



### 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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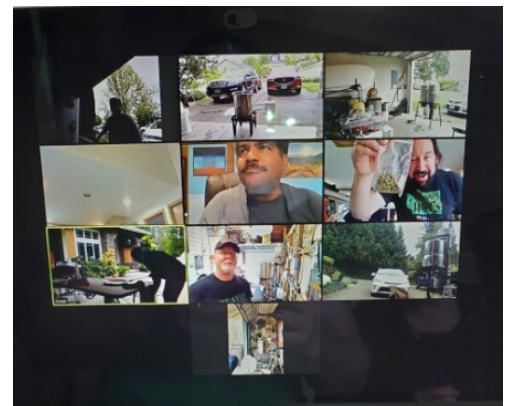
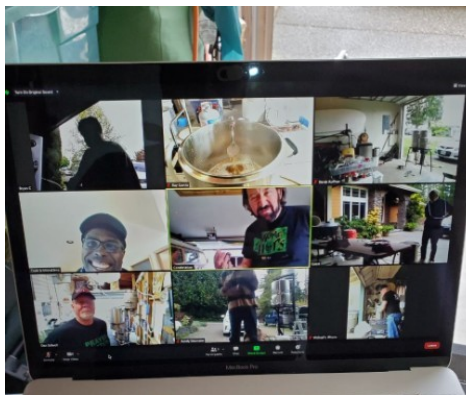
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# Gebl's National Big Brew day Event 2021

Big Brew day was a success again this year. Many members checked in on the zoom meeting to share their home brewing on Saturday, May 1st. Thanks to all that showed up and it looks like everyone had a great time. Some beers made include Pete's Pale Ale, Will was doing a Belgian Triple and the Star Gazer IPA while several did the Janet's Brown Ale, and even a Wrye Humor Roggenbier.

On a national and international level there were 2249 people that checked in with the Homebrewers Association, with a massive 15,298 gallons. People in 57 countries participated in the event.



## **How to Brew Stellar Sour Beer at Home: Meet the Fast-Sour**

by Peter Mortensen updated Aug. 10, 2018

More and more Americans are succumbing to sour beer's complex, thirst-quenching charms. Imbued with lactic acidity from the same bacteria that turn milk into yogurt and cucumbers into pickles, twangy sours can taste like a different beverage from beer altogether. Citrusy aromas, berry flavors, and clean, crisp finishes are common, and even better, many of the landmark styles, including lambics and Berliner Weisses, are low enough in alcohol that you can enjoy them with relative immoderation.

The tart side of the beer world has even drawn wine- and spirit-lovers over to the sudsy side. Unfortunately, since sour beer is relatively new to American brewing history (about 20 years), buying good examples in the US is often difficult and usually expensive. While Belgians and other Europeans quaff Cantillon Classic Gueuze the way we chug Bud Light, American sour beer fans too often need to sign up for waiting lists or order directly from overseas to even get the chance to drop more than \$20 for a 750 ml bottle.

All of which is a good argument for brewing your own sour beer. It's a hell of a lot cheaper, and you can brew it to your exact tastes. But there are many valid reasons why new homebrewers steer clear of making sour beer: homebrew shops often discourage it; the bacteria and wild yeast required for producing sour ales can contaminate homebrewing equipment and spoil other styles; and, perhaps most importantly, most people are under the impression that sour beers take at least a year from brewing to bottling to get a tasty outcome.

While the first two warnings are true—the risks are real and homebrew shops have a fondness for limiting new brewers to American pale ales—you don't actually need months to make a flawless, tasty sour beer. Meet the "fast sour" beer, which takes as much time to make as any pale ale or porter. Popularized as a technique largely through the site Milk the Funk, fast-souring offers a revolution in homebrewing that makes stellar sour beer a practical reality to create in your kitchen—in just over a month.

The secret to the fast sour is maximizing the contribution of lactic acid-producing bacteria (*Lactobacillus* and *Pediococcus*, primarily) early in the brewing cycle. This makes it possible to "sour" your beer before it has much in the way of alcohol content, thereby ensuring you won't need to wait a year before the beer tastes sour enough. With this technique, you'll never again find yourself dropping \$30 just to get a dose of lactic acid.

### **Creating the Right Environment**

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My specific approach to fast-souring, more than anything else, is about taking steps to ensure that flaws that can ruin a sour beer don't appear in the final product. In the context of industrial beer production, pretty much everything about making sour beer is wrong. Sour-friendly bacteria can ruin your average IPA or light lager. The wild yeasts used for sour beer can literally make bottles explode due to excessive carbonation. These are both justifiably regarded as contaminants.

As a result, making delicious sour beer is about controlled contamination, in a way that maximizes the characteristics we want—lactic acidity in balance with malt character, some supportive fruity esters, a dry finish—while minimizing those we don't—vinegary acetic acid, sweaty/buttery fermentation byproducts, and cloying residual sugars.

For fast-souring, I always make a Berliner Weisse as the base style for two simple reasons: one, it's low in alcohol (often below 3% ABV), and two, it's very simple in flavor. The low alcohol content gives bacteria the best chance to convert as much of the sugar to lactic acid, as opposed to alcohol, as possible. The simple flavor is the best you can hope for in such a rapid souring process and is easy to aim toward (note: if looking for lambic-like complexity, you'll need a few years to get it right). The end product is light, tart, and delicious either on its own or blended with other beer styles to create unique concoctions.

## **Multiple, Mutually Beneficial Fermentations**

Sour beer is typically produced through mixed fermentation: either exposing wort to microbes from the air for a spontaneous fermentation or pitching brewer's yeast, *brettanomyces*, and bacteria together, and then waiting a long time to see what happens. The fast sour approach is more about a careful set of consecutive and efficient fermentations. Rather than creating wort and seeing what results, this approach takes what we know from the brewing tradition and uses it to streamline the process. Each step advances the beer and sets up the next, maximizing efficiency while controlling for errors. It would dismay any of the lambic blenders in Belgium, for which I apologize, but tradition is great when you've been making beer for centuries. It's an impediment when you're just getting started.

## **Fast Sour Step 1: Kettle Souring**

When making sour beer, the most common traditional approach is either to ferment the beer first and then introduce bacteria for sourness after, or let natural microbes (yeast and bacteria) take hold and let them run their course. But in the fast sour method we want sourness, and we want it now, so we do it first. That means pitching a large starter brew of lactic bacteria directly into the brew kettle (the pot in which the wort is boiled) after a shorter-than-usual boil, and holding it around 110 to 120°F for 12 to 24 hours to ferment and drop the pH of the wort to around 3.5—a

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really nice, perceptible tartness. Before adding the bacteria, though, we want to cool the wort to a temperature that won't kill them: The quickest cooling method is to dump in cool purified water (the kind they sell in plastic jugs at the grocery store) at the end of the boil, adding the water quickly until you reach the desired temperature for bacterial growth.

Now, there are many variables to kettle souring, from your choice of bacteria to controlling temperature, but an often-overlooked factor is hopping. For fast-souring to work, it's best to use few or no hops; hops were first used in beer in order to prevent spoilage by bacteria, and they're quite good at it. Even a paltry three to five international bittering units (IBUs) can dramatically slow down the performance of souring bacteria. (For comparison, Bud Light has eight to 12 IBUs.) Instead of hops, I prefer to use fresh herbs, like rosemary or lemon verbena, to add some additional flavor without inhibiting the bacterial growth.

There are other ways to introduce a sour flavor at this stage, but they carry far greater risks. "Sour mashing" uses microbes on grain to create sourness. While it can be effective, and will use bacteria that already like sugars found on grain, it also carries a high risk of contamination from bacteria that create butyric acid, which can add the lovely smell and taste of vomit to your beer. (Literally so: butyric is the source of human vomit's distinctive aroma.) So unless you're a master of sour mashing, avoid it. Kettle souring is a better place to start, as you can control, within reason, exactly which bacteria grow in your wort. And you can use your own starter to do so, either cultivated from Greek yogurt, probiotic shots, or the Omega Labs lactobacillus blend, for a safe, effective souring environment that you completely control.

## **Fast Sour Step 2: Get Racked**

Following the 24-hour kettle souring, it's time to transfer the newly acidic wort to a glass carboy (a large glass jug that looks like the top of a water cooler) to free up the stove and move the beer to a controlled environment for further fermentation. For these steps, it's worth picking up some separate brewing equipment than your normal brewing set-up, especially any plastic or rubber parts that are extremely difficult to be 100% sanitized of wild yeast and bacteria. The investment won't set you back much, and it's the best way to prevent unfortunate surprises along the way, both with this beer and your regular "clean" homebrew.

For this next fermentation, you need additional bacteria as well as saccharomyces and brettanomyces yeasts. I get them from the simplest route available: pouring in bottle dregs from an excellent, commercially available, spontaneously fermented beer. I've had great results with Russian River Beatification and from unpasteurized Belgian lambics (any with "Oude" or "Classic" in the name). Yes, buying sour beer to make your own sour beer sounds a little odd, and it certainly increases your costs, but it's the easiest way to get the cultures you need. And on the plus side, you get to drink 80% of a bottle of world-class sour beer. The other 20% will give you far more beer in return.

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Start with a 330 to 375 ml bottle, pour out most of it (preferably into a drinking glass for your enjoyment), then dump the remaining two or three ounces, including sediment, into the carboy to begin additional fermentation. You can even use certain fruited lambics to add a touch of additional flavor beyond simple, clean sourness.

A few weeks into this fermentation, you'll notice the development of diacetyl, the artificial butter flavoring that results from all fermentations and develops in very high levels when pediococcus bacteria is part of the mix. Try your beer-in-progress at one to two weeks after racking to the carboy. It should taste quite tart with a bit of a buttery finish.

## **Fast Sour Step 3: Dry it Out**

At this point, it's time for the third and final fermentation: a large addition of brettanomyces yeast, which will further dry out the beer and digest the diacetyl, leaving you with the sour, crisp, summery Berliner Weisse of your dreams.

At this stage, you can either follow standard bottling procedure, add crushed fruit or fruit purées to the beer, or blend it with other finished beers to create unique sour hybrids. It helps to bottle condition sour beers at a higher temperature (70s F) and for slightly longer (three weeks) than other homebrews to ensure good carbonation. If you add fruit and are bottle conditioning, be prepared to use more sugar than usually necessary, as fruit particles can act as nucleation points, releasing nearly all dissolved CO<sub>2</sub>. This means you need to build up more new CO<sub>2</sub> from a sugar addition to reach a good amount of carbonation. As with any beer, take gravity measurements with a hydrometer, only bottling once you've had a stable reading for at least a week or two. You're probably safe at any number below 1.010. Once bottled and fully conditioned (two to three weeks), it's ready to drink.

Making your own sour beer certainly takes some investment of time and money. You have to plan ahead and fastidiously control your brewing environment, and multiple fermentation steps means it's a hands-on process. But if you've done a few rounds of homebrew and are ready to try something new, this refreshing, tangy drink can be yours in just four to six weeks. Your cellar will be overflowing in no time.

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## Six Tips for Minimizing Beer Brewing Losses

by BRAD SMITH on SEPTEMBER 16, 2019

This week I have 6 tips for minimizing your beer brewing losses when home brewing:

**Bag or Strain Your Hops** – Hops matter is one of the largest contributors to trub losses in your brewing kettle, particularly given today's highly hopped beer styles. Whether you are boiling, whirlpooling or dry hopping it is best to bag your hops or use some kind of hop strainer device (this is the one I use) to reduce the losses from hops.

**Use a Refractometer** – While it does require some extra calculations to determine the gravity of fermenting wort with a refractometer, you need only a few drops to take a reading, while a hydrometer requires roughly 8 oz (0.25 l) of beer to get a good reading.

**Do a Vourlauf for All Grain** – The “vourlauf” is a step taken at the beginning of the sparge process in all grain brewing where you draw the first few quarts of wort and place it back in the mash tun. This is generally done until you get clear wort coming from the lauter tun with no visible grain bits. The purpose of the vourlauf is to allow your grain filter bed to “set up” so it is ready to filter out grain particles. This will result in less grain trub in the wort during and after the boil.

**Minimize Transfers** – Every time you transfer your beer from one container to another you will lose some wort or beer. Unless you are aging your beer for an extended period, a secondary fermentation may not be needed. Even if you are transferring from pot to secondary you can, consider transferring the trub with the wort. Brulosophy did an interesting exBEERiment on this here.

**Consider a Conical Fermenter** – Conical fermenters for beer brewing help by compacting your trub, yeast and sediment in the bottom of the fermenter, and also make it easy to remove it. This means you will have less wasted beer when using a conical. Here are some advantages of conicals and there are a wide variety of plastic and stainless conicals available now.

**Cold Crash Your Beer** – Dropping the temperature of your finished beer will aid in the flocculation and settling process. It will help yeast, proteins and polyphenols to settle out of the beer more quickly and will reduce the required aging time. A compact sediment layer results in less waste when ready to bottle. In addition, cold crashing can improve your beer clarity.

Those are six useful tips to help minimize your beer brewing losses so you can enjoy more great home brewed beer! Thanks for joining me on the BeerSmith blog! Please subscribe to the newsletter or podcast on iTunes for more articles and sessions on home brewing!

# Greater Everett Brewers League

## Club Calendar and Information

### CLUB SCHEDULE

June 10 4:30 pm: Stan Hieronymous ([stan@appellationbeer.com](mailto:stan@appellationbeer.com)) Review of Brew Like a Monk book

July 8: Geoffrey Barker Fair Isle Brewing MAY BE CHANGED

September 9: Dick Cantwell ([dickcantwell30@gmail.com](mailto:dickcantwell30@gmail.com)) Review of Brew Like a Monk book

December 9: Jamil Zainasheff ([jzainasheff@hereticbrewing.com](mailto:jzainasheff@hereticbrewing.com)) Recipe formulation; Brewing classic styles book

### CLUB SAME BREWS

May meeting: Blonde tasting.

August: Belgian Wit

November: Double IPA

### EVENTS

May 15- 2021 Washington Mead and Cider Cup, Everett WA

May 21 - Pacific Women Brewers' Cup, Tacoma <https://reggiebeer.com/ReggieEntry.php?CompetitionID=CIUGII1000620>

June 13 - Heart of Cascadia, Portland Oregon – IPA only comp <https://hoc.oregonbrewcrew.org/>

Aug 7 - Best of the Bay, Bellingham, <https://bellinghamhomebrewersguild.org/bestofthebay/>

June 17 to 19 HBC

All dates are subject to change

**Membership Drive:** We are always looking for new members. Please let us know if you have anyone interested. As suggested by one of our members, wearing your GEBL gear helps start a conversation. If you have any ideas please let us know.

If you would like to be added to the GEBL email list send your request to: [ed\\_andresen@hotmail.com](mailto:ed_andresen@hotmail.com):

The GEBL Elected Club Officers for 2121 are:

- President: Jesse Free ([president@gebl.org](mailto:president@gebl.org))
- Vice President: Todd Johnson ([vicepresident@gebl.org](mailto:vicepresident@gebl.org))
- Treasurer: Pete Stachowiak ([treasurer@gebl.org](mailto:treasurer@gebl.org))
- Secretary: Will Fredin ([secretary@gebl.org](mailto:secretary@gebl.org))
- Librarian: Robin Sparks ([library@gebl.org](mailto:library@gebl.org))
- Newsletter: Bryan Collazo ([editor@gebl.org](mailto:editor@gebl.org))
- Membership Coordinator: Randy Neumaier ([membership@gebl.org](mailto:membership@gebl.org))

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