

A Closer Look at Brettanomyces

Say the word “Brettanomyces” out loud. “Bret-tan-oh-my-sees.” Drop that word in certain beer bars, and you’ll instantly be issued a little beer geek cred that you can fold up and stick in your wallet. It’s a buzzword that carries a very specific set of implications along with it—implications that can get lost or misunderstood amidst the hype and fanfare surrounding the funky and strange beers that that employ the mysterious organism. Let’s set some things straight:

Some Background

Brettanomyces is everywhere—in our lambics, our Orvals, our old-timey British stock ales, and well, basically everywhere else. Indeed, the stuff hangs out amidst the invisible yeasts and bacteria that surround us constantly.

A gentleman named Niels Hjelte Claussen first discovered the yeast at the Carlsberg Brewery in the early 1900s, as he investigated the unusual flavor development of the strong aged beers of England. He chose to name his discovery Brettanomyces, from the Greek for “British fungus.” Yum.

Beer and wine producers have a complicated relationship with this organism. It can offer a beautiful complexity to certain styles of alcoholic beverage, but it is hardy and unpredictable, an enemy to product consistency and pure yeast cultures. Most producers see it as something that must be eradicated from their facilities, lest it taint beverages in which it does not belong. Others see it as a necessary figure in the production of their beers and wines, and encourage its growth. Its unpredictability and omnipresence has earned Brett, as it’s affectionately known, the position as figurehead for a class of fermentation organisms called “wild yeast.” Though the name can be perceived as a bit of a misnomer (we’ll get to that later), Brett does have some unruly characteristics when compared to regular brewing yeasts, of the genus Saccharomyces.

Brettanomyces vs. Saccharomyces

Most beer is fermented with pure strains of yeast from the genus Saccharomyces. Ales are typically fermented solely with the species Saccharomyces cerevisiae, lagers with Saccharomyces pastorianus. There are dozens of strains within each of these species, each with their own flavor characteristics and ideal fermentation conditions. Their impact on beer is well understood and documented.

Within the genus Brettanomyces, we also use two main species for brewing: Brettanomyces bruxellensis (AKA lambicus) and Brettanomyces anomalus (AKA claussenii). Their impact on beer is less predictable. Fermentations with Brettanomyces produce a range of big and distinct flavors that can be seriously divisive. Fruity, juicy, and floral aromas are possible, as are earthy, plasticky, and medicinal ones. “Barnyard” and “horseblanket” are descriptors thrown around quite a lot. In the presence of oxygen, Brett can actually produce some tart and vinegary acetic acid as well. But don’t think that any beer with Brettanomyces will be sour.

Misconceptions

Misconception 1: all beers made with Brettanomyces are sour.

Reality: Remember when I said that Brett can produce acetic acid? (C’mon! It was seriously like two sentences ago) This ability, along with Brett’s presence in many sour beers such as lambics and Flanders sour ales, has led folks to believe that any beer made with Brett will be sour. This is not the case. Beers we perceive as sour are typically driven in sourness by lactic acid. This is not produced by Brettanomyces, but by the bacteria that is present alongside it in these beers. Many Brett beers are produced without lactic acid-producing bacteria in an environment mostly devoid the oxygen necessary for Brett to produce acidity (like in a stainless steel tank or a sealed bottle of Orval, for example). Even in environments with *some* oxygen (like in a porous wooden barrel) Brett won’t produce enough acidity to create a truly sour beer. Brett without bacteria does not a sour beer make!

Misconception 2: Brett is a “wild yeast,” which means that beers made with it are spontaneously fermented.

Reality: Many (most?) beers made with Brettanomyces use pure yeast cultures that have been grown in a laboratory. Brewers value consistency and predictability in their beers. Spontaneous fermentation (allowing beer to ferment using just the airborne and barrel-residing yeast and bacteria that naturally find their way into the beer) is notoriously unpredictable, and using cultured Brettanomyces gives brewers a greater sense of control over the fermentation process. The term “wild yeast” is still used to describe Brettanomyces because it is not only wild in a sense that it occurs naturally outside of laboratories, but also because of its “wild” fermentations, which produce high levels of ester and phenol flavor compounds.

The Styles

As mentioned before, Brett is commonly employed in classic sour beer styles like lambic and the Flanders sour ales. It is also used for bottle-conditioning in the singular Orval, and in historical British aged stock ales. But its use isn’t restricted to the “classics.” Brettanomyces is being used experimentally in beers of just about any style you can think up these days. It has seen notable popularity as a fermentation organism in Belgian saisons, a drinkable reference to the beer’s rustic origins.