

BREWERY MONITORING SOLUTIONS

By: Douglas Wright, President

Brewing is both an art form and a precise science.

While brewing dates back to the beginning of agriculture, it is unlikely the fermented beverages made were anywhere close to those that we currently consume.

The reasons are simple. They used whatever was available locally and were dependent upon local temperatures and had no scientific methods to check Brix, pH or alcohol or to even realize all this was the work of specific yeasts or that spoiled lots were the results of contamination from bacteria and wild yeasts. This would have made batch-to-batch consistency difficult.

Beer drinkers are now used to consistency and have discerning palates *and if they can't get it* from one brewer they have plenty of other brands to choose from. In the U.S. there have been several booms in the Microbrewery market and those that survived and grew all made QUALITY their primary focus.

So the market for QUALITY beer is both booming and at the same time it is under ever increasing demand for consistency as well as new and interesting beers.

Without proper controls in place many small brewers are able to produce outstanding beers but have trouble reproducing them consistently. This is especially so if you are trying to make specialty brews to make your mark on the marketplace. Small irregularities will cost you time, money and worst of all- *customers*. Unlike big breweries, microbreweries making unpasteurized beer are even more prone to problems due to contamination of equipment and batch-to-batch problems related to water quality, pH, DO, temperature and everything else that can affect how yeasts and bacteria will grow.

When you think of all the problems that occur, it seems nothing short of a miracle (explains why many early successful breweries were run by Monks?) that microbreweries produce good beer and *yet they do* and that is a testament to all the excellent brew masters out there.



At Scigiene it's our job to show you how to make that job easier. Many of the tests and processes used by larger brewers are actually very cost effective when scaled down. We supply portable thermometers, pH, DO and Brix meters that many of you are already accustomed to. We can also show you how to do the same tests using a wireless and control system very cost effectively. With continuous monitoring and data logging you are able to see trends that will alert you to actual and pending problems. Live alarming will allow you to be proactive. Rapid microbial tests will allow you to do tests that are faster and more accurate than current methods or outside labs. Rapid hygiene testing will allow validation of sanitations protocols to prevent spoiled batches and improve batch to batch consistency.

Here are some examples of the typical process steps in beer making and the problems that might occur, how to control them and how we might be able to help.

Each of these links to articles specific to the step and solutions we can provide:

- [Water Preparation](#)
- [Mashing](#)
- [Lautering](#)
- [Boiling \(Brew Kettle\)](#)
- [Fermentation](#)
- [Bottling/Canning](#)
- [Refrigeration and Storage](#)
- [Cleaning and Sanitation](#)
- [Microbiology](#)
- [Pasteurization](#)



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