

BrauBeviale 2019
Nuremberg, Germany | 12-14 November

Come to meet us and discover our newest products **BOOTHS: LALLEMAND 1-330** | **WBA 4-301**

WEBREW WITH YOU.

THE OFFICIAL NEWSLETTER OF ALL THING'S LALLEMAND BREWING!

Edited by Brent Jordan, General Manager, Lallemand Brewing

LALLEMAND BREWING QUARTERLY NEWSLETTER



It is with great pleasure that I write this short introduction to the very first **We Brew With You**, the newsletter of Lallemand Brewing.

At Lallemand Brewing we believe that the key to success of our business rests in our ability to constantly innovate, to foresee the needs and wants of the markets and to invest in the resources required to meet those needs. We are fortunate since our parent, Lallemand Inc., has invested heavily over decades in the technology and research of yeast and bacteria for many different applications – Lallemand Brewing draws on this vast expertise to bring true innovation to our valued brewing clients.

As an example we recently launched 'Sourvisiae', the first commercially available bio-engineered yeast for sour beer production, true innovation brought to the market.

We also recognise that such progressive technology might not be to everyone's taste and so we equally apply our resources to constantly developing our range of traditional brewing yeast, bacteria and nutrients. For example, at the upcoming Brau Beviale exhibition we will launch two new products, a new bacteria product in our 'WildBrew' range for sour beer production and, in our LalBrew Premium range, a very traditional Kveik yeast which will be the first commercially available dry form of this yeast.

At the heart of creativity and innovation in any business, are the people; and we are blessed to have a fantastic team from renowned scientists on the innovation end, to dedicated sales and technical support representatives in the field supporting distributors and brewers. This is our Lallemand Brewing family and we are so proud to play our part in this wonderful business, which is brewing.

I hope that you like our newsletter and find it interesting and informative!





OCTOBER 31 - NOV. 02

Masters Brewers Conference

Calgary, Alberta Canada

www.mbaa.com

NOVEMBER 01-02

NanoCon

Vancouver, Washington U.S.A.

byo.com/nanocon

NOVEMBER 12-14

Brau Beviale

Nuremberg, Germany Booths: Lallemand 1-330, WBA 4-301 www.braubeviale.de/de

THE FAMILY IS GROWING

2019 is a big year for Lallemand Brewing products family! We started the year strong by unvealing our brand-new LalBrew® Premium Yeast packaging available since April and the launch of our LalBrew® Köln yeast in May - ideal for brewing traditional Kölsch-style beers and other neutral ales. We followed with the recent launch of the first dry bio-engineered brewing yeast, Sourvisiae® (solely available for the US market) and the release of two new products by the end of the year: WildBrew® Helveticus Pitch for sour beer production and Lalbrew® Voss for Kviek beers.



SOURVISIAE® the smart one (US only)

Mascoma and Lallemand Brewing are pleased to announce the launch of the first dry bioengineered yeast for brewing. After years of research and testing, we are thrilled to make this yeast available to craft brewers willing to experiment and provide a combination of both efficiency and flavor to their brews. Lallemand Brewing is at the forefront of innovation with full label transparency on our products; we wish to provide exciting tools to breweries to push boundaries and increase the quality of craft beers around the world in association with their team of experts. Mascoma (a company of Lallemand) is a leader in research and development of new industrial biotechnology products; their expertise in yeast improvement is highly recognized, most predominantly in the bioethanol field.

Sourvisiae® is a *Saccharomyces cerevisiae* yeast

that produces alcohol and lactic acid simultaneously in less than 5 days with no off flavors and no biogenic amines production. These features save precious time during the brewing process by avoiding any other souring step (in the kettle or in barrels) and make it extremely safe and easy to clean as bacteria are not introduced in the brewery. The level of acidity produced by Sourvisiae® is easily controlled either by blending the yeast with another strain or alternatively by blending the final beer.

The reception of this yeast has been overwhelming, Sourvisiae® is the first one of a line of bio-engineered yeasts that will offer countless possibilities in terms of flavor and performance. Stay tuned for more information on the beverages out there made with this new technology.





WILDBREW™ HELVETICUS

PITCH the wild one

This is the second Lactobacillus bacteria for the WildBrew™ family. Helveticus Pitch offers the same high quality high purity dry bacteria as Sour Pitch and is a selected strain of Lactobacillus helveticus. Dry bacteria provides a consistent number of live cells, ready to pitch in the kettle for a predictable and reproducible souring process. Compared to WildBrew™ Sour Pitch this new bacteria tolerates higher temperature and gives out higher levels of lactic acid with a citrusy finish. Similarly to yeast, different strains of bacteria and certainly species will give out different sensory characteristics. Try them side by side and make sure to review our technical datasheets.

VOSS the, about to come, traditional

You asked for it all over the world and we responded, our new dried Kveik yeast will become available at the end of the year. We selected the Voss strain due to its performance and sensory characteristics, a single strain of *Saccharomyces cerevisiae* traditionally used to brew Norwegian farmhouse ales but truly suitable for a number of beer styles. Do not be afraid to push the limit with this yeast, it can sustain higher temperatures (up to 38C°/100°F), does not produce off-flavors but instead earthy, estery and citrusy notes. Kveik

refers to yeast in Norwegian dialect, it is one of a kind, and we cannot wait to hear your feedback on this product.

by Sylvie Van Zandycke, Ph.D, Director of Sales and Marketing Brewing Yeasts, Bacteria and Nutrients, Lallemand Brewing



NEW STRAINS TESTING

In addition to fermenting sugar into alcohol and CO2, yeast plays an important role in flavor development. Each unique strain varies in their ability to metabolize different malt sugars and produce flavor compounds such as esters, phenols, sulfur compounds and fusel alcohols, to name a few. We are constantly search for new yeast strains to add to our portfolio of Lallemand Premium Brewing Yeast.

Candidate yeast strains are obtained from breweries, harvested from nature or procured from research strain collections. Genetic analysis is performed to assess whether the new strain is similar to existing strains in our collection (see fig. A: genetics). The strain is then propagated and fermented in our R&D lab using a standardized wort (see fig. B: fermentation tubes).

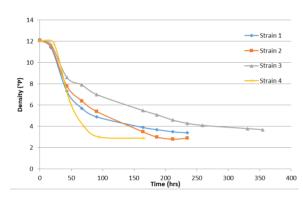


FIG. A

FIG. B

We then assess the fermentation kinetics and attenuation (see graph fermentation profile) and flavor is assessed by our trained sensory panel (see fig. C: tasting panel, plus tasting notes table). An example is shown here for four strains we recently evaluated in the lab. Strain 4 was identified as the best candidate due to fast fermentation, high attenuation and a unique strawberry aroma. Strain 1-3, while producing good beer with

Fermentation profile of four candidate yeast strains



	Tasting Notes
Strain 1	Slight phenolic, slightly peppery, fruity, fairly light flavor
Strain 2	Very fruity (apple/grape), slight acidity, no phenolic
Strain 3	Very fruity (apple), no phenolic, not very sweet
Strain 4	Red fruits (strawberry), light, slightly sweet, clean, fairly neutral

different flavor profiles, were eliminated from consideration due to slow fermentation and lower attenuation.

The next step is to send Strain 4 to our Process Improvement Lab (see fig. D: bioreactors) to assess whether it can be produced and dried with high yields, viability and purity. If successful, the strain is then sent for pilot scale production (50kg dry yeast) before scaling up to full commercial production (>1000kg dry yeast) as the newest member of the Lallemand Premium Brewing Yeast portfolio.



FIG. C

FIG. D

Siebel Institute of Technology & World Brewing Academy

NEW: 50+ ONLINE LECTURE SERIES

Siebel Institute of Technology and the World Brewing Academy announce the release of our newest educational offering to the market, The WBA Specialized Online Lecture Series. These advanced level lectures cover a multitude of specific topics pertaining to all processes of beer production such as raw materials, quality control/quality assurance, brewery engineering and more. These specialized lectures are perfect for those in the industry looking to increase their knowledge in a specific area. Students will now have the ability to pick and choose individual lectures or groups of lectures that meet their specific educational needs and interests. Business owners will also benefit from the flexibility these lectures offer them by providing targeted and specific continuous education to their workforce.

All lectures:

- · Are fully narrated
- Range from 20 minutes to 1.5 hours
- Can be enrolled in and taken at any point of time
- Have access to a monitor for questions for the duration of the lecture enrollment window.



BrauBeviale 2019

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BrauBeviale 2019 will be the world's most important capital goods exhibition for the beverage industry this year. Around 1,100 exhibitors are expected, of which 53 percent are international. Lallemand Brewing will be showcasing a wide selection of LalBrew® Premium Dry Yeast and WildBrew™ bacteria for sour beer production. **You will find us at booth 1-330** where we will be showcasing our exciting new products Voss Kviek dry premium brewing yeast and Helveticus bacteria.

Please join our team as they pour samples of beers from some of our favorite partnered breweries, all made with yeasts and bacterias we produce all around the world.

The World Brewing Academy will be at booth 4-301 providing information on the current offerings at Siebel Institute of Technology.

World Brewing Academy is a partnership between Siebel Institute & Doemens Academy providing courses that have been designed to cover the broad spectrum of brewing science, theory and technology, from basic level courses to advanced. The WBA also offers the industry's best and most complete web-based training courses to date. Siebel Institute of Technology offers a wide range of brewing and related courses either in a classroom environment or in the increasingly popular and accessible web-based format, including the exciting new Master Craft Brewer Theory program. Whether you are seeking a broad based education in modern brewing practices, or a more specific training requirement such as brewing microbiology or sensory training the Siebel Institute has the perfect course for you! Please stop by and learn more about these programs.

Did you know that, in the 19th century, bread bakers obtained their Saccharomyces cerevisiae yeast from beer brewers?

However, beer brewers slowly switched from top-fermenting (S. cerevisiae) to bottom-fermenting (S. pastorianus) yeast and this created a shortage of yeast for making bread, so bakers had to develop a new process in 1846 called the Vienna Process.



Homebrew Update

MEET THE BREW DUDES



Have you heard of Brew Dudes (home brewing blog and resource)? This team has done an amazing job of broadcasting beer knowledge for more than 10 years on their blog and social media pages. We are proud to say that they are impressed with Lallemand yeasts.

John Krochune from Brew Dudes, about Lallemand yeasts:

"Pitched the New England East Coast American Ale Yeast for the first time for the latest NEIPA. Very impressed with how quickly fermentation started even with a direct pitch. Next up, I'm working on a Gose that will feature kettle souring using a pouch of WildBrew Sour Pitch."

WWW.BREW-DUDES.COM

