

Case Study: Quality Control in brewery with CDR BeerLab®

Authors: **Giulia Chiarion** CDR FoodLab® - Sales and Marketing Department, **Pietro di Pilato** BrewFist Founder and Head Brewer, **Matteo Ambrosetti** BrewFist Lab Technician

BrewFist began in 2010, at a time when the craft beer market in Italy was very different from what it is today.

From the start, BrewFist has always focused on quality control of the beer production process. Thanks to the use of **CDR BeerLab®**, the analysis of beer, water and must became quick and easy, so it was possible to introduce the determination of many parameters that made quality control much more widespread.

Quality control in the brewery

Video – chapter 1



Pietro di Pilato – Founder and Head Brewer – BrewFist: *“Five years ago we decided to seriously invest in the brewery [...] we adopted a **very widespread quality control system right from the outset**, with the development of textbook analysis methods, essentially with the production of all the reagents at home and everything that was needed for home analyses. Obviously, while this kind of approach was satisfying and also professionally enjoyable, it was something that was very time consuming, because it was*

labour-intensive and introduced a lot of points where it was possible for errors to occur, given the ‘high level of dexterity throughout the laboratory process ‘.

*“When it was possible to introduce an instrument such as the **CDR BeerLab®** into our program, we were very happy with our analysis program”.*

CDR BeerLab®: the advantages of a quick and easy to use analysis system

Video – chapter 2



Matteo Ambrosetti – BrewFist Lab

Technician: “With CDR BeerLab® the immediate benefit was undoubtedly the **speed of execution in the various analyses** that we undertake here in-house in the analysis laboratory, which required very long times across the process, especially with very high margins of error. Here I can link the issue of errors to the second advantage which is mainly linked to the **ease of use of all the kits** that I was able to test “.

“We have introduced several analyses that we conduct with CDR BeerLab® therefore the **fan, polyphenols**. Then we introduced the control of **Vicinal Diketons (VDKs)** on our beers and there are other parameters that we plan to include within our control in the months to come “.

Quality Control in Yeast Propagation

Video – chapter 3

CDR BeerLab® has been very useful in the development of yeast propagation: all those cultures that were previously bought in liquid form from external laboratories are now propagated at home thanks to a study on the standardisation of the must, made possible by CDR BeerLab®, which, with its ease of use and its very short analysis times, has made it possible to implement the systematic control of the **fan** and of the **sugars**.

Matteo Ambrosetti – BrewFist Lab Technician: “The speed of obtaining the results of the analyses proved to be important in controlling the propagation of yeasts because in this area there are times to be respected especially with regard to temperatures. Having analytical data in a short space of time means being able to understand if it is possible to move on to the following step. Thus carrying out analyses in a short space of time allowed improving of the routine of beer production, especially in the phases of yeast preparation which are undoubtedly one of the most delicate “.

Analysis results in minutes to minimise errors

Video – chapter 4

Matteo Ambrosetti – BrewFist Lab Technician: “Of all the kits first and foremost, the one I use the most is the **Bitterness (IBU)**, an analysis that with the classical method is performed in at least 55 minutes with the possibility of considerable error. Instead using the CDR BeerLab® kit, the analysis time is reduced to a total of 5-6 minutes. What is important above all is the ease of execution. In fact, the menu is intuitive and anyone can perform the analysis without, let’s say, having a

CDRBeerLab®

university scientific background. It is possible to have a result in a very short space of time with a very, very limited margin of error because everything is very carefully designed and the possibility of making mistakes is very remote”.

Research and development to optimise and update production

Video – chapter 5

Pietro di Pilato – Founder and Head Brewer – BrewFist: *“As part of our quality control program, we also decided to undertake a research and development program and so, three years ago, we equipped ourselves with a 500-litre cooking pilot system in which we experiment with everything new that comes out on the market including new hops, new malts and new types of beer. Of course, in this type of context it is also essential to be able to control the parameters of the beer, because in any case we have to familiarise ourselves with the use of new raw materials and technologies on the market, so also being able to carry out analyses, which would normally take a long time, in an extremely short space of time, it is absolutely essential to then evaluate the scalability of a cooking from the pilot system to the general system”.*

Everything they said

Watch the video to discover all the benefits that CDR BeerLab® has brought to the BrewFist brewery, hearing it first hand from Pietro Di Pilato, founder of the brewery and Head Brewer, and Matteo Ambrosetti, BrewFist Lab Technician.



Pietro's hope for the future

Pietro di Pilato – Founder and Head Brewer – BrewFist: *“I like to think that customers spend their money a little more wisely and remember those breweries that may not follow fashion at all costs, but invest in quality control, invest in a well-made product always and in any case, not every now and then. I think that's the category we proudly fall into”.*

Links

- [BrewFist site](#)
- [CDR BeerLab® - Beer analysis system](#)
- [Topics about chemical analysis of beer](#)
- [YouTube Video](#)