crossflow filters, which hop particulate can damage, so dry hopping after filtration is best. During this period of clarification, 55°F (13°C) seems to be widely agreed-upon as a temperature—but, again, that and the contact time can vary depending on the hop variety and veast strain.

So, how much hops? Cidermakers tend to dry hop at lower volumes than we typically see in IPAs. At Bad Seed, Britton says they hover around one pound per barrel—that's about 2.6 ounces per five-gallon batch, or 78 grams per 20 liters—and a bit more for their India Pale Cider. At Stem, Combs says they range between one and two pounds per barrel, but it also depends on the variety; Sabro needs less, while Citra needs more. At Reverend Nat's, West says they hop Revival at about one-third pound per barrel.

In terms of multiple hops, Britton and Fay say they combine whatever hops they're using into one dry-hop addition. West, meanwhile, prefers to layer the varieties, with a five-day dry hop followed by a two- or three-day session, then proceeds to packaging on the fifth day of the process. This helps to extract more aromas because West prefers to leave the pellets in the sack instead of soaking them directly.

Pellets also are the more popular choice for reasons of efficiency and availability.

Britton, Combs, and West all say they have used fresh hops—and they all warn about how easily cider can take on grassy, vegetal flavors.

Gunn takes a different approach: Because whole-leaf hops tend to go into the boil or whirlpool with beer, he achieves that approachable, pleasant bitterness in cider by making a hop tea. He steeps the whole hops at about 170–190°F (77–88°C), adding the tea to the fermented cider to taste. (He also says this hop tea adds some pine and resin notes that many beer drinkers can appreciate.)

What's Next for Hopped Cider?

Some cidermakers also have been experimenting with new hop products, where it makes sense—considering cidermakers aren't after the same hop blast that brewers often want. Combs, for example, is a fan of Spectrum—the flowable, cold-side extract from John I. Haas—for how much hop aroma it delivers at a lower cost.

At first glance, hopping cider appears to be a relatively simple process: Focus on fruity and floral aromas to complement and/or bolster your fruits, dry hop after fermentation or during secondary fermentation, taste until the aroma and flavor are where you like it.

From there, however, it can get as complex as you want. Do you want to include some restrained beery bitterness with a side boil or by blending in some fresh-hop tea? Want some tropical notes with a warmer dry-hop, or more potential complexity with layered hop additions? Once the cider is packaged, do you announce the hops' presence, or do you let the drink speak for itself? Whatever route you take, enthusiasts of both cider and beer are bound to

respond to a hybrid that smells and tastes more like its own thing entirely.





PHOTOS: MATT GRAVES/WWW.MGRAVESPHOTO.COM; COURTESY FIELD RECORDINGS



Cider isn't the only fermented fruit messing around with craft beer's most cherished ingredient. In California, Field Recordings' dry-hopped pét nat marries the best of wine and beer. By Kate Bernot

EVEN DURING HIS CAREER as a vineyard nurseryman—the person who cares for grape vines—Field Recordings owner and winemaker Andrew Jones couldn't escape cider or beer. When he began his own wine label as a side project in 2007 in Paso Robles, California, Jones was as interested in the ingredients and process of other beverages as he was in winemaking.

Hopped ciders—as well as the Funky Gold series from Perennial Artisan Ales in St. Louis—had convinced him that hops and acidity were a winning combination and one he wanted to apply to wine. All that curiosity and exploration culminates in his Dry Hop Pét Nat, a naturally carbonated, sparkling white wine fermented on hops. Its label proclaims it to be the "best experiment ever."

"The beer world can be so traditional for every style," Jones says. "It's only supposed to be made a certain way in this or that category. Wine is like that, too, that it has to be done in a set way. But there's a lot we can do that hasn't been done yet."

Jones has been making wine in the pét nat style for roughly eight years. These wines, named for an abbreviation of the French phrase pétillant naturel ("naturally chomping on residual sugar in the juicenot so different from a bottle-conditioned Belgian ale. However, no sugar is added, as it is with champagne. Instead, the yeast produce carbon dioxide, and the wine absorbs that gas, creating natural bubbles.

Today, Field Recordings' dry-hopped pét nats begin with a base of chardonnay grapes, most recently from Coquina Wines in Arroyo Grande. Jones likes chardonnay for its neutrality, but past iterations of dry-hopped pét nat saw him pair a rosé with Citra hops, then a sparkling gamay combining grapes from Martian Ranch & Vineyard with Galaxy hops. (Clearly, Martian Galaxy was too good a wine name to pass up!)

Because Field Recordings doesn't use a lot of hops, relatively speaking, Jones is at the mercy of what he can buy on the spot market via Lupulin Exchange or from his lone "hop guy" in Michigan. That means the hop bill has changed a bit from year to year-but he's always been happy with the results.

"To my knowledge, we were the first to get the TTB [U.S. Alcohol and Tobacco Tax and Trade Bureau] to approve a grape product with hops," Jones says. However, because the resulting liquid isn't "100 percent grapes," the TTB doesn't allow him to say "chardonnay" on the label-so he

instead calls it a sparkling white wine with hops. "I had to go back and forth with them a bunch and justify the use of hops as a fining agent and stabilizer," he says.

Despite regulatory headaches, Jones wasn't giving up on dry-hopped pét nat.

"It has all the great aromatic complexity of the finest hopped beers," he says. "It's got good apple, pear, and stone-fruit notes from the wine, but it's elevated with the piney, more dank hops. I think of it as a whole new sparkling-wine experience, not a beer alternative."

Despite having a reputation for being somewhat finicky to produce, Jones says Dry Hop Pét Nat is one of the easiest wines he makes. They harvest the grapes on a cool California evening, when they reach the precise balance of sugar and acidity that Jones knows will yield a delicious wine. They then press the grapes in tanks that already contain hop pellets, so the native yeast on the grapes and in the winery can ferment the juice directly on the hops. The low temperatures at which this occurs don't allow for the isomerization of alpha acids—so, Jones prefers aroma-heavy, beta acid-rich hop varietals. (He declines to say how many pounds of hops he uses in a batch, calling it a proprietary detail.)

When the wine reaches near-dryness on the Brix scale after about three weeks. Jones uses temperature to stall fermentation, and he racks the wine off the hops and lees. He reserves a small portion of the fermenting juice in a temperaturecontrolled tank. After the hop particulates settle, the wine and the reserved juice are bottled together to allow for small amounts of ongoing fermentation.

These are relatively small-batch releases, yielding just 3,000 bottles that are prized equally by wine and beer drinkers-just as Jones intended.

"A lot of people in the wine world get inspired by one particular wine, and when they start their own thing, they want to make copies of that wine," he says. "For different."

sparkling"), are bottled before fermentation "The beer world can be so traditional for every style. It's only supposed to be made a certain way in this or that category. Wine is like that, too, that it has to be done in a set way. But there's a lot we can do that hasn't been done yet."

Sourcing Quality Honey

Whether you're making mead, cyser, other drinks—or even beer—identifying high-quality honey is a challenge. Here's some insight into the problems involved and how to overcome them, from **James Naeger**, director of sales and special projects at **Schramm's Mead** in Ferndale, Michigan.

HONEY HAS ALWAYS BEEN a key ingredient in alcoholic drinks. Sadly, however, the industrialization of beekeeping and honey production have turned this once-revered substance into a commodity.

Honeybees as livestock are trucked around the country to pollinate food crops on a massive scale—indeed, our entire modern food system relies heavily on migratory beekeeping. For example: Most commercial beekeepers put most of their hives on flatbed trucks and send them to California each year to pollinate almonds. Almond nectar, however, is almost entirely devoid of nutrients for bees, and they must be fed commercial sugar solutions and nutrients to keep them alive in the almond groves, which are grown in monoculture for miles around. In fact, if other nectar sources are available in an almond grove, the bees will ignore the almond

flowers altogether. What little honey the bees produce in the almond groves is dark and tends to be bitter; farmers remove it from the hives and sell it off before trucking the hives back to their home locations.

Without this revenue, the business model of almost every U.S. commercial beekeeper would be in the red. Thus, honey production often plays second-fiddle to the pollination for which the beekeepers (and their bees) are hired.

Nevertheless, in recent years we've seen an explosion in the popularity of mead, beer, cider, and other delicious beverages made with honey. More people than ever are learning about the importance of honeybees to our food system and to the health of our environment at large. Beekeeping is more popular and increasingly urban. Homebrewers and meadmakers see a growing Venn overlap with backyard beekeepers. Meanwhile, quality varietal honeys from around the world are more accessible than they've ever been, ordered from your smartphone and delivered straight to your doorstep.

Increasingly, brewers and drinkers are aware of those factors that contribute to quality honey production, and they are approaching the use of varietal honeys as they would other prized ingredients such as malt, hops, yeast, and grapes.

The Grade Problem

In the United States, we have very few standards for honey quality—and these are all voluntary, inconsistently applied, or pure marketing hokum. Broadly,



There is not yet any single method capable of detecting all the various ways fraudsters will cut pure honey down into the honey-like product they are passing off on consumers around the globe.

these standards are arbitrary, meaningless, and/or virtually ignored.

Let's go down a rabbit hole: The U.S. Department of Agriculture has standards for grades of extracted honey. These are available to help producers and suppliers establish quality-control programs and for what they call "orderly marketing." There are federal inspectors available to grade honey for these businesses, and these inspectors work on a fee-for-service basis. So, the honey businesses pay the inspectors to grade their honey, then they can use those grades in their marketing.

These inspectors use a 100-point system that's not so different from judging beer, mead, or wine. They award points for flavor and aroma (up to 50), absence of defects (40), and clarity (10). The USDA's four grades for extracted honey are Grade A (90-plus points), Grade B (80–89), Grade C (70–79), and Substandard (below 70).

Notably, they define "defects" as particles of honeycomb, propolis, or other sediments that "affect the appearance or edibility of the product."

Propolis, incidentally, is a hive product that can add amazing flavor and aroma to honey and mead—but the USDA and the honey industry consider it a defect. A resinous substance that worker bees use for various purposes, propolis is also a known antimicrobial agent, with both antibiotic and antifungal properties. It may also have anticavity, antitumor, and antiviral effects. More to the point: Some of the best meads I've ever made were based on raw honey that contained propolis, wax, bee's knees—you name it!

Another key metric that determines the USDA honey grades is moisture content. Grades A and B need to have a soluble-solids content of at least 81.4 percent—i.e., no more than 18.6 percent moisture. As Ken Schramm writes in *The Compleat Meadmaker*—a seminal book, and I'm not just saying that because I'm his son-inlaw—fermentation can occur in honey that's above 19 percent moisture. Thus, it's best to avoid Grade C and below honeys because they may have off-flavors and aromas even before your *intentional* fermentation has begun. The device for measuring soluble solids in honey is called a honey refractometer—it's a simple device, similar to a refractometer that measures wort gravity, but few brewers know it exists. It's just one example of a tool that brewers and meadmakers can use to analyze and ensure the quality of honey as an ingredient.

When it comes to the flavor and aroma the bulk of the score—the evaluation is done by a federal inspector working on a fee-for-service basis. Now, are you ready for a dirty little secret? Not a single honey producer, packer, or reseller that I spoke to for this article is actually sending samples of honey to the U.S. Federal Inspection Services. Producers are completely sidestepping this voluntary program for grading honey. That marketing label of "U.S. Grade A" isn't so "orderly" after all, it seems.

So, how is the U.S. consumer supposed to be the judge of quality honey?

Marketing & Fakery

When buying honey at the store, you might see terms such as "certified kosher," "raw," "pure," "unfiltered," "unheated," or "natural." These are all completely unregulated, with meanings that vary and even conflict, depending on whom you ask.

For example: "Certified kosher" honey has usually been filtered to a specific micron mesh size to remove dead bees and bee parts. So, how could a certified kosher honey also be considered "raw"? Even a "raw" extracted honey has been processed to removed it from the honeycombs. These imprecisions make it difficult to know what you're really getting when searching for quality honey.

Adulteration—using syrups made from corn or sugarcane, for example—is

a problem that has reached epidemic proportions in honey-producing countries around the world. One system that has been effective in opposing this fraud comes from an independent firm called True Source Honey, which developed the True Source Certified seal. This is a voluntary system of traceability and testing for authenticity. The National Honey Board also has named adulteration as a major challenge facing the industry.

However, there is not yet any single method capable of detecting all the various ways fraudsters will cut pure honey down into the honey-like product they are passing off on consumers around the globe.

Testing for Quality

Simply put, brewers and meadmakers need the honey industry to do better. Consumers deserve more, and that starts by educating ourselves about what quality honey is—what it tastes like, what it smells like, what it contains, and what it does not contain.

There are four true enemies to honey quality: filtration, incorrect labeling, adulteration, and heat.

We've briefly touched on filtration and incorrect labeling. Adulteration we just discussed. Thankfully, you can avoid it by looking to trusted sources of honey—your local beekeeper you know by name, True Source or other seals of authenticity, or by buying honey produced as close to your base of operations as possible. Becoming familiar with a local beekeeper might be the best thing you can do this year to improve your knowledge of honey quality and any beverages you make with it.

In *The Compleat Meadmaker*, Ken writes that "the closer to the hive (in terms of time and treatment), the more complex and flavorful your honey, and thus your mead, are likely to be." Ken is a big advocate of using freshly extracted local honey for mead; its aroma is volatile. Any storage above 80°F (27°C) will cause deterioration of aroma, color, flavor, and enzyme content. Every processing method from the honeycomb on will degrade the quality of the honey extracted from it, and that usually begins with heat.

When honey is heated, it loses flavor and aroma molecules—which is often why the smell of honey fills a processing facility that is heating honey. Beekeepers, honey packers, and professional users



of honey do this for one simple reason: honey is viscous, heavy, and often in a solid to semi-solid state. Except for freshly extracted honey in liquid form, you need to heat honey to get it to flow—whether that's from a jar, a pail, or a drum. This is practical: Have you ever tried to get crystallized honey out of a 660-pound drum for your beer? Heating is also necessary for filtration to remove particulates, which also can increase the rate of crystallization.

We can roughly determine how much heat a honey has experienced using enzyme activity. Most brewers are intimately familiar with a little enzyme known as alpha-amylase—the enzyme in malt that converts starch to sugar. This enzyme is present in human saliva *and* in the salivary excretions of bees. So, we can use the enzymatic activity in honey as a marker for how much heat has been applied to it.

The Europeans are way ahead of the United States on this key metric for honey, with a minimum level of alpha-amylase, or diastase—it's eight Schade units, if you're keeping score—for all except baker's honey. A Swedish company called Phadebas sells testing kits for amylase, a quick and affordable (\$2) method that uses the sort of spectrophotometers that many brewery labs have. However, none of this is well known in the United States. We can and should be asking our honey sellers to test for this enzyme and to label their honeys with the results. We get a certificate of analysis with our malt. Why not our honey?

Another objective measure of how much heat an extracted honey has experienced comes in the form of HMF—that's 5-hydroxymethylfurfural—which is formed by reducing sugars in honey under conditions of acidity and heat. Again, the Europeans have standards for this: a maximum of 40 ppm in honeys from non-tropical origins, and 80 ppm from tropical sources. (Some honey tasters consider tropical honeys to be "naturally spoiled," due to the heat they inevitably experience.) Testing for this used to be expensive, but newer methods are down to about \$5 per test.

You know what *is* expensive? Honey. If you're paying a premium price for

yours, wouldn't you want a basic test for that batch? Ask your producer if they do this kind of testing, and you'll be doing a service for wider honey quality.

The Conversation about Quality

Subjective analysis of honey flavor and aroma should be done by professional honey tasters—and they're rarer than you think.

I've studied honey for many years as a professional meadmaker, and I do not consider myself a professional honey taster by any means. My beautiful wife Alyson Schramm Naeger and her father Ken Schramm have worked side-by-side with me for many years; although they have some of the most well-trained palates of anyone I know, I don't consider *them* to be professional honey tasters either. We are professional honey *users*.

I consider a professional honey taster to be someone who routinely analyzes honey for flavor and aroma for the purposes of selecting lots and batches for purchase. These are the pros who work at honey suppliers such as Z Specialty Food and at places such as the University of California Davis Honey and Pollination Center.

In the wine world, we have writers, critics, and sommeliers such as Madeline Triffon, James Suckling, Jancis Robinson, and Robert Parker. Everyone has an opinion, and not everyone agrees with these professionals, but they form the basis for a conversation on the subjective analysis of flavor and aroma. These critics and professionals provide a starting point for our discussion about wine quality. So, why don't we look to professional honey tasters as judges of quality in honey?

Honey varies widely, and naturally, depending on a range of factors: the location of the hives, the time of year the honey is extracted, the experience and artistry of the beekeeper, and more. Relatively few consumers are aware of the factors that determine quality in honey, and this has stymied the development of useful standards. Such standards would be useful to those who make craft beverages—whether at home or on a commercial scale—and to those who enjoy drinking them.

It's past time for a conversation among craft aficionados about what quality honey is, how to find it, and how to use it—all in the service of making world-class craft beverages.

Ukraine has been on the minds of many people around the world over the past year, but that's not why its national beer style deserves a spot in the global canon. Instead, **Lana Svitankova** argues, we must consider Ukrainian golden ale on its own merits.

THIS MIGHT BE THE BEST TIME—and

the worst possible time—to try to get Ukrainian golden ale more widely recognized as an established beer style.

Everything Ukraine-related has gotten a lot of traction over the past year. But, believe me, I'd give everything just to stubbornly push the style's cause without it getting swept into the limelight by a widespread wave of compassion. Getting people to support the style out of pity, just because of Russia's war in Ukraine—that's the last thing we need. Such support is as heartbreaking as it is heartwarming, but nobody in Ukraine's brewing scene wants to ride on sentiments—especially since we got this unofficial movement going months before shells began raining down on my home city.

Besides, there are many cases of mislabeling the Ukrainian golden ale style. Hundreds of breweries worldwide are releasing beers brewed in solidarity with Ukraine, including the famous Pravda Brewery in Lviv. Its Putin Huylo—translation: "Putin is a Dickhead"—is technically a Belgian-style golden strong ale. However, since Pravda is a Ukrainian brewery, many have mistaken Putin Huylo for a Ukrainian golden ale, an idea further spread by local and international media. It's a fine beer and serves a great purpose; it's just not in the style that we're trying to promote.

Even on our home turf, this has been a bit of a battle.

For years, we couldn't agree on whether we as Ukrainians should even *try* to venture into the realm of respected, steeped-in-history beer cultures.

How could *we* attempt to own a beer style? How could we prove it's not a cheap imitation of an established one? How could we prove it's not just one brewery's attempt to get as much fame as possible? Who will even believe us, if the beer has never technically been poured anywhere across the border?



| UKRAINIAN GOLDEN ALE |

I had some doubts myself ... yet the beer persisted. The beer has never really cared how "craft" it is or isn't. It never cared that some know-it-alls made fun of it, prophesying a quick and inevitable demise. People drank it anyway. Since 2009, Ukrainian golden ale has survived the wilderness of obscurity, and it has prevailed. It's high time to share it.

So, what exactly is a Ukrainian golden ale?

Believe it or not: It all started with the *Reinheitsgebot*.

Or, to be more exact, it started with a Ukrainian brewer (Dmytro Nekrasov) who once thought that the best beer is German beer, brewed under the purity law—i.e., just water, malt, hops, and yeast. It also started with his friend (Vasyl Mikulin), who owned the brewpub and was eager to explore the panoply of beer styles. Those two were of Yuzivska Pyvovarnia—aka the John Hughes Brewery, since Yuz is the local way to say the name of the Welshman who founded the city of Donetsk. Yuzivska is an impressive, three-storied beer garden—type restaurant with brewing equipment on site in Donetsk.

After lengthy discussions and disputes, Nekrasov yielded to persuasion and went to Belgium to discover other beers. What he saw and tasted there, he says, shook his world to the core. The visit aroused his interest in a wider diversity of beers and ingredients—but he wasn't a total convert. For the recipe he wrote when he returned, he decided that "coriander was acceptable, but still no sugar in my beers."

The beer's all-malt recipe with SafAle S-33 ale yeast and a light touch of coriander gave it a luscious body, sweet aftertaste, and 7 percent ABV. It also be-

FIGURE 1

Comparing Golden Ales

	British Golden Ale	Ukrainian Golden Ale	Belgian Golden Strong Ale
Percent ABV	3.5-5	6.1-7.5	7.5–10.5
Finish and Body	medium-dry to dry	semidry to dry, with sweet, lingering aftertaste, fuller body	dry, effervescent
IBUs, Hops	20–45, English and/or New World	15–30, European and/or New World	22–35, European
Ale Yeast	clean British	Neutral strain or slightly fruity, low-attenuating, slight phenols optional	fruity Belgian
Ferment– ables	pale or lager malt, corn, wheat, and/or sugar	pale or lager, wheat, no sugar	pilsner, substantial sugar addition
Additives	none	usually coriander	rarely

came the love of many patrons. Yuzivska Golden Ale enjoyed that love and fame for five years—until Russia occupied Donetsk in 2014. Mikulin and Nekrasov fled the city, leaving Yuzivska and their previous lives behind. (As we go to press, the city and most of Donetsk region remain under Russian occupation.)

Here's how it spread.

Mikulin and Nekrasov started anew in different places—Mikulin went to Varvar Brew in Kyiv, and Nekrasov to First Dnipro

Fast-forward a few more years, and at least 13 breweries in Ukraine have core beers that they call Ukrainian golden ales—some are sweeter, some drier, some lighter or stronger, but all are recognizable as such. Before, I never would have imagined a brewpub favorite spreading across the country, winning the hearts of thousands of people, somehow surviving the fashion for everchanging variety, and growing to an estimated 1.25 million liters consumed per year. Brewery in Dnipro—and they both took golden ale with them. Many other people from the occupied territories also found new homes in those places, and they were thrilled to find something familiar at the bar. Nor were they the only ones who liked it. The allure of that golden hue, its sweetish aftertaste, and its drinkability despite its strength all won the style more fans. Soon, other breweries were following suit.

At that time, Ukraine had no specialized beer festivals-there were no invitationals or fests featuring the boldest and weirdest beers. Instead, you could find some beers at local or regional fairs and similar events. At such a gathering, you could find a range of beers to suit everyone from craft newbies to seasoned travelers. Yet the biggest sellers were styles that were widely familiar to everyone as "beer." Golden—as lots of people lovingly called it-fit that bill perfectly: not too bitter, with a pleasant malty palate; flavorful enough to invite further exploration, yet not so challenging as to turn people away. It was, and it remains, a gateway beer.

Fast-forward a few more years, and at least 13 breweries in Ukraine have core beers that they call Ukrainian golden ales—some are sweeter, some drier, some lighter or stronger, but all are recognizable as such. Before, I never would have imagined a brewpub favorite spreading across the country, winning the hearts of thousands of people, somehow surviving the fashion for ever-changing variety, and growing to an estimated 1.25 million liters (330,215 gallons)—by the most conservative approximation—consumed per year. I never expected to see Ukrainian golden ale get shout-outs on beer platforms I respect, to find a place among the style categories on Untappd, or to land a category in the U.S. Open Beer Championship.

Yet all of that has happened.

However, the struggle is bigger than one style.

My personal crusade is not only to champion Ukrainian golden ale and get it recognized across various platforms and guidelines. If we consider the broader implications, then there are other styles missing from wider view just because they happen to be highly localized and, thus, unknown to the rest of the beer world.

Being generally out of sight doesn't make them unimportant. In terms of golden ales, there's another one—Argentina's *dorada pampeana*, or Pampas golden ale—that's listed by the Beer Judge Certification Program (BJCP) but nonexistent in other international guidelines. In Brazil, Catharina sour is a popular and exciting style that features an abundance of local, exotic fruit, yet few have heard of it, and it has no place in most guidelines.

Granted, guidelines are not the end-all and be-all. They tend to serve their own purposes—beer competitions, particularly—and add new categories depending on market popularity. However, I think that's a perfect case of a chicken-or-the-egg dilemma. Even if a style is popular in its home culture, it can't grow further without some degree of exposure and awareness.

The more we support local styles from elsewhere and the more we become aware of their existence, then the more variety we'll get to enjoy. After all, weren't the thirst for variety and the escape from mainstream homogeneity the whole point of craft beer in the first place—and the key to its success?

In the past couple of years, discussions about inclusivity and diversity have become a driving force in the beer industry. If you ask me, welcoming people of all colors, ages, disabilities, sexual orientations, or gender identities also includes opening up to traditions outside our usual experiences.

So, let's embrace new local styles and give them the chance to play in the global beer sandbox.

CB

The more, the merrier, right?

MAKE IT

Ukrainian Golden Ale

The defining characteristics of a Ukrainian golden ale are its golden hue, a relatively high ABV, and a smooth, sweet finish balanced by soft bitterness. It sits somewhere between British golden ale and Belgian golden strong, being stronger and less bitter than the former, yet without the yeast-derived flavors of the latter, and with more body.

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.076 FG: 1.024 ABV: 6.8% IBUS: 23

MALT/GRAIN BILL

12.1 lb (5.5 kg) pilsner 1.4 lb (635 g) pale wheat malt 11 oz (312 g) caramel/crystal 10L

HOPS & ADDITIONS SCHEDULE

0.6 oz (17 g) Magnum at 60 minutes [23 IBUs] 0.26 oz (7.5 g) freshly crushed coriander seeds at flameout 0.67 oz (19 g) of your favorite hop variety at dry hop

YEAST

Low-attenuating British-style strain, such as Fermentis SafAle S-33, Lallemand Windsor, or similar

DIRECTIONS

Mill the grains and mash at 149°F (65°C) for 40 minutes; raise to 162°F (72°C) and rest for 20 minutes; then raise the temperature to 172°F (78°C), rest 10 minutes, and mash out. Recirculate until the runnings are clear, then run off into the kettle, sparging and topping up as necessary to get about 6 gallons (23 liters) of wort, depending on your evaporation rate. Boil for 60 minutes, adding hops according to the schedule; at flameout, add the coriander seeds in a small mesh bag. Chill to 65°F (18°C) and pitch the yeast. (If using liquid yeast, aerate the wort.) Ferment at 65°F (18°C) until Day 3, then raise to 68°F (20°C). Once fermentation is almost complete, add the dry hops. Once fermentation is complete and gravity has stabilized, crash to 32°F (0°C) and condition for 14 days. Package and carbonate to 2.5 volumes; if bottle-conditioning, store at room temperature for 2 weeks, then refrigerate and enjoy.

BREWER'S NOTES

Malt: If you are going for a lower-ABV version, you can replace some or all of the pilsner malt with pale ale malt. You could also increase the crystal malt for more residual sweetness.

Coriander: Many Ukrainian brewers add the freshly crushed seeds either at flameout or in the whirlpool, at amounts that vary from 0.1 to 1 gram per liter, depending on the seeds and individual preference. Coriander pairs nicely with citrus-forward hops in the whirlpool or at dry hop. The addition of coriander is optional, so feel free to experiment with your favorite spices or hops. **Yeast:** We leave that extra body and sweetness in the finished beer by using a

lower-attenuating British ale strain—one that doesn't metabolize maltotriose. In lighter versions, a neutral American ale strain can also work.

Water profile: We also promote that body with our water profile, by favoring chloride over sulfate (roughly 90:60 ppm).

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Bauer wine

A longtime favorite of brewers, this intense expression of malt is enjoying a fresh focus, as more makers search for life beyond imperial stout.

FLAVOR FEVER

Barleywine of the Old Style

Brewing up something big and ponderous, and looking for inspiration? The British barleywine tradition offers more quirks than you might think, including more funk, more hops, and more time. **By Randy Mosher**

> **ANY STRICT DEFINITIONS** for the term "barleywine" are of fairly recent origin—and, according to respected beer historian Martyn Cornell, it's dubious to apply the word to a style. For centuries, it was simply a poetic way of referring to the stronger sorts of pale-ish beers available in Britain. It didn't appear on a label until about 1900, in connection with Bass Brewery's No. 1, a 10-plus percent ABV Burton-style ale.

Its name notwithstanding, brewers have been making very strong beers for ages. Many were kept for a considerable period of time before release; others were sold as soon as they hit the cask. This crucial distinction was consistently applied: "Mild" simply meant an unaged beer, regardless of strength or color. "Old"—or, in some references, "stale" beers—were aged long enough to dry out and acquire a "vinous" character. The brewers didn't want *too* much acidity, for which remedies abounded. Aging required at least a year, and in estate-brewed beers often much longer: A character in George Farquhar's play *The Beaux' Stratagem* (1707) described his ale: "'tis smooth as oil, sweet as milk, clear as amber, and strong as brandy; and will be just fourteen year old the fifth day of next March, old style."

The Inner Life of Barrels

With porters and stouts, "vatted" meant aged versions, stored in large tanks rather than barrels. By the 1850s, Tizard uses "old" and "vatted" interchangeably and notes in his day a "general change in public taste in many places, from new to old." His advice for vessels for "production of a pale, bright, aged, and sound article" is "underground tanks ... lined with slate, to contain from 500 to 5,000 barrels."

The unique aged flavor in these old ales is usually attributed to "wild" *Brettanomyces* yeast, whose name, after all, means "British fungus." Because its natural habitat appears to be in oak trees, its presence in wood-aged beers makes sense. But slate-lined tanks? It's hard to reconcile, but Tizard indicates some brewers used a spontaneous process, which "consists in merely vatting the worts directly from the coolers, trusting in their native ferment, *and that left by the former gyle.*" He also mentions a solera-type method in which a portion of old beer is removed from the tanks and replaced by fresh wort. It's easy to see how persistent-but-slow-growing *Brett* would be able to Barrel-aged beers of today are unlike those of centuries past. Today's are generally "rested" for months rather than aged for years. Prior contents and surface-area-to-volume ratio each impact the resulting flavor.

Barrel-aged beers of today are unlike those of centuries past. Today's are generally "rested" for months rather than aged for years, normally in second-use spirits or wine barrels of about 50 U.S. gallons (189 liters), while larger, beer-specific "butt" casks of about 130 gallons (492 liters), or larger tuns or vats, would have been the historic norm. Prior contents and surface-area-to-volume ratio each impact the resulting flavor.

Hue and Strength

These strong British ales can be almost any color, unless they're inky enough to be called stouts or porters. The origin of the grand family of pale-ish, highly hopped beers that even-

tually became India pale ale was a brew called "October" or "March beer," named for its brewing season. These were brewed for wealthy gentlemen on their estates—the ultimate homebrew. Tizard recommends the palest possible malt and minimizing color development with steam—as opposed to flame-fired—kettles.

"Nut-brown ale" was an imprecise poetic term for a beloved, brownish, strong brew that was especially popular in the North. Long before it brewed a drop of India pale ale, Burton-upon-Trent was famous for a strong, ruby-colored ale that was sold in "mild" and "stale/old" versions, similar to what we would think of as a Scottish-style "wee heavy." By the end of the 19th century, according to Cornell, "old" became a synonym for Burton ale, especially in London.

These were all strong beers, often marked with XXXX designations. In 1833, William Black gives a recipe for an equivalent "best" that works out to 21.6 pounds (9.8 kg) of pale Chevallier malt per five-gallon (19-liter) batch; an estimated 1.130 OG at 80 percent efficiency. About 15 years later, George Amsinck lists a "No. 1 Burton" from that era at OG 1.112.

Big Malt for Big Beers

High-gravity beers can be challenging. In any brewery, only a limited amount of grain will fit into the mash tun, limiting a beer to perhaps 8 percent ABV unless the system is optimized for strong brews. To solve this problem, a brewer can supplement the grist with malt extract or some form of sugar. Half-batches with more malt can be brewed and then combined if needed. Until industrialization, brewers in Britain solved the problem with "parti-gyle" brewing-using the first- and possibly second-run worts for the strongest beers and, with a fresh infusion, third and often fourth runnings for small ones. Typically, these runnings would be blended for consistency and to produce a range of strengths.

Parti-gyle brewing is complex but entertaining. This results in a smaller batch,

establish itself by either method. (For a contemporary approach to the old method in Britain, see "When Scotch Ale Is Stock Ale," beerandbrewing.com.)

A *Brett* species called *Brett. claussenii* is most often associated with these beers. It's typically said to have a tropical character; I get pineapple candy. While beers can be completely fermented with *Brett*, the norm these days is to use a *Saccharomyces cerevisiae* strain first, then pitch the slower-growing *Brett* after racking the beer into its maturation vessel.

MAKE IT

1841 Truman XXXXK

For this glimpse into the past of big stock ale and barleywine, we're grateful to beer historian Ron Pattinson. This previously unpublished recipe is based on brewing logs from more than 180 years ago.

He explains: "XXXXK was part of a range of ales which Truman, one of London's classic porter breweries, started to brew in the 1830s. There were two parallel lines of X ales, mild and stock, with the latter being signified by a K suffix. The only difference between the two was the level of hopping, which was considerably higher in stock versions—logical, as they would need the protection of extra hops during their prolonged ageing. A beer of this strength would probably have had at least a two-year secondary *Brettanomyces* fermentation."

For many more recipes based on Pattinson's historical research, check out *The Homebrewer's Guide to Vintage Beer*, published by Quarry Books, as well as his self-published books and long-running blog, Shut Up About Barclay Perkins.

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.118 FG: 1.039 IBUS: 124 ABV: 10.4%

MALT/GRAIN BILL

22.8 lb (10.3 kg) British two-row pale

HOPS SCHEDULE

8 oz (227 g) East Kent Goldings at 90 minutes [72 IBUs] 8 oz (227 g) East Kent Goldings at 30 minutes [52 IBUs]

YEAST

Wyeast 1099 Whitbread Ale, White Labs WLP017 Whitbread II Ale, or similar; and *Brettanomyces claussenii* (optional)

DIRECTIONS

Mill the grains and mash at 150°F (66°C) for 60 minutes; raise to 170°F (77°C) and mash out. Recirculate until the runnings are clear, then run off into the kettle. Sparge as necessary to get about 7 gallons (26.5 liters) of wort, depending on your evaporation rate; the longer boil and large hop quantity will soak up some wort. Alternatively, limit your batch size to the strongest runnings, stopping before the wort drops below 1.040. Boil for 90 minutes or more, adding hops according to the schedule. After the boil, chill to about 58°F (14°C), aerate thoroughly, and pitch plenty of healthy yeast. Ferment patiently at 64–68°F (18–20°C), or within your yeast's recommended temperature range. Once fermentation is complete and gravity has stabilized, rack to secondary for lengthy conditioning, optionally with oak and *Brettanomyces*. After a year or two, crash, package, and carbonate to about 1.5 volumes of CO₂—or rack into a pin cask.

| FLAVOR FEVER: BARLEYWINE |

using only the first third or half of the runnings, which will get you half or two-thirds of the extract, respectively. A recipe that yields a 1.075 gravity for the entire batch will get to 1.150 for the first third of the runoff, or 1.1167 for the first half. Unless you're shooting for a particularly light- or heavy-bodied beer, normal mashing temperatures of about 150°F (66°C) will do. (For much more on the method, see "Practical Parti-Gyle Brewing," beerandbrewing.com.)

A laborious earlier method called "double" brewing used

the strong first runnings to mash a batch of fresh malt. It's time-consuming and inefficient, but it will produce the strongest possible wort purely by mashing.

Brewers in Britain may have had access to a spectrum of pale ale malts, from white to tawny, including a "high-dried" variation of pale possibly similar to today's mild ale malts. "Amber." often called "biscuit" today, was available in two shades, although Amsinck describes it as being made "nearly obsolete" by the introduction of black malt. Brewers were certainly using crystal malts from the mid-19th century onward. However, since their greatest utility is adding heft to weaker beers, they're rarely needed for something as big as a barleywine.

In the old days, it was uncommon for brewers to use more than a single malt in a pale beer, except for sometimes "capping" the last runnings with a darker malt to give it a little color and character. Because brewers often malted their own barley, it was simplest to malt for what they brewed rather than making different malts and blending them, as they would have done for porters. J.W. Lees' Harvest Ale uses nothing but Maris Otter pale malt and East Kent Goldings hops-a clear lesson that a long list of ingredients is unnecessary for extreme complexity.

If you want some color, you might use a bit of amber/biscuit, but if you want to brew something similar to the darker Burton ale,

mild ale malt might make sense. If you can't find that, Vienna shares a lot of its round, malty characteristics. Amsinck used "New Burton Pale" in his Burton No. 1 but blithely reports, "Boiled the liquor overnight," which is where the color came from. Crystal should be used with a very light hand unless you're aiming for something more typical of American craft examples, such as Sierra Nevada's Bigfoot. Fair warning: Crystal ages poorly.

Sugar, Hops, and Yeast

British brewers were allowed to use sugar in their beers after 1847. Both raw types and syrups derived from cane (and possibly palm) were enthusiastically employed in pale ales and IPAs, at least

Further Reading

Want to dig deeper on this topic—possibly in your favorite armchair, with a snifter of barleywine at your side? Here are some books to seek out.

Amber, Gold and Black: The History of Britain's Great Beers

By Martyn Cornell The History Press, Cheltenham, UK, 2010

In Praise of Ale

By W.T. Marchant George Redway, London, 1888

The Theory and Practice of Brewing: Illustrated By W.L. Tizard Published by the author, London, 1850

A Practical Treatise on Brewing By William Black Smith, Elder and Co., Cornhill, London, 1835

Practical Brewings: A Series of Fifty Brewings

By George Amsinck Published by the author, London, 1868 sometimes. Amsinck suggests a maximum of about 17 percent of gravity. Although I can't document its use in barleywines, it wouldn't be heretical in my opinion.

The "October" forerunners of old ales were often hopped at very high rates. William Ellis, in his 1762 *The London and Country Brewer*, gives his preferred recipe for "keeping beer," which translates to 23 pounds (10 kg) of malt per five-gallon (19-liter) batch, using only the first of four runnings, with half a pound (227 g) of unspecified hops added each half hour of the 90-minute boil. By modern calculations, this equates to more than 200 IBUs, a more-or-less impossible number.

For the same batch size, Black's "best" of 1835 included 11 ounces (312 g) of Goldings hops: half at full boil and half in the last 10 minutes, yielding about 72 IBUs. Historically, brewers preferred Goldings types and saw them as higher quality. Modern interpretations of the darker variants are lightly hopped, but Amsinck's Burton used almost 14 ounces (397 g) of "East and Mid-Kent" hops per five-gallon (19-liter) batch.

Recently developed cultivars of Goldings such as First Gold are available, and there are now some delightful English alternatives if you can find them—Jester, with hints of apricot and berry, and Harlequin, with fruity and tropical notes. Dry hopping makes sense for these "mild" strong beers, but it's optional in long-aged ones.

Beers stronger than 10 percent ABV need special attention to their yeast. First, choose a strain that is tolerant of the alcohol range you want. Second, it's a good idea to re-pitch from the active fermentation of a less-strong beer because that generates a lot of yeast and helps to ensure a quick, clean fermentation. Lacking this, anything you can do to put more yeast into the fermentor is helpful. If you are adding *Brett* afterward, be aware that it's a slow grower, taking several months to fully develop flavor and chew through any complex carbs that the *S. cerevisiae* left behind.

Replicating oak-aged commercial beers of any era is an extreme challenge in very small batches. If you're homebrewing and want the unique character of oak, I recommend adding toasted oak cubes or chips. The manufacturers often suggest usage rates to replicate larger barrels. I've gotten best results adding them right at the beginning of fermentation, which seems to speed up development of vanilla character. If you rack for storage, add fresh oak.

Also: Be patient. Those in Jolly Old England sometimes waited decades for their masterpieces to mature. A year in the cellar should be just enough time to work up a worthy thirst.

MAKE IT

Randy's Barleywine Time Machine

With the English tradition of stock ales and barleywines firmly in mind, here's an original recipe from Randy Mosher. Note the options for oak-aging and *Brettano-myces*—but however you brew it, this is one to lay down for months or years.

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.100 FG: 1.033 IBUS: 85 ABV: 9%

MALT/GRAIN BILL

13.1 lb (5.9 kg) Maris Otter 3.7 lb (1.7 kg) Vienna 1.9 lb (862 g) amber malt

HOPS & ADDITIONS SCHEDULE

4 oz (113 g) East Kent Goldings at 60 minutes [53 IBUs] 1 tsp (5 ml) Irish moss at 10 minutes 6 oz (170 g) East Kent Goldings at flameout/whirlpool [32 IBUs]

YEAST

Wyeast 1099 Whitbread Ale, or your favorite British ale yeast

DIRECTIONS

Mill the grains and mash at 150°F (66°C) for 60 minutes. Recirculate until the runnings are clear, then run off into the kettle. Sparge to collect about 6 gallons (23 liters), depending on your evaporation rate. Boil for 90 minutes, adding hops and Irish moss according to the schedule. After the boil, do a whirlpool step: Add whirlpool hops and stir or recirculate for 5 minutes to create a vortex, then allow 15 more minutes to steep. Chill to about 66°F (19°C), aerate thoroughly, and pitch plenty of healthy yeast—preferably a large yeast starter. Ferment at 68°F (20°C), allowing the beer to free rise as high as 75°F (24°C), until fermentation is complete and the gravity has stabilized, then rack to secondary for lengthy conditioning. After some months or when you can't stand it anymore, crash, package, and carbonate to about 1.5 volumes of CO₂.

BREWER'S NOTES

Gravity: The target OG is just a suggestion. Unless you're brewing for consis-

tency, you might just pack as much malt as you can into your mash tun, boil for as long as you can stand it, and you get what you get. Make this as strong as you like, especially if destined for long aging. There's really no top end.

More runnings: There will still be a lot of extract in the mash after lautering and sparging. Options include capping with some specialty malt to make a small beer or keeping the extra wort to use for your next yeast starter. Hops: Goldings are the classics, but if you want more unique character, I suggest substituting about 25 percent of the IBUs with something more uniquely characterful. Try newer Slovenian varieties such as Styrian Eagle/Dragon/Wolf, German Hüll Melon, Calypso, Pekko, or unusual English hops if you can find them. Yeast & fermentation: The Whitbread strain is only a suggestion; whatever your choice, use the recommended temperature range as well as you can manage. A big, healthy yeast starter will give you the best shot at reaching your target gravity. Wood: Small barrels don't work well for homebrewers. I've had good results with toasted oak chips or cubes. Dark-toasted American oak will give the most vanillin, if that's what you're after-for quickest maturation of flavor, add them right at the beginning. Either use the manufacturer's recommendations or just toss in 1-2 ounces (28-57 g) of wood (possibly soaked in whiskey first). Funky stock: A touch of Brettanomyces is historically accurate with big stock ales and barleywines. If you add Brett, do so at conditioning and be prepared to wait 6 months or longer for the full effect. Note that it will keep chomping sugars and push your ABV higher. Packaging: Cask is traditional here, but you may need a party to help you drink

you may need a party to help you drink it. The best option may be to lightly carbonate and keep it at cellar temperature, not frigid. It also works well as a bottle-conditioned product, though it may need fresh yeast if conditioned for more than a month or so. BREWING TRENDS

Taint It Black

Brewers may not agree yet on what makes a great black barleywine tick, but this chimeric new "bipartisan drink" is adding some much-needed allure and interest to a style that's been falling out of favor. **By Jerry Fagerberg**

NOT SO LONG AGO, "barleywine is life" was the claxon of the consummate beer nerd. Beer writer John Palmer called barleywine "the drink of the gods, the intellectual ones, anyway." Since the early days of America's craft-beer renaissance, barleywine has been held in the highest regards for its challenging-yet-refined combination of fruit, spice, deeply malty sweetness, and considerable alcoholic strength.

These traits made barleywines rare quarry—the kind that devotees would line up on a winter morning to score. In recent years, however, their eminence has faded. Barleywine feels lifeless—a stodgy binary of American-style or English-style, with little innovation happening over the past generation.

Stouts, meanwhile, have exploded in popularity. Imperial, barrel-aged, breakfast, and, yes, the pastryinspired have all captured the drinking public's imagination in ways that barleywine never managed.

Yet brewers have been paying attention, and stout's runaway success has inspired new life in the barleywine category. Even the gods need to adapt. The latest trend in barrel-aged dark beer is the black barleywine, a hybrid that melds the luscious dark fruit characteristics of barleywine with the silken chocolate-roast depth of imperial stout. Whether brewers are extending boils and adding darker, sweeter malts to barleywines or they are literally blending in barrels of stout, these ebony feats of strength represent a new frontier for barleywines—and one that could restore the provenance of the craft beer's original white whale.

The Birth of a Chimera

Dave Coyne's first black barleywine was a curious mistake.

Coyne, who at the time was barrelmaster at Fort George Brewery in Astoria, Oregon, was simply trying to round out the difference between an American- and an English-style barleywine. He blended one of each and let the combination sit in an Elijah Craig bourbon barrel for 19 months. What came out was a remarkably robust beer, unusually dark in color, popping with the traditional morello cherry and fig notes as well as brown sugar and toffee. He named the perplexing 14.7 percent behemoth Ology, a study in an emergent style.

"Brewing a black barleywine, and not just a really modern, malt-heavy English-style barleywine, is like threading the needle between the two styles," Coyne

"Brewing a black barleywine, and not just a really modern, malt-heavy English-style barleywine, is like threading the needle between the two styles."



says. "It reminds me of the black malts of a schwarzbier, where you're not trying to get all that chocolate and bitter coffee flavor. You're just trying to get a little bit of subtle roastiness."

Coyne, who later cofounded Obelisk Beer in Astoria in 2021, says that he plans to more intentionally brew black barleywines in the near future, even as the beer world is still figuring out what the parameters for that subgenre are.

For what it's worth: The term "black barleywine" isn't new. It's been kicking around at least since the mid-00s when homebrewers noticed the unique combination of words in the BJCP guidelines for Russian imperial stout. The guidelines use that phrase verbatim, specifying how the "dark fruit flavors meld with roasty, burnt, or almost tar-like sensation." And yet, "black" is only just now entering marketing parlance to describe barleywines that adopt key characteristics of stout. There's even some disagreement about the nomenclature, with some breweries opting for "dark barleywine" or even "stoutwine."

"Black barleywine" may have begun to emerge as the dominant nomenclature in 2017, when Deschutes released an experimental beer that would later become Black Mirror—a barrel-aged version of their Mirror Mirror Barleywine that took on the roast and chocolate characteristics of a stout. The beer proudly wore the "black barleywine" moniker en route to a World Class rating on BeerAdvocate.

The next year, Founders revived Nemesis, the black barleywine they first brewed in 2010—a beer that brewmaster Jeremy Kosmicki definitely described as having "less roasted malt than you'd expect in a stout, but just enough to turn the color dark and add another layer of complexity."

Nowadays, Anchorage Brewing's gigantic, double bourbon barrel–aged Wendigo could be considered the standard bearer for black barleywine. Along with Side Project's Continuance series out of St. Louis, Wendigo has set expectations for rich, barrel-aged, high-ABV concoctions that are true occasion beers. Like other barleywines, these are best when warmed to about 50°F (10°C). And, like imperial stouts, they attract interest even among casual taproom customers.

Bill and Boil to Black

At Pulpit Rock in Decorah, Iowa, head brewer Bob Slack first experimented with black barleywine while collaborating with Kyle Harrop of Horus Aged Ales. Their beer was elaborate—a blend of a 36-month aged imperial stout and a 29-month aged barleywine rested on Spanish Marcona almonds and vanilla caviar. What came out was an obsidian elixir with garnet edges called How We Get Along.

"The only thing that we can kind of compare this beer to is Pedro Ximénez Sherry," Slack says. "It's a lot; a little bit goes a long way."

How We Get Along was a rousing success (and at *Craft Beer & Brewing Magazine®*, one of the Best 20 Beers in 2022). In December, Pulpit Rock released two more black barleywines: How Soon Is Now and How Soon Is Later, each aged for 37 months in Heaven Hill rye barrels. The barrel-aging helps, but Slack and co-head brewer Justin Teff say they consider the malt bill to be of principal importance when making a great black barleywine.

For How We Get Along, they went with an unusually high percentage (16 percent) of Simpsons Double-Roasted Crystal (DRC) malt, which gives the beer its color and those attractive mid-palate flavors. Other breweries, such as Private Press in Santa Cruz, California, and San Francisco's Cellarmaker, go so far as to incorporate chocolate malt. (Cellarmaker head brewer Tim Sciascia recommends about 2 percent.)

"I would avoid going too chocolate-forward and try to get a little bit of that bitterness that you want to balance out the sweetness to come from some black roasted malts," says Coyne at Obelisk. "Use them sparingly enough to get the color, but without going overboard and overpowering all the fruit flavor that you're trying to keep in there."

Gravity also is a key component. Long boils can help produce some extreme starting gravities. At Pulpit Rock, they boiled their barleywine wort for 36 hours, thickening it to a starting gravity of 1.171 (38.4°P). Slack and Teff were able to ferment it down to 1.096 (22.9°P) before racking it into barrels for long aging. They both say a terminal gravity around 1.100 (23.8°P)—a robust *starting* gravity for many very strong beers—is a sweet spot for these barrel-aged heavyweights. Coyne concurs, saying that the high terminal gravity makes for a fuller-bodied beer coming out of the barrel.

There's nothing in the concept of black barleywine that suggests it must be barrel-aged. However, a long maturation allows the emergence of some dark-sugar flavors. For Pulpit Rock's thicker, sweeter take, some oxidation is critical to the profile.

At Private Press, founder Brad Clark is insistent on a long rest in barrels—preferably bourbon, and ideally a blend of several vintages—to hit the mark on gravity as well as sweetness and color.

"Oxidation plays a large part in darker color hues, unless the brewer is actually putting in black malt," Clark says. "The character-



At Pulpit Rock, they boiled their barleywine wort for 36 hours, thickening it to a starting gravity of 1.171 (38.4°P). Slack and Teff were able to ferment it down to 1.096 (22.9°P) before racking it into barrels for long aging. They both say a terminal gravity around 1.100 (23.8°P)–a robust *starting* gravity for many very strong beers–is a sweet spot for these barrel-aged heavyweights. istics of the malts meld well with the barrel and kind of help take that initial barleywine recipe into its next life, post-barrel."

Blending Darknesses

The most alluring part of making a black barleywine may be the blending. Not every example is made from a confluence of barleywine and stout, but it may be the most common and straightforward way to bring together the high notes of each style. However, there is a critical negotiation when you're planning and testing the blend.

At Cellarmaker, Sciascia is imperious in his opinion that a black barleywine must be a barleywine first. Cellarmaker's Black Meridian and Entangled Worlds might feature some prominent coffee and cacao flavors, but the ruby-ish pour and fruit-and-caramel elements will remind you that the beer has the spirit of a traditional, molasses-and-bread barleywine.

"The world of stout needs to see a little bit more barleywine than barleywine needs to see stout," Sciascia says. He calls black barleywine a "bipartisan drink."

"The roastier the dark component, the worse off you're [going to] be," he says. "You've got this really great caramel, toffee, dark fruit. And a little nuance of more milk chocolate and light roast coffee goes along with that better than just coming right in with an edgier flavor, like Frenchroast coffee."

Bipartisanship doesn't mean a 50/50 split between the two, but there are no hard-andfast guidelines. Sciascia ballparks some of his black barleywines at about 25 percent imperial stout, though he's made other beers—such as 2021's Blammo!—that invert that ratio.

At Private Press, Clark has gone as low as 60 percent barleywine, but he says he prefers to work without a hard cap on the ratio. It's this undefined territory that most excites him. His Electric Roads, for example, is a blend of three barleywine recipes that sat in Weller, Blanton's, Elijah Craig, Baker's, and 1792 bourbon barrels. He calls the possible combinations of barleywine and stout vintages "staggering"—the kind of undefined territory that could make black barleywine a true sip-insilence experience.

To get there, Clark isn't worried about breaking rules that haven't been codified, nor is he hung up on what to call this strange, ponderous, obsidian ambrosia that emerges from the barrel and mingles.

"There's so much more to be discovered," he says. "What I've tried to do is just eke out every possibility within this idea and create flavor profiles that are really interesting—maybe not completely new, but definitely a different direction." **MAKE IT**

Obelisk Black Barleywine

From Obelisk Beer of Astoria, Oregon, comes this prototype homebrew-scale recipe for a black barleywine that combines flavorful aspects of both barleywine and stout.

When he was with nearby Fort George Brewing, Obelisk cofounder David Coyne blended barrel-aged versions of both those styles to create an unusually dark beer called Reclusa for the 19th anniversary of Seattle's Bottleworks shop. At 13 percent ABV, Reclusa had notes of toasted nuts, vanilla, dark chocolate, and caramel. More recently, he's been thinking about intentionally brewing a hybrid without needing to blend components. This recipe offers a glimpse of his approach on ingredients and process.

"This is an untested recipe, but based on successful cousins of the style," Coyne says. "This black barleywine will be full of toffee, dates, heavily toasted bread, tootsie rolls, and just a touch of light chocolate and roasted coffee flavor."

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.129 FG: 1.046 IBUS: 35 ABV: 12.8%

MALT/GRAIN BILL

9.8 lb (4.4 kg) Weyermann Munich I 9.8 lb (4.4 kg) Maris Otter 1.4 lb (635 g) Simpsons DRC 1.4 lb (635 g) Weyermann Caramunich II 1.4 lb (635 g) Weyermann Carafa III 6 oz (170 g) British pale chocolate malt Dry malt extract (DME), as needed

HOPS & ADDITIONS SCHEDULE

0.8 oz (23 g) Motueka at 300 minutes [15 IBUs]

0.8 oz (23 g) Motueka at 30 minutes [10 IBUs]

Yeast nutrient at 10 minutes 1.6 oz (45 g) Motueka at whirlpool [10 IBUs]

YEAST

Wyeast 1968 London ESB, Lallemand LalBrew London, or similar

DIRECTIONS

Mill the grains and mash at 154°F (68°C) for 60 minutes. Recirculate until the runnings are clear, then run off into the kettle. Sparge and top up as necessary to get about 9 gallons (34 liters) of wort, depending on your kettle size and evaporation rate. As necessary, stir in DME to help hit your target pre-boil gravity (about 1.114). Boil for 300 minutes (5 hours), adding hops and yeast nutrient according to the schedule. After the boil, do a whirlpool step: Stir or recirculate to create a vortex, add the whirlpool hops, and allow 20 minutes to steep and settle. Chill the wort to about 64°F (18°C), aerate the wort thoroughly, and pitch plenty of healthy yeast. Ferment at 65°F (18°C) and aerate again on Day 2. Toward the end of fermentation, allow the temperature to rise to 70°F (21°C) for a diacetyl rest and more complete attenuation. Once fermentation is complete and the gravity has stabilized, rack to a small-format whiskey/bourbon barrel or a secondary fermentor with bourbon-soaked oak cubes, spirals, or chips. Rest for several months and taste occasionally. When ready, crash to 32°F (0°C), keg or bottle, and carbonate to 2.45 volumes of CO₂.

BREWER'S NOTES

Water: For the water profile and salts, shoot for a 5.2 mash pH. Depending on your water, you can add a small amount of gypsum and calcium chloride. Hops: You can sub in other hops, but Motueka provides a nice complexity to this beer when aged. Just shoot for enough bitterness to back up the sweetness, without becoming an imperial American black ale.

Drink Sooner: This recipe has a lot of flexibility. It is intended for extended aging, so if you plan to drink it fresh or want a lighter-bodied beer, here are some suggestions:

- Sub in Golden Promise or more Maris Otter for the Munich.
- Cut back on the gravities if you want a drier beer or a barleywine that's ready to drink sooner. Keep in mind that you still want a substantial finishing gravity and full body to this beer.
- The long boil provides a lot of complexity and mouthfeel to the finished beer. If your evaporation rate is too high for 5 hours, cut it shorter—but I wouldn't go below 3 hours.

BREWER'S PERSPECTIVE

Point of Pride: ^{orar} Ma gist Brewing Parago with Lervig's Mike Murphy art

An American brewer in Norway inspired by English flavors is producing some of Europe's most sought-after barleywine, with a new blended vintage appearing once a year. Here, brewmaster Mike Murphy explains the philosophy behind Paragon and offers practical tips for brewing your own. **By Evan Rail**

EVEN WHEN HE WAS making beer that almost nobody drank at Italy's little-known Rome Brewing Company more than two decades ago, Mike Murphy loved making barleywine.

"It's just something I've always brewed from the early days, from when I was in Rome," he says. "Even then I made barleywines, and I always made them more along the English style."

Since then, Murphy's barleywines have become somewhat better known. As brewmaster at Lervig Aktiebryggeri in Stavanger, Norway, Murphy has produced an annual barleywine every year since he took the job in 2010. Now known as Paragon, the beer is a cult classic—a toffee-and-coconut flavor bomb, bourbon barrel–aged, with its 2021 edition checking in at 13.8 percent ABV.

Originally called Lervig Barley Wine, the name was changed when Murphy expanded the brewery's barrel program in 2018. With that expansion, he created new versions of Paragon finished in rum, Tennessee-whiskey, and maple-syrup barrels. Among barleywine enthusiasts, they're all whales. Unfortunately, they're not exported to North America, which means that even the most ardent U.S. fans rarely get a chance to taste them.

"It's a style that people really appreciate," Murphy says. "When you make a good one, you get a lot of compliments from the hardcore guys, the old-school guys."

Heavy Toffee and a Little Fizz

So, what gives Paragon its magic? For starters, Paragon is an English-style barleywine, not an American one. That allows Father Time to play his role in a way that doesn't always jibe with pine and citrus notes.

"Those hops, what happens to those when you age them?" Murphy says. "Barleywines are supposed to stand the test of time. For me, when you put all those hops into it, you might as well just drink it as fast as you can unless you like the taste of orange lollipops. I'm not a big fan of that in my beers. The hops get stale fast."

Although Paragon is brewed in the English style, Murphy wants his beer to have more zip.

"I like a little carbonation," he says. "Not too much, but a little bit of carbonation, just to get

a little fizz. I don't like big bubbles. Just enough to release the mouthfeel a little bit, give it a little bit more texture so it's not slick, unlike Thomas Hardy's, which is usually flat."

Also, despite the British influence, Murphy also opts for an American ale yeast—in part because he doesn't want the fruity esters often associated with English strains. "I'm trying to keep the yeast character as neutral as possible in mine," he says. "I want the other ingredients to stand out. We're using American ale yeast because it's pretty tolerant of alcohol. Some people don't know that, but it can go up pretty high."

That results in a strong, charismatic beer that is all about malt—as well as time in the barrel.

"I'm looking for heavy toffee and caramel notes," he says. "From the barrel, I get the coconut notes and ripe fruit, berries, things like that. I like some char notes. I don't like too many hoppy notes at all."

Brewed once a year, every annual release of Paragon is now composed of several different vintages. That's the advantage of having a massive barrel room filled with hundreds of used oak vessels.

"We have a year or two or three in barrels, and we do a lot of blends," he says. "We'll make like a hundred barrels . . . of Paragon in a year. And out of those 100 barrels, we'll put a bunch of them away. Then we go and taste them all, we find the ones that taste the best, and we kind of fade them in and out of each other. I might have 24 barrels left over from two years ago [that are] going to go into this year, and then I'll leave 24 for the next year."

Many Ways to Play

To start, Murphy recommends aiming for the highest starting gravity possible, layering in plenty of Munich and caramel malts.

"Make sure it has a lot of caramel-toffee notes," he says. "You need that sweetness. Don't be afraid to make it darker, almost to the color of a stout."

Next, pitch plenty of yeast, oxygenate generously—and don't forget to feed the beast.

"For a while after you ferment it, it's almost hard to drink. That sweetness needs age, and then it really opens up and becomes something different. One year later, it's completely transformed into something else."



"There are a lot of things out there on the market now for helping your high-gravity fermentations," he says. "Just give it a little help with FAN nutrients, free amino nitrogen nutrients, to help it deal with the higher alcohol."

Also, don't be afraid to move away from your normal fermentation schedule.

"I'd recommend fermenting them a little bit warmer, but not too much, to avoid the alcohol booziness," he says. With a typical American ale yeast, he says, try as high as 70°F (21°C).

That said, you certainly don't have to stick to the Paragon script.

"I mean, there are other ways to play," he says. "A nice quad, that's almost a barleywine to me. You can substitute an abbey ale yeast or a Trappist strain. And then, all of a sudden, you have a crossover beer. I mean, what is a quad? It's pretty caramelly, right?"

Regardless of yeast strain, plan to rack to a new vessel after fermentation.

"You'll produce a lot of yeast if you make a barleywine, so get ready for that," he says. "Ferment out your beer completely. Give it five, six weeks. And then make sure you're off the yeast. Get it cleared out as well as you can. Because what happens when you sit on dead yeast too long? You have off-flavors you don't want."

If you're planning to age your barleywine on oak chips instead of an oak barrel, giving those chips a bath will get you closer to the flavors that beers such as Paragon are known for. "Soak 'em in a bottle of Jack Daniel's before you throw them in there," he says. "Get 'em wet."

Taste your aging brew frequently, because even a strong beer can go from "not oaky enough" to "over-oaked" in a couple of days.

And then? Just give it time. Or, to put it another way: Don't plan to tap your 14-percenter after 14 days.

"For a while after you ferment it, it's almost hard to drink," he says. "That sweetness needs age, and then it really opens up and becomes something different. One year later, it's completely transformed into something else."

The Apex of the Art

So, with that in mind, is it worth all the trouble?

That depends. A good barleywine certainly takes time to hit its prime. Racking off the yeast can be a pain, and you might not even have a spare vessel or the spare storage space for it. And other than with cheese, Murphy admits, barleywines like Paragon do not always pair well with food. They're sippers, he says, and they can be kind of overwhelming.

Also worth considering, if you're choosing between brewing a barleywine and a pilsner or a Kölsch: A barleywine is definitely not what you're going to reach for after a grueling session behind the lawnmower on a hot summer day.

That might be true. But for Mike Murphy, it's still the apex of the brewer's art.

"We all like our IPAs and double-dry-hopped IPAs, fancy beers, and trendy beers," he says. "But barleywine—especially the English style, the most drinkable one—is what I'm most proud of when I brew it."

MAKE IT

Lervig Paragon Barleywine

"Paragon is our barrel-aged barleywine produced like a vintage," says Mike Murphy, brewmaster at Lervig Aktiebryggeri in Stavanger, Norway. "Every year is the same but slightly different due to blending, subtle differences, and other variables. We stick to the same base recipe, and the yeast [and] aging do the rest."

HOPS & ADDITIONS SCHEDULE

utes [16 IBUs]

utes [9 IBUs]

ent at 10 minutes

[2 IBUs]

[1 IBU]

Chico strain

YEAST

0.65 oz (18 g) Chinook at 60 min-

0.9 oz (26 g) Cascade at 60 min-

0.5 oz (14 g) Saaz at 15 minutes

1 tsp (5 ml) FAN-rich yeast nutri-

0.6 oz (17 g) Cascade at 5 minutes

Fermentis SafAle US-05, Wyeast

1056 American Ale, White Labs

WLP001 California Ale, or other

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.127 FG: 1.026–1.030 IBUS: 28-ish ABV: 12.5–13%

MALT/GRAIN BILL

13.8 lb (6.3 kg) pilsner 8.6 lb (3.9 kg) Munich 11.5 oz (326 g) Simpsons Crystal T50 4.5 oz (128 g) Weyermann Carafoam 4.5 oz (128 g) Viking Caramel 300 2.3 oz (65 g) chocolate malt

DIRECTIONS

Mill the grains and mash at 145°F (63°C) for 20 minutes; raise the temperature to 154°F (68°C) and rest 20 minutes; then raise to 162°F (72°C) and rest 20 more minutes. (If you can't step-mash or prefer not to, try mashing for 75 minutes at 149°F/65°C.) Recirculate until your runnings are clear, then run off into the kettle. Sparge and top up as necessary to get about 6.5 gallons (25 liters), depending on your evaporation rate. Boil for 90 minutes or longer—the longer the better for caramelization—adding hops and nutrient according to the schedule once you have 60 minutes left to boil. After the boil, chill to 68°F (20°C), aerate thoroughly, and pitch plenty of healthy yeast. Ferment at 70°F (21°C) for 5–6 weeks. Optionally, age on oak (see below). Otherwise, crash, package, and carbonate to about 1.5–2.0 volumes of CO_2 —lower carb to almost none, depending on your taste.

BREWER'S NOTES

Yeast: Make a big, healthy starter, going for about double the cells you'd pitch for a normal beer. (We target 1.5 × 10⁶ per °P per ml.) **Fermentation:** Allow a few weeks to ferment all the way and then a few weeks more for conditioning. We usually centrifuge the beer after 5 weeks before moving it into the barrels.

Oak-Aging: Rack off the yeast into a secondary with low head space, adding bourbon-soaked charred oak cubes or chips, possibly in a mesh bag to ensure easy removal. Taste occasionally to ensure the oak and bourbon flavors are where you want them. Ours rest at least a year on wood, but I think 3 to 6 months on cubes could be enough. The important thing is that the beer develops and mellows with aging.

Stepping out of the shadow of it's bigger and more intense IPA siblings,

> is overdue for its return to the craft beer spotlight, with new approaches to timeless appeal

AMERICAN PALE ALE

The Comeback of the Classic

With greater awareness of its pitfalls and a few new tricks up our sleeves, the time for a resurgence in beautifully balanced American pale ale is now. **Josh Weikert** explains how.

IT'S NOVEMBER 12, 2022. Five beer judges sit around a Best of Show table. The field has narrowed to five patently enjoyable and technically competent beers of different styles. It's time to cut it down to the top three and, ultimately, the Best of Show–winning beer ... and they all agree to boot the American pale ale.

Now, *usually* when that happens it's due to a lack of amplitude or clarity in the hops profile; after all, both the Beer Judge Certification Program and Brewers Association guidelines specify that this is a "hop-forward" beer, and simple enjoyment usually depends on bright and identifiable hop character rather than a coloring-withall-the-crayons mashup.

This beer, however, was tossed because it *lacked balance*. That got my attention, because I'd had similar conversations with a variety of pros and homebrewers in recent months: Their tastes seem to be drifting back toward American pale ales with a balanced malt profile rather than the bone-pale varieties that were creeping toward the realm of hopped seltzers. Is it just possible that—after years of increasingly provocative recipes and beers—balance is back?

The Rebirth of Balance

There's a reasonable case for it, in both practical and philosophical terms.

The practical case is less of an argument than a realization: The balanced pale ale never really *left*.

Sierra Nevada Pale Ale-the earliest benchmark for the style, and a beer with a firm malt backbone-remains one of the most ubiquitous and best-selling beers in the country. It's still a top-five craft brand, according to retail data, even if fellow Sierra Nevada flagship Hazy Little Thing has risen like a meteor and passed it on the charts. The same brewery offers one of the most popular seasonal offerings this side of the McRib in its Celebration Fresh Hop IPA, which for 40 years has been characterized by that classic American-hops profile—and its seasonally appropriate red-hued grist. Pale ales and IPAs are a crowded sector of the craft-beer

world; it's telling that those two brands have not only survived but thrived. The philosophical case is this: Brewers have

re-created the space for balanced pale ale.

If you've been following beer since 2015 or so, then you've witnessed the rise of soft-and-hazy pale ales, trending toward near-zero bitterness with pillowy grists of soft oats and wheat. Next, you've also witnessed the West Coast–style pushback—including cold IPA—with brewers producing starker, leaner beers with the palest base malts given the back seat in favor of crisp bitterness and fruity hop flavors.

In that gap, I'd argue, we find a perfect opportunity to reestablish the notion of a beer that's bitter-but-balanced, and hop-forward yet malt-supported.

This article is for the brewer who missed out on the early days of American pale ale—or who was there and fondly remembers. We'll review the target as well as the tools and processes to get us there. The classic is due for a comeback and, after studying the blueprints, you can put your own spin on it.

The Style, Revisited

Reminder: Beer styles aren't static. They evolve over time, and those who seek to pin them down—as for the BJCP and BA style guidelines—face the twin challenge of respecting the past and reflecting the present.

With that in mind—and despite the wide range of variations on the market— what stands out in these guidelines is that the descriptions of American-style pale ale really haven't evolved all that much over the years. Both the earliest and the most recent identify American pale ale as hop-forward and showcasing American hop flavors; notably, they *also* indicate a

Hops added after the boil will still add about two-thirds as much perceived bitterness as we get from isomerizing alpha acids in hops by boiling. Even brewers who use zero boil hops need to think about balancing bitterness.



MAKE IT

La Nouvelle American Pale Ale

Here's American craft beer's archetypal classic style, updated with some contemporary ideas.

ALL-GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.055 FG: 1.012 IBUS: 37 ABV: 5.6%

MALT/GRAIN BILL

10 lb (4.5 kg) Vienna 8 oz (227 g) Victory 8 oz (227 g) Light Caramunich

HOPS SCHEDULE

1.8 oz (51 g) Cascade at 60 minutes [33 IBUs] 1.2 oz (34 g) Cascade at 5 minutes [4 IBUs] 0.5 oz (14 g) Cascade at flameout/whirlpool

YEAST

Fermentis SafLager W-34/70 or similar

DIRECTIONS

Mill the grains and mash at 152° F (67°C) for 90 minutes. Recirculate until the runnings are clear, then run off into the kettle. Sparge and top up as necessary to get about 6 gallons (23 liters) of wort, depending on your evaporation

rate. Boil for 60 minutes, adding hops according to the schedule. After the boil, chill the wort to about 68°F (20°C), aerate, and pitch the yeast. Ferment at 68°F (20°C) for 7 days, then allow the temperature to rise to room temperature and hold for an additional 7 more days. Crash to 35°F (2°C), then package and carbonate to about 2.25 volumes of CO₂.

BREWER'S NOTES

Let the relatively long mash and warmish (for lager yeast) fermentation temperature do their thing here. The result should be a well-attenuated, brightly hoppy pale ale with

a nice cracker-and-nut malt backbone. Also—and I know this is a big ask—avoid the temptation to dry hop this beer. You'll get plenty of hop flavor and aroma from the late additions, while dry hopping can make it overly resinous and mask the fruity-floral flavors from the hop oils. Last, play around with some foreign-grown Cascade hops—if you can source them—to see how different they all are, even when derived from the same species.

| PALE ALE: THE COMEBACK |

beer with "sufficient supporting malt to make the beer *balanced and drinkable*" (2022 BJCP Style Guidelines, emphasis added). While that's a step back from the 2004 guidelines that noted "the malt presence can be substantial," it certainly indicates that malt shouldn't be a silent partner in the style.

The Brewers Association, despite its direct connection to the industry trends and what "sells" versus what might be historically consistent, is likewise cognizant of the role that malt flavor has in a good pale ale. Far from prohibiting notable graininess and caramel notes, the 2022 BA guidelines note that "low to medium maltiness may include low caramel malt character." Notably, the BA guidelines specifically split out other types of medium-gravity pale ales, but *all* of those (including session IPA) still allow for the same "low to medium malt character."

There's a good reason for that: Pale ales get a lot of hops. These guidelines note ranges of about 30–50 IBUs in beers that don't generally get much past 6 percent ABV, so we're approaching a one-to-one ratio of gravity units to bittering units. That's about as bitter as it gets. Unless you enjoy a great deal of sharp bitterness, you'd *better* have some kind of backstop in there.

"But Josh," some of you are thinking, and I can practically hear it: "I'm mostly using whirlpool and dry hops! I hardly use *any* boil hops, so clearly you're an out-of-touch and decrepit Gen X brewer with no sense of how beer is made today!"

First, while acknowledging that my wizened and dusty brewing roots go back to the long, long ago year of Two Thousand Ought-Seven Anno Domini, there's no need for an *ad hominem* attack. Second, maybe you're not yet aware of research on the role of oxidized alpha and beta acids in creating bitterness in beer.

According to researchers at the Slovenian Institute of Hops Research and Brewing, published in a 2022 issue of *Foods* (a peer-reviewed journal of food science) and building on previous research in the *Journal of the American Society of Brewing Chemists*—hops added after the boil will still add about two-thirds as much perceived bitterness as we get from isomerizing alpha acids in hops by boiling. Even brewers who use *zero* boil hops need to think about balancing bitterness—after all, why do you think those hazy beers use all those flavor-softening grist elements, even with ultra-low calculated IBUs?

You need balance. The only question is how you're going to get it, and how to do so while preserving a fresh, bright palate.

Making the Classic

There are a few valid concerns to address when we brew a traditional American pale ale—one that will fit the style guidelines. Luckily, we have a lot more knowledge and experience to bring to bear today than we did in decades past, and the tools to make a balanced *and* exceptionally drinkable pale ale are now much more clearly defined.

AVOIDING OXIDATION FLAVORS

Let's immediately face our biggest fear: crystal malt. Specifically, there's been much debate about why pale ales with 60°L crystal seem to stale faster than those that don't, and there's not a lot of scientific research to resolve it. However, there are a few theories about why:

- One school of thought is that even lightly oxidized compounds from crystal malts taste even more oxidized than they really are.
- Another is that crystal malts—in storage, before mashing—are prone to staling more quickly than lighter-kilned malts, and this introduces more oxidized compounds to the wort itself, starting the beer down the staling path that much earlier.
- Another is that medium-to-dark crystal malts simply add richer flavors that obscure the hops, muting a hop-forward profile in the same way that oxidation does.



In might even be that more than one of these is true. Whatever your favored theory, the good news is that we don't need to be scientists to reduce the concern *and* still produce a beer with a good, firm malt backbone. *Just don't use crystal of 60°L or higher in the grist.*

Instead, lean on slightly richer base malts—such as Maris Otter or Vienna and supplement them with lower-Lovibond toasted malts—such as light Munich, Victory, or biscuit—and maybe add a splash of 20°L or 40°L crystal. (Editor's note: Another option may be Caramel Steam malt, which is roughly 40°L with a softer profile than typical crystal. For more about this malt, see p. 38.)

Note: This approach stands in contrast to Sierra Nevada's own published recipe for its Pale Ale, whose grist leans on very pale base malt and 8 percent Crystal 60. However, if you're worried about the potential staling effect (or the impression of such), it's not as though there's only one way to get toasty and toffee notes into your beer (see the alternatives above). Also, a longer mash of 75 to 90 minutes can help create a more fermentable wort, which in turn can keep the beer from seeming too heavy or sweet. And, of course, use good practices to avoid oxygen exposure, especially when packaging.

FOR THE YEAST, A TWIST

Next, let's consider the conventional wisdom that the best yeast for this is the classic Chico strain, the same made famous by Sierra Nevada.

Chico is certainly an option, but lately I've been producing a lot of beers that lean on the "warm lager" fermentation profile used in (among others) the cold IPA. Fermenting the Weihenstephan ³⁴/₇₀ lager strain at a balmy 68–70°F (20–21°C) will get you a clean, highly attenuated beer, leaving a flavor profile that's ideal for showing off some hops *even with* the malt background we'll get from our grist.

This trick is particularly useful because it preserves our balancing malt flavors while also reducing the impression of sweetness, leaving behind a somewhat lighter body. It also reduces the extent to which we need to balance with bitterness, lessening the risk of going overboard on the IBUs. Restrained esters, up to 85 percent apparent attenuation, good flocculation, and easy to use? Sign me up, and not just for this style.

WATER, BRIEFLY

If your water is especially hard or soft, this is a style where a bit of adjustment is worth the effort. I find the best results come with the flintiness we get from a slight gypsum addition into an otherwise neutral profile.

You want enough bite to know that it's an American pale ale, but not so much that it just seems like another IPA.

FINALLY, LET'S TALK HOPS

For bitterness, about 35–40 IBUs is a good target here, assuming an OG of about 1.055–1.060 and (as above) a fairly neutral water profile.

At 40 IBUs, you'll have plenty of balancing bitterness from Day One ... but then you'll *still* have a balanced beer a month, or two, or six months down the line. You can choose any varieties you like for your flavor and aroma additions, but don't neglect a classic here: Cascade really *works* in this style—largely because Cascade is, itself, a hop with a balanced flavor profile.

Cascade is a hybrid of Fuggle, and it benefits from the terroir of the Pacific Northwest to give it its signature grapefruit-and-floral flavor. If you want to experiment a bit, I highly recommend brewing this pale ale with Cascade—*all* of the Cascades, in fact! Several regions cultivate Cascade, and those regional varieties preserve the basic profile but often add their own climate- and soil-derived accents. British, German, and New Zealand Cascade are distinct, and all make some interesting pale ales.

Time To Go Back in Time

If ever there were a time *not* to be put off by fears of an oxidized pale ale, this is it.

Think of how sensitive we are to age, oxygen, and handling in a brewing era dominated by hazy hop bombs that peak in a matter of days after fermentation and by refermenting slushies that might blow if we don't clear them off the shelf in time.

Surely, in such an environment, we can manage the slight risks of a hop-forward pale ale that might be a bit more prone to oxidation after a few months in the package. And what we get in exchange for that risk tolerance is a beer that is distinctly American in character, assertive and clear in flavors, and impressively consumable in terms of moderate strength and balance on the palate.

Fifty years have passed since the official release of the Cascade hops, and the archetype of American pale ale followed not long after. Things on the wheel of beer history tend to swing 'round again—usually done better than they were before—and the time for balanced pale ale is *now*, again.

BREWER'S PERSPECTIVE

The Origins of Luminous Beings

Luminous Beings was practically an afterthought—a mid-strength hazy pale ale designed to culture up some thiolized yeast for bigger IPAs. Yet that afterthought took on a life of its own, winning gold at the 2022 Great American Beer Festival. **Greg Winget**, director of brewing operations at **Wye Hill** in Raleigh, North Carolina, explains the method behind it.

THE CREATIVE PROCESS FOR Lumi-

nous Beings was that we wanted to use Omega's Cosmic Punch yeast in an IPA, and we wanted to get two turns out of it. So, we wanted to develop a beer that was lower in ABV, which we could then re-pitch into a higher-ABV beer. Honestly, a lot of creative decisions in production breweries are centered on stuff like that especially at a smaller scale.

I'm from the Midwest, which is home to many incredible pale ales, such as Three Floyds Zombie Dust, Half Acre Daisy Cutter, Pipeworks Lizard King, beers like that. I've always been a huge fan of the style. Obviously, those are more West Coast—or Midwest Coast pale ale—so they're clear. But they still have a nice, juicy character to the hops.

Basically, I was just trying to take a concept I really enjoyed and turn it into something more modernized.

That's our approach to every hoppy beer that we make: We want them to be hop-forward, juicy, drinkable, but not with low bitterness. Luminous Beings is about 35–40 IBUs at 5 percent ABV—it's on the higher side. We always want it to have that bitter back note. It's never going to finish sweet. We do mash pretty high, just to get some of that residual sugar, then the yeast helps us out on attenuation. But the goal is always to make the most drinkable beer we possibly can.

It was an accident with this beer—we weren't brewing to maximize thiols. We were just building up that yeast to maximize the thiols in the *next* beer. But that lends itself to this lower-ABV, more drinkable experience—because it doesn't have to be over-the-top.

Water

We definitely favor chloride. We'll typically keep the water fairly soft—somewhere in the vicinity of 100 ppm. On other beers, we'll boost that gypsum quite a bit. The goal is to have it be soft but still feel the hop presence. Favoring chloride helps with that, but you still want to have a bit of that sulfate in there.

Malt and Thiols

We are 100 percent a craft-malt house. Primarily, we get our grain from Carolina Malt House in Cleveland, North Carolina—fantastic malt. We developed a relationship with them early on and just kept going. Epiphany Craft Malt in Durham is right around the corner from us, to add some great specialty stuff. And we recently started using Sugar Creek Malt in Indiana, close to where I used to live. So that craft malt is a core part of the character in all our beers.

In Luminous Beings, it's 15 percent malted oats; everything else is pils. That comes down to drinkability—it definitely contributes a lot of character. I'm not 100 percent sure of the science behind how the oats and pilsner specifically contribute to thiolization, but I'm sure there's something there. (For much more about thiols, see "The Complex Case of Thiols," beerandbrewing.com.)

Mash and Mash Hops

We mash at the higher end of mediumbodied, 155–156°F (68–69°C). We mashhop to get thiol precursors; we mash-hop pretty much all our beers now. It helps buffer pH, I think, and it adds character that's anecdotal, but it's a way to saturate the beer with hop flavor without adding



IBUs. For Luminous Beings, we mashhop with Taiheke, which is New Zealand Cascade. *But* for the batch that won gold at GABF, we couldn't get New Zealand Cascade. We just used U.S. Cascade—and apparently it turned out well.

With thiols and thiolized yeasts, it's interesting to toy with that as a tool and a flavor element. In Luminous Beings, the balance is important, so we're not going to use as much in the mash—but mash hops are still a key player.

Kettle and Whirlpool

We use CTZ a lot in thiolized beers because it has a lot of good oils for that. Generally, we do a 60-minute addition that's fairly small, and then everything else is going in the whirlpool. So we drop the pH under 5, drop the temperature down to 180°F (82°), and do a 30-minute spin, 30-minute rest, and knock out.

It's for more aromatic saturation of the hops—just trying to maximize the nose we're getting from the whirlpool without increasing the bitterness. On this beer, it's maybe a pound per barrel in the whirlpool (or about 2.5 oz/71 g per 5 gallons/19 liters). On some of our other beers, it's a pound and a half or two pounds.

The bitterness gets out of control quickly, if you finish your boil at 213°F (101°C). If you do a hop stand right at flameout, maybe your temperature drops to 205°F (96°C) by the end of your rest, but the bitterness is still going to be pretty high.

If you plug it into Beersmith and you say it's flameout, it boils for zero minutes, and it tells you zero IBUs. But you know you're getting a lot more than that. There are other calculators out there, but it's still kind of nebulous. Honestly, it's trial and error. Iteratively, over batches, we've figured it out after dropping it from 210°F to 200°F, and then from 210°F to 190°F, and then 190°F (88°C) to 180°F (82°C). That was the sweet spot.

Quality of Bitterness

Luminous Beings is a fairly soft beer. When we're doing IPAs in this way, the bitterness is a bit more pronounced. But in a pale ale like this, we want to have a little backbone—kind of an herbaceous character, a little bit of pine. It's a fairly soft bitterness—just enough to be at that threshold where when you finish the sip, there's a crispness to it that accentuates that relatively dry finish.

We use Mosaic and Motueka in the dry hop—our head brewer thought it would be funny that it was Mo-Mo, like an alliteration. I was like, "Sure, Mosaic and Motueka. Sounds great. Let's try that." We use tons of different hop varieties, and we're constantly trying to find new ones. Those are two that we're fairly confident in, that we use all the time. Mosaic is huge for everybody in the United States, and Motueka is one of our brewery's all-time favorite hops.

Motueka has that really nice tropical without being overboard. It's delicate but still characterful. It's great in blends, too. We've made single-hop Motueka beers before, and they're fantastic, but it really complements other fruit-forward hops. I especially love blending New Zealand hops with American hops. Something like Mosaic, on its own, tends to come off as kind of cat-pee. But if you add something like Motueka to balance the structure, that really works well.

Fermentation and Dry Hops

With Cosmic Punch, we pitch at 64°F (18°C) and let it free rise to about 68°F (20°C). At the end of the day, Cosmic Punch is basically a mutated English-ale strain. Pitching cool on English-ale strains always seems to help a little bit, to create a more balanced beer. Then the free rise gets it up into that diacetyl transformation territory, to clean all that up. Then, when we dry hop, we let it go up to 72°F (22°C) at the highest.

We designed Luminous Beings so we could re-pitch the yeast, so we're doing a fresh pitch pretty much every time. On beers like that, there's a lot of talk about when to dry hop. Once we re-pitch the yeast, we're ready to go with the dry hop, and we let it rise. And then she's done.

On this beer, we do two dry-hop charges. We do a smaller charge, let it sit for a day and drop out, then do a larger charge 24 or 48 hours later. It's just saturation. To me, when you add all the hops at once, sometimes you don't extract oils as effectively. We also like to circulate CO_2 through the racking arm, just to get everything mixed up and into suspension before charge one drops out, and then do it again for charge two. Each charge is in the tank for 24 to 48 hours. We've found that longer exposure times aren't tremendously helpful.

Pale Ale and Art

Luminous Beings has taken on a life of its own. We first brewed it last year, not necessarily intending it to be something that we made forever. This is back when we were just filling crowlers and had a couple of different label iterations. Then we decided we wanted to keep making it because we all really liked it.

Pale ale for me has always just been go-to, daily, easy drinking. I've always been a huge hoppy beer fan, but when you work at a brewery, you don't always want to sit down and have a 7 percent IPA.

What ended up happening is our label artist Sadie Tynch developed this really cool, beautiful label for Luminous Beings that really evokes the meaning of the beer. That took on a life of its own, and we're really focused on art here. We love our labels, even though we're selling them only in-house. We put a lot of time and attention into that. Because, ultimately, beer is an art form as well. We want the whole thing to express that.

MAKE IT

Wye Hill Luminous Beings

Described as "an ultramodern meditation on the relationship between hops and yeast," this hazy pale ale—double dry hopped with Mosaic and Motueka and fermented with Omega's thiolized Cosmic Punch yeast—won gold at the 2022 Great American Beer Festival.

ALL GRAIN

Batch size: 5 gallons (19 liters) Brewhouse efficiency: 72% OG: 1.054 FG: 1.016 IBUS: 35 ABV: 5%

MALT/GRAIN BILL

8.4 lb (3.8 kg) pilsner 1.9 lb (862 g) malted oats

HOPS SCHEDULE

0.5 oz (14 g) Taiheke as mash hops [2 IBUs]
0.2 oz (6 g) CTZ at 60 minutes [10 IBUs]
1.5 oz (43 g) Mosaic at whirlpool [15 IBUs]
1.5 oz (43 g) Motueka at whirlpool [8 IBUs]
0.5 oz (14 g) each Mosaic and Motueka at first dry hop
2 oz (57 g) each Mosaic and Motueka at second dry hop

YEAST

Omega Yeast Cosmic Punch Ale (OYL-402)

DIRECTIONS

Mill the grains and mash at 156°F (69°C) for 45 minutes. Recirculate until the runnings are clear, then run off into the kettle. Sparge and top up as necessary to get about 6.5 gallons (25 liters) of wort, depending on your evaporation rate. Boil for 60 minutes, adding hops according to the schedule. After the boil, do a whirlpool step: Stir or recirculate to create a vortex, cooling the wort to 180°F (82°C) if possible. Add hops and continue whirlpooling for 30 minutes, then allow another 30 minutes to steep. Chill to about 64°F (18°C), aerate the wort, and pitch the yeast. Ferment at 64°F (18°C), allowing the beer to free rise as high as 68°F (20°C). When fermentation is complete and the gravity has stabilized, add first dry hops and allow the temperature to rise as high as 72°F (22°C) for a diacetyl rest. Once the beer passes a forced diacetyl test (see "Hunting for Diacetyl," beerandbrewing.com), after about 48 hours, cool to 55–60°F (13–16°C) and add the second dry hops. After 48 more hours, crash, package, and carbonate to about 2.4 volumes of CO_2 .

BREWER'S NOTES

For your brewing water, target a 2:3 sulfate-chloride ratio. Add phosphoric acid to the drop post-boil pH to about 4.8 before adding the whirlpool hops.



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There is not one pale ale—they are infinite. In particular, there are a few classic types that can be assembled from essentially the same wort based on some key choices. **Annie Johnson** explains the versatility of modular pale ale.

A FEW YEARS AGO, some friends asked me to brew some beers for a summer party. I happily accepted and made ambitious plans to churn out a few different batches. You know how it goes: Fast-forward a few weeks, the party's approaching, and I have yet to even begin. Whoops! Time to get creative.

When I check my brewing inventory, all I have on hand are a few staples: some pale malt, some wheat malt, and a few bags of Cascade, Centennial, and Magnum hops. What's worse is that I'm running out of time to devote a brew day to this occasion, let alone two separate days. After briefly panicking, I sit down and start to think about how I might knock out two beers with one batch.

As I ponder the range of styles with compatible grists, hops, and fermentation times, nothing matches exactly, but some things are similar. I settle on an American wheat and its cousin, German hefeweizen. With a few alterations, I'm able to produce two very different beers from the same batch, using yeasts as well as a fruit addition to set them apart.

Feeling triumphant, I enjoy the party, enjoy my beers, and ponder: If I can get two beers from one batch, why not three?

Pale Ale, Three Ways

If you think about it, the possibilities when brewing are endless—with all the ingredients available, whether traditional or not; with the wide world of styles and hybrids and original riffs; and then with the series of decisions we make when developing a recipe, getting through the brew day, or seeing through the fermentation—and every decision seems to lead to another decision. We're constantly branching off into a different reality that will bring us to a totally unique beer.

However, before we get lost in the boundless possibilities, it helps to have a plan. We can choose to branch off into two or more paths (or beer styles) at once. To decide which ones, it can be helpful to have some source material—such as style guidelines, like those from the Beer Judge Certification Program (BJCP).

With the goal to split a batch into three different beers, I consult the BJCP guidelines and look for some that are similar in grist, color, bitterness, strength, body, and mouthfeel—because they'll come from the same wort—but are still distinct enough to make this adventure worthwhile. That's how I settle on these three:

- an American pale ale
- a Belgian pale ale
- a British strong bitter

All three are similar enough in color and bitterness—or, at least, they *could* be—yet there are other differences that set them apart. Even better: With their all-malt grists, all three lend themselves to extract or partial-mash brewing.

Plan of Action

This time around, without the added time pressure of brewing for a party, I can shop for some ingredients beyond whatever's left in my inventory. However, I'm delighted when I realize I don't need to buy much—I already have most of what I need.

MALT

For my modular pale ale, pilsner or pale malt should be the bulk of the bill. An extra-light (or extra-pale) dried malt extract (DME) would work well; even if it's a bit unorthodox for a Belgian pale, I find that the extra-light works best in place of the traditional pilsner base. A small amount of crystal malt, for color and a touch of caramel sweetness, is an excellent fit for all three styles. However, I don't want anything over 60°L because I don't want any of them to finish sweet. I also add some toasty, bready biscuit malt to round out the bill. (When I'm out of biscuit, I find that aromatic malt also works nicely to add a biscuit-like malt note.) The key, as usual, is to remember that a little specialty malt goes a long way; what we want from the base recipe is balance.

The starting gravities for these three styles can range from 1.045 to 1.060 or so; I settle on 1.054 as solid middle ground. Color, meanwhile, can range from a golden 5 SRM for American pale ale up to the heavy amber of 18 SRM for a British strong bitter; my beer ends up around 12 SRM, roughly midway between those goalposts and a good fit for any of the three.

HOPS

A neutral bittering addition works nicely for all three beers—something like Magnum, Warrior, or other high-alpha variety. (I settle on Magnum because I have some and it often serves me well.) Later, I'll diverge for dry hopping ... we'll get to that.

There's a wide range in potential bitterness, from 20 IBUs on the Belgian's lower end up to 50 IBUs for either American pale



or British strong bitter. (Modern, hop-forward Belgian pale ales can easily get to 40 or 50 IBUs, but style guidelines haven't caught up to them, topping out at 30—something to keep in mind if you're entering a competition.) I opt for a moderate 30 IBUs.

Traditionally, any of these three beers could have late-boil or flameout additions. However, those additions likely would differ significantly. My solution, then, is to skip them and take advantage of dry hopping, well after I've split up the beers. For the American pale, I'm looking for citrus notes, so I go with Citra and Mosaic as a trusty combination for citrus zest. For the Belgian and the British, I can use the same hop—East Kent Goldings—for its distinctive floral-spice notes. However, you could try other British or Noble hops in that spot. For the Belgian, you could also skip the dry hops and let the yeast do most of the talking—though I think the hops add a nice touch.

YEAST

Here is perhaps the most important difference between these pale ales and what really sets apart their personalities.

The choice is relatively straightforward for the American pale (Chico or similar) and the British bitter (your favorite English ale strain). However, the Belgian pale ale requires a bit more thought. You don't want a yeast that's too phenolic or fruity, but you want it to finish dry. I'm fond of De Koninck as the classic Belgian pale, so White Labs WLP515 Antwerp Ale may be a good choice for its clean profile. (Interestingly, recent genetic research found it to be a lager yeast, technically, though it ferments well at ale temperatures.) Another option could be a Duvel-like strain e.g., Wyeast 1388 Belgian Strong Ale, White Labs WLP570 Belgian Golden Ale, or Fermentis SafAle WB-06—a monster attenuator whose esters are relatively restrained if fermented on the cooler end of the spectrum, about 65–66°F (18–19°C). In fact, I ferment all three in the 66–68°F (19–20°C) range.

The thing to remember with all three styles is they're known to be thirst-quenchers, so keep that in mind first and foremost when designing the base recipe.

THE DIVERGENCE

The brew day should go like most others, up to a point. Choose your batch size and brew accordingly, steeping your specialty malts for 45 minutes before straining and bringing the wort to a boil. When adding your dry or liquid extracts, it's a good idea to hydrate or thin them out a bit first, to help avoid clumping and scorching on the bottom of the kettle. Once you're back to a boil, add your bittering hops and let 'er rip. After the boil, once you've chilled the wort, it's time to be divisive.

Divide the wort equally into three parts and pitch the different yeasts, being careful to keep track of which fermentor gets which strain. For the American pale ale, I like to add some hops during fermentation and then some more once fermentation is done; for the Belgian and the British ales, I add only after fermentation is complete. (I like to go old school with some whole cones instead of pellets, but that's a personal preference.) Then, after a few days, you can crash, package, and enjoy the different flavors you created with a single batch of wort.

Once you get a feel for the method, you can imagine many other possible routes you could take. Even if you stick with pale ale, there are all sorts of places you can go with different malt bases, hop varieties and additions, yeast strains, and more.

You don't have to wait until someone asks you to brew for a party—although, sometimes, special requests and procrastination can lead to some creative and flavorful solutions. I love the efficiency of this method, but the best part was when my friends had no idea they were drinking different beers from the same batch.

MAKE IT

Annie's Three Paths Pale Ale

Pale ale makes an ideal base for trying out the split-batch method and experimenting with the different flavors you can get from one kettle of wort and a single brew day. Following this recipe, you'll get an American-style pale ale, a Belgian-style pale ale, and a British-style strong bitter but it's easy to imagine more variations.

PARTIAL-MASH

Batch size: 5.5 gallons (21 liters) Brewhouse efficiency: 72% OG: 1.054 FG: 1.013 IBUS: 30 ABV: 5.4%

MALT/GRAIN BILL

5.8 lb (2.6 kg) extra-light dried malt extract (DME) 13 oz (369 g) biscuit 13 oz (369 g) crystal 60°L

HOPS SCHEDULE

1 oz (28 g) Magnum at 60 minutes [30 IBUs]
 0.5 oz (14 g) Citra at first dry hop (American)
 0.5 oz (14 g) Mosaic at second dry hop (American)
 0.5 oz (14 g) East Kent Goldings at second dry hop (Belgian)
 0.5 oz (14 g) East Kent Goldings at second dry hop (British)

YEAST

Fermentis SafAle US-05 or similar (American), Wyeast 1388 Belgian Strong Ale (Belgian), and White Labs WLP007 Dry English Ale (British)

DIRECTIONS

Mill the specialty grains and, in a mesh steeping bag, steep in 1 gallon (3.8 liters) of water at 152°F (67°C) for 45 minutes, then raise to 168°F (76°C). Rinse the steeping bag, add 5 more gallons (19 liters) of water, and bring just to a boil. Switch off the heat and add the extract in batches, being careful not to scorch. Bring back to a boil, and boil for 75 minutes, adding hops according to the schedule. After the boil, chill the wort to 66°F (19°C), split evenly into three fermentors, and pitch a different yeast into each portion. Aerate well. Ferment at 66–68°F (19–20°C) for 5 days, then add the first dry hop to the American pale ale. Ferment for 5 more days, or until fermentation is complete, then add the second dry hops. After a few more days or once gravity is stable, remove the hops or rack, crash, package, and carbonate to about 2.5 volumes (American), 3 volumes (Belgian), and 2 volumes (British).

Ben's BREWS ASSEMBLED AND A 17 GLUTEN FREE. 110 CALORIES. KittyPaw HEAL 9505 orants lasted

Our blind panel sampled and scored beers and beverages of various categories we covered in this issue, including pale ale, barleywine, cider, kombucha, hard seltzer, and non-alcoholic beer ...

How We Taste & Test

Reviewing beer may sound like a dream job, but our tasting and review panel takes the role seriously. Composed of professional brewers, certified Cicerones, and Beer Judge Certification Program (BJCP) judges who have all studied, trained, and been tested on their ability to discern characteristics in beer, our panel is independent and diverse. The panel tastes all beer blindly—they do not know what brands and beers they are tasting until the tasting is complete.

Our goal is to inform you about the strengths and weaknesses of these beers as well as their relative differences (not everyone has the same taste in beer, so accurate descriptors are more valuable than straight numerical values). The quotes you see are compiled from the review panel's score sheets to give you a well-rounded picture of the beer. To add to that snapshot, we also include a brief review from an editor, although that editor's input does not impact the score.

As our reviewers judge, they score based on the standard BJCP components: Aroma (max 12 points), Appearance (max 3 points), Flavor (max 20 points), Mouthfeel (max 5 points), and Overall Impression (max 10 points). We've listed these individual component scores, and the bottom-line number is derived from adding then doubling these component scores to produce a rating on a 100-point scale. Note that the component scores are rounded automatically to the next whole number, so numbers here may not appear to add correctly. Rest assured that the score calculation is built off the numbers before rounding.

Our judges use the following scale in valuing scores:

95–100 » Extraordinary

World-class beers of superlative character and flawless execution

90–94 » Exceptional

Distinguished beers with special character, style, and flavor

85-89 » Very good

Well-crafted beers with noteworthy flavor and style

80–84 » Good

Keep one thing in mind as you read these reviews—your perception of a beer is more important than that of our review panel or editorial staff, and reading reviews in a magazine (or on the Web or in a book) is no substitute for trying the beer yourself.

TASTED: AMERICAN PALE ALE





What the brewer says: "With Mosaic, El Dorado, Amarillo hops. Pale-ale ABV, hopped like our IPAs." What our reviewers thought: "Every pale ale should be a celebration of hops; this beer clearly wants to wave that flag. Pine, grapefruit. and tangerine form a warm mélange, and a perfect touch of malt-and-ester punch carries the hops without taking the foreground." What our editors thought: "Fresh and zesty citrus on the

nose—lime and orange—with a touch of pineapple. Citrus notes in the sip, with a touch of malt sweetness braced by a light and fresh bitterness. Modern and bright." **ABV:** 6% **IBUS:** N/A

Loc: Redondo Beach, CA

12 West Stop Human Trafficking



What the brewer says: "Brewed with Crystal and Callista hops in collaboration with AATN to bring a stop to human trafficking." What our reviewers thought: "Lemon citrus, dank and catty, fresh and resinous. Background caramel malt. Flavor shows significant malt sweetness, which complements the musky hops. All in on the weed vibe! Some background diacetyl accentuates the dank notes. Watery body."

editors thought: "Barbecue note in the nose with a touch of peach. Rough earthy bitterness in the sip pushes forward, running roughshod over any subtlety." ABV: 5.4% IBUS: 35 Loc: Gilbert, AZ



What the brewer says: "Hints of earthy, floral, and spice

with a floral aroma."

What our reviewers thought: "Balanced aroma featuring toasted or caramel malt, with woody, earthy hops. Some red-apple or peach aromas. Smooth malt flavor, with firm bitterness for balance. Hop flavor favors woody, subtle varieties. Lingering caramel malt flavor." What our editors thought:

"Classic pale-ale nose, with light

stone-fruit esters, a bit of bready malt, and a light orange blossom floral bitterness. A bit chalky in the sip, adding a matte sheen to the otherwise defined floral bitterness." **ABV:** 5% **IBUS:** 45

ABV: 5% IBUS: 45 Loc: Vandergrift, PA

Arizona Wilderness This Beer Saves Water



What the brewer says:

"Brewed with drought-resistant hops and ... Arizona-grown barley that helps offset millions of gallons of water from the Verde River every year."

What our reviewers thought: "Bright citrus and apricot notes in the aroma. Assertive pine bitterness,

with flavors of spearmint, vegetal pine, greets the palate followed by some muted citrus. The bitterness lingers for quite some time. Medium finish, some light citrus hop lingers."

What our editors thought: "Funky diesel and tropical nose with light lemon highlights. Chewy in the sip with a dirty, earthy, amaro-like herbal bitterness." ABV: 5% IBUS: N/A Loc: Gilbert, AZ



Black Lung Trampled by Sliders

AROMA: 11 APPEARANCE: 3 FLAVOR: 16 MOUTHFEEL: 5 OVERALL: 9

What the brewer says:

"Mostly classic American pale ale with thiolized yeast and very punchy Citra, Mosaic, and Motueka hops."

What our reviewers thought: "Pine, diesel, onion, peppery spice, and subtle hints of orange in the nose lean hard into the West Coast. Pronounced resinous pine flavors with subtle hints of lemon, black tea, black pepper. Finish is dry and bitter, but the lightness of the body keeps it all from being too heavy-handed."

What our editors thought: "Lime,

orange, light grape esters in the aroma. Classic orange in the flavor with an intense and ragged resinous pine bitterness. Unrefined and earnest." **ABV:** 5.5% **IBUS:** 43 **Loc:** Waukegan, IL



Boulevard Pale Ale



What the brewer says:

"Caramel malts impart a rich flavor and amber color, while liberal use of Cascade hops adds zest and aroma." What our reviewers thought: "Light citrus hop aroma, pear and plum esters. Pale malt is lightly sweet and supportive. Hop bitterness is fresh, piney. This beer has found its balance among malt, ester, and hops.

What our editors

thought: "Classic C-hop aroma with a woody earthiness and brighter bready malt notes. Warm and inviting sip, with nutty malt tones sweetened by soft stone-fruit esters and kept in check by a gentle earthy bitterness."

ABV: 5.4% **IBUS:** 30 Loc: Kansas City, MO



AROMA: 11 APPEARANCE: 3 FLAVOR: 17 MOUTHFEEL: 5 INDE PEN DENT CRAFT

What the brewer says: "Tropical, bright, and highly aromatic, Brewed with Mosaic and Mosaic Cryo." What our reviewers thought: "Onion, red Twizzlers, lemongrass, and peach. Sweaty hay, some ripe melon, pine, onion/ garlic on the taste. The onion is pretty strong. The beer is grassy, woody, lemony, and pine. Well balanced pale that finishes dry."

What our editors thought: "Tightly structured light pineap-

carisna

CIUSH

ple nose leads into more very, very light pineapple and almost disappearing malt in the sip. Balanced, but minimal to an extreme." ABV: 5.8% IBUs: 37 Loc: Carlsbad, CA





What the brewer says:

"Hopped with Cascade, Strata, Centennial, and Amarillo." What our reviewers thought:

"Bursts of key lime and guava in the aroma. Guava is up front in the flavor and has a spicy phenolic character toward the end. Clove or white pepper phenolic doesn't detract but adds character. The hop levels and bitterness might be too heavy for its weight class. Punchy for a pale ale."

What our editors thought:

"Blocky tropical citrus aroma with meatier pomegranate midtones. Very soft in the sip, as peach notes collide with light but spicy berry bitterness. Loosely structured." ABV: 5.5% IBUS: N/A Loc: Denver





AROMA: 12 APPEARANCE: 3 FLAVOR: 18 MOUTHFEEL: 4

What the brewer says: "Pale ale brewed with Citra. Amarillo. Centennial."

What our reviewers

thought: "The pine-and-spruce hops offer an aromatic boost, and the flavor rides that evergreen impression into a citrus sunset. Bready malt bouys the flavor, softening the bitterness a touch in the finish. It's a solid pale ale, with a pleasant emphasis on hops."

What our editors thought:

"Bright, juicy tropical notes in the nose, with a bit of thiol definition. Soft bready notes with stone-fruit esters in the sip, almost

creamy in texture." **ABV:** 55% **IBUS:** 40 Loc: North Charleston. SC



Figueroa Mountain **Mosaic** Pale



What the brewer says: "A staff favorite showcasing Mosaic

hops." What our reviewers thought:

"Brilliantly clear. Mango, banana, pineapple on the nose. Peach, hav. and lemongrass flavor-wise, with a crisp bread-crust malty backbone.

Very clean finish with a light lingering bitterness. Verv inoffensive, solid pale ale."

What our editors

thought: "Soft and fragrant citrus-blossom notes in the aroma, with bits of clementine and kumquat. Softer apricot in the sip with a bready malt consistency that echoes a more classic pose." ABV: 5.5% IBUS: 28 Loc: Buellton, CA

Broad Brook Chit's & Giggles

ALE AL

R ORIGIN



What the brewer says:

"Amarillo. Centennial. and Mandarina Bavaria hops."

What our reviewers thought: "Dank, earthy, lightly tropical hops. Malt aroma is sweet, caramel, Full and smooth malt flavors, with lingering sweetness into the finish. Hop bitterness is restrained, balancing. The malt bolsters the mouthfeel. It's a pale ale that suggests the lazy days of summer."

What our editors thought:

"Grape and berry esters on the nose. with bits of freshbaked bread. Lime and grape come through in the flavor, slightly rough in the bitterness with a bit of buttery width." **ABV:** 5.4% **IBUs:** 39 Loc: Suffield. CT



Burial Prophetmaker Pale Ale

AROMA: 12 APPEARANCE: 3 FLAVOR: 18 MOUTHFEEL: 5 OVERALL: 10

What the brewer says: "A

modern pale ale with Citra, Nelson Sauvin, and Simcoe hops."

What our reviewers thought: "Strong aromas and flavors of mango, pineapple, citrus, fruit cocktail. peach, guava, passion fruit. The hops want to go for a ride on your palate, but they courteously leave

it unwrecked, bouncing between citrusy resin and tropical fruit notes. What our editors

thought: "Mango and kush nose with a bit of diesel, pineapple, and stone fruit. Fruit in the sip is dialed back, letting the prickly carb highlight tropical bitter notes sliced clean by a fresh herbal incision." **ABV:** 5.3% **IBUs:** 33 Loc: Asheville, NC

Chapman Crafted **SMaSH** Mouth AROMA: 12 APPEARANCE: 3 FLAVOR: 17 MOUTHFEEL: 4 OVERALL: 9



What the brewer says: "100 percent Skagit Valley Pilot pale malt and 100 percent Mosaic hops." What our reviewers thought: 'The dank hop aroma builds on a

blend of mild onion and green pepper. with some fruity sweet notes. The flavor adds a touch of spicy black pepper that helps the finish pop. A touch more bitterness would have been welcome. but this is a confident pale ale." What our editors thought:

"Bold modern nose—pineapple, man-

go, with an almost minty freshness. Citrus zest and subtle pineapple sweetness in the sip with a thoughtfully structured smooth bitterness behind. Contemporary and vivid." **ABV: 5.5% IBUS: N/A** Loc: Orange, CA



Pale Ale





Grand Canyon Horseshoe **Bend Pale Ale** AROMA: 12 APPEARANCE: 3 FLAVOR: 17 MOUTHFEEL: 3 OVERALL: 9 INDE PEN DENT CRAFT

What the brewer says:

"Full-bodied, with bittersweetness but light in body, complete with grapefruit and tropical flavors and subtle caramel notes."

What our reviewers thought: "Finds its balance between malt and hops. An orange-citrus hop aroma with hints of pineapple and a bready malt. Citrus leans toward lemon in the flavor, adding another touch of complexity. The bitterness in the finish is soft and understated."

What our editors thought:

"Floral nose with light citrus zest, clean and light. Classic

pale-malt body, not too bready, with a light lime-zest bitterness for structure. Both simple and compelling. ABV: 5.8% IBUS: N/A Loc: Williams, AZ



What the brewer says: "Centennial-hopped extra pale ale." What our reviewers thought: "Commanding, well-executed, happy marriage of hops: earthy, subtle fruit notes of passion fruit and orange. dank, and fresh-cut grass. The flavor profile extends the old school meets new school contour. Bitterness stays medium low, but leaves some sweetness hanging out, a detour from the pronounced hop boldness.

What our editors thought:

"Sweet orange and orange peel in the nose with a light floral perfume. Firmly bitter in the sip with a smooth but classic malt-and-hop oomph that resolves into classic citrus and forest notes." ABV: 6% IBUS: N/A Loc: Chicago



Indeed Day Tripper Pale Δle



What the brewer says: "Aroma: Dank, citrus, floral, pungent; Taste; Hop bitterness, resinous, citrusy, green-hop flavor, a touch of malt sweetness." What our reviewers thought:

"The dank pine hops in both the aroma and taste are accompanied

by a touch of peppery spice. Malt balances the aroma, with some toasted whole-grain bread. The flavor also brings in some earthy notes and bright resinous pine in the initial sip and especially the finish. Light, lingering toast in finish."

What our editors thought: "Gentle peach and

baked bread aroma follows into the flavor, .INDEED with a dialed-down Day but dry and chalky IPPE bitterness that cleans ALE ALE up the sip." **ABV:** 5.4% **IBUs:** 45 Loc: Minneapolis



What the brewer says: "West Coast pale ale. A mix of tropical NZ hops and dank/piney American hops with a crisp, dry finish."

What our reviewers thought: "Light lemon/lime, hay, water cracker, waft of pine on the nose. Doesn't show off its hop colors, but they slowly build into a solid, rounded take on those classic pale flavors. Finishes slightly dry and very clean."

THE CROWLER

Pocket

Change

What our editors thought: "Bright and fresh yuzu with very light bready malt notes behind it. Quirky yuzu-lime bitterness in the sip, but strong, with an almost puckering intensity." **ABV:** 5.3% **IBUs:** 33 Loc: Lafayette, CO



AROMA: 12 APPEARANCE: 3 FLAVOR: 18 MOUTHFEEL: 5

Moksa

Yakima

What the brewer says: "Celebrating the Yakima trinity of

Simcoe, Citra, Mosaic." What our reviewers thought:

"Aroma is piney and has berry fruit. Strawberries, papaya, peach, pine resin, grapefruit, woodland berries with hints of raspberry in the flavor. Moderate levels of carbonation allow the hop flavors to pop against a saltine or white-bread malty backbone. Well-balanced and finishes slightly dry." What our editors thought: "Lush and big tropical floral notes in the nose. Fruit bitterness hits early and SA BRE resolves into lingering

fat tropical papaya and guava notes.' **ABV:** 5.6% IBUS: N/A Loc: Rocklin, CA

Moonraker **Captain Mo**



What the brewer says:

"Made with a double dry hop of hand-selected Mosaic and Oregongrown Cascade. Blueberries and pine all day long. Healthy bitterness.

What our reviewers

thought: "Dank, piney hops take center stage in the aroma. They make the same moves in the flavor but are somewhat sabotaged by a chalkiness that blunts their impact and adds some harsh notes to the relatively mild bitterness.

What our editors thought: "Strong

modern hop nose with green citrus in the aroma. A touch of butter in the sip dilutes the orange-lychee punch." ABV: 6% IBU's: 60 Loc: Auburn. CA







What the brewer says: Crisp and hop-forward. Session-

able. Perfect for when there's still work to do or work to avoid." What our reviewers

thought: "Light, fruity aromatics of orange, strawberry, mango with a subtle pine note in the background. Subtle whisp of crackery background creates the canvas for the hops. Aromatics outweigh the flavor. Balanced bitterness is gentle. The finish is clean and crisp.

What our editors thought: "Zippy and sweaty hop nose with

tropical locker-room notes. Very light but LAGUNIT not sweet in the sip, with a bit ragged tealike hop character." ABV: 4% IBUs: N/A Loc: Petaluma, CA

Pale AROMA: 12 APPEARANCE: 3 FLAVOR: 19 MOUTHFEEL: 4 OVERALL: 9

MadeWest



What the brewer says: "Flagship pale ale featuring Mosaic, Simcoe, and Ekuanot."

What our reviewers thought: "The aroma offers nice hops complexity, with tropical notes against a resinous backdrop and some toasty malt notes. Flavor is milder, with more focus on the pine, but a good balance. Finishes with a soft bitterness in scale with the general lightness throughout."

What our editors thought: "Crisp white-flower

ADEW

notes in the nose with some tropical funk. Modern and vivid. That lightness persists in the sip, as gentle pale-malt notes support crisp tropical floral notes in the sip. Gorgeous." ABV: 5.6% IBUS: N/A Loc: Ventura, CA





TASTED: HAZY/JUICY PALE

Peculier The Sun Is Shining

AROMA: 12 APPEARANCE: 3 FLAVOR: 19 MOUTHFEEL: 5

What the brewer says:

"Candied oranges and a touch of pine dominate this homage to the all-Citra pale ales."

What our reviewers thought: "High carbonation ramps up the hop aromas and emphasizes its bitterness. Aroma screams of Fruity Pebbles with New World citrus, pine. Clean, bready base beer with a bitter finish that is just on the pale side of IPA."

What our editors thought:

"Fresh melon and mango on the nose with a dusty, citrus zest sheen for an old-newschool contrast. Firm, pithy-citrus bitterness in the sip, smooth and lustrous. Modern, with vintage echoes."

ABV: 4.8% IBUS: N/A Loc: Windsor, CO



pFriem Family Brewers **Extra Pale** AROMA: 12 APPEARANCE: 3 FLAVOR: 20 MOUTHFEEL: 4 OVERALL: 9



What the brewer says:

"Scents of melon and pineapple, and the juicy essence of strawberry and gooseberry." What our reviewers thought:

"Dank and terpene-soaked, the hop character is buoyed by clean malt and a mild floral ester. The first impression is that the beer needs to be more bitter, but the slow build of the bitter finish convinces you soon enough."

What our editors thought: "Modern, locker-room hop note in the

nose with big sweatv tropical aromas. Clean and light in the flavor as those tropical notes are buffered by a simple but cogent, matte malt body. Like a billionaire in a hoodie, it downplays its wealth." **ABV:** 6.5% **IBUs:** 45 Loc: Hood River. OR



Societe The Coachman

AROMA: 12 APPEARANCE: 3 FLAVOR: 20 MOUTHFEEL: 4 OVERALL: 10

What the brewer says: "Intense peach and citrus hop aromas." What our reviewers thought: "Aroma offers tropical fruit mixed with dank and catty, lightly bready malt. That combination persists into the flavor, but the intensity lessens. Fruity esters boost the tropical impression. Body is light, crisp, without excessive bitterness. Aftertaste shows earthy, dank notes and a lingering bitterness.

What our editors thought:

"Bright bold thiol-driven hop notes in the nose, tropical with a guavalychee vibe. Softer in the

SOCIET

sip, as malt notes with a bit of earthy tropical bitterness push forward. Not nearly as intense in the sip as the nose suggests." ABV: 4.9% IBUS: N/A Loc: San Diego

Temescal **Plant Parent**



What the brewer says:

"Brewed with thiolized yeast and dry hopped with Citra, Mosaic, Riwaka," What our reviewers thought: "Dank woodsy combines with orange

marmalade spread across a low biscuity, light cracker background. Bitterness stands up but in a hushed form that doesn't measure up to the malt. Still, the hop flavor punches through. Clean aftertaste. and dry."

What our editors thought:

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PAREN

"Thiol-driven crispy tropical funk in the aroma leads to a bittersweet tropical funky sip, as hefty tropical hops fight for place with softer malt notes.

ABV: 5.2% IBUS: N/A Loc: Oakland, CA



AROMA: 11 APPEARANCE: 3 FLAVOR: 17 MOUTHFEEL: 4 OVERALL: 9

What the brewer says: "West Coast pale ale brewed with Simcoe. Centennial, Citra."

What our reviewers thought: "Orange-forward nose with a dash of spice. Fresh citrus hop notes on the retronasal. Lightly sweet malt background, fresh white bread. Soft pale body elevates the orange and lemon hop flavors. Captivating conclusion brings an elevated bitterness together with the semisweet plump flavor."

What our editors thought:

COLORAD PALE AL

"Fresh herbal and floral notes on the nose with just a touch of citrus. Light and a bit malty in the flavor, high and forward with a chunky floral bitterness hanging on the roof of the mouth." **ABV: 5.6% IBUS: N/A** Loc: Idaho Springs, CO

Wild West Smooth Criminal

AROMA: 12 APPEARANCE: 3 FLAVOR: 19 MOUTHFEEL: 5 OVERALL: 10

What the brewer says: "Features the traditional all-star Cascade plus a few other modern hops." What our reviewers thought: "Light aromatics of tangerine. lemon, pine, black tea. Subtle hints of caramel-malt sweetness showcase the restrained bitter hop notes of pine and orange marmalade, with hints of rose petal, green tea, and lemongrass. Finish is a perfect mix of bitter and sweet."

What our editors thought: "Lightly toasty malt with slightly herbal aroma hops. 的车与太空 Light and toasty in the sip, if anything a bit dialed-back in bitterness and hop flavor, but the gentle approach makes it accessible." **ABV:** 5.4% **IBUs:** 33 Loc: Chengdu, China





Brews Crushable

What the brewer says: "An approachable, bright, hazy pale ale that lives up to its name.

AROMA: 11 APPEARANCE: 3 FLAVOR: 20 MOUTHFEEL: 5 OVERALL: 10

What our reviewers thought: "Mandarin orange twist up front in the aroma with a touch of lemon pith behind. As it warms, more orange zest comes out. A burst of pineapple-juicy-fruit hops with a medium-fluffy pillow backdrop hold up those delicate hop flavors. Soft, bright, well-rounded, pleasant. The bitterness and sweetness are nicely

What our editors thought:

"Gentle stone-fruit notes, with light berry esters, layers of lemon with a vanilla-like sweetness, and just a touch of sweaty tropical fruit underneath make for a layered but concise nose with no note out of place. The flavor is similarly controlled yet energetic, with green tropical notes vibing alongside sharper lemon citrus while a pithy, earthy bitterness rides softly underneath. Not sweet. it relies on the ideas these tropical flavors suggest more than any residual malt sugar. But that feeling of width in a very lean package with a tight, tropical citrus bitterness that scrubs the finish makes for an utterly enjoyable beer." ABV: 5.2% IBUS: N/A Loc: Seattle





What the brewer says: "Original Mind is brewed and drv-hopped with a blend of Citra and Mosaic. Fresh out-of-the-bag hop aroma and flavor." What our reviewers thought: "Limeade, navel orange, pineapple, apricot on the nose. Sharp lemon, tangerine, honeydew on the tongue. Light malt backbone. A bright and clean bitterness rips right through the middle and well into the finish. A great mouthfeel and malt presence help back up the overall experience." What our editors

thought: "Apricot, lemon, and tangerine in the nose with a soft gauzy sheen. Pineapple appears in the sip, structuring with an earthy bitterness. Vivid and punctual." ABV: 5.8% IBUs: 30 Loc: Kansas City, MO







What the brewer says: "Hazy with thiolized yeast and Strata, Calypso, and Citra hops." What our reviewers thought: "Bright, fruity tropical notes in the nose of guava, mango, orange, pineapple are balanced by hints of pine, onion, and cedar. Carries all the way through the flavor. Firm bitterness. Balanced between tropical fruit and earthy notes, all within a soft malty body."

What our editors thought: "Light locker room with a cedar note

and earthy but tropical



Cellarmaker



What the brewer says: "Citra. Enigma. Nectaron all rolled into one ganja-redolent beer." What our reviewers thought: "Spicy hop notes intersect with low candy lemon drop and touches of perfume. Hints of orange and strawberry plus piney and soapy notes dominate the flavor. A supporting bitterness cuts away the sweetness, but not so much that it is overly dry."

What our editors thought: "Light crisp mineral, tropical fruit, and

cannabis notes in the nose with a strong thiol lean. Gentler in the sip, as bright tangerine and pineapple notes with a light rounded sweetness convey a controlled energy despite the guirky cadence." **ABV: 5.7% IBUs: 70** Loc: San Francisco



Commonhouse Oleander Pale Ale



What the brewer says: "Mosaic pale ale."

What our reviewers thought:

"Light tangelo, medium lime, and a hint of kiwi in the aroma. Orange, honeydew, cantaloupe, and lemon rind in the flavor. Moderate amount of bitterness staves off any sweetness. Soft malt backbone but a light minerality really work."

What our editors thought: "Pink lemonade, faint floral, and a

bit of apricot in the aroma. Sweet and broad in the sip, with bits of grapefruit,

cherry, lemon, and a very soft fruity bitterness." ABV: 6.5% IBUs: 45 Loc: North Charleston, SC



Half Acre Beer



What the brewer says: "With Citra, Mosaic, Idaho 7, Centennial.

"Balanced aromatics of bright fruit and dank pine with elements of orange. strawberry, peach, lemon. Nice soft malt body. Well-balanced and finishes just sweet enough to support the distinct bitterness, and just mouth-coating enough to prevent the dryness from stripping away the nuance."

What our editors thought:

"Peachy melon notes in the nose, classic in an English sense vet contemporary in context. Soft citrus bitterness plays well against the stone fruit in the sip, for a gentle tension that resolves cleanly." ABV: 5.5% IBUS: N/A Loc: Chicago





London III veast."

What our reviewers thought:

JUI Ý PALE

BKS Artisan **Ales Tumbling** Tumbleweed



What the brewer says:

"Dry-hopped with Mosaic, Amarillo, Comet hops."

What our reviewers thought: "Dank juicy-fruit hop aroma with a touch of pink lemonade and a fresh hop undertone. Flavor balances between reserved bitterness and sweetness. Lime with a touch of pine wood. Sweet malt backbone slowly fades into a medium finish.'

What our editors thought:

"Bright pineapple, mango, peach, sweet chalky Pez candy in the nose. Vivid colors, through a glare-free screen. Stone fruit and bitter citrus zest in the sip, smooth with an edge that appears more sweet than it is.' **ABV: 5.5% IBUs: N/A** Loc: Kansas City, MO



BreWskey Pub & Taproom Cumulus



What the brewer says: "Oat cream pale ale with Citra and

Galaxy (lactose)." What our reviewers thought:

"Fresh orange juice, pineapple, mango come out in the aroma. Some dankness mingles with the orange and tropical fruit of the flavor. Malt backbone is neither too light nor too aggressive. A light vanilla sweetness in the middle as it warms. Pleasant bitterness lingers on the tongue."

What our editors thought: "Crisp. auirky citrus in

the nose and flavor pulls notes of yuzu and satsuma-fresh, sweet, defined, and succinct. Structured through the sip as a citrus acidity buffers the malt." ABV: 5.5% IBUS: N/A Loc: Montréal. OC Canada

AROMA: 11 APPEARANCE: 3 FLAVOR: 18 MOUTHFEEL: 3

What the brewer says:

"Crushable house pale ale hopped to evoke sticky mango, candied pineapple, tangerine zest, pine needles. Low bitterness. soft and juicy." What our reviewers thought: "Soft apricot, kiwi, citrus in the nose. soft, sweet, light. Semisweet with a low bitterness profile followed by a What our editors thought:

"Gentle and round lime, cucumber,

and apricot in the **Loc:** Pittsburgh

Cinderlands

Beer Squish

Tangerine, melon on the palate, clean medium finish."

SQUISHAL

-

aroma and flavor. Soft herbal bitterness opens into stone fruit structured by the crisp lime." ABV: 5.5% IBUS: N/A





Odell Drumroll



What the brewer says: "Each vear we select the rock-star hops of the harvest to craft this bold, juicy, tropically hop-forward brew."

What our reviewers thought: "Hints of orange, pineapple, and pine with a nice pepper-like spice create an inviting nose. Flavor moves into star fruit and mango with ever-present dankness. Balance of the malt sweetness and tropical bitterness is spot on."

What our editors thought: "Green and yellow tropical fruit notes

in the aroma with a strong herbal backbone softness in

the sip, with nice structure from the soft bitterness and body that's leaner than the haze suggests. Drinkable and balanced." **ABV:** 5.3% **IBUS:** N/A Loc: Fort Collins, CO



Protagonist **Reer Gwen**



What the brewer says:

"Notes of tropical fruit, citrus, and slight honev."

What our reviewers thought: "An earthy citrus note in the aroma. Orange zest with some pith is the main note in the flavor. Low bitterness. Sweeter profile with a tangy lime note in the background. The malt is more sweet than fluffy, the hops more berry-fruit with a hint of lemon."

What our editors thought:

"Honey lime notes on the nose, bold and earthy with a breadcrust background. Woody lime-peel bitterness with a big bready note in the sip, almost Brett-like in its crisp funk." ABV: 5.5% IBUS: N/A

Loc: Charlotte. NC





What the brewer says: "A huge punch of tropical flavors trails into a subtle pinev finish."

What our reviewers thought: "Notes of orange, mango, pineapple, peach combine with hints of pine and garlic in the nose. A sharp bitterness that leans piney cuts through the somewhat soft malt and strips away much of the nuance. The bitterness lingers into the finish."

What our editors thought:

"Crunchy-fresh hop notes in the nose with a touch of diesel and that green, fresh-hop vegetal note from flowers recently picked.

arillo Fresh Ho

A bit unfocused in the body, as the green and citrus fruit notes meander through a

ABV: 5.3% IBUS: N/A Loc: Oklahoma City

Wise Man

Perspective

Cosmic



What the brewer says:

"Landlord uses American ingredients to pay homage to Timothy Taylor's Landlord as the quintessential English pale ale."

What our reviewers thought: "Grainy, bready, lightly toasted malt aroma. Medium hops aroma, woody and lightly spicy. Smooth, slightly sweet malt flavor. Hop bitterness is firm, slightly resinous, fresh-tasting. Aftertaste shows more hops, some woody notes. Classic, easy-drinking, thirst-quenching."

What our editors thought:

"Bits of honey, lime, and melon with a flinty mineral note behind them in the nose. Gentle but firm and smooth bitterness in the sip—herbal and woody, with very light floral overtones. Toasty and bready malt with a grain note. Fresh vet reserved, timeless, but with an unmistakeable newness." **ABV:** 4.3% **IBUs:** N/A Loc: Athens. GA

TASTED: ENGLISH-STYLE PALE ALE





What the brewer says:

"Brewed with a variety of U.S. and U.K. malts and hops and a hybrid yeast. Drinks a bit like a refreshing Kölsch. What our reviewers thought: "Hop-forward citrus aroma showcases orange, tangerine. Subtle cereal malt aroma provides support. Light flavor. Hop bitterness comes forward. Lingering bitterness in the aftertaste, with a low astringency."

What our editors thought:

"Fragrant floral note leads the nose-rose with a bit of hibiscus and dried lime. Light lime and floral bitterness in the sip, with very subtle malt. Simple yet compelling. and slightly tuned to American palates with heightened bitterness." **ABV:** 4.8% **IBUS:** N/A Loc: Wassaic, NY





What the brewer savs:

"Always malty, never bitter. A smooth mid palate with ribbons of caramel, English toffee, toasted oak.

What our reviewers thought:

"Toasty malt, candied esters, and a delicate hop aroma assert a decidedly British flair. The bitterness provides good grounding for the otherwise expansive and endearing malt character."

What our editors thought:

"Toasty bread, light melon, and soft stone fruit in the nose. The sip is bready with a distinct toothy malt, but soft with an earthy bitterness that swoops in for the finish. Bright and defined despite the malt heft." **ABV: 5% IBUs: 30** Loc: Paso Robles, CA



AROMA: 12 APPEARANCE: 3 FLAVOR: 19 MOUTHFEEL: 4 OVERALL: 9 DMA: 12 PEARANCE: 2

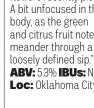
What the brewer says: "Featuring Cosmic Punch yeast and double dry-hopped with Strata and Galaxy hops."

What our reviewers thought: "Light orange-led citrus and pine in the aroma, crystal malt sweetness behind. First sip reveals a balanced bitterness with a slight sweetness. A slight clean bitterness lingers in the finish. A soft sweetness toward the

end, just a little lighter." What our editors thought:

"A lighter and sweeter take on classic orange and pine, from the creamy nose to the soft citrus sip. Pithy bitterness lingers into the finish, with a soft sheen." ABV: 5% IBUs: 37 Loc: Winston-Salem. NC





TASTED: BARLEYWINE & STRONG ALE



Melvin Eureka Assembled Armor AROMA: 12 APPEARANCE: 3 FLAVOR: 20 MOUTHFEEL: 5 OVERALL: 10 NDE PEN DENT CRAFT

THE MUSE OF FLYING BANK

What the brewer says: "A

blend of imperial stouts and barleywines aged in bourbon and rye whiskey barrels with toasted black and white sesame seeds, smoked sea salt, maple syrup, cinnamon."

What our reviewers thought: "Complex molasses, earthy tobacco, dark fudgy chocolate

greet the nose. Layers of caramel malt remind you of the barleywine element. The flavor goes more milk chocolate, dough, intricate layers of dark fruits. Alcohol adds spice. Luscious sweetness closes the sip with chocolate-covered dates. What our editors thought:

"Toasty cinnamon and syrup notes on the nose with some deeper burnt-caramel notes. Peppy and accessible in the sip, as cinnamon adds a tight structure to the caramel sweetness, and the oaky bourbon pulls it together in a cohesive whole. Big yet spicy, but sweet and smooth."

ABV: 15% **IBUs:** 20 Loc: Eureka, MO

Breakside Brewery LIFE, Volume 2



What the brewer says: "Classic English barleywine featuring 100 percent Fawcett malts." What our reviewers thought:

"Classically British in so many ways. Plum hits up front, with light toast. Deep caramel with dates.

The flavor leans more toward the bread and soft caramel, oozing brown sugar and raisin. The velvety mouthfeel is the star." What our editors thought: "Caramel,

wood, hay with a light peanut-shell nuttiness. Warm and malty in the sip as that defined nutty character overrides any lighter caramel notes. Curiously cool and detached." ABV: 9.5% IBUs: 25 Loc: Milwaukie, OR

BREAKSIDE





What the brewer says: "A

cold-weather beer with notes of drv fruit and marmalade."

What our reviewers thought: "Classic stone fruit and British fermentation. Bold dark-fruit notes wrapped in sweet caramel. Raisin, date, plum. More on the toast side, but appropriate. Nice toffee finish, but a bit cloying."

What our editors thought:

"Dry, woody, and a bit grainy in the aroma with some sweeter caramel notes that feel a bit

more like brown ale than barleywine. That "big brown ale" note carries through in and woody hop edge through the sparing dry body."

ABV: 9.1% **IBUs:** 43 Loc: Greensboro, NC

North Park Barrel-Aged Original Geezer

What the brewer says:

"Brewed with butterscotch candy. Aged in Heaven Hill bourbon barrels." What our reviewers thought: "Dark chocolate cake with a sidecar of whiskey. Caramel, toffee, chocolate aroma notes are balanced by a hint of citrus hops. Alcoholic heat shows up early in the sip along with that citrus bitterness, chewy caramel, toasted almond, cinnamon." What our editors thought: "Sugar Daddy caramel nose with gentle bourbon notes. Punchy caramel notes in the sip convey energy with a bit of persistent hop bitterness, drying out the sweet intensity at the expense of luxury." ABV: 12.2% IBUS: Ń/A Loc: San Diego



AROMA: 12 APPEARANCE: 3 FLAVOR: 19 MOUTHFEEL: 4

100 **CRAFT BEER** & **BREWING**

coconut, leather. Alcohol presence and an oaky tannin note are well integrated."

Peculier

Barleywine

What the brewer says:

"Barleywine aged in rye barrels,

"Caramel, brown sugar, toffee

vanilla."

then rested on toasted coconut and

What our reviewers thought:

blend with aromas of raisins, dates,

and a hint of citrus hops. Caramel

sweetness, raisin, and cinnamon in

the flavor create a nuanced sweet-

ness supported by toffee, vanilla,

1A: 12 Arance: 3

APPEARANCE: FLAVOR: 20 MOUTHFEEL: 5

What our editors thought: "Woody low-mid-key burnt caramel

notes in the nose. with some dark cacao notes for definition. Sweet in the sip, with rich caramel, apple, leather, burnt bread crust notes that pull together in spectacular fashion."

ABV: 14% **IBUS:** N/A Loc: Windsor, CO

Exhibit 'A' Weights & Measures AROMA: 11 APPEARANCE: 3 FLAVOR: 18 MOUTHFEEL: 4 OVERALL: 9



"Smooth, with notes of caramel, candied fruit. a bit of alcohol warmth, and a sweet finish.' What our reviewers thought: "Big raisin and date aromas. Exaggerated caramel sweetness at the front of the mouth, with some elevated bitterness. Orange. Lingering

burnt caramel. Fairly sweet on the finish. Sticky and sweet.' What our editors thought:

2022

"Lightly fruity with a lime and

orange zest aromatic backbone. The flavor leans into malt, broad and undefined, with a generally wheaty and fruit-forward fermentation note that avoids commitment."

ABV: 10.5% IBUS: N/A Loc: Framingham, MA



Pontoon Ribbon Cutting



What the brewer says: "A blend of a stout aged in a tawny port barrel and a steel-aged barleywine." What our reviewers thought: "Boozy, coffee-chocolate nose. Vanilla, leather, licorice on the tongue. Light raisin and prune. Rich and chewy body. Rich and complex, but with relatively restrained sweetness. Lush and chewy

mouthfeel, pleasant heat." What our editors

thought: "Big dark malt notes with chewy leather and molasses in the nose. Drier than expected in the sip, with chocolatecaramel notes and a touch of fruity fermentation highlights layered on top." **ABV: 13.9% IBUS: N/A** Loc: Sandy Springs, GA

Pure Project Forgotten Brilliance



What the brewer says: "Features Centennial, Amarillo, Cascade hops, and Maris Otter and English crystal malts.

What our reviewers thought:

"Pinev forest aromas dominate the nose, with brown sugar, light figs, wet

grain. Heavy tones of caramel malt wrapped in vibrant dark-fruit notes. Sweet malt finish with a warming alcohol presence."

What our editors thought: "Bold Amer-

ican hops nose with classic notes of citrus and pine. Softer in the sip with subtle caramel notes that intertwine with those C-hop notes for a juicy yet structured barleywine." ABV: 12.3% IBUS: N/A Loc: San Diego

Side Project Continuance **Blend 3**



What the brewer says:

"Blend includes Triple Barrel-Aged M.J.K., Single Barrel-Aged M.J.K., Port Barrel-Aged Ryewine, and Anabasis." What our reviewers thought:

"Warming nose with layers of bourbon, vanilla, dark fruits, chocolate, woody highlights. Deep chocolate malt tones. Sweet, bold, thick,

What our editors

thought: "Tight bourbon notes in the nose with hints of cacao, leather, prune, oak, with subtle citrus undertones. Lustrously heavy in the sip, burnt caramel and crème brûlée." ABV: 15% IBUs: N/A Loc: Maplewood, MO

Soul & Spirits Grist Ain't Groceries

AROMA: 9 APPEARANCE: 3 FLAVOR: 19 MOUTHFEEL: 4 OVERALL: 10

What the brewer says:

"Brewed with 60 percent rye, Talus, and HBC 630 hops."

What our reviewers thought: "If you approach this as a summer

barleywine, it works. Somewhat spice-driven nose. Bright up front morphs to a plump raisin, plum profile. Bready malt really is needed to go with the rye, which is present enough. The mouthfeel is full, but attenuation is right and avoided going too sweet. It feels like a Bavarian got lost in London

into a barleywine." What our editors thought: "Nutty, dried pasta aroma segues into a wheaty but mellow sip with dialed back structure." **ABV: 10% IBUs: N/A**

Loc: Memphis, TN

TASTED: BARREL-AGED BARLEYWINE

New Image Brewing 9505 AROMA: 12 APPEARANCE: 3 FLAVOR: 20 MOUTHFEEL: 5 OVERALL: 10

What the brewer says:

"Barrel-aged barleywine finished with amburana wood."

What our reviewers thought: "Enticing cinnamon, allspice, clove, dark chocolate, sweet raisin notes vield a remarkable nose. The flavor also delights with an almost Mexican hot-chocolate character. Smooth alcohol and a long rich finish. Outstanding!

What our editors thought:

"Spicy cinnamon roll with melon-like undertone in the nose-strange but compelling. That mellow spicy character persists in the flavor, buoyed by a vanilla-like roundness and supported by a spectrum of caramel flavors. A bit sweet, but some spicy bourbon at the back of the sip keeps it honest." ABV: 16.01% IBUS: N/A Loc: Arvada, CO



American Solera Stuffed Crust



What the brewer says:

"English-style barleywine aged 12 months in bourbon barrels.

What our reviewers thought: "Strong bourbon aroma ends in rich sweet chocolate, toffee, and caramel notes. Finishes sweet with pale choc-

olate, candied raisins, and subtle bourbon barrel. Very low carbonation with just a hint of oak astringency."

What our editors

thought: "Toffee, bread-crust aroma with light sweet bourbon notes and a touch of musty wood. Sweet brown sugar in the sip, with a bit of dark corn-syrup intensity. Less refined, more comfortable. ABV: 13% IBUs: N/A Loc: Tulsa, OK





What the brewer says:

"Aged seven, eight, and eight months in a blend of bourbon barrels.

What our reviewers thought:

"Aroma-wise, a healthy dose of alcoholic heat punctuates caramel and cinnamon notes with hints of vanilla, toffee, milk chocolate, coconut. The flavor stays in the same lane. The booze is the star of the sip but deftly pulls everything together."

What our editors

thoughst: "Vivid nose with bits of licorice. Bit-O-Honev candy, caramel Granny Smith apple, bourbon oak, mid-percentage cacao chocolate, wet leather. The flavor is similarly layered and diverse, leathery with deep caramel notes and an herbal brightness. ABV: 17% IBUS: N/A Loc: Anchorage, AK

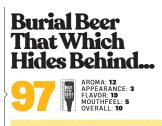








CONTINUANCE



What the brewer says: "A blend of barleywine aged in cognac. Calvados, and bourbon barrels. What our reviewers thought:

"Aromatic sweet dark cherries, dark chocolate, and vanilla. Cognac and bourbon offers an exciting combination that finishes sweet with

notes of light roast, dark cherries, pale chocolate, and rich toffee. Very smooth flavor. Low carbonation and semisweet in the finish."

What our editors thought: "Plush velvet, hookah-bar, head-shop spice nose with brighter chocolate caramel notes. Mid-key with energetic bready and caramel notes in the flavor, bright and lively." **ABV:** 13.5% **IBUs:** 28 Loc: Asheville, NC



AROMA: 12 APPEARANCE: 3 FLAVOR: 18 MOUTHFEEL: 4 OVERALL: 10

What the brewer says:

"Aged first in a Weller barrel, then in a Thomas Handy Rye barrel, then in a Pappy Van Winkle barrel."

What our reviewers thought: "Bourbon-forward nose with vanilla. cherry, chocolate fudge. Some malt sweetness and dark dried fruit. Flavor is dark fruit, sweet, volatile. Cherry, fig, date. Vinous with a dark fruit finish. What our editors thought:

"Dark molasses, burnt caramel, alligator char oak, and a silky chocolate bourbon nose with hints of raspberry and red-wine grape. Intense flavor as bourbon heat drives the initial conversation, backed with rich caramel that supports the sweeter top notes." **ABV: 14.8% IBUs: 55** Loc: San Francisco



What the brewer says: "Barlevwine aged in a blend of brandy and rye whiskey barrels. What our reviewers thought:

"Rich aroma with oak, vanilla, caramel, toffee, brown sugar, dark chocolate, rye bread. The flavor adds toasted macadamia nut and touch-

es of maple syrup. Boozy heat emerges in the finish." What our editors thought: "Chocolatestout notes compete with caramel notes in the nose, with a bit of fortified wine. Sweet, but layered, as light and dark caramel notes with punchier, boozy destra dark-chocolate notes define the flavor. Rich and enveloping." ABV: 14.7% IBUS: N/A Loc: Denver

Dry Dock Bligh's Barleywine



What the brewer says: "Malty English barleywine aged in

bourbon barrels." What our reviewers thought:

"On the nose, subtle chocolate, vanilla, and leather support caramel and toffee notes. An earthy, citrus-like bitterness in the finish tempers the

sweet, somewhat decadent, malt flavors." What our editors thought: "Toasty

burnt brown sugar, deep caramel, light oaky tannins, subtle citrus tones in the aroma. Smooth in the sip as those citrus notes high point the caramel. Incredibly smooth yet lively." ABV: 11.5% IBUS: 30 Loc: Aurora, CO

Firestone Walker Sucaba 2022



What the brewer says: "Dark chocolate, vanilla, tobacco, coconut. a touch of dark cherry."

What our reviewers thought: "Notes of rich cocoa, toffee, raisins, and dark cherries float above a barrel character with some spirit notes and pleasant oxidation. The flavor continues the dark-chocolate notes with a nice, warming alcohol and residual-spirit character. Smooth, drinkable, and full of luscious flavors."

What our editors thought: "Burnt brown sugar with a wet leather and chocolate-tobacco note in the nose. Chocolate caramel drives the sip, with a deep cacao truffle note and structured bitterness that gives it a persistent strength." **ABV:** 12% **IBUS:** 26 Loc: Paso Robles, CA



AROMA: 12 APPEARANCE: 3 FLAVOR: 19 MOUTHFEEL: 4

What the brewer says:

"Achieves distinct bourbon, oak, cacao, leather, toffee, dark coffee notes." What our reviewers thought:

"Medium oak, dark-roasted malt, sweet alcohol in the aroma. Sweet caramel notes. Medium-sweet initial impression, lightened by alcohol warmth, light hop bitterness. Intricate cherry. bourbon, vanilla flavors."

What our editors thought: "Stout-like roast and chocolate notes in the nose, deep

but shaped. Barleywinelike in the sip, as FREMONT chocolate, brown sugar, and burnt caramel push and pull with a woody bitterness. Elegant in its

ABV: 14% IBUS: N/A Loc: Seattle

editing."

Green Bench The Obscure



What the brewer says:

"English-style barleywine aged in rum barrels."

What our reviewers thought:

"Rich. decadent caramel. toffee. bittersweet chocolate. and a hint of vanilla punctuate the nose. The sip integrates brown-sugar and tobacco-like elements and a hint of oxidation that work well within the lightly

oaky sip. Boozy heft and full body, but remains drinkable." What our editors thought: "Deep chocolate caramel in the aroma. dark cacao with a leathery polish. Sweeter in the sip. Incredibly smooth and soft with light citrus highlights over deeper burnt caramel. Remarkably



ABV: 10.2% IBUS: N/A Loc: Saint Petersburg, FL

cohesive."



What the brewer says:

"An American barleywine aged in bourbon barrels."

"Strong chocolate-toffee aroma.

dark-chocolate flavor-almost imperial stout in roast quality.

velvety finish with enough bitterness to balance."

thought: "Classic C-hop barleywine nose.

OLOG

Ology 2022



What our reviewers thought:

Fig. prune, black currant, Rich, deep

Sweetness lingers in a

What our editors

with bittersweet caramel and light chocolate. The push-pull in the sip, between sweet caramel malt notes and light, soft herbal hop bitterness, results in an intriguing dynamic." ABV: 13% IBUS: N/A Loc: Astoria. OR

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411

Fort George





Moksa Birthday Barleywine



What the brewer says:

"English barleywine aged in Old Forester Birthday Bourbon barrels." What our reviewers thought: "Deep dark chocolate, vanilla, bourbon, toffee aromatic notes. Oak bourbonbarrel age qualities with notes of apricot, dark chocolate, tart cherries. Substantial body. Silky semisweet finish."

What our editors

thought: "Sticky leather, sweet bourbon, and charred oak in the nose with a lightly fruity top note. Stone-fruit soft sweetness in the sip plays against the mid and dark caramel notes for a curious richness that doesn't feel overly heavy." ABV: 15.6% IBÚS: N/A Loc: Rocklin, CA



Old Thunder Burned & Broken



What the brewer says: "An American barleywine aged in a blend of bourbon barrels.

What our reviewers thought: "Deep rich caramel, dark fruit, toast

aroma. Mild chocolate and dried apricot. Rich caramel and toastv flavor. Chocolate and fig finish with a touch of hop bitterness.

What our editors thought: "Toasty

caramel with a brown butter toffee back note in the nose. Woody, light buttery caramel in the sip, with a light bitter burnt caramel behind it. Simple, but well executed." ABV: 10% IBUs: N/A Loc: Pittsburgh



What the brewer says: "An English-style barleywine aged in Maman barrels."

What our reviewers thought: "Caramel, chocolate, vanilla

and Twizzlers in the aroma. Bold chocolate. burnt caramel, charred marshmallow, toffee, and sherry-like notes pair well with the vanilla.

What our editors

thought: "Herbal, chocolate, and tannic oaky notes in the aroma offer a zesty energy. Sweet chocolate and caramel notes in the sip play mid-key for a soft, melodic drive into a fruity caramel finish." ABV: 11% IBUS: N/A Loc: St. Louis

Pontoon **Business Time**

BlueR



What the brewer says:

"Blend of Madeira-aged barleywine and steel-aged barleywine finished in Madeira barrels."

"Hints of citrus hops and oaky vanilla balance caramel, toffee, chocolate, brown sugar in the nose. A char note and a hop bitterness temper the sweetness. A papery oxidative character tones down the sweetness"

What our editors

thought: "Caramel on the nose with a bit of wine grape and some oaky tannins. Vinous caramel and chocolate in the sip with slight berry notes." **ABV:** 13.9% **IBUS:** N/A Loc: Sandy Springs, GA

Protagonist Galileo



What the brewer says: "An English-inspired grain bill, heavily hopped with Centennial and Mosaic." What our reviewers thought: "A hop-forward (pine and orange citrus) barleywine in aroma, flavor, and bitterness. Hop notes intersect with bready/leathery, caramel, toffee malt notes that carry the beer forward and don't leave a lot of lingering sweetness, contributing to the overall surprising and confident drinkability.

What our editors thought: "Charred oak and burnt sugar on the nose, oddly circumspect. Caramel and hops in the sip lack the decadence expected at this ABV in the style. Lean and austere." **ABV: 13% IBUs: N/A** Loc: Charlotte, NC





What the brewer says:

"Notes of caramel, stone fruit, brown sugar, vanilla."

What our reviewers thought: Inviting aromatic dark chocolate. vanilla, light oak, bourbon, Rich bourbon flavors draw you further into this beer's orbit. Finishes with medium sweetness and well-hidden alcohol that leaves no trace." What our editors thought:

"Oak rounds out the burnt caramel nose with orange wood and mulled barleywine notes in the aroma. Vivid and direct in the sip, the defined caramel notes with polished

bourbon overtones drive through the lighter, sippable body, suggesting that one might finish a glass, and pour another." ABV: 15% IBUs: N/A Loc: Chicago

Stonecloud **Respect** the Drip



AROMA: 11 APPEARANCE: 3 FLAVOR: 17 MOUTHFEEL: 4

What the brewer says: "A double-mash barleywine aged in whiskey barrels."

What our reviewers thought: "Medium toasty toffee. Notable coffee and light chocolate. Light cherry and black currant. Deep, rich flavor with

strong chocolate, toffee, toast. Sweet on balance, especially on the finish." What our editors

thought: "Deep to-

bacco and leather in the nose with some caramel bourbon sweetness to soften. Sweet caramel on the front of the sip takes on a heady herbal and lightly bitter burnt caramel as it sits on the tongue. Big, but concise." ABV: 13.3% IBUS: N/A Loc: Oklahoma City



Triptych Batch 969: Barleywine



What the brewer says: "A blend of bourbon barrel-aged and

amburana wood-aged barleywine." What our reviewers thought:

"The base beer is gone; all that remains is a cinnamon-forward. wood-aged beer. Taking the sum of all those parts, amburana being the largest chunk, the entire experience offers a spicy beauty."

What our editors thought:

"Gorgeous amburana spice in the nose with vivid iced vanilla cinnamon roll. oak, chocolate. The sip is equally enticing, as the spicy amburana notes entwine with burnt sugar and deeper caramel notes. Exquisite, refined yet eminently satisfying." ABV: 14.1% IBUS: N/A Loc: Savoy, IL







What the brewer says:

"Kingston Black, St. Edmund's Russet, Pioneer, and Wickson crab apples fermented in oak barrels with native yeasts. Finished in the bottle."

What our reviewers thought: "Leathery, barnyard aroma initially. Rich in apple and barrel tannins, the layered fruit character has hints of apple pie, sherry, and caramel. A balanced finish with soft tartness, but largely a lingering barrel, vinous quality.

What our editors thought:

"Funky nose with cellar must and a bit of decomposing apple peel. Dry and woody in the sip, as the tannins do their work. It's light and minimal with funk and earthy notes appropriately scaled to the overall volume." ABV: 7.2% IBUS: N/A

Loc: St. Petersburg, FL

Sidras Bereziartua Sagardoak

AROMA: 11 APPEARANCE: 3 FLAVOR: 17 MOUTHFEEL: 4

What the brewer says: "Fresh juice fermented by native yeasts and matured in a

mix of wooden barrels and stainless-steel vats." What our reviewers

thought: "Great nose: Brett-like goaty funk, earthy, leathery with hints of cinnamon. Dry, well-crafted with funky complexity and nice depth.

What our editors thought: "Musty

funk and cellar notes in the nose with some signature Brett notes. The sip isn't sweet, with subdued funk but a broadly light and a touch thin body." ABV: 6% IBÚs: N/A Loc: Astigarraga, Spain

Le Brun Brut **Cidre De** Bretagne



What the brewer says:

"Intense aroma of farm apples. Fruity taste tinged with a dry bitterness." What our reviewers thought: 'Nicelv balanced sweet/

earthy/funky/tart apple character throughout. Slight hints of mushroom and tar enhance the tannins on the finish." What our editors thought: "Funky fermentation notes and a tight tannin in the nose offer a woody aroma with light acid notes. Crisp vet warm-toned in the sip, big yet focused with light LE BRUN acidity and powerful and elegant apple CIDRE midtones." ABV: 5.5% IBUS: N/A Loc: Plovan, France

Cidrerie Daufresne Poiré



What the brewer says: "Pear cider produced from four local varieties." What our reviewers thought:

"Great nose, effervescent, strong fruit initially, then hints of must and perfume. Soft floral, woody notes with light cinnamon. Semisweet, pear-like in its earthiness. Pleasant, refreshing, balanced. Not as tannic as most French ciders."

What our editors thought: "A red floral note and burnt caramel note on the nose carries through into the sip where it balances the sweet but rich and meatv fruit flavor." ABV: 4% IBUs: N/A Loc: Ouilly-le-Vicomte, France

Green Bench Mead & Cider Crab Pot



What the brewer says: "A

blend of Wickson. Hewe's, and Chestnut crab apples. Intensely acidic with a distinct lemon/lime aroma."

What our reviewers thought: "Bright grassy, apple-skin nose." Medium white grape, soft pear aroma. Very dry, but still has noticeable apple character. Very tart. Some interesting depth. Dry, fairly acid-forward. Just enough tannin to give a touch elegance. Quite dry,

riesling-adjacent." What our editors

thought: "Peel, light lemon, and a bit of green tree bark in the nose. Light and effervescent in the sip, with high-key acidic citrus notes. Simple in its focus on the treble, but light." ABV: 6.3% IBUS: N/A Loc: St. Petersburg, FL



Green Bench Mead & Cider **Malus 2019**

AROMA: 11 APPEARANCE: 3 FLAVOR: 17 MOUTHFEEL: 5 OVERALL: 10

What the brewer says: "A combination of 12 different apples. Bracing acidity and a smooth, astringent finish." What our reviewers thought:

blossom aroma—almost perfume-like. Dry, light, well balanced with even acidity and tannins. Hints of funk on the finish. Bright and highly enjoyable."

thought: "Ranging

nose with earthy peel. lemon lime, green apple, and a fresh but rich breadth. Lighter in the sip with caramel, apple peel, sweet apple flesh, light minerality, and a bright finish. ABV: 6.9% IBUS: N/A Loc: St. Petersburg, FL

 $104 \mid \text{craft beer} \& \text{brewing}$



20195



What the brewer says: "Two beloved varieties come together: Newtown Pippin, which originated in the United States, and Cox Orange Pippin, one of England's favorite apples. What our reviewers thought: "Moderate apple skin, light apple blossom aromas. Acid-forward in flavor, light tannins try to balance. Some herbal, grassy hints on the swallow. Apple flavor almost lost in the acidity. Finish is dry, with high tannins. Unique and stands out in the crowd." What our editors thought: "Mildly herbal nose with a flavor that's wide-green apple and apple skin fruity bitterness. Simple

and light but clean and direct." ABV: 6% IBUS: N/A Loc: St. Petersburg, FL "High apple with a strong

What our editors

Samuel Smith's Organic Cider



What the brewer says: "Brilliant straw colour, light body, clean apple flavour, and a gentle apple blossom finish."

What our reviewers thought:

"Great apple presentation throughout. A bit sweet on balance, lingers on

the tongue with light floral spicy notes. Clean, bright, and pleasingly effervescent. Simple apple sweetness with just a touch of tannins. Very accessible and drinkable."

What our editors thought: "Light

apple aroma leads to a soft and subtle sip—simple with an earthy complexity that feels rich without being overbearing."

ABV: 5% IBUS: N/A Loc: Tadcaster, England



Schilling Cider Excelsior **Imperial Apple**



What the brewer says:

"Wonderful acidity, smooth tannins, light molasses, raisin, caramel notes. Fresh-apple aroma."

What our reviewers thought:

"Ripe-apple aroma with a touch of floral and spice, some funk. Surprisingly sweet given the nose. A solid acid punch. Medium tannins. Refined finish. Caramel notes with an aged, sherry-like character."

What our editors thought:

"Lightly funky baking-apple notes in the nose balance with a bit of apple skin and sweeter apple-juice aroma. Broadly sweet in the sip,

with some punchy oaklike tannins and peach skin. Big and sweet yet quirky. Finishes with a light chalkiness that dries it out." **ABV: 8.5% IBUs: N/A** Loc: Seattle

HARD KOMBUCHA 16 FL.OZ. (473 ML) CONTAINS A **Flying Embers** Cherry **Hibiscus** Lime AROMA: 12 APPEARANCE: 3 FLAVOR: 17 MOUTHFEEL: 4 OVERALL: 10

CHERRY HIBISCUS LIME

TASTED: HARD

KOMBUCHA

What the brewer says: "A

NDE PEN DENT CRUET

blend of fresh muddled cherries with tart aromatic hibiscus finished with a burst of lime."

What our reviewers thought:

"In the aroma, strawberry, pineapple, limeade, cherry, Cherry, lime, and raspberry in the flavor-tastes like a Sonic cherry limeade. Equally sweet and tart with a ginger-like spice to accentuate the tartness. The acid and fruit tannins create a drying effect and keep it drinkable." What our editors thought:

"Broad fruit-punch nose leads to a sip that, despite the lower carbonation, captures the cherry and berry notes that feel like fruit punch." ABV: 7.2% IBUs: N/A Loc: Ventura, CA



What the brewer says:

"Slightly sweet, faintly floral. Apple and lime meld with jasmine for a liquid slice of tart apple pie." What our reviewers thought:

"Orange peel, lemon meringue, lime, apple, and green tea in the nose create a clean, fruity, and inviting aroma. The apple flavors are supported by a cinnamon-like spice and a tart, citric acidity that balances the sweet spice. The package comes across like an autumn-spiced version of the style."

What our editors thought:

"Light apple with a fresh structure behind it in the aroma leads into a clean and clever sip with a light herbal backbone." ABV: 7% IBUs: N/A Loc: Chula Vista, CA



Indeed Boon Hard Kombucha



What the brewer says:

"Aroma: Kombucha funk, herbal, blueberry, basil, Taste: Tart, spritzy, blueberry, basil, Kombucha funk. What our reviewers thought:

"Loads of bold black raspberry punctuate the aroma with hints of vinegar. Raspberry and cherry flavors alternate between sweet and tart and come across more hard candy-like than genuine. A subtle vinegar-like acidity and tartness reemerges in the finish."

What our editors thought: "Thick and bold, meaty blueberry aroma with a touch of herbal structure. Big fleshy and rich blueberry flavor in the sip, acid-forward yet plush." ABV: 8.2% IBUS: 0

Loc: Minneapolis



Schilling Emerald City Blackberry Pear



FLAVOR: 17 MOUTHFEEL: 5 OVERALL: 9

What the brewer says: "An ode to ripe summer fruit with bold flavors, a rich body, bright acidity, and a smooth finish. Succulent, sweet, dark, and tangy."

What our reviewers thought: "Deep cherry, black currant, and light cranberry aroma. Sweet, bordering on fruit punch. The blackberry character comes across nicely; pear is subtle enough that it's probably always going to lose that fight. High effervescence and tannic finish save it from being completely cloying.

What our editors thought:

"Broad caramel-apple notes in the aroma resolve in tighter berry notes with a tannic structure that's still sweet." ABV: 6.7% IBUS: N/A Loc: Seattle



Schilling **Excelsior** Mango Supernova

AROMA: 11 APPEARANCE: 3 FLAVOR: 16 MOUTHFEEL: 5 OVERALL: 9

What the brewer says:

"Mango puree imparts rich mango flavor, while adding that beautiful haze." What our reviewers thought: "Pleasant tropical fruit nose. Fruit-

punchy, has a nice fresh mango character, but certainly sweet on balance and comes across more boozy fruit juice than cider. A fairly simple one-trick pony, but the mango has a nice depth of flavor that leans into passion fruit and guava." What our editors thought:

"Sweet mango notes in the nose dominate the apple character

with a bit of petit-four iced cake breadth. Very sweet in the sip, intense with a crowd-pleasing, but overly simple, sweet mango-apple flavor." ABV: 9.1% IBUS: N/A Loc: Seattle









TASTED: HARD KOMBUCHA

TASTED: HARD SELTZER



What the brewer says: "Pink guava goodness gets punched up with some lime tang and brought back down to earth with mint tingle." What our reviewers thought: "Mint profile pushes to the top of the aromatics with low supporting fresh-tea leaves. Guava is significantly subordinate. Acidified peach and plum flavors blend with hints of lime, ginger, and a black-tea bitterness. Poundable, repeatable." What our editors thought:

Jiant

5.0%

"Soft tropical herbal nose, gauzy and smooth, with an artful bokeh. The sip slides in smoothly, understated, with guava and a light herbal freshness for structure. Deliciously simple.

ABV: 5% IBUS: N/A Loc: Los Angeles





What the brewer says:

"Pomegranate, cherry, ginger, and cinnamon come together to create this festive fizz.'

What our reviewers thought: "Ginger and lime jump out of the glass. coming across Moscow mule-like. Spicy ginger notes in the flavor, along with hints of lime and green tea-like bitterness, create a brightness and crispness that support the acidity of the pomegranate. Very clean, but has a low funk. Approachable."

What our editors thought: "Crisp berry notes in the nose with a fresh herbal backbone offer an enticing aroma. Structured in the sip with hefty berry notes and a bit of herbal zest." ABV: 5% IBUs: N/A **Loc:** Los Angeles







What the brewer says: "0 carbs, 110 calories, and contains only real fruit, water, and yeast." What our reviewers thought: "Refreshing guava with a lime bite that scrubs the palate and makes for a spritzy, clean finish. The fruits mingle well. Acidity is assertive enough to make this thirst-quenching but not too tart." What our editors thought: "A bit salty with rustic lime and funky guava on the nose. That earthy lime persists through the sip, grounding with a real-fruit heft." ABV: 4.2% IBUs: N/A Loc: Columbus, OH





What the brewer says: "Our 5% Fruit Punch hard seltzer." What our reviewers thought: "Straight Hawaiian Punch on the nose. A little more nuance and polish in the flavor. A reserved amount of artificial sweetener comes out at the end. An easy-to-drink example that does a great job showcasing the color and flavor of fruit punch." What our editors thought: "Light Kool-Aid fruit punch nose,

scaled down but familiar. Strong initial sweetness in the sip sells the intense fruit-punch flavor, yet it cleverly dries in

the finish for more drinkability. ABV: 5% IBUS: N/A Loc: Tulsa. OK



Black Lung pHizzy: Black herrv



What the brewer says: "Very clean black cherry-flavored hard seltzer with a nice dry finish." What our reviewers thought: "A strong black-cherry hard-candy aroma. Mild alcohol bite hits the palate first followed by some cherry notes. Light sweetness, but a clean medium-dry finish. The overall impression is that of flavored seltzer water."

What our editors thought:

"Crowd-pleasing bold cherry-cola

notes in the nose. in all of their Sonic-like glory. Simple in the sip with minimal sweetness and a lowkey cherry finish." **ABV: 5% IBUs: 0** Loc: Waukegan, IL

Bootstrap Sparkalicious Sinnise



What the brewer says: "Hard seltzer made with real cherry

and orange." What our reviewers thought:

"Vibrant cherry-orange Creamsicle aromas. Fresh fruit flows throughout the mouth, doesn't feel artificial. The jammy impression lasts into the finish. Not overly sweet but gives the impression of sweetness. The cherry and orange notes sing in harmony.

What our editors thought:

"Hefty and sweet orange and cherry nose, with natural pithy undertone. Sweet but crisp in the sip while a significant salt addition

bulks it up. Finishes with a crisp orange bitterness and a touch of citrus oil that lingers."



ABV: 4.5% IBUS: N/A Loc: Longmont, CO



DMA: 11 Pearance: 3 FLAVOR: 19 MOUTHFEEL: 4 OVERALL: 10

What the brewer says:

"Spicy cinnamon swirls together autumnal apple and crisp cranberry juices for a cozy hard seltzer made for harvest season."

What our reviewers thought:

"First note that hits the nose is cranberry and vanilla, followed by cinnamon. Cinnamon hits the palate first, followed by the cranberry and vanilla. Moderate to moderate-plus sweet taste, medium-flavored finish. A fun and unique hard seltzer."

What our editors thought:

"Christmas nutmeg, cranberry, and cinnamon on the nose with a some soft watermelon and a fluffy baked richness. Gently sweet in the sip, with a pleasant zing. Basic but satisfying. ABV: 4% IBUS: N/A Loc: Kansas City, MO



Boulevard QuirkRaspberry Rocket Pop



What the brewer says:

"Inspired by the guintessential summertime popsicle, fueled by flavors of raspberry, cherry, and lime, and ignited by real fruit juice."

What our reviewers thought: "Delicate aromatics: light dragon fruit with hints of melon, sweet cherry, lime, strawberry. Pear-like fruity profile with a wispy body. Sip is crisp and snappy with a toned-down sweetness. A firm citrus bite helps to structure things.

Finishes clean and dry." What our editors thought:

"Raspberry and lemon nose, bright but clinical and precise.

Off-dry body with just enough sweetness to highlight the fruit notes. Strong acidity adds citric punch." ABV: 4% IBUS: N/A Loc: Kansas City, MO



Elevation Beer Summerville



What the brewer says: "Hard seltzer collab with Tea Spot. Made with real fruit and mindfully sourced tea leaves.

What our reviewers

thought: "The aroma rocksbright hibiscus up front and then lime in the follow through. Both hibiscus and lime on the palate. Floral and somewhat spicy notes. Crazy refreshing, cleanly fermented. You could sit in a pool floaty and crush this."

What our editors thought:

"Light sweaty hibiscus notes in the nose lead into soft citrus and floral notes

in the sip. Simple, but vibrant ABV: 5% IBUS: N/A

Loc: Poncha Springs, 0.0



Firestone Walker Cali Squeeze Ruby Grapefruit



What the brewer says:

"Squeezed with ruby grapefruit and mango for a deliciously tart yet tropical seltzer."

What our reviewers thought:

"Ferocious fruit bomb, with loads of grapefruit, tropical punch, gooseberry, melon. The grapefruit flavor manages to come across more genuine than synthetic with a hint of grapefruit flesh/ pith adding just enough bitterness to balance the citric sweetness."

What our editors thought:

"Punchy grapefruit in the nose, sharp and defined. Softer in the sip as a

very light sweetness takes the edge off. Like walking through a light-filled room of white walls and noticing the temperature of the light." **ABV: 5% IBUs:** 0

Loc: Paso Robles, CA

Fly Llama Free Britney



What the brewer says: "An

"Sweet tea and lemonade on the nose, reminiscent of a classic Arnold Palmer. For a sweet tea lover who likes a little spritz. The seltzer finishes clean, so the overall impression is still refreshing. This could be a go-to for summer activities in the sun."

"Arnold Palmer with an almost man-

go heft in the aroma leads into a bright lemon-tea sip with a rounded stone-fruit weight. Sweeter, but well structured." **ABV: 4.8% IBUS: N/A** Loc: Biloxi, MS



What the brewer says:

"Crystal-clear hard seltzer with the flavor of fresh mango."

What our reviewers thought: "No idea how this is clear; it's the closest to drinking the fruit as seltzers get. Mango is there on the nose and in the flavor. A great balance of sweetness and acidity. Super-clean, but with a touch of artificial on the nose.

What our editors thought:

"A bit of Kona Ice tropical fruit in the nose, knocked down a hair to not feel overbearing. Round and peachy in the sip with less of

the advertised mango and more general stone fruit." ABV: 4.5% IBUS: N/A Loc: Biloxi, MS



AROMA: 11 APPEARANCE: 3 FLAVOR: 19 MOUTHFEEL: 4 OVERALL: 9

Green Cheek Lavender Lemonade



What the brewer says:

"Sparkling hard seltzer with lavender and lemon."

What our reviewers thought: "The floral intensity of the lavender sneaks up on you like a perfume that slowly impregnates a yoga studio. Although the initial bloom of the lavender is striking, the lemon pith swoops in to carry you home into a dry finish that makes you want to go in for another petal punch ... or that grows old quickly.

What our editors thought: "Soft hand soap or bath-bomb aroma of lemon and lavender, gentle

sweetness in the sip, just a touch artificial, undermines the otherwise engaging flavor." **ABV:** 5% **IBUs:** 0 Loc: Orange, CA



Jiant Hard Tea Kiwi Strawberry



What the brewer says:

"Crafted with specialty tea, lemon, cane sugar, champagne veast. Finished with a splash of real fruit."

What our reviewers thought: "Fresh peach notes mix with tea and a hint of sweet lemon. The peach flavors are a bit heavy handed, with the tea bitterness trying to balance. On the palate, peach sweetness comes across a bit too synthetic and artificially sweet."

What our editors thought: "Earthy strawberry with light tropical notes and a green herbal edge.

Softly sweet in the sip, rounded and smooth, real with soft strawberry and an herbal brightness." ABV: 7% IBUS: N/A Loc: Los Angeles







Great Notion Electric Lights



Arnold Palmer-inspired hard seltzer made with local passion-fruit tea and lemonade."

What our reviewers thought:

What our editors thought:

What the brewer says: "Hard seltzer made in collaboration with Trillblazin. Reach for an Electric Lights for that deep-down body thirst." What our reviewers thought: "A sweet tangerine-led fruit-punch nose with sweet citrus and vanilla.

Taste is cloyingly sweet with notes of amaretto, honey, tangerine, and cherries; it lingers long into the finish and makes its presence known in a big way."

What our editors thought:

Flectric

"Low-key nose with fruit-punch notes lead into a very sweet sip where those notes peak deep into the red. The intensity makes it fun to try and hard to finish." ABV: 5.5% IBUS: N/A Loc: Portland, OR

New Belgium Fruit Smash Berry Blast

AROMA: 9 APPEARANCE: 3 FLAVOR: 16 MOUTHFEEL: 4 OVERALL: 9 INDE PEN DENT

What the brewer says: "A seltzer that's grown a pair ... of berries. It will blast your tastebuds

with real raspberry juice." What our reviewers thought: "The aroma, reminiscent of a bag of Gushers, saves this one. The sip is a letdown. Cherry notes hide under a higher level of carbonation. Feels a bit rough. Abrupt carbonated-water finish forgot to include the fruit."

What our editors thought:

"Strawberry lemonade in the nose, sweet and inviting. Light in the sip with a semisweet approach that's more lean and crisp

with tight berry notes. The fruit tastes real, and engaging, despite the lightness. **ABV:** 4.7% **IBUs:** N/A Loc: Fort Collins, CO

New Belgium

Fruit Smash

Fruit 9 RY BLAS 100





What the brewer says:

"When life gives you lemons, squeeze the seltzer out of those naughty li'l fruits. Light pink seltzer with lemon and raspberry flavors." What our reviewers thought:

"Bursting, approachable fresh watermelon, lemon, berry aromatics. Flavor falls short of the bold aromatics. Tart citrus notes overpower any fruity sweetness in the flavor, creating a snappy bite to the finish but stripping away any subtle mid-palate sweetness.

What our editors thought: "Broad, simple



Reuben's Brews Fruitfizz Lemon & Lime



What the brewer says:

"We've used real lemon and lime zest and real brewing processes to make the best tasting, most refreshing hard seltzer we can brew." What our reviewers thought:

"Lemon and lime Skittles, a refreshing medley of lemon and lime essences. The aroma is clean and fresh. It has great carbonation and effervescence. Its citrus is light and pleasantly crisp. A soft acidic tartness lingers.

What our editors thought: "Light but creamy lemon-lime aroma

with a pulpy real-fruit character. Light and

zippy flavor with bright lemon notes softened and smoothed ever so slightly. Fresh and simple." ABV: 5% IBUS: N/A Loc: Seattle



Seventh Son Kitty Paw Raspberry



What the brewer says: "Hard seltzer with raspberries. Zero carbs. 110 calories, and contains only real fruit, water, and yeast."

What our reviewers thought:

"A robust, fresh raspberry aroma seeps from the glass. The fruit pops at the front of the mouth, bursting with farm-fresh, real-fruit notes. Refreshing, somewhat dry finish. Clean, enjoyable, and fun.

What our editors thought:

"Crisp raspberry notes in the aroma lead to a succinct raspberry sip. Tight and controlled."

ABV: 4.2% **IBUS:** N/A Loc: Columbus, OH



Spindrift Spiked Pineapple



What the brewer says: "A

tropical vacation for your taste buds. Made with ripe, juicy Costa Rican pineapples. What our reviewers thought:

"Pineapple and coconut jump out

of the glass, coming across like a can of fruit cocktail. The flavor has much of what the aroma promises, along with a slightly odd oyster-like character that seems to temper the sweetness. Dry finish.

What our editors thought:

"Natural pineapple in the nose, soft and subtle. The sip is similar-off-dry with very light pineapple notes, lighter than juice without the typical juice backsweetening. Simple, minimal." ABV: 4% IBUS: N/A Loc: Boston



"Made with real juice, Fruit Smash Super Hard Seltzer is a bolder, great tasting, high-ABV seltzer that will have you saying bye to your basic seltzer."

What our reviewers thought: "A blast of citrus bubblegum smacks your nostrils. Vibrant tropical fruit punch flows through the mouth like a waterslide bouncing back and forth. Explosive pineapple and dry-hop notes round things out with a balanced sweetness. Drinkable and bold."

What our editors thought:

"Softly tropical pineapple nose leans into a sturdy but accessible sip, The pineapple flavor takes on a slightly mechanical tinge." ABV: 8% IBUS: N/A Loc: Fort Collins, CO





What the brewer says: "Orange soda-inspired hard seltzer." What our reviewers thought:

"A valiant effort at producing the orange soda we loved as kids. Aroma and color are spot on: it would be easy to drink a whole can before realizing it contains alcohol. Carbonation and sweetness are its only detractors; the former could be ramped up and the latter dialed down." What our editors thought:

"Absurd visual of bright orange soda, synthetic orange flavoring nose with a bracing, almost juniper, briskness. Sickly sweet flavor sells the alcoholic orangesoda approach, but it's hard to drink more than a few sips. ABV: 5% IBUS: N/A Loc: Sandy Springs, GA

Kitty Paw Pine-apple Tangerine

What the brewer says:

"Hard seltzer with pineapple and tangerines. Zero carbs. 110 calories. and contains only real fruit, water, and veast."

What our reviewers thought:

'Tiki citrus nose. Flavor is more dialed-back: light pineapple with muddled tangerine notes in the background. Highly carbonated, with a muted sweetness. Very light, moderately soft mouthfeel, a light vanilla sweetness. Touch of pineapple toward the finish."

What our editors thought: "Very light and un-

derplayed pineapple nose, extremely light KittyPav= in the sip-watery and minimal

ABV: 4.2% IBUS: N/A Loc: Columbus, OH

spindri spike sparkl







Stone Buenavida Hard Seltzer: **Black Cherry**



What the brewer says: "Intense black cherry bursting with refreshing fruitiness.

What our reviewers thought: "Effervescent with a reserved sweetness. Aroma of soft peach, cherry, apricot. Very clean and bright with a muted cherry flavor that lingers. The sparkling carbonation and soft earthy touch bring it

together." What our editors thought: "Black

cherry-soda notes in the nose, clear and intense but candy-like. Lightly balanced flavor with just enough sweetness to support the cherry. Strong prickly carbonation nails the seltzer half of the equation." **ABV:** 5% IBUS: N/A Loc: Vista, CA



Topo Chico StrawberryHi-biscus Margarita



What the brewer says: "Ripe, iuicy strawberries and a blend of citrus and tropical notes. Lime juice lends the perfect amount of tartness." What our reviewers thought: "A healthy dose of extract-like lemon and berry-raspberry, strawberry, blackberry-in the aroma. Summer slushy sweetness. The initial berry tartness guickly fades into a rather sweet body that creates an impression of fullness.

What our editors thought:

"Sweet, almost cloying nose, with crowd-pleasing berry and watermelon notes. Intense sweetness in the sip, over the top with an artificial-sweetener buzz that shocks the fruit flavors." **ABV: 4.5% IBUS: N/A** Loc: Plano, TX

Grapefruit & Hops



What the brewer says: "Gluten-free, Lightly flavored using only natural ingredients."

What our reviewers thought: "Earthy citrus nose of lemongrass and orange zest takes you on a different journey than you expect from a seltzer. A little bitterness counteracts a little too much artificial sweetness. Would benefit from more carbonation to liven things and provide more balance. Delicate, different, and enjoyable."

What our editors thought: "Light grapefruit aroma with an

herbal touch. A bit under carbonated in

the sip, but the light herbal citrus flavor is refreshing and clean." **ABV: 5% IBUs: N/A** Loc: Boulder, CO



Vitamin Sea **Seas and** AROMA: 12 APPEARANCE: 3

FLAVOR: 16 MOUTHFEEL: 4

What the brewer says: "Our latest version of our hard seltzer, this time fermented with pinot grigio and Montepulciano grape must." What our reviewers thought: "When a glass of rosé would be too heavy for your current activity, this seltzer offers rosé essence while being light and refreshing. A slight tannic finish makes it more winelike. Make sure to pour it into a glass to appreciate its vibrant reddish pink hues and thin wispy bubbles."

What our editors thought: "Intriguing purple color and earthy berry nose. Chewy sip with some tannic berry tones and a lingering light grape-skin

ABV: 5% IBUs: N/A Loc: Weymouth, MA

Upslope Spiked Vizzy Straw-Snowmelt berry Orange Mimosa



What the brewer says: "The fruity flavor and delicious orange juice taste is a vibe."

What our reviewers thought: "Tropical fruit-punch notes in the aroma include strawberry, pineapple, lemon, raspberry. Fruitiness carries through into the flavor (with notes of Fruit Stripe gum) but is much more synthetic than in the aroma. A citric tartness in the finish balances an artificial sweetness."

What our editors thought:

"Strawberry-margarita note on the nose, strong but messy. Sweet in the sip with a strong artificial-sweetener note, amplifying the intensity of the fruit flavor past what it can reasonably handle." ABV: 5% IBUS: N/A Loc: Milwaukee







What the brewer says:

"Clean finish. hint of sweetness. juicy, tropical, and sessionable." What our reviewers thought: "Crystal clear, no head, like carbonated. brilliant water. Pleasant fruit cocktail, sweet pineapple aroma. Flavor is light, bright, and has some pineapple notes in the back. Overriding note is that of artificial sweetener, which stays on the tongue for quite some time."

What our editors thought:

"Juicy pineapple in the nose, more present and endearing than expected in a clear seltzer. A hint of sweetness softens the punchy and lightly acidic pineapple flavor, offering a very pleasant finish with just a touch of artificial sweetner." ABV: 5% IBUs: N/A Loc: Chicago



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What the brewer says:

"Sweet, summery watermelon balanced with tart. tangy lime." What our reviewers thought: "Artificial watermelon bomb in the aroma with high carbonation. Lime is overtaken by the watermelon. In the flavor, watermelon is subdued compared to the aroma. The flavors get powdery in the end."

What our editors

thought: "Light, slightlv off-kilter watermelon and lime nose takes on a vague earthy note. Effervescent sip pushes lime forward with a broad watery melon note struggling to catch up." **ABV: 5% IBUs: N/A** Loc: Vista, CA



Two Roads H2Roads **Passion Fruit**

AROMA: 12 APPEARANCE: 2 FLAVOR: 19 MOUTHFEEL: 4 OVERALL: 10

What the brewer says:

"Made with 100 percent real fruit. Only 100 calories, 1 gram of sugar, 2 grams carbs, and gluten free." What our reviewers thought: "Passion-fruit aroma. Passion fruit and alcohol hit the tongue first, slightly tart and tangy. Low sweetness lets some brightness and a lot of passion fruit and tart citrus shine. Very clean, guick, dry, and pleasant finish."

What our editors thought: "Chunky nose with thick tropical

H2ROADS

CRAFT HARD SELT

passion fruit and a tight phenolic tropical structure. A

touch of sweetness in the sip gives the tropical fruit a rounded edge, but it still demands some love of earthy fruit." **ABV:** 4.5% **IBUs:** N/A Loc: Stratford, CT

Desist

31

GAR



bitterness.

SEAS

DESIST

TASTED: NON-ALCOHOLIC BEER & HOPPED SELTZER



Two Roads Non-Alcoholic **Juicy IPA** AROMA: 12 APPEARANCE: 3 FLAVOR: 17 MOUTHFEEL: 5 OVERALL: 10

What the brewer says: "Big tropical and citrusy hop aroma typical of a juicy IPA with a touch of bitterness."

What our reviewers thought:

"Pleasantly tea-like, with a medium-juicy guava-hop aroma. Flavor continues the juicy tropical hop ride with a low bitterness. Moderate carbonation, low body, and a dry finish make this a quite drinkable and refreshing replacement for a hazy pale ale." **What our editors thought:**

"Soft tea notes in the nose, with a brighter citrus zing. Reasonably full mouthfeel for a NA beer, with a bit of crackery malt and lime back notes. The body makes the beer." ABV: 0.5% IBUS: N/A Loc: Stratford, CT

10 Barrel ΝΑ ΙΡΑ



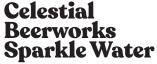
What the brewer says: "Traditional IPA malt presence. Balanced berry, citrus, tropical aromas." What our reviewers thought:

"Myriad aromatic notes: oily tangerine citirus, Earl Grey tea, and hints of mint. Slight sweetness balances the orange bitterness in the flavor. Refreshing. Carbonation is medium-low, and the bitterness doesn't linger into the finish.

What our editors thought: "Complex red and black tea nose,

with a bit of pink grapefruit. That grapefruit sweet/bitter citrus carries through in the flavor. with a seltzer-like lightness that feels

more soft sparkling tea than beer." ABV: 0% IBUs: N/A Loc: Bend, OR





What the brewer says:

"Sparkling water, hop terpenes, and lemon." What our reviewers thought:

"A light lemon aroma follows through with a crisp, dry, light lemon-tree taste, restrained mineral profile. Refreshing earthy mouthfeel with a clean finish.

What our editors thought:

"Bright, lemony nose with a bubbly energy that helps underplay the lemon-cleaner element. Those

aromas don't carry through into the flavor, as it settles into a standard carbonated-water sip

ABV: 0% IBUS: N/A Loc: Dallas



Hoplark 0.0 **Really Really** Hoppy



What the brewer says: "Our

HopTea double dry-hopped with Simcoe and Citra hops. This is our take on a West Coast IPA."

What our reviewers thought:

"Whiffs of a freshly opened hop bag. Lemon, tea leaves, orange peel, cherry, peach on the nose. Light bitterness in the flavor with the same fruit notes as in the aroma. Clean. balanced, thirst quenching.

What our editors thought:

"Woody apple, pear, pineapple, lemon zest with an herbal tea-like nose. Woody and bold in the sip, bitter but with a curiously round-

ed front edge that blunts any negative impact." ABV: 0% IBUS: N/A

Loc: Boulder, CO



Lagunitas Hop Hoppy Refresher



What the brewer says:

"Crisp, zingy, and hoppily refreshing. Chock-full of Citra, Equinox, and Centennial hops."

What our reviewers thought: "Aroma presents a sweet rainbow bubblegum character. Mouthfeel is

light, crisp, and well-carbonated. Flavor is lighter than the aroma, but still has subtle candy-like hints. A



What our editors thought: "Very vague watermelon and lime notes in the nose, just a hint slightly more intense in the sip, yet still very light, with just a faint touch of herbal hop zing." ABV: 0% IBUS: N/A Loc: Petaluma, CA



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Athletic Brewing Run Wild

What the brewer says:

"Brewed with a blend of five Northwest hops. Approachable bitterness balances the specialty-malt body." What our reviewers thought: "Citrus-forward aromas with berries. Juicy Fruit gum, bread crust. Crisp malt bitterness, light bread-crust, orange, lemon in the flavor. Mediumlight body. Sweet finish with a firm drying bitterness. What our editors thought:

"Candied lemon and grapefruit in the nose, with a lightly cooked note. Light and and tightly grained flavor, smooth but obviously

NA. Tea-like bitterness with a bit of lemon offers a classic pairing, but it's very spare." ABV: 0.5% IBUS: N/A Loc: Stratford, CT



What the brewer says:

"Packed with Citra, Amarillo, Mosaic, Azacca hops, delivering a bright, citrusy flavor with a strong hint of hops." What our reviewers thought: "Delicious and inviting aroma drives a white pitch of a blood-orange wave at you, almost like candied tangerine. Flavor is a bit minerally, crisp, well carbonated with light notes of blood-orange citrus. Highly carbonated and quite dry. Refreshing."

What our editors thought: "Strong citrus and light classic

citrus-hop notes in the nose. No sweetness in the sip, yet the hop notes

are soft and inviting, minimal but not invisible." ABV: 0% IBUs: N/A

Loc: Los Angeles

HOP WTR

Omission **Bright Eyed** ΙΡΔ



What the brewer says: "A

refreshing, bright, nonalcoholic brew full of hoppy flavor, with smooth, clean finish. Crafted to reduce gluten.

What our reviewers thought:

"Light Earl Grey tea and wort aroma. The hop aroma is a bit muted, but the flavor delivers the hops and has a medium level of supporting bitterness. Clean and refreshing with medium-high carbonation and a semidry finish.

What our editors thought:

"Sweet wort in the nose, dry woody bitterness in the sip

without much body to hold on to. Sparse and boney.

ABV: 0% IBUS: N/A Loc: Waunakee, WI



Partake Brewing Pale AROMA: 12 APPEARANCE: 3 FLAVOR: 14 MOUTHFEEL: 5 OVERALL: 10

What the brewer says:

"Medium bitterness. Infused with flavors of orange zest, grapefruit, and a whisper of pine.

What our reviewers thought: "Light malty aroma with hints of Earl Grey tea. Earthy wort and tea

flavors remind one of a hop tea or an unfermented wort. Malt character is pleasant, however, and with the high carbonation and dry finish, this makes for an approachable NA pale ale."

What our editors thought:

"Tea-like hop nose, with a touch of sweetness, Southernstyle. Dry in the sip with a grainy, woody austere bitterness. ABV: 0% IBUs: N/A Loc: Calgary, AB, Canada





What the brewer says:

"Drinks like a pilsner. Brewed with malted barley, American hops, and mountain-fresh water."

What our reviewers thought:

"Soft, inviting fresh-baked bread aroma with a layer of citrus. Well-balanced malt backbone doesn't get in the way of the citrus and floral hops. Falls a bit thin toward the finish. Delicate with just enough malt and hops to satisfy."

What our editors thought: "Refined grainy nose with light nutty

and bready notes. Bready again in the sip, with light notes

of pear and an herbal bitterness buffered by remaining malt sweetness. A touch fruity for a lager-style beer, but enjoyable to drink." **ABV: 0.5% IBUS: N/A** Loc: Austin



Stonecloud **Fuzzy Rabbit:** Mojito

AROMA: 11 APPEARANCE: 2 FLAVOR: 15 MOUTHFEEL: 5 OVERALL: 8

What the brewer says: "Mint and Sabro hops provide a refreshing finish."

What our reviewers thought:

"Big pinev lemon aroma with hints of mint. Flavor presents a big lemony mint character with crisp carbonation. A dry finish with some low mineral notes. Refreshing.

What our editors thought: "Lime peel, citrus-tree bark, and

a toasted-wood note on the nose. Sweeter in the sip with light herbal

FUZZY

OTILON

lime notes, a sprawling lime acidity, and a swirling faint hop bitterness." ABV: 0% IBUs: N/A

Loc: Oklahoma City

Two Roads Non-Alcoholic **American IPA**



What the brewer says: "A clear amber color, crisp, clean bitterness, and big citrusy hop aroma." What our reviewers thought: "Light notes of earthy lemon, stronger notes of lightly dank hopped wort. Faint notes of Earl Grey tea with lemon on the tongue and hops similar to the aroma. Finishes dry with low-medium bitterness that lingers." What our editors thought: "Lemon, fruit tea, black tea in the nose, with a bit of familiar brewhouse wort aroma. Smooth in the sip, with a very light and dry malt body that gives it a more finished feel. Pointed herbal

bitterness gives it a solid structure." ABV: 0.5% IBUS: N/A Loc: Stratford, CT



ERICAN

What the brewer says:

"Brewed and fermented with real watermelon, key lime, and sea salt." What our reviewers thought: "Watermelon and rind in the aroma with drops of lime and agave. Some funky fermentation character. A sweet full body smacks the palate with watermelon pulp. Salty toward the back. Aftertaste of sweet fruit punch."

What our editors thought:

"Melon with a touch of bready wort in the aroma, defined by a rather strong cucumber edge. Sweet and sprawling in the sip

as the fruit smoothie notes are punctuated by just a bit of hop bitterness that reminds you it's beer."

ABV: 0.5% IBUS: N/A Loc: Waunakee. WI

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