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The Greater Everett Brewer's League Journal

The purpose of The Greater Everett Brewers League is to promote and educate homebrewers in the production of craft-style homebrewed beers. As an AHA social club we improve members brewing skills by providing mentoring and networking to fellow brewers, promote BJCP judging, evaluation and competition entry, as well as promoting the local craft beer movement.

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Passcode: 799393
One tap mobile
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Kveik IPA Bottle Same Brew: First Virtual Bottle Share!

So the pick up for the bottle share went well with Jim Safely hosting the pickup location. Tonight we will be trying the high temp fermentation brews.

Jim's in charge

Gordon Getting his beers

Thanks to Imperial Yeast and Nina for providing the Yeast. Brewers that participated will be each be tasting 7 of the beers for a total of 14 beers. An extra bottle of each is being sent to Imperial Yeast.

Rise of the Super Yeast: Will an ancient Norwegian yeast revolutionize American craft beer?

January 21, 2019 by Paige Latham Didora

In early 2017, Lance Shaner received a package in Chicago postmarked from Norway. With great anticipation, he delicately opened the box, revealing contents that had the potential to shape the trajectory of modern craft brewing.

The product wasn't a new one, though. It was ancient. To Shaner's relief, the contents had survived their journey. And while the recipient was excited for the business angle of the product, the sender, Lars Garshol, was content knowing that the rich brewing tradition of his country was about to hit the world stage.

Wooden rings covered in kveik yeast are used in Norwegian farmhouse breweries // Photo by Lars Marius Garshol

Garshol, a scientist and blogger from the Oslo area, single-handedly brought the spotlight upon kveik (pronounced "kwike"), a family of yeasts that has been handed down through generations of homebrewers outside Voss, Norway. He was introduced to it by farmhouse brewer Sigmund Gjernes, who considers kveik his family's own strain. Gjernes invited Garshol to brew with him in the spring of 2014. While brewing, Garshol kept detailed reports and reflections on this hardy strain, capable of rapid fermentation at very high temperatures. It was these notes that inspired Shaner to propagate kveik for commercial use in the United States.

Shaner is co-owner of Omega Yeast in Chicago. He was confident from the moment his mail arrived that the yeast would be a huge success in the U.S. The brewers at Dangerous Man Brewing Company in Northeast Minneapolis, on the other hand, weren't so convinced.

Dangerous Man co-owner and head brewer Rob Miller recalls the moment Shaner stopped by with his new project. “Yeah, I was skeptical,” says Miller. “We thought, maybe, it was too good to be true.”

In order to understand the remarkable nature of kveik, you must understand the rules by which most yeast play. Ale yeasts like to do their work at about 55 to 75 degrees Fahrenheit. At these temperatures, most yeasts take around seven days to ferment a 5% ABV ale. Crank the temperature up higher than this range and ale yeasts will ferment faster and hit that mark in less time; however, with rare exception, they will produce loads of off-flavors (compounds that are unpleasant in beer) in the process. If the environment is increased to 104 degrees, yeasts will start to kick the bucket. Additionally, many strains don’t like to be bathed in alcohol—they produce it, yes, but many won’t tolerate over 10% ABV; the majority of yeasts couldn’t stand up to the alcohol content of the average barleywine.

Left: A jar of kveik yeast culture at a farmhouse breweryin Voss, Norway // Photo by Lars Marius Garshol; Right: The frenzied fermentation of a Norwegian farmhouse beer using kveik // Photo by Lars Marius Garshol

Kveik, on the other hand, laughs in the face of these limitations. Not only can it withstand more alcoholic environments (the alcohol tolerances of Omega’s three strains range from 11–16% ABV), but they can ferment at temperatures as high as 98 degrees without producing off flavors. At these higher temps, kveik can ferment the same 5% ABV beer in as little as 48 hours—three to five days sooner than a typical ale yeast. Some can even survive 104 degree environments. “Some kveik start to die at those temps as well, but some will tolerate that temp and a little higher,” says Shaner. Results in hand, Shaner began the task of convincing brewers he was serious.

The brewing team at Dangerous Man recalls the first batch they made with kveik: a beer called Tarty Party, brewed in collaboration with Travail in July 2017. Soon-to-be Pig Ate My Pizza brewpub brewer Nat Moser was familiar with the Norwegian family of yeasts from his experience as a homebrewer. (When brewing at home, kveik is a dream since ambient temperature won’t harm fermentation.) Moser, who helped with brewing, swears by kveik—especially in the summer. Tarty Party was a hit, and Dangerous Man followed with Simzacca IPA the next month.

Yeast can impart very specific flavors to beers. In farmhouse-style ales, yeast-derived flavors like clove, citrus, and hay are desired, but in styles like IPAs, the flavors are often masked by hops. Because of its effect on taste as well as alcohol production, yeast strains are chosen carefully by brewers. To that end,

Omega now has a trio of Norwegian farmhouse yeasts available that produce slightly different flavors.

The first available was HotHead Ale, so named to highlight its high fermentation temperatures. Omega describes it as having a "honey-like aroma with overripe mango, which is complementary to modern, fruity hops." HotHead become like the beta strain for Omega: initially popular but now overtaken by the favored strains of Voss Kveik and Hornindal Kveik. Voss, from the Gjernes farm by way of blogger Garshol, imparts moderate orange citrus and general fruit characteristics; Hornindal, passed along from another farm, exhibits a strong pineapple, dried fruit, and stone fruit character that overlaps substantially with hop notes.

With those flavor profiles in mind, brewer and owner Mike McQuery of Half Pint Brewing Company in Waseca, Minnesota, uses Voss in his Fra Feltet Norwegian Farmhouse Ale and Hornindal in his Laura Pale Ale and Norway IPA. McQuery began experimenting with the two strains at his farm brewery not because of their superpowers, but because he is Norwegian and in the business of experimentation: Half Pint grows several varieties of hops, berries, herbs, and even Juniper, another traditional Norwegian brewing ingredient. The kveik family of farmhouse yeasts felt authentic to him.

"I came home and I researched how to use them," he explains. The result was surprising. "They make a mess!" he says. The yeast starts the foamy process of active fermentation in two to three hours after being pitched into the fermentation tank, whereas typical ale yeast has a lag, or inactive phase, of up to 12 hours. (If repitched from a previous batch of beer, kveik can begin fermenting in as little as 20 minutes or so). McQuery doesn't use any filtration at Half Pint and his beers take a few weeks to properly settle. He has also developed a meticulous process of fermentation, cold conditioning, and kegging. The three beers he made with kveik were Half Pint's top sellers. And while McQuery says the quick turnaround offered by kveik is a major advantage for a brewery like his, which uses a 3-barrel brewing system, it's the flavor and authenticity that he's really after.

Back in Minneapolis, the pilot system at Insight Brewing is currently filled with a test batch of milkshake IPA using kveik. Head brewer Matt Anhalt has experimented with both Voss and Hornindal, with desirable results. "The hotter it's allowed to go, the more citrus flavor you get, specifically lemon," he says.

Anhalt heard Shaner speak during the brewer's technical conference that precedes All Pints North, the annual waterfront Duluth beer festival hosted by the Minnesota Craft Brewers Guild. He knew he wanted to test the boundaries of the seemingly unbreakable yeast, and has since crafted several batches using a wide range of temperatures. In addition to the yeast's resilience to temperature, Anhalt was struck by what kveik could do to lower energy costs, especially in the summer, when high ambient temperatures mean the cooling glycol would normally need to be running non-stop in order to accommodate the needs of other yeasts. "If it's 85 degrees in the brewhouse, and I can let the tank rise to 85, I'm

gonna do it," he says.

Both Anhalt and Miller have been able to reduce the amount of flavor and aroma hops they use thanks to kveik, which could potentially reduce costs even further in the long run. They've also noted that fruit seems to be highlighted by the yeast. "Sometimes we've tasted a beer and thought the fruit had already been added," says Lee Ankrum, a brewer at Dangerous Man. That would mean the volume of expensive fruit purees could be reduced in some cases.

While Insight sees the advantage of faster turnaround time in the face of growing demand, currently none of their flagships use kveik. Anhalt has done around a dozen experiments using the yeast in beers brewed on their pilot system with positive results, but he's not keen to change a recipe that people know and love, unless it's for the better. That said, he is convinced these Norwegian yeasts are here to stay. Insight recently distributed kegs of their Lovely Vision Brut IPA, made with kveik, to more than 50 local establishments.

More than being just another options for brewers, kveik represents an entirely new tool that as of yet has been unavailable to U.S. brewers. And those who have adopted these yeasts into their catalogue of ingredients are thus far very happy with them.

The brewers at Birch's on the Lake and Birch's Lowertown haven't yet gone so far as to fully switch over to kveik, but have been experimenting with it and say they're on board. Both locations, in Long Lake and Lowertown St. Paul, will have a Norwegian IPA on tap in February using the Hornindal strain. According to Birch's brewmaster and owner Brennan Greene, they were inspired by Shaner's passion for the ancient strain as well as reports of results from other breweries. While there is still a lot to be learned about kveik, the team at Birch's say they wouldn't be surprised if Hornindal or one of its relatives became a house strain.

After only about 18 months on the scene, kveik is a promising means to making quality beer. This family of yeasts provides a completely new, baffling set of rules for brewers to play by—being able to walk away from a just-filled fermenter, glycol jacket turned off, and expect a beer to be ready for conditioning after just one weekend is a total game changer. But at the end of the day, the flavors these yeasts produce have high potential to make both brewers and consumers happy. As for the emerging effects on the bottom line, that's a fortuitous bonus.

Filed Under: Beer, Beer News, Beer Page, Drink, Homepage FeaturedTagged With: Ale Yeast, Birch's Lowertown, Birch's on the Lake, dangerous man brewing company, Half Pint Brewing Company, Insight Brewing, kveik, Norwegian Farmhouse Ale, Omega Yeast, yeast

Gebl Member Doug Milnor:

As some of you know, for the past 10 months I have been commuting to Burlington to attend Skagit College Craft Brewing Program. To complete the program is a mandatory 160 hours of internships. I have been doing my internship at Sound to Summit in Snohomish working under the direction of their head brewer, Adam Frantz. What he has done with the beer there is amazing. I would encourage anyone that has not visited Sound to Summit to stop by and give it a try. I have not completed the program, what am I going to do with it --- no idea, beside hoping to brew better beer at home.

How to Harvest, Prepare, and Store Homegrown Hops

Depending on location, harvest occurs between mid-August and September. If these are first-year hops, expect a small harvest—most of the energy throughout the growing period is used to develop the root systems, making it difficult for cones to reach their peak yield. Expect a fuller harvest in the second year, and a big leap in hop yield the third year.

When to Pick Your Hops

The time has come. You've planned, pruned, monitored, cared for and put in the hours for you homegrown

hops all summer. You're starting to see those cones grow up the vine and you just can't contain your excitement! Curb it just a little longer. A common mistake is picking the cones too early. You want to pick over-ripe hops rather than under-ripe hops, otherwise you'll deprive them of those awesome alpha acids.

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How to Check Hop Cone Ripeness

1. Give the cone a light squeeze. If the cone stays compressed, it's not ripe enough. When they feel light and dry—and spring back after a squeeze—they're ready to be harvested.

2. Pick a cone, roll it in your hands and smell it. If it has a pungent smell between cut grass and onion, it's time to harvest.

3. Roll the hop next to your ear. If it makes a cricket sound, this also means they're ready to harvest. If the lupulin turns orange and smells rancid, you've overshot your window.

4. The hop should be springy, dry and papery on the tips, and sticky to the touch.

5. Look for lupulin, the visible, thick yellow substance on the outside of the cone.

Harvesting Your Hops

There are two methods for picking your hops: pick by hand (recommended for first-year harvests) or cut down the bine (recommended for all harvests after the first year).

If you cut the bine down, cut two to three feet above the ground to prevent injury to the root system and crown. For first year bines, try to pick the cones and not cut down the bine until it dies off. Vital nutrients will flow back to the root system for the winter months and ensure it survives. For following years, cut the bine down and be careful not to damage or dirty those precious lupulin glands. You should expect one to two pounds of dry hops per mature plant.

Be sure to wear durable, abrasive resistant clothing, gloves and goggles during harvest. Hops have hooked hairs that can cause cause skin rash and small cuts.

Now, invite some friends over to help you pick the hops while enjoying some homebrew!

How to Dry Hops at Home

You've picked your hops, but you're still not done. After you pick hops, you have two options: throw them directly into a brew and make a wet-hopped beer or dry them to use later.

Fresh hops are about 80 percent water, so you'll need to use more than you would with dry hops. In general, wet hops are used four to six times the dry hop rate. For example four to six ounces of wet hops would be the

equivalent of one ounce of pelleted dry hops.

If you choose to dry your hops to use later, you can also more easily predict alpha acid contribution, as dried hops are about 10 percent water, the equivalent of commercial hops.

Important factors for drying hops: time, light, heat and moisture.

To prevent oxidation and isomerization, drying shouldn't last more than three days and heating temperatures shouldn't exceed 140°F (60°C). Drying your hops is going to drive off some wanted aromatics, but temperatures above the 140°F threshold will drive off many more complexities.

There are a few different methods used for drying hops. The key is to dry them quickly without heating them up too much. Cooler temperatures will take longer, but will produce better quality hops.

Hop Drying Methods:

Food dehydrator: Using a food dehydrator is the easiest way to dry out your hops as it ensures air movement but does not get excessively hot.

Well-ventilated oven: You can use your oven to dry your hops by spreading them out on a pan. You will need to make sure that you get adequate air flow through the oven, watching closely by checking on them at least every 20 minutes. The temperature should never exceed 140°F (60°C).

Hop drying screen: If you have a small amount of hops to dry, the easiest way to do so is spread them out over a window screen or a house air filter. Place them in a warm, dry location. You can use landscape fabric over the top to keep them in the dark and occasionally fluff the hops so moist inner cones are brought to the outside of the pile. Leave them for a few days with a fan under or next to them to maintain air flow. You will also want to elevate the screen to improve air flow.

The hops need a moisture content of eight to 10 percent by weight to prevent molding. To see if they're dry enough, try breaking the central stem of the cone, it should be brittle enough to snap in half. When dry, the yellow powdery lupulin should easily fall from the cone and the leaves should have a papery and springy texture. If your hops aren't properly dried before storage, they could become moldy, wilted or rancid.

Package Your Hops

You'll probably want to save some hops for later brew days, so making sure they are preserved for maximum brewing potential is important. First, you want to weigh them out and separate them into one to two ounce bags so you will only have to defrost the amount you need when it's time to brew again.

Once you've divided up your hops into plastic freezer bags, food saver bags, or air tight jars, push as much air out of the containers as possible. A vacuum seal is ideal for this process, but not necessary. You'll flatten out and crush your pretty little hop cones, but it's for their own good! You don't want any oxygen contaminating and ruining all your hard work. Label them with the type of hop and toss them into the freezer for safe keeping.

Tasting Calendar

November: IPAs!
January 2021: Wood Aged Beer (styles 33A & B)
March 2021: Dark British Beer (styles 16A sweet stout, 16B oatmeal stout, 16C tropical stout & 16D foreign extra stout)

Club Presentations

October: GEBL Presidents Favorite Brew & Recipe Formulation – Tony S., Erik A., Will F., Lori B., Jim T., Dan H., Jesse F., plus others!

December: Holiday Party & Barleywine/Strong Ales

Events

October 14: The anniversary of the day that homebrewing was legalized in the United States, thanks to President Jimmy Carter, in 1978.
November 3: Learn How To Home-brew Day

Brewer of the year rankings:

The monthly tasting scores influences the decision towards the GEBL Brewer of the year.
Here is an update after Lager tasting. First place 5 points, 2nd place 3 points, 3rd place 2 points, and participants get 1 point.

The Greater Everett Brewers League (GEBL) is an American Homebrewers Association club that typically meets the second Thursday of every month at 7 pm at the Milltown Sailing Association, 410 W 14th Street, at the Everett Marina.

If you would like to be added to the GEBL email list send your request to: ed_andresen@hotmail.com
The GEBL Elected Club Officers for 2019 are:
• Jesse Free President (president@gebl.org)
• Pete Stachowiak, Vice President (vicepresident@gebl.org)
• Maria Johnson, Secretary (secretary@gebl.org)
• Bob Winchell, Treasurer (treasurer@gebl.org)
• Brad Brown, Membership Coordinator (membership@gebl.org)
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