GOOD NEWS

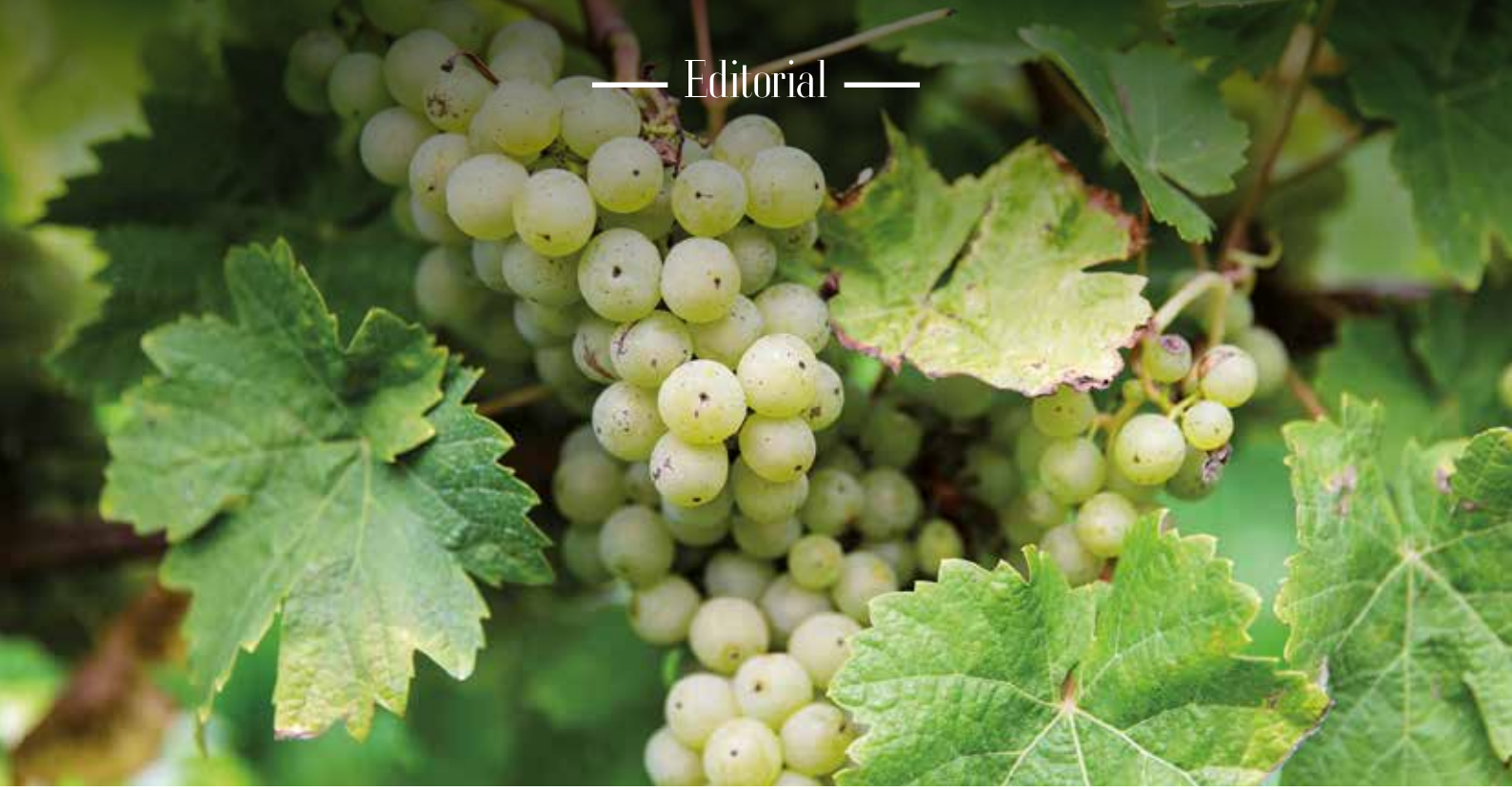
Fermentis
LESAFFRE FOR BEVERAGES

BY FERMENTIS. NEWS, ADVICE, PERSPECTIVES.

N°02
JUNE / JULY 2016

NEW YEAST

INNOVATION



“THE CRUSH IS COMING, GOOD LUCK EVERYONE!”

Summer is almost back in the north hemisphere and, for some of you, the 2016 crush is around the corner. This is a great time to thank all of you distributing and/or using our products, for your trust and loyalty.
It is also an opportunity to remind you of all the work we have undertaken over the last few months to help our customers address their respective needs. For two years, Fermentis has been increasing its research and investments to offer you new products and technical developments. We have just created our first organic product, “Springcell BIO”; and launched a new yeast strain with amazing properties,“SafŒno™ HD S135”.
We have also continued to develop the “easy-2-use” range allowing to simplify fermentation and save time, as we all know what a rare commodity time is. More generally, we have reorganized our teams and diversified our expertise to support you wherever you are in the world and whatever your requirements and priorities may be.

Wine is different all over the world, but wherever you are; taste, aroma and consumer satisfaction are major challenges. We hope that in this second issue of GoodNews you will find helpful information to move forward in your respective professions, whether you are a winemaker, an œnologist or a distributor. The very best of luck to you for this 2016-2017 campaign.

Stéphane Meulemans
General Manager, Fermentis

So smooth

The latest addition to the Fermentis range; SafŒno™ HD S135 active dry yeast offers Premium red wines a subtle combination of full body and fruit. Beyond its great fermentation characteristics, it helps increase the structure of the wine while providing smoothness. It will delight all those looking to achieve a high alcohol content with a balanced sensation on the palate.

SafŒno™ HD S135 active dry yeast has just hit the market. After two long years of research & development, in our R&D center first, then in around seventy wineries, it has utilized every Fermentis and Lesaffre skills in microbiology and applied research. This yeast creates wines issued from a fast fermentation, which are deeply colored, without deviations and with a ripe berry fruitiness. All of that to satisfy market expectations in light of the first effects of global warming: make high alcohol wines aromatic and smoother.

Produces full-bodied wines with a nice smoothness

- ENABLES HIGH POLYPHENOL EXTRACTION GIVING
  - A deep structure and
  - An intense and stable color
- BRINGS ROUNDNESS, ELEGANTLY SOFTENING THE MOUTHFEEL

Perfectly suited for fruity premium reds

- ENHANCES FRUITY PROFILE, ESPECIALLY TOWARDS RIPE RED AND BLACK FRUITS
- INCREASES SWEETNESS SENSATIONS

Excellent fermentation abilities

- HIGH ALCOHOL TOLERANCE
- FAST KINETIC THANKS TO LOW YEAST AVAILABLE NITROGEN NEEDS

Springcell BIO

SOMETHING MORE

Over the last ten years, the organic movement has been gaining more and more ground in vineyards. Estates which have converted to organic farming may still be small in number, but the trend is constantly spreading and more and more of you are looking for new solutions. So here it is: Springcell BIO - an organic fermentation activator.

Those looking to produce organic wine know already that legislation is strict to say the least. The only yeast derivative you can use are cell hulls, preferably organic « if available ». Springcell BIO is the solution. First we developed organic yeast from a substrate that was certified organic. Once the cell hulls were extracted from this yeast, we could confirm that they had the same properties as traditional cell hulls.

— THE SAME PROPERTIES

Springcell BIO is just as effective as Springcell, with organic certification in addition. In both cases, they act as fermentation activators. They help detoxify the must and strengthen the yeast capacity to survive over time. In other words, they help work against slow and stuck fermentations. How? Firstly by adsorbing compounds which are toxic for yeast like inhibitive fatty acids and other problematic compounds like phyto sanitary product residues, ochratoxin A and more. Secondly by providing survival elements, sterols and unsaturated fatty acids - what we call "oxygen substitutes". Both conventional and organic products, help achieve complete consumption of the sugars with limited volatile acidity. They are mostly insoluble and play a supporting role in the highly clarified musts by increasing turbidity without modifying organoleptic qualities. Created primarily for organic winemakers, Springcell BIO can of course be used by everyone.

> “Do you like Springcell? You're going to love Springcell BIO ”

TECHNOLOGICAL ACTIVITY (% OF DECANOIC ACID ABSORBED) PER G OF PRODUCT

Take it easy!

Fermentis created the easy-2-use range to make your life easier, to save you time, offer more comfort and safety and even save you money; with no compromise on quality! Here is a look at the three newcomers within our range: SafŒno™ BC S103, ViniLiquid and Spring'Finer.

EASY TO USE

SAVE TIME

SAVE MONEY

SafŒno™ BC S103

RELIABLE UNDER ALL CIRCUMSTANCES

The SafŒno™ BC S103 strain has been in the Fermentis portfolio for a long time. It is one of the most appreciated active dry yeast strains. Our customers particularly enjoy its high resistance to difficult and even extreme situations: at low or very high temperatures, when the must offers very few nutrients, when the alcohol content is very high - up to 18 %... It is a safe bet and for many years it has proved its worth, all over the world.

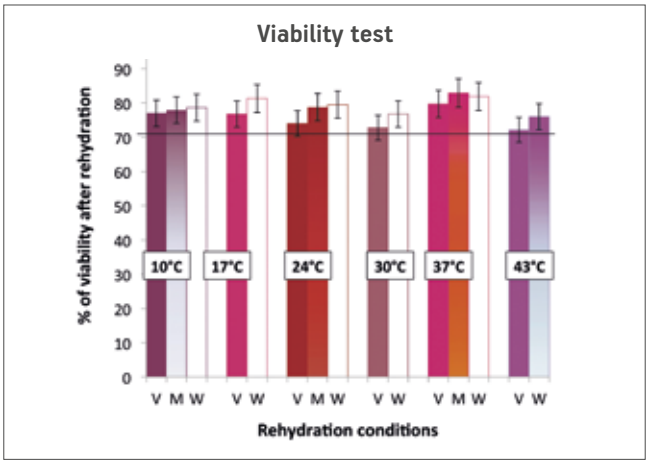
However, in 2015 we wanted more. We adopted the easy-2-use fermentation protocol to see if we could make it easier to use but just as efficient. Through difficult micro-vinification conditions, we compared our yeast usually rehydrated with cold rehydration procedure or direct inoculation into the must. At the end of the tests, the qualitative results were comparable. SafŒno™ BC S103 can still surprise us!

Caution

The specific use of easy-2-use SafŒno™ BC S103 to restart stuck fermentation has not been tested yet under the same ways of preparation presented in this document. Due to the particular conditions required for such purpose, please continue to follow Fermentis adequate protocol, available upon request.

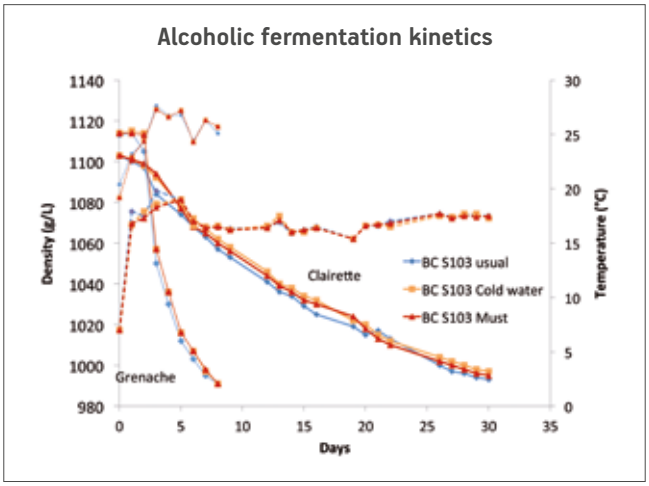
Preserved viability

Conditions: the easy-2-use ™ SafŒno™ BC S103 yeast was rehydrated in a 10 % saccharose distilled water solution heated to different temperatures and stirred at very different rates for 45 minutes.
Findings: the high viability of easy-2-use SafŒno™ BC S103 is only and slightly affected by violent stirring conditions (dry yeast put into a flask, then submerged by the rehydration medium and violently shaken every 2-3 minutes)... totally unrealistic in wineries. Even in extreme cases (10°C and 43°C); its residual viability lies between 72-83 % (78-83 % for moderate stirring).



Maintained fermentation performances

Conditions: the easy-2-use SafŒno™ BC S103 yeast has been prepared in a range of very different conditions and tested on two extreme Mediterranean microvinifications combining very high Potential Alcohol (PA) and very low Yeast Available Nitrogen (YAN) without nutrient addition during fermentation. First one on Clairette white vinified at 17°C with a 15 % v/v PA, 98 ppm YAN and with an initial turbidity of 5 NTU, adjusted to 50 NTU. Second one on Grenache red vinified at 20-28°C with a 16 % v/v PA and 120 ppm YAN.
Findings: the conditions in which easy-2-use SafŒno™ BC S103 yeast has been prepared didn't significantly affect alcoholic fermentation kinetics (fully explained by temperature shifts) and completion as well as standard oenological parameters such as volatile acidity. All yeast implantation controls were positive. Only very slight differences have been detected on color (less intense especially for cold rehydration) to be confirmed through less extreme conditions.



Usual: rehydration at 37°C in tap water then progressive acclimatization to must temperature with must addition before inoculation.
Cold water: rehydration in tap water at 15-17°C. **Must:** direct pitching.

An equivalent organoleptic profile

Triangular tastings

	Clairette	Grenache	
		After AF	After MLF
Usual vs Cold water	S(5 %)	NS	NS
Usual vs Must	NS	NS	NS
Cold water vs Must	S(5 %)	NS	NS

S: significant differences (threshold) **NS:** non significant differences

Conditions: professional triangular tastings ("Among 3 samples in which 2 are from the same condition and 1 from another condition, identify which one is different from the others") have been carried out in order to assess the organoleptic differences between conditions. Clairette wine was tasted after racking off and sulfite addition without malolactic fermentation. Grenache wine was tasted after alcoholic fermentation and after malolactic fermentation after racking off and sulfite addition.
Findings: direct inoculation of the easy-2-use SafŒno™ BC S103 yeast had no significant impact on global organoleptic profile compared to usual rehydration, thus validating this time saving alternative. Rehydration in cold water showed weak but significant differences compared to the other conditions in this white wine, to be further investigated and confirmed.

Tests conducted by Meurice Institute and Inter-Rhône technical department on easy-2-use SafŒno™ BC S103, a strain selected for its very strong fermentation abilities under extreme winemaking conditions.

ViniLiquid

THE FIRST EVER LIQUID YEAST AUTOLYSATE

ViniLiquid is a highly degraded liquid yeast autolysate combining the effects of yeast derivates and pure hulls. It secures your fermentation with ease and efficiency.

Thanks to its liquid form, ViniLiquid has an immediate effect on yeast; it spectacularly increases the speed of fermentation when introduced between third and half-way through the fermentation process. It stimulates significant cellular growth and ensures high viability for a clean and quick end of fermentation, particularly when combined with an initial oxygen supply. Its pool of micro peptides is also interesting for the growth and performance of malolactic bacteria.

Easy-2-use, you can add it directly to the must, no need to dissolve it first. It completely disperses into the must with no blending problems. Pumpable, homogeneous and stable, ViniLiquid is ready to be added manually or through automated systems.

In terms of **safety,** ViniLiquid's liquid form removes the risks of dust inhalation associated with the handling of fine powder products.

Key notes

- Accelerating and/or securing alcoholic fermentation.
- Optimization and simplification of the supply during fermentation.
- Safe use.

Spring'Finer

A PERFECT FINING AGENT PRODUCED FROM YEAST

Spring'Finer is a yeast protein extract produced from an innovative industrial process that extracts, concentrates and preserves native yeast proteins with remarkable fining properties.

Spring'Finer is the result of several years of research. It uses a unique industrial process, a combination of Lesaffre industrial expertise and Fermentis applied development skills. This innovative process extracts and preserves native proteins with remarkable fining properties, from a specially selected strain of *Saccharomyces cerevisiae* yeast. Through its nature and action, Spring'Finer offers all the advantages for fining of great wines.

Easy-2-use, Spring'Finer doesn't need any prior wine treatment before use and is totally soluble. Its micro-granulated form allows an immediate dissolution into water for a very easy use.

In terms of **safety,** Spring'Finer is exclusively from yeast origin and as such free of allergens.

Key notes

- Exclusively from yeast origin.
- Specificity towards astringent and bitter tannins.
- Easy-to-use.

70 winemakers involved

In light of evolving winegrowing and winemaking practices and the initial effects of global warming, Fermentis embarked upon a significant R&D program back in 2012. Our objective was to complete our yeast range. But the need to involve our customers with the process was also required. Here we take a look at a campaign of trials, carried out over eight months with the help of 70 winemakers.

In terms of research, Fermentis teams have always worked closely with the Lesaffre group's R&D department. However, in 2015 our collaboration entered a new phase. Convinced that nothing could replace real winemaking conditions, our respective microbiology and biochemist experts faced a two-fold ambition: create hybrid yeasts, make their first selection on synthetic must and, in parallel, test the strains we planned to market in the field.

— WINEMAKERS AND DISTRIBUTORS

This was an innovative action; both in its nature and size, with the number and diversity of partners involved: winemakers, distributors, œnologists... In total, one hundred and twenty-eight trials were scheduled in seventy wineries and on thirty grape varieties. Deployed in seven countries, these "field" tests were managed by a Fermentis œnologist. Focused on this research program for eight months, he was available at each stage of the crush, to explain the protocol to the winemakers, organize the logistics, follow vinification, collect results, analyze them and schedule tasting sessions.

— TWO NEW STRAINS CAME OUT OF THE PROGRAM

The results of this initial campaign are positive in two ways. Firstly, and this was Fermentis' primary objective, the market launch of two new strains. Their analytical and aromatic properties convinced; initially the winemakers, but also our distributors and customers who attended the tastings. Our second satisfaction came from the atmosphere which reigned during these tests. It was a shared spirit of curiosity, a common desire to innovate and generate reliable and effective solutions.

Interview

Etienne Dorignac is one of Fermentis' œnologists. He provides us insights on a few key learnings, from the tests which were held in the vineyards.

Why did you want to go and test your strains in the field?
E.D.: Because nothing can replace real winemaking conditions. We were testing two new strains in the lab and the results were very promising. We wanted to involve our distributors, our customers and also our sales team about this choice at a moment that was particularly important for us: bringing a new strain on the market.

How did the winemakers react when you contacted them?
E.D.: Field tests are not new to them. But in general, a field test would involve a product already on the market. This time, we were asking them to test the strains as a preview. They were curious and willing. They understood that the strains we asked them to test could be beneficial for them in the near future.

There is a lot of work to accomplish in wineries during a crush. Did everyone play its part?
E.D.: Overall, yes. Even if there are specific demands in this type of trials. You need a great deal of diligence and consistency, particularly to control and

collect the figures. When you inoculate a yeast into a must, you have to make sure that it is that specific yeast which takes over; not the wild, indigenous yeasts; otherwise, results are not interpretable.

70 wineries, 7 countries... How did you coordinate the results?
E.D.: Firstly we simplified the work of the winemakers as much as possible. For example, we gave everyone a complete kit with flasks, markers, pre-paid envelopes to send samples back to the lab... And a Fermentis œnologist was always in back-up during all the trials from the start to the end. He analyzed and compared all the results.

You have just launched SafŒno™ HD S135 on the market. So the trials were convincing?
E.D.: Yes definitely. Tastings organized with our distributors and their customers were a particularly important stage in the selection process. Our partners confirmed what we had observed in the experimental wineries: thanks to this new strain, the wines are more deeply structured, intensely colored and interestingly smooth.

If you had to sum up this test campaign, what would you say?
E.D.: That you have to be innovative. It is the first time that Fermentis performed wine yeast development from A to Z; i.e. from hybridization to implementation. The results prove that we were right to try. And, as you can probably guess, this is only the first stage...

70 **WINEMAKERS**
TOOK PART IN FERMENTIS TESTS ON NEW YEAST STRAINS.

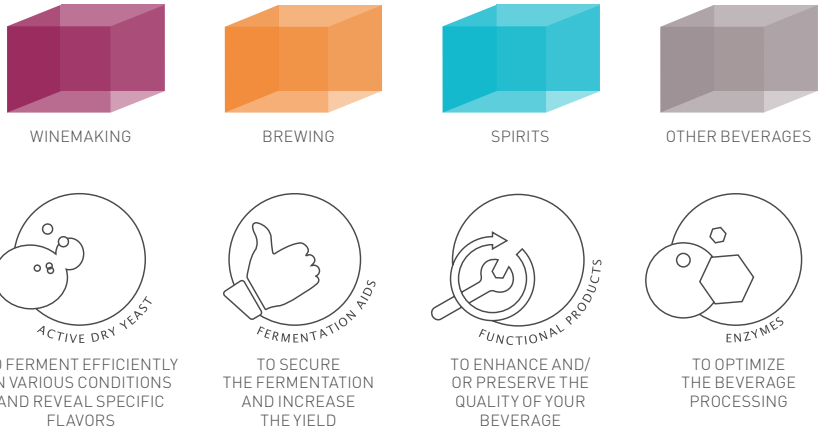
8 **MONTHS**
THE TIME TO COMPLETE ALL THE TRIALS BY ONE OF OUR ŒNOLOGISTS.

7 **COUNTRIES**
THE TESTS HAVE BEEN CARRIED OUT IN FRANCE, SPAIN, ITALY, PORTUGAL, SLOVENIA, THE UNITED STATES AND ARGENTINA.

NEW NAMES, A NEW LOOK

To help you identify our products, in 2015 we optimized our branding and related packaging and marking. One name, one color code per market segment and pictograms specific to applications: everything has become much simpler...

Since september 2015, all of our products use a unique umbrella brand, Fermentis. Thus, they also use a very clear identification on all the industries we are involved in. A specific color is dedicated to each business segment: burgundy for the winemaking industry, orange for the brewing industry, blue/green for the spirits industry and grey for other beverage industries.
Our products are also differentiated by application: Active Dry Yeast, Fermentation Aids, Functional Products and Enzymes – using specific symbols and colors.



Two product families

Fermentis has a range of yeasts and a range of derivatives. To make them easier to identify, their names are changing.
Yeasts will now have the prefix SafŒno™ and derivatives will have the prefix Spring™.

ACTIVE DRY YEAST		FERMENTATION AIDS		FUNCTIONAL PRODUCTS
St Georges S101	**SafŒno™ STG S101**	Bioferm	**Springferm™**	**Spring'Finer**
CK S102	**SafŒno™ CK S102**	Bioferm Xtrem	**Springferm™ Xtrem**	**Springcell Color**
BC S103	**SafŒno™ BC S103**	Bioferm Equilibre	**Springferm™ Equilibre**	**Springarom®**
UCLM S325	**SafŒno™ UCLM S325**		**Springcell**	**Springcell Manno**
UCLM S377	**SafŒno™ UCLM S377**		**Springcell BIO** New!	
VR 44	**SafŒno™ VR 44**		**ViniLiquid**	
SC 22	**SafŒno™ SC 22**			
NDA 21	**SafŒno™ NDA 21**			
	SafŒno™ HD S135 New!			

What does the legislation say ?

All of our products comply with the OIV regulations (Organisation Internationale de la Vigne et du Vin). The name changes have been done according to the current applicable European Regulations related to organic wine production: the Bioferm products cannot be considered as "organic" and additionally cannot be used for organic wine production as they contain yeast autolysates. No product containing inactivated yeast and/or yeast autolysates, being organic or not, can be used for organic wine production. Bioferm becomes Springferm™!

An expert in the art of fermentation

Fermentis works with everyone in the world of beer, wine, spirits and other fermented beverages. Its range of products and services covers almost all professional requirements: from safeguarding production to expressing sensory characteristics. A Business Unit in the Lesaffre Group, a global benchmark in fermentation and yeast, Fermentis builds solutions and results upon its talented experts, visionary R&D program, industrial expertise that meets the highest international quality standards and a strong and coherent marketing and communication strategy. Its mission? Become the obvious choice for brewers, winemakers and all producers of fermented beverages, helping them express their inventiveness and creativity.

THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION

Fermentis
LESAFFRE FOR BEVERAGES