

Quality through Cleanliness: Part 1

by Larry Chase

When you think of quality in beer your thoughts might turn to a complete lab set-up that, when operated by a full-time employee, will help ensure the quality of your beer. With this scenario most start-ups might ignore instituting a quality program because they do not have the financial resources to invest in lots of lab equipment or an extra employee. At a basic level a lot of lab work is audit verification that you did your quality assurance correctly in the first place. Once you learn of a quality issue it means that you still have to go back and solve the issue, in other words, do what you should have done in the first place. So even if you don't have the latest in lab equipment you can still focus on quality assurance, the proactive side, and do the work correctly the first time.

As a start-up brewery that cannot afford a full-scale lab set-up or even the time and labor to operate a lab, that's okay. What's important is to first set up the systems and quality assurance program that you would only be auditing later with such a lab.

At a basic level two quality measures for beer are that it is:

1. Free from contamination, and
2. Consistent in acceptable flavor.

Cleaning and sanitation will help ensure your beer is free from contamination and as such is a huge part of being a successful brewer.

Why Clean

Quality. Adherence to high cleanliness standards pays dividends in the perceived and actual quality of your beer. A clean brewery is a marketing tool, especially if the brewery is on constant display or you regularly give brewery tours. Customer perception reflects your brand, and people will think "If the brewery is clean, then the beer must be clean too." And guess what? They're right. Cleanliness in the brewery leads to clean tasting beer.

Save Money. Cleanliness means that you won't send beer down the drain because of contamination leading to off-flavors. This was all too real for me when we sent every batch of beer, both in the fermenters and serving tanks, to the sewers. We found that lack of cleaning created severe contamination issues. The beer simply was not sellable. If we had focused better on cleaning at the front end then we would have saved a lot of cash. Along with beer loss you'll also save money on equipment. Clean equipment lets you see small problems sooner allowing you to fix the issue now and reduce what might be more costly maintenance at a later date if the problem had not been detected.

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Reduce labor. It's much easier to work in a clean and organized environment versus a messy and dirty brewery. Keeping equipment and spaces clean on a regular basis is much less work than trying to break through layers of dirt and scum that have been neglected. Clean now because once the crud dries much more effort is required to return to the pristine state.

Profound Effect. Cleaning is also the one thing that you can most easily and profoundly effect on a daily basis. When starting a new brewing job one of the first things I did was to take apart the brewhouse equipment to inspect it. Upon removing the oxygen stone I was amazed at the growth of slime on and around the stone. Under the current conditions the beer was not even given a chance towards quality. The same held true in many other areas of the brewery—buildup of crusted and dried beer behind gaskets, braunheffe adhered to PRV's and rupture disks, a reddish/brown hue on the underside of mash screens. When you pay attention to cleaning every day in the brewery you give your beer an excellent opportunity to be what you want it to be.

An Overriding Rule. The last reason comes from Charlie Bamforth. In his book *Standards of Brewing*, he speaks of two overriding rules of brewing, the first one being to keep the equipment clean. "Beer is a foodstuff and, frankly, I am appalled at the state of hygiene in many breweries. In short, the whole place should be such as to give your aged aunt a warm feeling of all things being well scrubbed. As for the insides of vessels and pipes, they should be pristine. A properly designed caustic or acid cleaning regime followed by good rinsing and use of a hypochlorite or peracetic acid-based sterilant is critical. The key is more good design and process management (QA) than swabbing and plating (QC)." (Bamforth, Charlie, *Standards of Brewing: A Practical Approach to Consistency and Excellency*, Brewers Publications, 2002, p 142)

Continue with **Quality through Cleanliness: Part 2** to learn more about the key components for cleaning and how to make it happen.



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With a move from theology to brewing beer, Larry's been contributing to the craft beer world since 1997. He's worked with start-ups & implemented brewery turnarounds at both chain & family-owned brewpubs. He's a frequent speaker at the Craft Brewers Conference & was a Brewers Association Board member from 2013-2021. You'll find him regularly vying for "Dog Dad of the Year" & filling Chief Support Officer duties for his wife's professional speaking business.