

# GOOD NEWS

BY FERMENTIS. NEWS, ADVICE, PERSPECTIVES.

## #03

CRUSH 2017 & 2018

AROMATIC PROFILES/ P.07

## FOUR TRENDS IN WINE TO WATCH CLOSELY

NEW YEAST / P.03  
SAFØENO™ GV S107  
WHITE WINES WILL LOVE IT!



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



**Fermentis**

LESAFFRE FOR BEVERAGES

# “ We strive to bring you solutions ”



Nowadays, we evolve in two directions which are reflecting global trends.

1 - Each year and each season **we have to integrate changes imposed on us, primarily related to climate evolution and related temperature, water availability and quality variations.** We can undergo those evolutions but also adapt ourselves and eventually influence them. At Fermentis, we have the willingness to play an active role in trying to reverse those trends but those are long term projects. Short term, we have taken the path to offer adapted solutions illustrated with the release of our two newest red wine yeast strains **SafEno™ HD S135** and **SafEno™ HD S62**, particularly adapted to richer wine grapes. Also, as a consequence, there is a trend towards organic products. We have launched **Springcell BIO**, a fermentation aid, particularly designed for the production of organic wines.

2 – Today more than ever, the trend as it relates to wine consumption is, beyond the attachment to naturalness and terroir, closely linked to **a lifestyle evolution and a willingness to discover new sensations through flavours, aromas, colors...** Beyond the positive impact on health when it is consumed in a moderate way, wine consumption is reflecting a real art of living. In this respect, we wanted to bring you this year, in addition to SafEno™ HD S135 and SafEno™ HD S62, **SafEno™ GV S107** particularly well positioned on the development of premium white wines with fruity and floral notes.

In addition, we continue to strive towards offering you easy, secure and productive solutions grouped within the **easy 2 use concept**. For the last 3 years we have been happy to bring you new solutions which we hope will continue to allow you to accomplish your most beautiful creations. Once more, I wish you all the best for those crushes approaching fast.

STÉPHANE MEULEMANS, GENERAL MANAGER, FERMENTIS

SafEno™ GV S107

# White wines will love it!

**With a very high aromatic expression,** this new active dry yeast also presents fermentation capabilities ideally adapted to premium whites. Our latest addition to our range of yeast will delight Chardonnay producers.

**I**t all started in Portugal, at the end of 2015. A yeast strain had just been chosen by a laboratory for its very similar characteristics to those usually applied to Chardonnays. Because this grape is one of the most common in the world, particularly in the United States where it is very popular for winemakers, our experts focused their efforts on it. “We noticed that this new strain had rather slow kinetics while bringing nice flavours and mouth-feel,” explains Etienne Dorignac, Technical Manager, Oenologist at Fermentis. “Then the lower we went, the faster it reacted. At 14-15°C (57,2-59°F), fermentation was even faster than the references. As we were looking for a yeast that could react slowly but still be very aromatic, we decided to try it out.”

## — A NICE AROMATIC BALANCE

On synthetic must, Fermentis’ tests confirmed that with a good nutritional program, this strain was resistant to high sugar content and showed very good analytical parameters. The yeast, baptized SafEno™ GV S107, was then produced industrially and tested on several grapes before being sold (32 trials in the field and 4 microvinifications on Chardonnay - 2 in the United States). “All the winemakers who tested it agree that it is very rich and interesting for aromatics, particularly

as it is positioned in the “fresh fruit and floral” segment,” Etienne continues. “The balance is oriented towards fruity and floral fermentative aroma rather than amylic flavours. This profile being supported by a good expression of terpenes/norisoprenoids.”

## — ELEGANCE AND FINENESS

Highly suitable for grapes which have less aromatic precursors to start with, this new strain in the Fermentis range is very well adapted to premium white Chardonnay-style wines, in which our customers are primarily looking for aromatic elegance and long lasting sweet finish. Its specificity: enhancing the organoleptic potential of varieties which do not require any major nutritional supplementations during fermentation. •

**Fermentis has three other yeast strains that are very popular for white and rosé wine producers: SafEno™ CK S102, SafEno™ UCLM S325 and SafEno™ BC S103. The first is perfect for fruity Sauvignon-style wines. It helps releasing thiols and producing amylic and floral fermentative aromas. The second helps releasing terpenes and also betadamascenone giving excellent results on Muscat-style wines. Finally the third one brings very clean varietal aromas (thiols as well as terpenes) while enhancing amylic flavours at low temperature. This is the most polyvalent yeast strain in our Fermentis range.**



# What if we make your life easier?

Designed to help winemakers save time and make their life easier, the **easy 2 use** range will soon be celebrating its fourth birthday. A perfect opportunity to take a look at its innovations and also the reasons for its growing success.



Since selected active dry yeast was introduced in the wine world, it was always recommended to take great care of yeasts prior to inoculation. Hence, they were rehydrated and acclimatised while watching water and must temperature carefully. This process could take up to 45 minutes and should be supervised.

## — A FEELING THAT THINGS COULD WORK DIFFERENTLY

Following years of continuous quality improvement driven by the worldwide recognized industrial know-how of Lesaffre, Fermentis oenologists decided in 2013 to start validating the exceptional quality of their dry wine yeast. They were indeed convinced that the quality of the yeast produced through this improved process was such that they would be able to cope with variations in the process

without failing to produce the expected results. So they put them to the test. They began by testing their viability and noticed very quickly that whether they were rehydrated at 10 or 43°C (50 or 109,4°F), the results were the same. They then tested them in water with varying sugar content and observed that they reacted very well in all cases. Then came the cellar tests assessing rehydration in regular tap water at 15-17°C (59-62,6°F) or direct yeast inoculation into the must. And the results? Viability, fermentation abilities and organoleptic profiles were of the same quality. And so the **easy 2 use** range was born. A range of yeasts and derivatives which are easy to use and allow saving time, but also energy and water. "There are still quite a few producers who are hesitant, but all those who've tried **easy 2 use** will never look back. That's all they ask for", said a Fermentis partner oenologist. •

## TESTED FOR YOU

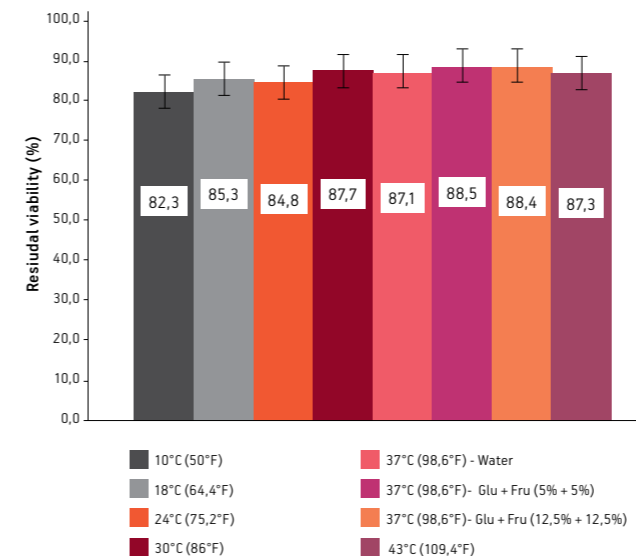
Every yeast in the Fermentis range is first tested for one year before it receives the **easy 2 use** label. The latest to be awarded are SafEno™ HD S62 and SafEno™ HD S135.

# SafEno™ HD S62

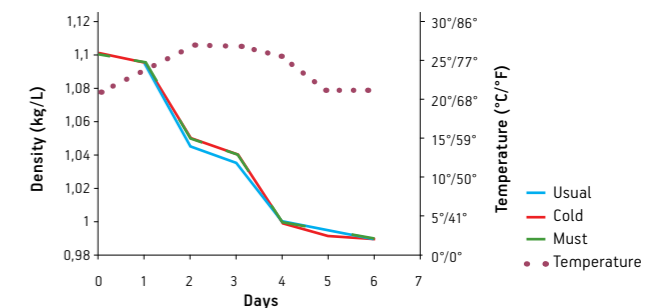


## ● Preserved viability

— **Conditions:** the **easy 2 use** SafEno™ HD S62 yeast was rehydrated in distilled water heated to different temperatures, left to rest for 15 minutes and then moderately stirred (100 rpm) for another 30 minutes. At 37°C (98,6°F), 2 other rehydration media were tested: 10% and 25% sugared distilled water (Glu:Fru, 1:1).  
 — **Findings:** the high viability of **easy 2 use** SafEno™ HD S62 yeast is not affected by rehydration conditions (no significant differences with a 5% error margin). Even in extreme cases (10°C and 43°C (50 and 109,4°F)); its residual viability lies between 82 and 89%.



## Alcoholic fermentation kinetics



Yeast preparation conditions: **Usual:** rehydration in tap water at 35/37°C (95-98,6°F) then progressive acclimatization to must temperature with must addition before inoculation, **Cold:** rehydration in tap water at 15/17°C (59-62,6°F), **Must:** direct pitching, **Dotted line:** average fermentation temperature.

## ● An organoleptic profile of equivalent quality in all circumstances

— **Conditions:** a professional triangular tasting of 11 panelists ("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. This tasting has been done after SO<sub>2</sub> correction and cold stabilization at 10°C (50°F) for 2 weeks before bottling.  
 — **Findings:** direct inoculation or cold rehydration of the **easy 2 use** SafEno™ HD S62 yeast had no impact on global organoleptic profile compared to usual acclimatization, thus validating these time saving and sustainable alternatives.

### TRIANGULAR TASTING

Usual vs Cold	NS
Usual vs Must	NS
Cold vs Must	S (5%)

S: significant differences (threshold), NS: non significant differences.

Tests conducted by Meurice institute (Brussels – Belgium) and Biovin S.A., Laboratorio de Servicios en Microbiología y Biotecnología Enológica (Mendoza – Argentina) on **easy 2 use** SafEno™ HD S62, a strain designed for the production of deeply colored and structured reds.

## ● Maintained fermentation performances

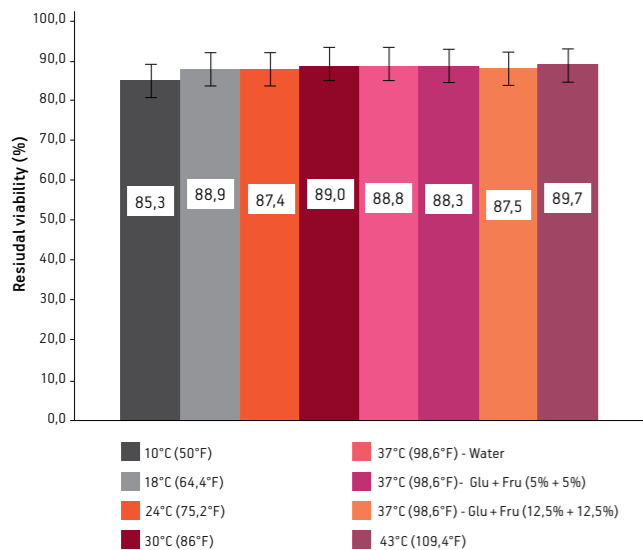
— **Conditions:** the **easy 2 use** SafEno™ HD S62 yeast has been prepared in a range of 3 different conditions and tested on a traditionally microvinified Premium Malbec, chaptalized to 14.5% v/v at a density around 1.03-1.04 and adjusted from a ratio Yeast Available Nitrogen (ppm) / Sugar (g/l) of 0.57 to 1.0 with diammonium phosphate.  
 — **Findings:** the conditions in which **easy 2 use** SafEno™ HD S62 yeast has been prepared did not affect its fermentation kinetics and analytical performances after both alcoholic and malolactic fermentations (no significant differences according to a statistical ANOVA - Tukey's HSD-test, P < 0.01).

# SafOEno™ HD S135



## ● Preserved viability

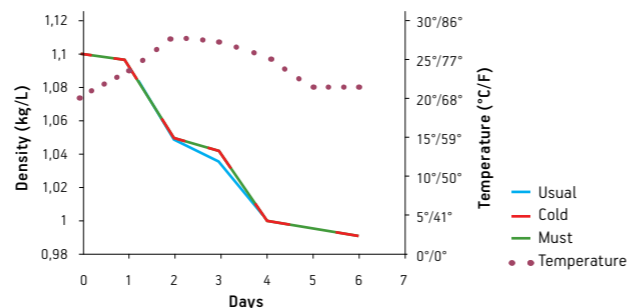
— **Conditions:** the **easy 2 use** SafOEno™ HD S135 yeast was rehydrated in distilled water heated to different temperatures, left to rest for 15 minutes and then moderately stirred (100 rpm) for another 30 minutes. At 37°C (98,6°F), 2 other rehydration media were tested: 10% and 25% sugared distilled water (Glu:Fru, 1:1).  
 — **Findings:** the high viability of **easy 2 use** SafOEno™ HD S135 yeast is not affected by rehydration conditions (no significant differences with a 5% error margin). Even in extreme cases (10°C and 43°C (50 and 109,4°F)); its residual viability lies between 85 and 90%.



## ● Maintained fermentation performances

— **Conditions:** the **easy 2 use** SafOEno™ HD S135 yeast has been prepared in a range of 3 different conditions and tested on a traditionally microvinified Premium Malbec, chaptalized to 14.5% v/v at a density around 1.03-1.04 and adjusted from a ratio Yeast Available Nitrogen (ppm) / Sugar (g/l) of 0.57 to 1.0 with diammonium phosphate.  
 — **Findings:** the conditions in which **easy 2 use** SafOEno™ HD S135 yeast has been prepared did not affect its fermentation kinetics and analytical performances after both alcoholic and malolactic fermentations (no significant differences according to a statistical ANOVA - Tukey's HSD-test, P < 0.01).

### Alcoholic fermentation kinetics



Yeast preparation conditions: **Usual:** rehydration in tap water at 35/37°C (95-98,6°F) then progressive acclimatization to must temperature with must addition before inoculation, **Cold:** rehydration in tap water at 15/17°C (59-62,6°F), **Must:** direct pitching. **Dotted line:** average fermentation temperature.

## ● An organoleptic profile of equivalent quality in all circumstances

— **Conditions:** a professional triangular tasting of 11 panelists ("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. This tasting has been done after SO<sub>2</sub> correction and cold stabilization at 10°C for 2 weeks before bottling.  
 — **Findings:** direct inoculation or cold rehydration of the **easy 2 use** SafOEno™ HD S135 yeast had no impact on global organoleptic profile compared to usual acclimatization, thus validating these time saving and sustainable alternatives.

### TRIANGULAR TASTING

Usual vs Cold	NS
Usual vs Must	NS
Cold vs Must	NS

NS: non significant differences.

Tests conducted by Meurice institute (Brussels – Belgium) and Biovin S.A., Laboratorio de Servicios en Microbiología y Biotecnología Enológica (Mendoza – Argentina) on **easy 2 use** SafOEno™ HD S135, a strain designed for the production of full bodied... but smooth reds.

FEATURE

# Four trends in wine to watch closely



## Trend #1

GROWING INTEREST FOR FERMENTATION

## Trend #2

FRESHER AND LIGHTER WINES

## Trend #3

RESPECT WINE GRAPE VARIETAL CHARACTERISTICS

## Trend #4

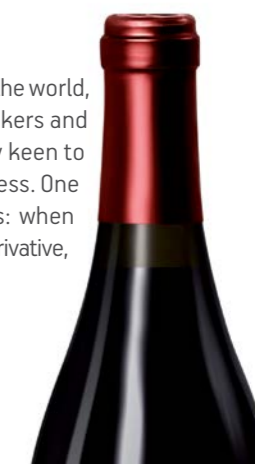
A HEALTH CONCERN



The person creating wine is always thinking about the consumer who will drink it. Will he like this? Will he enjoy that? And often, the way wine will be perceived will orient the creative process. So, anticipation is key. What do people like today? How are winemakers organising themselves to stay on course with taste trends? We take a look at a few basic trends and regional specificities...

## Trend #1 GROWING INTEREST FOR FERMENTATION

This is a global trend. All over the world, on every continent, winemakers and oenologists are increasingly keen to understand the fermentation process. One of the most frequent questions is: when we use this yeast or that yeast derivative, how will it affect the aromas? ▶



"Before," explains Etienne Dorignac, Technical Manager-Oenologist at Fermentis, "we focused on ensuring the process was secured, to finish fermentation. Today, we are noticing a much greater need for knowledge, a stronger desire to understand how fermentation works and what it can provide." And the questions are far from being naive. "Today," our expert continues, "people ask us about the impact of using mineral or organic nitrogen, what happens when you change the nitrogen content or the temperature, the level of oxygen or other nutrients... Questions are increasingly well-informed and that's great! It shows a growing interest in our profession."

**Of course, the impact can be huge.** "By changing the yeast and/or nutrients and therefore the aromatics, you can eventually move a wine from a "B" to "A" category. It becomes a very interesting promise because it can be done without altering production costs."

## Trend #2

### FRESHER AND LIGHTER WINES

This is the second basic trend and is particularly noticeable in Europe. In countries where table wine has always been popular and where wine is served at every meal, consumers are today moderating their consumption and favouring lighter wines that are lower in alcohol. Almost everywhere, wines that are too structured, too powerful or have a lot of oak notes are being abandoned by consumers.

**Moreover, the question of alcohol content concerns everyone.** In vineyards, we notice that alcohol content is rising almost everywhere. A phenomenon closely linked to climate change. The west coast of the United States, for example, is facing extreme climate issues and, generally, increasingly sweet musts. Winemakers need reliable yeasts with a high tolerance to alcohol and predictable kinetics which produce interesting aromas. According to Nathan Wisniewski, Regional Sales Manager - Western Europe for Fermentis: "Many professionals want a specific yeast which will strongly reduce the alcohol content." His advice: "Work differently, play with the sensation the wine procures. You can make the tannins smoother, or use the sweetness to make the wine easier to drink. This happens with SafE<sup>no</sup>™ HD S135, one of our latest hybrid yeasts." ▶

### —United States

In the United States, rosé and sparkling wines are becoming very popular and winemakers are training in the methods that have made French rosé and Champagne such a success. They want yeasts and products specifically adapted to these fermentation processes. Aromatic white wines like Sauvignon Blanc and Pinot Gris are also increasingly popular. When consumers are looking for wines with complex aromas, we need yeasts which release aroma from their precursors. As for red wines, Cabernet Sauvignon and Pinot Noir continue their ascent.

### —Europe

In Europe, health issues have become a central focus. Consumers are abandoning 14-15% wines for lighter wines which are easier to drink, cooler and not kept for long. For white and rosé wines for example, people are looking for more acidic, very aromatically intense wines that have a relatively low alcohol content. And for red wines, a focus on fruit is currently winning over vanilla aromas and oak.

### —Russia

This is the time for wine experiments in Russia. Indigenous grape varieties and hybrids are in great demand and are continuously growing. Such traditional varieties as Krasnostop Zolotovkiy have become extremely popular both among winemakers and consumers. Some winemakers are actively using Caucasian oak for wine ageing and looking for the varieties and wine techniques suitable for it.

Local wine consumption is also growing progressively, as new wine regions have been recently discovered (rediscovered). Local winegrowers associations are now opened in Rostov Region and Crimea. The attention is paid to «terroir» and the first Russian wine classification (similar to AOC in France) has been introduced in 2016.

### —South America

The current consumer is a young consumer looking for new experiences. The trend today is for simpler wines than in the past. Less structured, fruitier, easy to drink and capable of passing on a good story (signature wines, wines from the mountains, from the coast, etc.). Oak is less present today in the wines and is only used as a component bringing complexity, without invading the essence of the fruit.

### —South Africa

In South Africa, wine positioning is very precise. Similarly to Australia and the United States, people enjoy clearly identified wines closely linked to the grape variety with very precise aromatic clarity. It is also a country where people prefer freshness, young wines and are not too concerned by the complexity of ageing. Currently, the trend is for aromatically intense wines focused on one or two grape varieties.

### —China

Wine business in China is one of the most actively growing industries nowadays. The Ningxia wine region is one of the youngest and most promising vineyards in terms of wine quality. Winemakers are searching for their own original wine style while implementing modern wine techniques. Cabernet Sauvignon and Marselan are among wine varieties with the greatest potential.

Local high quality wine would face a huge potential if it has the government support in terms of regulatory improvement. Chinese producers tend to really focus on wine quality and embrace innovation that can help them.

**Trend #3**  
**RESPECT WINE GRAPE VARIETAL CHARACTERISTICS**

Another emerging trend: winemakers are increasingly focused on creating wines which respect more the wine grape varietal characteristics. Nathan Wisniewski explains: "For a long time, consumers and producers both preferred strong aromatics like amylic notes (candies, banana). Today however, rosé wines are for example becoming more variety oriented (thiolic, very fresh, very citrusy). As a solution for reds, we've just released SafEno™ HD S62 designed for wines with fresh fruit notes and a great respect for the grape with no drastic aromatic changes. However on the international market, wine aromatics requirements are very diverse. So our portfolio should remain balanced."



**Trend #4**  
**A HEALTH CONCERN**

"Natural" or "organic" wines are still a niche market, but consumers are moving in this direction. Particularly as more and more people are saying they are allergic to sulphites. So a come back to naturalness and bioprotection is an evidence. **How do you reduce the use of pesticides? How do you work with less sulphites?** And how can you best protect the wines? In Europe,

overall organic farming regulations are not yet finalised and many producers are waiting for the legal framework to be clarified. In the United States, the focus is on so-called "natural" wines which contain no sulphites at all. "We are playing our part in finding solutions," concludes Etienne Dorignac. "For example, we recommend strains which produce less SO<sub>2</sub> or strains which start very quickly, like SafEno™ HD S135, that can allow a lower initial sulphite addition. Derivatives like Springarom® also can lower the doses of added SO<sub>2</sub> thanks to their antioxidant action." For this trend as with others, innovation and flexibility will make all the difference. •

**ADVICE**

**You want to work on wine profiles?**

*Remember that yeast strains and derivatives are part of the winemaking recipe and that many other parameters are involved in the final organoleptic profile. There are many possible combinations. Now, we're here to help and to guide you...*

**1. WE DIAGNOSE**

What type of wines would you like to achieve in terms of:

- flavours: variety respect or enhancement, fermentative aromas production (amylic or fruity), spiciness...
- structure: light, full bodied... (tannins quantity)
- color: stable (yeast polysaccharides), preserved (yeast antioxidants)
- roundness and sweetness feeling: smooth, astringent... (tannins quality, yeast polysaccharides)

**2. WE SELECT**

The yeast the most adapted to your requirements in our range.

**3. WE TEST**

Depending on the technical characteristics of the selected yeast, we recommend to tune the fermentation process according to the initial parameters of the must and the possibilities supplied by your equipment.

**Interested?**  
**fermentis@lesaffre.fr**

You want to improve your fermentations? You need to work on fining, color or aroma? We have very efficient partners for you.

# Derivatives

Our range includes two product families: fermentation aids and functional products. As their name indicates, the first improves and accelerates fermentations while the second helps act on six essential features:



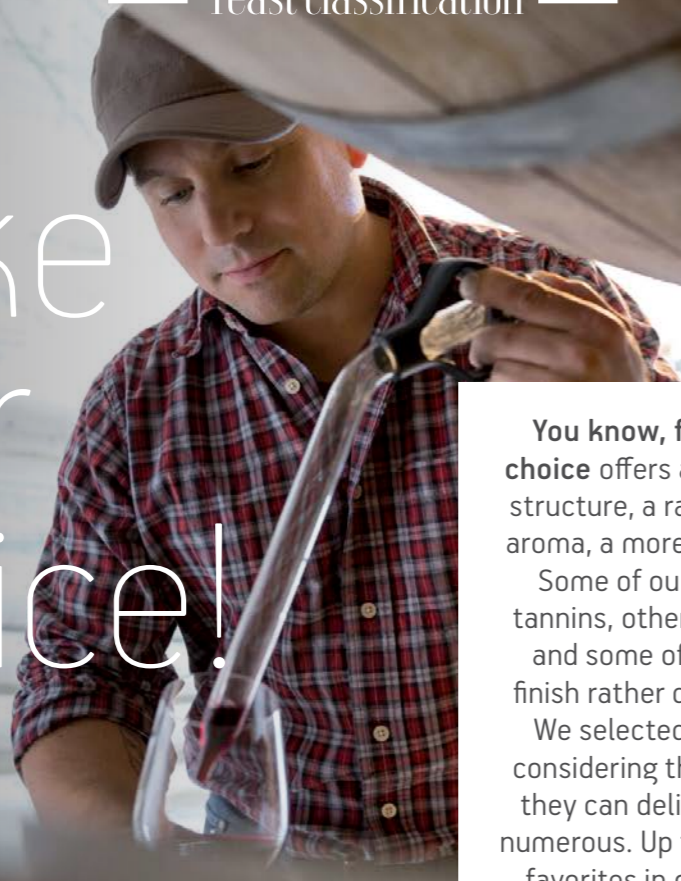
Yeast derivatives are highly technical products that often require years of research. In the production process, they demand extensive industrial expertise. Here is our portfolio:

FERMENTATION AIDS
SpringFerm™
SpringFerm™ Xtrem
SpringFerm™ Equilibre
SpringCell
SpringCell BIO <b>New!</b>
ViniLiquid



FUNCTIONAL PRODUCTS
Spring'Finer
SpringCell Color
Springarom®
SpringCell Manno

# Make your choice!



You know, for your wine, yeast choice offers a more or less complex structure, a rather fresh or ripe fruit aroma, a more or less intense color... Some of our yeasts will capture tannins, others will keep freshness, and some of them are perfect to finish rather difficult fermentations. We selected and classified them considering their features and what they can deliver. Combinations are numerous. Up to you now to pick your favorites in our **SafEno™** range...

## Technical characteristics

N: 0.7 - 0.8 YAN(ppm) / Sugar(g/L),  
 NN: 0.8 - 0.9,  
 NNN: >0.9  
 Advised working temperature:  
 Grey: >10° C,  
 Pink: >14° C  
 Red: >17° C  
 \* NNN related to aromatic profile

### FERMENTATION KINETICS

Very fast  
 Fast  
 Regular  
 Slow

### DIFFICULT CONDITIONS RESISTANCE

Strong  
 Good  
 Moderate

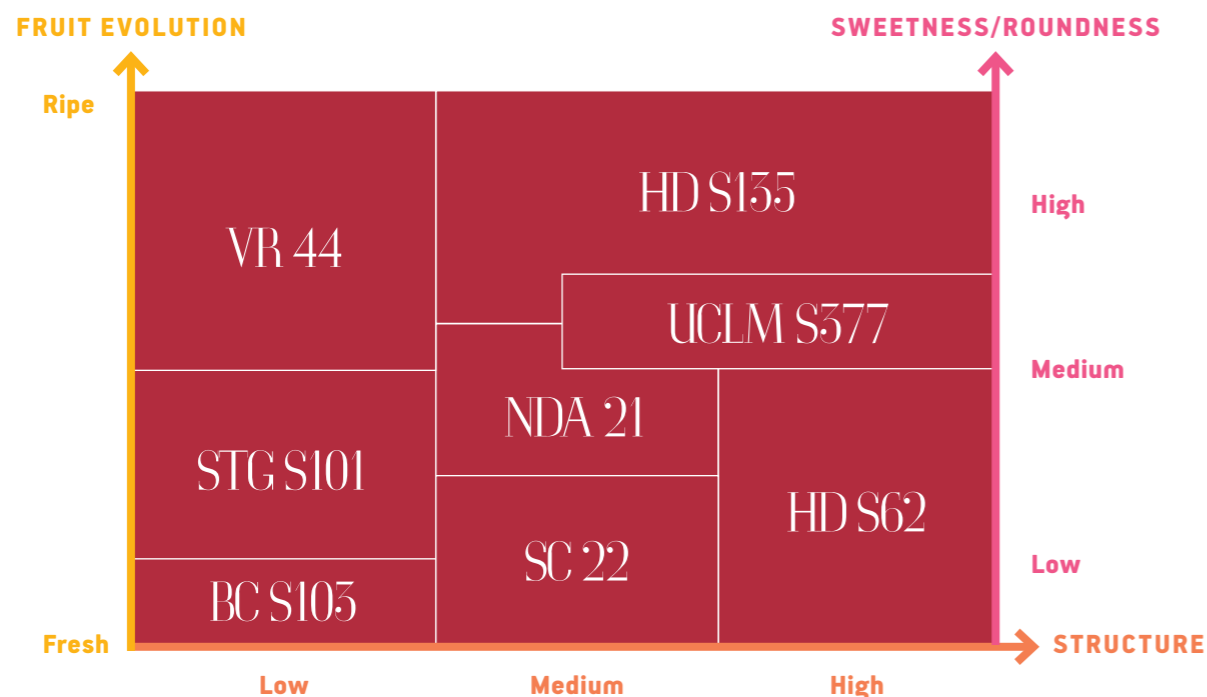
Very fast	BC S105 <sup>N</sup>	
Fast	CK S102 <sup>N*</sup> / VR 44 <sup>N</sup>	Strong
	HD S62 <sup>N</sup> / HD S135 <sup>N</sup>	
Regular	SC 22 <sup>N</sup>	Good
	NDA 21 <sup>NN</sup>	
Slow	STG S101 <sup>NN</sup> / GV S107 <sup>NN</sup>	Moderate
	UCLM S377 <sup>NNN</sup> / UCLM S325 <sup>NNN</sup>	



## Red wine types

We have selected 8 yeast strains for your reds.

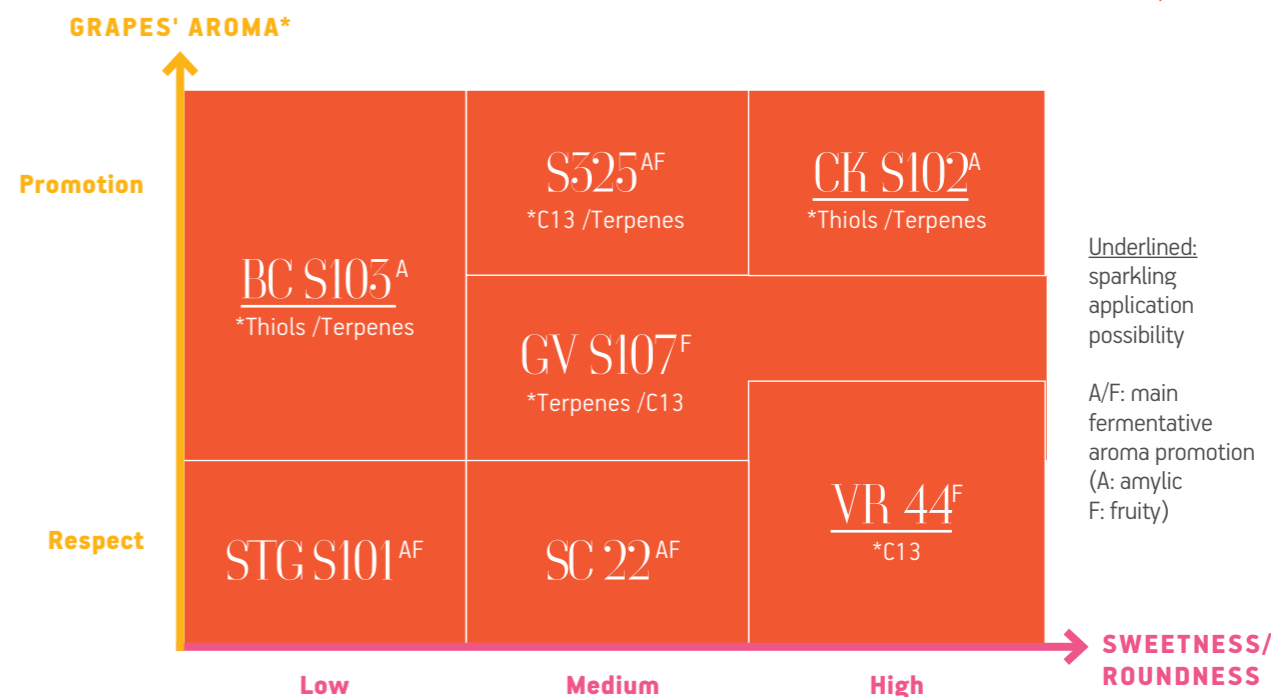
Temperature range  
 20°C ← → 28°C



## White and rosé wine types

Here are 7 yeast strains dedicated to white, rosé and sparkling wines.

Temperature range  
 14°C ← → 20°C  
 Esters ← Grapes'aroma →



Underlined:  
 sparkling application possibility

A/F: main fermentative aroma promotion  
 (A: amylic  
 F: fruity)



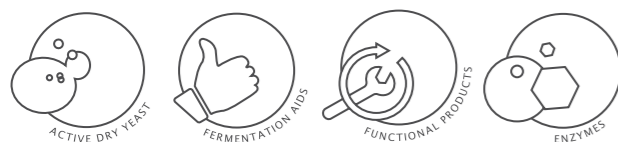
# Agility

**🍷🍺🍷** Fermentis is dedicated to yeasts and fermentation solutions. We work with everyone in the world of beer, wine, spirits and other fermented beverages. Our products and services cover almost all professional requirements, from safeguarding production to expressing sensory characteristics. Our priority is to be constantly agile and inventive to support your own creativity.

## PRODUCTS

— 4 complementary offers

Yeast is our core business and the area where our expertise is unequalled. For years now, we also offer fermentation activators to improve and accelerate fermentations ; and functional products with properties impacting colloidal and flavour stability, beverage color and clarity amongst many other aspects.



## SERVICES

— Toll manufacturing and beyond

Our range of services stretches from technical advice to production of specific solutions. We can provide you support over time or occasionally on 5 main fields of expertise : diagnostics, emergency assistance, fermentation training, toll manufacturing and understanding how our products express themselves (especially to get the sensory characteristics you want).



## PEOPLE

— Above all: passionate

Our people are passionate women and men. They love beer, wine, tequila or cognac as much as you and your customers do. But as a plus and a necessity for the company, they also are oenologists, beer experts, chemists, agronomic engineers, logisticians, trend-setters, researchers, marketing experts... They all share the same demanding sense of service.



## DISTRIBUTION

— From San Francisco to Beijing

You will find our teams and experts on 4 continents and, of course, in Northern France where our Group, Lesaffre, was born more than 160 years ago. Our products are distributed all over the world thanks to our faithful partners.

## INNOVATION

— A unique diverse expertise

Since 2014, Fermentis has considerably increased its R&D investments, to accelerate developments related to new products/applications, quality improvements and to better understand the world of taste and pleasure. In this field as in many others, we do benefit from the strength of our mother company Lesaffre and its 180 researchers.

## Contact

If you want to join us or ask for something specific, feel free to call us or send us an email:

 +33 (0)3 20 81 62 75

 [fermentis@lesaffre.fr](mailto:fermentis@lesaffre.fr)

Please also consult our website at [www.fermentis.com](http://www.fermentis.com)



# Springcell BIO

AN ORGANIC FERMENTATION ACTIVATOR

Composed of yeast hulls, Springcell BIO is our new fermentation activator. It will help you detoxify the must, strengthen yeast viability over the time and achieve a complete consumption of the sugars. As efficient as Springcell, Springcell BIO is perfect for organic wine producers as well as anyone looking for innovative and sustainable solutions.





# Save the date!

How could we deliver you solutions without a direct and trusting relationship? Events offer us a unique opportunity to meet, to share discussions, advice and pleasures. We hope we'll see you here and there...



2017

ITALY

MAY  
16-18

Enoforum

ITALY

JUNE  
Congresso  
enologi  
italiani

CHINA

JUNE  
13-15

Sitevinitech

USA

JUNE  
26-29

ASEV  
Conference

FRANCE

NOV.  
28-30  
SITEVI

2018

USA

JAN.  
23-25

Unified Wine &  
Grape Symposium

