

Sour Beer: The Basics

Craft beer consumers love big flavors. Bitter, boozy, rich, and sweet are the taste harbingers of a new age in brewing. But another big, hip flavor has been lingering on the fringes of popularity for centuries now: sour. Though sour beers have existed for as long as we humans have been brewing grain-based alcoholic beverages, they have only recently skyrocketed into a position of prominence at the forefront of craft beer innovation and reverence.

What are sour beers?

As the name implies, these are beers that contain mouth-puckering acids that impart a distinct sourness to the beverage's flavor profile. The presence of these acids are what make these beers so rare, expensive, and difficult to produce. You see, sour beers develop their trademark twang through unusual fermentation practices that can take years to execute. Most non-sour craft beers are fermented with isolated strains of a yeast called *Saccharomyces cerevisiae* and have a relatively short production time (think 3-6 weeks). Sour beer production is much more complicated. Any given sour beer may use not just *Saccharomyces cerevisiae*, but also a slew of friendly bacteria to generate that signature sourness.

The Bugs: Other Yeast and Friendly Bacteria

The primary types of bacteria that are used in sour beers are *Lactobacillus*, *Pediococcus*, and *Acetobacter*. *Lactobacillus* and *Pediococcus* consume sugars in beer to produce lactic acid, which has the same clean tang present in the yogurt you ate for breakfast. *Acetobacter* produces acetic acid, which is the same acid that gives vinegar its sourness.

But that's not where it ends—there's another critter responsible for fermenting many of your sour beers. *Brettanomyces* is another type of yeast you'll commonly encounter in your favorite lambics, American wild, and Flanders sour ales. Brett, as it is affectionately known, is responsible for many earthy, funky, and barnyard-like flavors in beers that are fermented with it. Contrary to popular belief, *Brettanomyces* alone is almost never responsible for producing sourness in beer, but it does help certain strains of bacteria produce enjoyable flavors. *Pediococcus*, for example, is known for producing not just lactic acid, but also tons of a buttery flavor compound called diacetyl—not something you want in your sour beers. Brett cleans up after messes like diacetyl that may be left behind by the aforementioned bacteria strains. So, despite the fact that *Brettanomyces* is present in many sour beers, *Brettanomyces* alone does not a sour beer make—the term “wild ale” is commonly applied to Brett-fermented, non-sour beers.

[see next page for a rundown on sour beer styles]

Sour Beer Styles

Flanders Red & Brown Ales

These are beers that originated in West Flanders, in Belgium. They are commonly referred to as the “Burgundies of Belgium” for their wine-like character and deep complexity. These beers are quite malty in character, but finish with a hit of lactic and acetic acid sourness that develops during an extended aging period in large oak barrels. These styles are typified by the beers of Rodenbach (famous for sour red ales) and Liefman’s (famous for sour browns), but excellent examples are made around the world.

Try: Panil Bariquée or Strubbe Ichtegem’s Grand Cru

Lambic & Gueuze

Traditional lambic is tragically hard to find these days. Produced in the Senne Valley of Belgium, there are very few producers left in the world, but a surge in American popularity has helped the few that exist to thrive in recent years. After brewing, these beers are aged in oak barrels for as many as five years to develop their famous character, which is the result of fermentation with *Saccharomyces cerevisiae*, *Brettanomyces*, *Lactobacillus*, and *Pediococcus*. These beers are commonly blended and dosed with fruit for additional complexity.

Try: the lambics of Cantillon, Hanssens, and Drie Fonteinen...if you can find them.

Berliner Weisse & Gose

Berliner Weisse and Gose are two styles that originated in Germany. Each is brewed with a large portion of wheat and known for a clean sourness provided by *Lactobacillus* fermentation. These are light, ultra-refreshing beers that are gaining popularity as a niche product worldwide.

Try: the goeses of Bayerischer Bahnhof and 1809, a Berliner Weisse produced by Professor Fritz Briem.

American Wild Ales

“American wild ale” is less of a style and more of an umbrella term for beers being made in the US that don’t conform to traditional sour beer styles. The term is applied to non-sour beers made with *Brettanomyces* as well as sour ones that may include *Pediococcus*, *Acetobacter*, and *Lactobacillus*. As the realm of innovative beer-making expands far beyond American borders, be careful how you use this term!

Try: the deeply complex sour beers of Jolly Pumpkin and the Brett-tinged products of Anchorage Brewing Company