

GOOD NEWS

BY FERMENTIS. NEWS, ADVICE, PERSPECTIVES.



N°06

JANUARY 2020

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South Africa
experiments, a renewal

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The new form means
they're Easy 2 Use

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NEW HORIZONS!

The launch of two new hybrids is a promising
breakthrough for winemakers





Yeasts and yeast derivatives are amazing tools for you.

They secure your production, release aromas, preserve color and freshness... The choice you make impacts the final character of your wine, as well as your results. As experts in fermentation, we work every day to bring you innovative solutions of the highest quality. This is best illustrated by our E2U™ range, which allows you, for example, to pitch your yeast directly, without rehydration. You'll save time and effort, and lean green by saving water and energy.

**SEE HOW WE CAN HELP ON OUR APP
AND AT FERMENTIS.COM**





Dear Partners in Wine,

We are very happy to present our GoodNews #6 magazine.

As you know, at Fermentis, we are constantly looking to improve the fermentation performance of yeast on wine grapes, as well as the taste and flavor expressed by your wines.

In this edition, I'm sure you will be pleased to read and learn about our latest innovations related to yeast derivatives used for nutrition and wine characterization. In fact, we will discuss how our product range has evolved into an E2U™ version. More specifically, you will learn about how we characterize these products from a technical standpoint.

Also, you will discover our newest yeast hybrids, targeting some specific wine grapes and developing unique flavors and aromatic characteristics of some wine types. Hopefully, you will better understand how we cross-parent strains to obtain new yeast strains targeting specific performances and flavor expression.

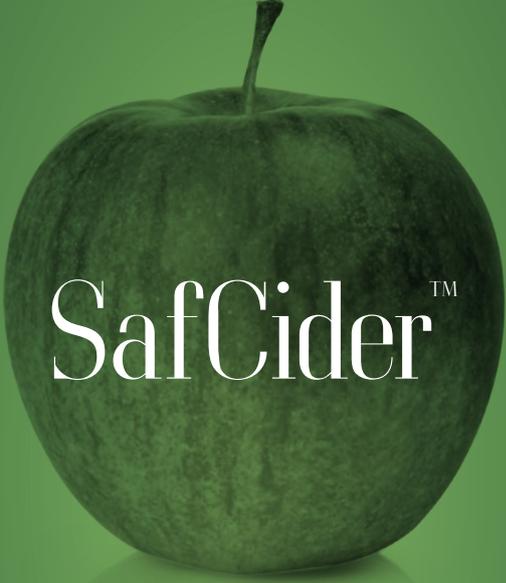
As in previous years, you will be able to get to know our wine experts a bit better. This year, Andrew de Groot, our wine expert in South Africa, will talk to you about his market.

I sincerely hope you will enjoy this new edition, and I look forward to tasting some wines with you this year at some of the many events we will attend across the world.

Cheers,

Stéphane Meulemans,
General Manager of Fermentis





SafCider™

CIDER RANGE

An apple a day

Fermentis recently launched its new range of cider yeast strains. Cider makers can now choose from four different yeasts, specially designed to guide their fermentation and achieve the best flavors and aromas. SafCider™ AS-2 will bring complexity to your ciders. SafCider™ TF-6 will maximize the fruitiness of your cider. SafCider™ AC-4 is better suited for crispy and fresh mouthfeels. For a very balanced cider, SafCider™ AB-1 is ideal.

TOOLS

An app' to guide your fermentations

The tasty world of Fermentation is now just a click away. Whether you are a winemaker, consultant or distributor, you will find tips and tools in our "Fermentis App" to optimize your fermentations accurately, control the aromatic profiles or secure your productions. Our own œnologists, engineers and scientists created this app for you.

If you haven't already done so, you can find the Fermentis App on Google Play and on the App Store.



FERMENTIS ACADEMY

A new place to learn and share

Last March, almost 60 professionals joined our Fermentis Academy in Budapest, Hungary, to learn about yeast, its optimal use and the world of flavors it opens. We also felt a strong energy in America, where several events took place. In Lodi and St Helena, California, 50 people enjoyed our Wine Faults-themed Fermentis Academy, along with the wine tasting and guest speaker. In Argentina, the "Climate Change and Its Œnological Impact" session gathered an impressive 115 participants.

Several other technical seminars were held around the world under the Fermentis Academy umbrella and gathered hundreds of people. Each time, it is a fantastic opportunity for us to share our knowledge and for winemakers to learn, share and exchange ideas. Many new events are planned in 2020 - new topics, new workshops, new speakers... Stay tuned for all the details!



FERMENTIS
ACADEMY



Fermentis Academy in Hungary

12

NEWCOMERS
ON OUR TEAM

TEAM MEMBERS

The Fermentis cocktail is getting stronger!

To make sure we stay as close as ever to our customers, and to develop our presence in emerging markets, we continue to strengthen our team all around the world. Last year in 2019, 12 newcomers joined the Fermentis adventure – in America, Asia, Australia and Europe in various domains - like R&D, Sales, Marketing & Finances.

This broad range of talent will contribute to the Fermentis cocktail! And to make sure we provide the best services globally, we worked particularly hard to identify men and women who truly embody the Fermentis brand values.

Welcome Thibaut, Andrew, Stefanie, Anita, Murielle, Ruth, Diego, Bryan, Thomas, Simon, Gregory and Selena. They are all now working towards your satisfaction.



SUSTAINABILITY

Organic products are gaining ground

To respond to the rising demand for organic products, and to develop our sustainability, Fermentis has developed two solutions for winemakers.

SpringCell™ BIO, a fermentation activator, is recommended for sluggish and stuck fermentations. You can choose it to detoxify the must, strengthen yeast viability over the time and achieve a complete consumption of the sugars. These yeast hulls are issued from *Saccharomyces cerevisiae* yeasts specifically grown on organic-certified substrate.

SafEno™ VR 44, one of our wine active dry yeasts, is also available under organic certification. It is characterized by an excellent fermentation kinetic, respect for varietal aromas and also by a very good resistance to extreme winemaking conditions.



SOUTH AFRICA

LAND OF RENEWAL



BY ANDREW DE GROOT

Our regional sales manager in Africa

Beer is still the number one drink in South Africa. Yet, wine consumers are more and more numerous. Who are they?

Since the end of economic sanctions in the early '90'-s, wine has been increasingly consumed by the growing black middle class who now comprise around 80% of South African wine consumers. A study conducted at Stellenbosch University in 2018 shows that there are more differences between male and female consumers than between ethnicities, with women (who make up 56% of consumers) consuming wine at a younger age and at more diverse occasions than men.

What do these consumers associate wine with?

The perception of wine is associated with sophistication and celebration across the different ethnic groups and wine is chosen over other beverages especially if there is the option to pair it with food. Quality consciousness is continuously increasing: consumers are happy to spend more on a bottle, but they want to know the story behind the wine, where it was made and who made it. However, most local retail sales of wine still fall within the low-to-medium price range, accounting for nearly three-quarters of domestic sales.

The per capita annual consumption of wine is surprisingly low compared to other wine-producing countries, at just 7.46 liters. So, what is found in glasses?

While the serious reds (the Bordeaux-style blends) are still the highest-awarded premium wines (Tim Atkins MW recently awarded 100 points to the Kanonkop Paul Sauer 2015, unprecedented in South African wine history), there is a demand for light-to-medium-bodied, accessible reds. The use of larger wooden barrels from the traditional 225- to 300-liters, 500- and even 600-liter barrels are becoming less rare, as is the use of older 225 liters barrels. This is to meet the demand for more freshness and purity of fruit, in both reds and whites.

Are South Africa's indigenous grapes making their come-back?

It is not uncommon to see more blanc de noirs and rosés being made from Pinotage, South Africa's (in)famous indigenous grape. Lighter and fresher styles are emerging, akin to Beaujolais. The grape has been shown to produce characterful wines from earlier-picked, low-cropped vines and the classically produced, medium- to full-bodied, age-worthy reds, have mostly moved away from the banana-like aromas to mulberries, plum, dark cherries and clove spice. These trends might sway international ambivalence towards this grape back to one of admiration.

There is some talk about the "midst of a renewal" for the wine industry. What does that mean?

The era of discovery and exploration is certainly still ongoing. But the concept of "terroir" is becoming central and the chasm between the quantity-producing majority and the quality conscious minority is now being reviewed. While cheaper wine overwhelmingly dominates, the number of vineyards from the bulk-wine scene is declining significantly. In addition to discerning winemakers choosing the best fruit from meticulously tended vineyards, more and more grape growers are selecting their own grapes and making their own wine – from parcels of vineyards that would usually have ended up in blending vats. While there was a tendency towards mechanization for mass-producers, there is now a counter-tendency towards



SOUTH AFRICA IS THE:

9th
LARGEST
PRODUCER
OF WINE

and the
12th
LARGEST
EXPORTER

South Africa has **93,000 hectares under wine grapes** and accounted for **3.3% of world production** in 2018 (960 million liters).

Almost the entire wine industry is situated in the **Western Cape province**, due to the Mediterranean climate.



Pinotage is a unique red grape cultivar that was developed in South Africa in 1925. It accounts for **7.3% of total area under vine and is the third most-planted red wine cultivar**. Famous producers include Kanonkop and Bellevue.

The most widely planted grape varietal is **Chenin Blanc**, at **18.5%** of total area, largely due to its use in the distilling industry. Most of South Africa's older vines are Chenin Blanc.

While South Africa is usually classified as a New World wine country, wine was made for the first time in 1659, seven years after the founding of Cape Town by the Dutch East India Company.

more carefully managed, labor-intensive vineyards, with greater attention to the lower-yielding older vines. The increase in South African wines winning accolades is a testament to this focus on good fruit quality coming from the vineyards.

How can Fermentis bring value to South African wine-makers?

By offering so much innovation! The Cape Winelands offer a varied topography and diverse range of soils, the understanding of which is only beginning to be unlocked. There is a growing trend to be minimalist in the cellar, opting for a more "natural" way of winemaking that favors as little intervention as possible. On the other hand, more winemakers experiment with foedres, amphorae, Georgian-inspired kvevri and egg-shaped concrete tanks than ever before. This merging of "terroir" with non-traditional (in the South African sense) or innovative forms of fermentation opens the possibility of crafting unique wines. It is precisely on that point that our range of yeasts can help and inspire, offering the winemaker ample choice to make the best wines possible. ●



HYBRIDIZATION

NEW HORIZONS

As Fermentis launches two new hybrid strains on the market, it can be useful to remind ourselves what hybridization is - both to demystify the term (so that everyone understands what it covers) and to clarify what winemakers can expect from it. And no less importantly, to explain why Fermentis chooses to invest time and resources to it and consolidate valuable partnerships.

A reproduction method as old as the world

"Hybridization" is simply the production of offspring from the union of two different parents (from the same specie - intra-specific hybrids or from different species - interspecific hybrids). It is a widespread phenomenon, more common amongst the plant kingdom than in animals. Yeast, together with mushrooms and molds, occupies a place between the plant and animal kingdoms reserved for "fungi." Like all fungi, yeast has

asexual and sexual reproductive cycles. Yeast is most commonly the result of the asexual cycle (asexual because reproduction is the product of single parentage), in which a process called "budding" occurs. "Budding" is the process in which a yeast cell divides, producing a protuberance from the side of the cell- (the "bud"), which develops to become a new cell. Each bud or new cell, is genetically a replica of its mother cell and therefore, a clone. All it takes is a little oxygen and sugar for a yeast cell to replicate identically. As each cell can produce multiple (new) cells which in turn can do the same (thanks to budding), we can understand why budding is at the core of

To create hybrid yeasts, Fermentis acts upstream of reproduction: by choosing the parents and mating them; and downstream, by selecting the most interesting daughter. This creates biodiversity but "better oriented".

"Hybridization allows winemakers and Fermentis to set targets and to achieve them."

beverages. For hybridization, we defer to and benefit from Lesaffre's genetics department to produce the best conditions for our strains to produce spores (like gametes) and to organize their "mating" while ensuring a large number of descendants. Just as happens when a spermatozoid meets an oocyte, the "daughter" yeast cell created in the laboratory receives 50% of its genes from its first parent and 50% from its second. As Tiffany Poletti, wine engineer at Fermentis points out: "We ensure that the two selected strains meet each other although they normally would not have done so. We create nothing ex nihilo, we do not modify the genes, we simply encourage a natural phenomenon. The qualities we seek to combine in the daughter cell already exist in her parents." ▶▶

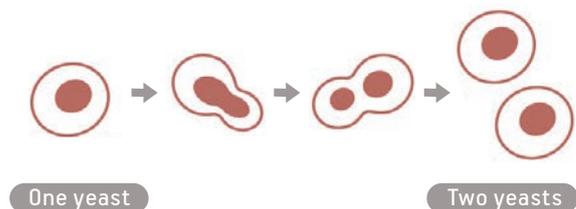
Lesaffre's business, i.e. to grow yeasts in sufficiently good conditions to enable them to multiply most efficiently. Then it's the task of Fermentis to understand the properties of these yeasts in order to help winemakers use them in the applications for which they are intended.

Today, our range includes thirteen strains of yeast whose biomass production comes from this asexual mode of reproduction. Among these strains, four out of the five last ones launched in the market over the past four years are coming from an hybridization process: **the SafEno™ HD S135 and the SafEno™ HD S62 (launched respectively in 2016 and 2017), the SafEno™ HD T18 and the SafEno™ HD A54, launched on the market this summer 2019. HD = hybrid.**

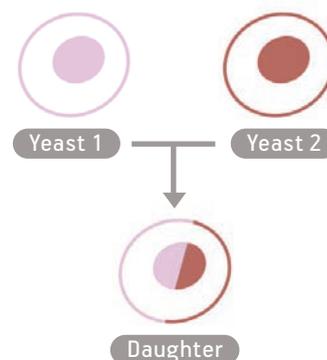
The objective: to take the best of each parent

The creation of these hybrid strains was made possible with the help of our parent company, Lesaffre, which has been working for over 165 years on this wonderfully versatile micro-organism - yeast. As a global player in the world of yeast, Lesaffre supplies every yeast market: baking, pastry, food, human and animal health, plant care, new fuels... and, of course, the wine, beer, spirits market and finally, all the producers of fermented

YEAST REPRODUCTION MODE



ASEXUAL
(Budding - Division)



SEXUAL
(Hybridization - Fusion)

A funnel selection

We verify that transmission has taken place and that the daughter cells have inherited the intended features of their parentage, by a process of sorting and testing. Once the crossing of strains has been achieved and cell reproduction has occurred in sufficient numbers, the daughter cells are subjected to several tests. In a process known as "screening," these tests allow us to observe their behavior and measure their resistance to sulfites, acidity, variations of temperatures, low nutrient intake, etc. As the tests progress, scrutiny increases and only the most efficient cells remain - those that meet the pre-defined genetic criteria. As a result, we have the best specimens - samples which give us complete satisfaction in laboratory conditions. It is then necessary to test these samples in real life "in the field." Trials are organized in which strains are tested in cellars on grape must, in real-life conditions - not supervised by geneticists, but by winemakers.

Championships organized on grape must

The purpose of these trials is to confront the yeast strains with the reality of use in wineries in different regions. We ask winemakers to divide their must into two homogenous tanks and to

follow the exact same winemaking protocol for both. The only difference is that they use our yeast in the test tank while using their reference strain in the control tank. Fermentis provides technical support if needed together with a kit enabling wine samples to be taken towards the end of fermentation. This allows them to carry out PCR analyses to check the implantation of the yeasts for a rigorous exploitation of the results.

Everyone benefits

All this research and development, first in the laboratory and then in the cellars, is time-intensive. For example, Fermentis started working on the SafEno™ HD-S135 in 2010 and released the product only in 2016. The marketing of a hybrid is always an important event that is of mutual benefit globally - it confirms the robustness of the results obtained during the microvinification, while also confirming the interest of such yeast in different markets, which involves our partners (distributors and wineries) in its potential future commercialization.

It is important to Fermentis that we collaborate with our research partners (private and public institutes, experimental cellars, laboratories, etc.) in these developments, so we can all move forward sharing skills and equipment, and bring our combined knowledge and expertise to a positive reality. ●

Hybridization creates the conditions for daughter cells to reflect the best of their parents.



SCREENING

4 POINTS TO REMEMBER

1. The "classic" method of selecting new strains consists of isolating yeasts in cellars, on grapes in the vineyard... and cultivating them - seizing a biodiversity that exists in the winemaker's environment and employing it "naturally."
2. Hybridization is different, rather like mixing colors. First we set ourselves a target of a new strain (the color) that we wish to achieve. We then select specific yeasts from our existing range which we hope, when mated, will combine to produce the target qualities we specified.
3. Our priority when creating hybrid yeasts is to always meet the needs of winemakers. For example, the need to secure fermentation despite ever higher level of alcohol, due in part to climatic variations, and the need to create wines with very few or no sulfites.
4. Each hybridization can require three to five years of research and development - with no guarantee of a satisfactory result.



THE OENOLOGIST'S VIEW

ETIENNE DORIGNAC

Technical manager, Oenologist, Fermentis

“Mother Nature does not always propose the perfect solution. Why not help her?”

We now have more solutions!

Over the last thirty years, wine quality has dramatically improved while competition among winemakers has become stronger and stronger. Given increasingly difficult fermentation conditions such as high alcohol and low nutrient levels due to climate change, winemakers can no longer afford fermentation failures. They need to offer cleaner wines which respect the organic market and the low sulphites. Consequently, 'off-flavors' are not acceptable by fewer, more educated consumers who are looking for more aromatic, or at least aromatically distinctive, wines. Such factors are motivating winemakers to search for ways to differentiate their products. One of the most influential differential keys in a wine's profile is YEAST!

Most wine yeasts used by winemakers have typically been isolated and selected from vineyards or wineries, they are therefore relatively well-adapted to their environment. However, a good adaptation does not necessarily mean the best fermentation and organoleptic potential. And Mother Nature does not always propose the

perfect solution. Why not help her? Huge progress in the understanding of yeast genetics and metabolism over the past decades now offers a multitude of methods to improve the performance of yeast in a completely natural manner. Hybridization is one such method - and an extremely powerful one.

A Hybrid yeast inherits its genome equally from both parents. The benefit of such a natural method is evident: Generating daughter-cell strains can retain the interesting oenological characteristics of and from their parents whilst omitting their defects. Because we cannot predict the distribution of the genetic material and its subsequent expressions in the generated microorganisms, the screening procedure (see above) following the mating is crucial in order to select the best strain possible among this new biodiversity. **This is the procedure we have used in order to produce our two newcomers: SafEno™ HD A54 and SafEno™ HD T18.**

 Discover our two new hybrids in the following pages.

2 NEW HYBRIDS

COMMON CORE, DIFFERENT OBJECTIVES

Our two new yeast strains **SafEno™ HD A54** and **SafEno™ HD T18**, are the result of hybridization, “HD” standing for Hybrid or High Definition. As opposed to yeast budding or multiplication (mitosis) used by yeast producers to generate a biomass of the same microorganism, hybridization is based on the mating of two yeast spores each coming from two previously selected parent strains (meiosis). What does hybridization offer - and why is it good news? In a nutshell - CHOICE!

• Different properties requested

SafEno™ HD T18 and SafEno™ HD A54 are issued from the same creation and selection procedure but with two completely different objectives.

“Terpenic” program

There are already some strains in our Fermentis portfolio, especially the SafEno™ UCLM S325, specifically dedicated to **the release of floral and citrusy aromas called terpenes (linalool, citronellol, alpha terpineol etc.) and C13-norisoprenoids (beta-damascenone etc.) from varieties like Muscat, Viognier or Riesling.** However, while UCLM S325 is great for sweet Muscat/Moscato, full-bodied whites or the production of Asti, this strain shows some restrictions towards difficult fermentation conditions like low-nutrient and high-alcohol levels, as well as low temperature and pH. Thus, there was a gap in our portfolio - a need to develop a strain that achieved the same kind of flavors while being much more robust and crisper in the mouth. This is what generated the idea of **mating two parent strains already known to release terpenes and C13, while applying a screening procedure to ensure that the selected daughter strain would be robust and clean in fermentation.**

“Amylic” program

Yeast strains having a very high aromatic intensity towards fruitiness, especially “amylic” notes (banana, candy flavors), at low temperature can sometimes produce medium to high

levels of undesirable compounds such as sulphites, acetaldehyde and/or acetic acid. For this research program, **Fermentis focused on increasing one of the main aroma enhancer compounds responsible for amylic notes: the isoamyl acetate while trying to keep the production of SO₂ and acetaldehyde as low as possible.** Parents having respectively one of the requested properties have been chosen.

• Common hybridization and screening process

In each of these cases, one of the parent strains was homothallic, i.e. producing spores able to change their sexual type very fast. This led to difficulties carrying out the classic hybridization method (possible generation of daughter strains issued only from this single parent), so we did a mass hybridization in which spores from both parents were free to mate. **616 daughter strains have been generated for the “Amylic” program and 176 have been generated for the “Terpenic” program.** A first screening process in three steps at micro scale (µL) was then performed in order to identify real hybrids, determine their production of H₂S and their fermentative profile in synthetic medium compared to their parents. At the end of this first screening, 89 strains were kept for the “Amylic” program and 24 for the “Terpenic” one. All of these strains then underwent a secondary and tertiary screening at a mini scale (mL) in order to check their kinetics and their main oenological features such as acetic acid and SO₂ production. **The four best hybrids in both programs have been selected for microvinification trials.**

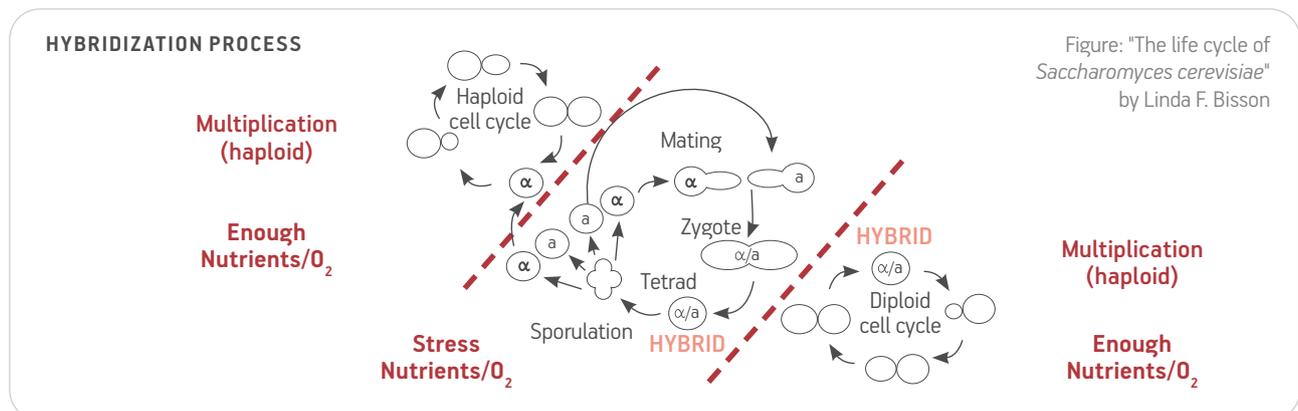


Figure: "The life cycle of *Saccharomyces cerevisiae*" by Linda F. Bisson

● Microvinifications

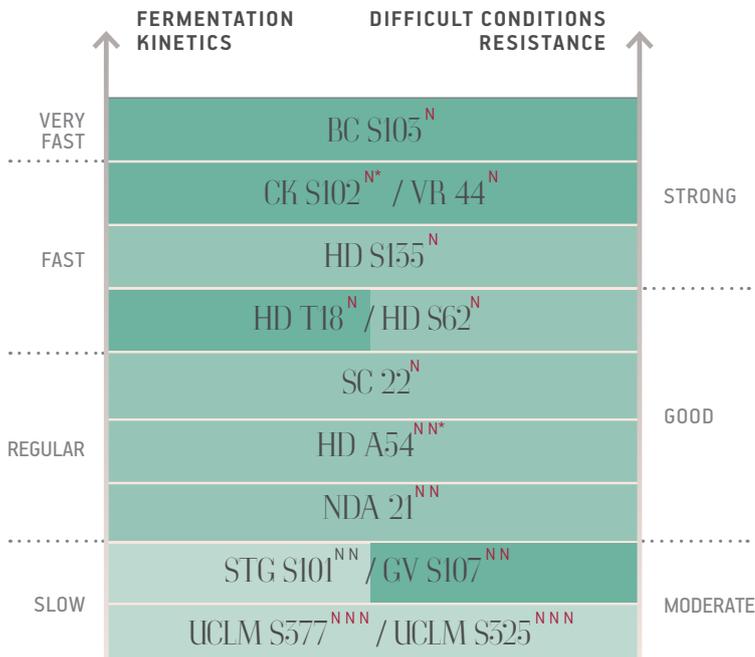
At micro scale in lab and on synthetic media, only basic parameters can be evaluated. As far as aromatic and organoleptic features are concerned, **only controlled microvinifications** (on natural must at hL scale) **can give an answer that will be very close to the "ideal" reality in commercial strain references.** Five microvinifications have been carried out for both hybrid series. They lead to the selection of:

- **SafEno™ HD T18** ("T" for Terpenes) releasing a **high proportion of terpenes and esters (both acetate and ethyl)** thus promoting varietal notes and offering a well-balanced mouthfeel for **refreshing wines,**
- **SafEno™ HD A54** ("A" for Amylic) producing **extremely high amounts of acetate esters and higher alcohols** for very intense aromas and a decrease of vegetal notes with a sweet mouthfeel for an **overall candy sensation.**

● Last round: Confrontation with reality!

Since 2015, for each new strain with a sales potential, Fermentis has put in place a last procedure of qualification consisting of a series of field trials (see page 10). **During the 2018 north hemisphere crush, 43 field trials for SafEno™ HD A54 and 32 for SafEno™ HD T18 have been realized in four countries (Italy, France, Spain and Greece) with 48 wineries on 34 grape varieties.**

From this huge collection of data, we finalized the characterization of both strains and updated the tools included here. ●



Yeast Available Nitrogen (YAN) needs:

- N:** 0.7 - 0.8 YAN (ppm) / Sugar (g/L)
- NN:** 0.8 - 0.9
- NNN:** >0.9

* NNN related to aromatic profile

Advised working temperature:

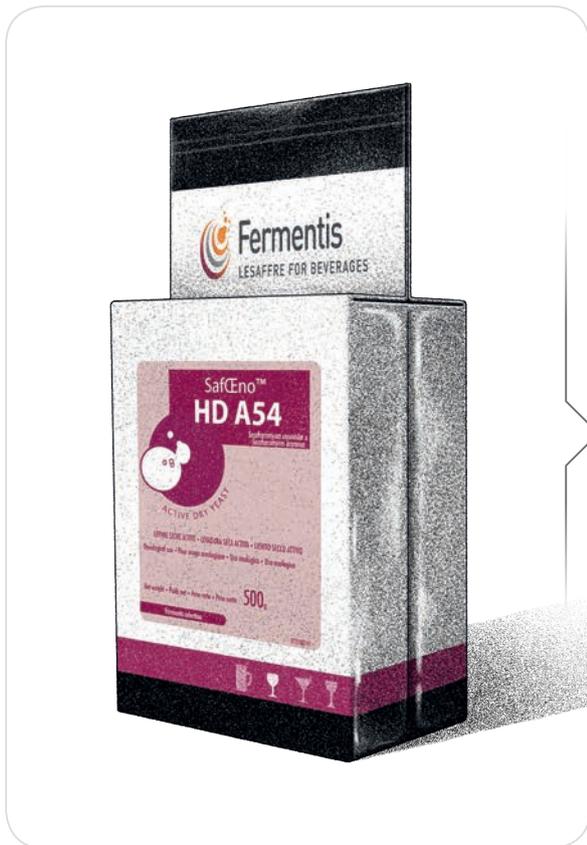
- >10°C (50°F)
- >14°C (57.2°F)
- >17°C (62.6°F)





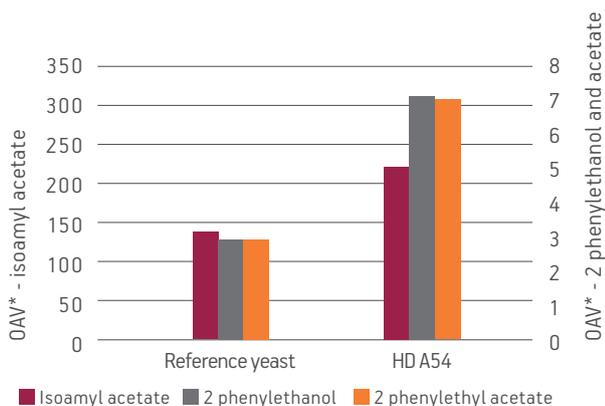
SAFENO™ HD A54

For intensely fruity white and rosé wines



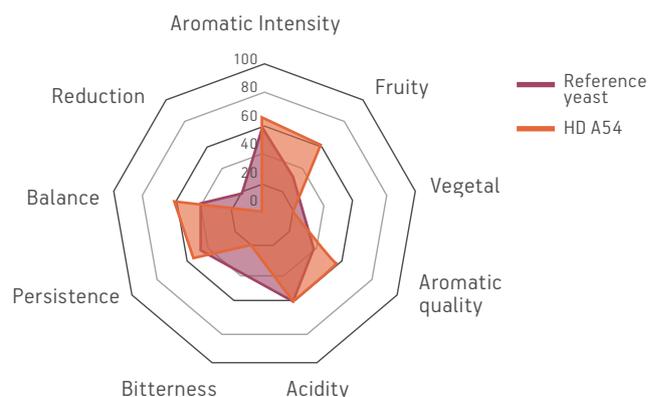
- **BEST SUITED FOR**
Young and technological wines with strong amylic notes. Perfect choice for blend base and low SO₂ wines.
- **AROMAS**
High intensity. Bold expression of fruitiness: banana, candies and green notes removal.
- **ROUNDNESS**
High
- **KILLER FACTOR**
Killer strain but moderate settlement strength
- **FERMENTATION KINETIC**
Regular (medium lag phase)
- **TEMPERATURE RANGE (°C)**
14-30°C (57-86°F)
- **ALCOHOL TOLERANCE (%V/V)**
15%
- **NITROGEN NEEDS (MG/L)**
Medium (180-220 mg/L) Ratio: 0.8-0.9 YAN (mg/L) / Sugars (g/L)
- **VOLATILE ACIDITY PRODUCTION**
Medium
- **SO₂ PRODUCTION / COMBINATION**
Very low /Very low

FERMENTATIVE FLAVORS



*OAV = Odor Active Value

ORGANOLEPTIC PROFILE





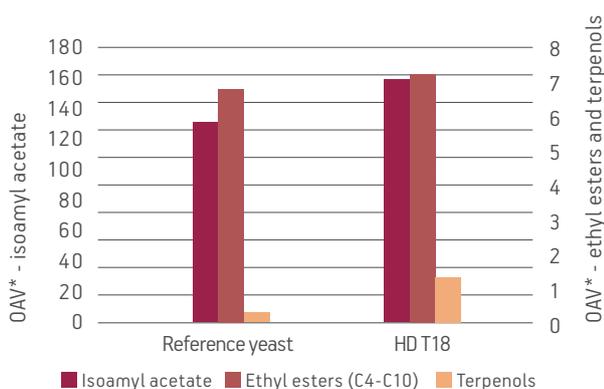
SAFŒNO™ HD T18

For elegant and fresh terpenic white wines

- **BEST SUITED FOR**
Terpenic varieties such as Muscat, Viognier, Gewürztraminer, Riesling, Pinot Gris...
- **AROMAS**
Medium intensity. Promotion of terpenes supported by a good balance of esters. Particularly enhances fresh floral and citrus fruit notes.
- **ROUNDNESS**
Low
- **KILLER FACTOR**
Killer and good settlement
- **FERMENTATION KINETIC**
Fast
- **TEMPERATURE RANGE (°C)**
Wide range 10-30°C (50-86°F)
- **ALCOHOL TOLERANCE (%V/V)**
15%
- **NITROGEN NEEDS (MG/L)**
Low (160-220 mg/L) Ratio: 0.7-0.8 YAN (mg/L) / Sugars (g/L)
- **VOLATILE ACIDITY PRODUCTION**
Low
- **SO₂ PRODUCTION / COMBINATION**
Low / Medium low

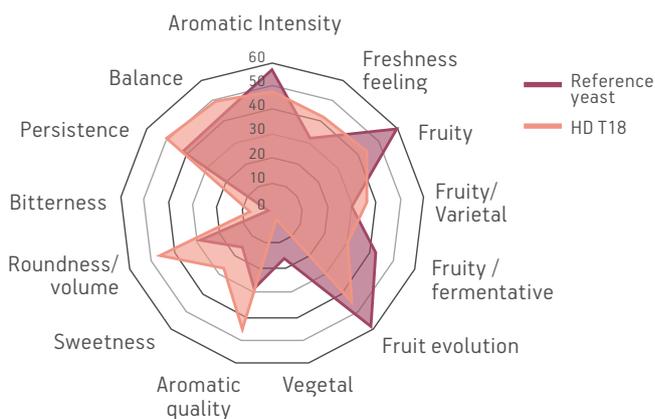


FERMENTATIVE FLAVORS



*OAV = Odor Active Value

ORGANOLEPTIC PROFILE



MICRO-GRANULATES

SAME BUT DIFFERENT!

Yeast derivatives are mainly commercialized for their nutritional and aromatic qualities in the Nutrition and Health segments, as well as growth aids for micro-organisms. They are divided into four families: inactivated yeasts, yeast autolyzates, yeast extracts and yeast hulls. This year, our wine yeast derivatives range has been carefully and closely studied in order to reach a more user-friendly form and to obtain the E2U™ label. Here are the key points of this evolution.

1

What are micro-granulates?

Micro-granulation is basically a new powder format which replaces the previous, very fine powder format. It is a "coarser" form of our original product.

This new format looks like a micro-aggregation of powder, while the previous one looks more like a fine powder. A powder is granted "Easy 2 Use" (E2U™) by the Fermentis research department when its dustiness is weak and its dispersibility capability is high. Invisible to the naked eye, this new format makes a big difference!

What are the benefits of this new format?

The powder format is characterized by fine particles that can remain in suspension in the air. This phenomenon is called "dusty effect."

This effect causes discomfort during use, with risks of particle inhalation, loss of the product on opening the package and poor dispersibility in the liquid. Microgranulation, on the other hand, forms few aggregates on the surface of a liquid. The particle density, which is higher than that of a fine powder, helps it to penetrate the liquid more quickly. The porosity of the microaggregates also facilitates the entry of the liquid inside the interstices and increases the hygroscopicity of the product.

2



3



What is behind the "Easy 2 Use" label?

This quality label was launched by Fermentis a few years ago and it is gaining ground fast in more and more wineries because wine-makers understand they can save time and effort.

This label represents simplicity for the users, but it is not so simple for our products to earn it! They are submitted to numerous analyses to validate four fundamental criteria: efficiency, simplicity, safety and sustainability.

4

How do we produce micro-granulates?

The micro-granulate format is the result of precise specifications and numerous prototype developments.

Several products in liquid form were submitted to different spray-drying parameters to obtain different particle sizes. Each has been tested in our laboratories (PowderStudio™) to validate the form that offers the best user experience and maintains or even improve of product performance.

Which products move to this format?

Almost all of our yeast derivatives are converted into micro-granulates E2U™:

- **SpringCell™** (the original pure yeast hulls),
- **SpringCell™ Color** (for stable color and smoothness),
- **SpringCell™ Color G2** (an optimization of SpringCell™ Color, for enhanced polyphenol and organoleptic profiles),
- **SpringArom™** (preserving aromatic freshness of white and rosé wines),
- **SpringCell™ Manno** (the best of lees for balanced, rich and stable wines),
- **SpringFerm™ Xtrem** (for difficult fermentation conditions),
- **Spring'Finer™** (a perfect fining agent produced from yeast).

SpringFerm™ and **SpringFerm™ Equilibre** are still under development for this conversion. Interesting improvements have been made and the labeling of these products is on the right track.

5

SPIRITS & WINE

IS THERE A CULTURAL BOUNDARY?



UGO JOBIN

Mixologist*, instructor and speaker
Founder of barspoon.fr

A bit like Obelix falling into the magic cauldron, Ugo Jobin was bathed very young in spirits. One day, without knowing he had predispositions to become a taster, Ugo entered a bar to look for work. He says it arrived "by chance", but his story looks more like fate. Because soon after, with his passion for taste and great skills, he began consulting for major brands such as Hennessy, as well as young start-ups around the world.

The ecosystem of spirits seems very diverse. What connects it all in your opinion?

Indeed, it's an environment where production and sales standards vary a lot from one product to another. Some markets are very regulated, with specific aging rules and professional organizations; others aren't as transparent. Rum is a good example of a market being referred to as 'the wild west!' In spirit making, there are some genuine craftsmen but also some pirates! Either way, they all face similar challenges: ensuring taste consistency, in spite of the climatic uncertainties, stock variations or changes in juice acidity.

What are the main challenges facing the producers you're involved with, both big and small?

There are three: developing a reputation, being able to bear the cost of stock, and making sure you get distributed. The major brands have the financial solidity and sufficient stocks of clear spirits and spare wine to ensure consistency. Start-ups, the little producers, not only need B-to-C consumer motivators, but also B-to-B, so they can establish themselves in hotels and restaurants. That's where wine merchants, bartenders, and mixologists play a very key, influential role.

What is specific about our times, in terms of consumption?

Today, the people who create spirits are addressing generations who move very quickly, who live in the present, who pick

a restaurant or bar while they're in their uber. Spirits represent something more reasoned, more rooted. Consumers are looking for history, for the pleasure of tasting a product that took time to develop and that they can't get immediately: they have to wait 5, 10, 20 years...

“Like wine, spirits are now consumed in a “sharing” way”

Flair bartenders, mixology, “ready to drink” beverages. Lots of new concepts and professions have appeared over the last few years. Did the image of spirits need modernizing?

Well, they needed to be presented differently, at least - by returning to their history and the secrets of how they're made, for example. When I was young, I also felt like making things happen, then I understood that there are guardians of the temple; large 'houses' with their origins shrouded in time that don't fall into the trap of leaping after trends. That doesn't stop them from evolving, though. Nowadays for instance, we no longer drink what our parents were drinking. We're going further back to what our grandparents used to drink - spirits associated with a terroir: cognac, calvados, armagnac or porto. We're rediscovering their extremely complex aromas. For bartenders, it's an absolute pleasure working with these products, and revealing or boosting their flavors.

You've said that with cocktails, spirits are becoming more accessible. But these spirits are still status symbols, aren't they?

Of course, in part. For some people, drinking an old brandy or very good Armagnac is effectively a sign of social success. When American rappers started drinking cognac, it was because it was a sign of distinction, a way of saying "we're successful too, we can get good things." We weren't expecting that type of customer for that type of product, but it contributed a lot to refresh the image of spirits, by putting them center stage, getting other people to take note.

Women, for example?

Yes, quite so. The high volume of alcohol in spirits kept women away for a long time, but cocktails are helping to bridge the gap. Sweeter drinks have a wider appeal. The no- or low-alcohol trend is also generating new customers. It's becoming more about “sharing.” In the past, we'd visit nightclubs and order spirits in large shiny bottles. Nowadays, these clubs are closing one after another. Customers are moving towards more intimate or theme-based bars. They are buying drinks by the glass, tasting different cocktails, discussing aromas - some are even taking tasting lessons.

Can you learn how to taste spirits?

Of course, just like how you learn to taste wine, and today, the way people learn how to taste beer, too. The palate can be taught to appreciate spirits, and that is something you can do

for your entire life, because our tastes and palates evolve every day. We don't like the same flavors at every age, and with spirits, there is great potential for discovering new aromas and flavors. The mixologist's trade is an answer to that, just like a chef.

Cocktail bars are springing up everywhere. What's the most important aspect: the product, the atmosphere or the bartender?

A lot of "concept bars" are opening: bars without menus, hidden bars, Mexican- or French-themed bars, alcohol-free cocktail bars... Each concept has an atmosphere, a story to tell. Customers pick one using their smartphones and images. The identity of the place is critical when they make their choice. Nowadays, just looking and tasting good isn't enough. When the cocktail arrives, something needs to happen in your mouth: an experience, an emotion.

You talk about cocktails like they're engagements; what do you mean by that?

I mean that a cocktail is first of all a commitment: to gin, rum, liqueur and even wine, that you decide to taste. For me, that product always has to be the star of the cocktail. What I do with it next is give it an interpretation. I reveal it, accompany it, while respecting what it is and adding in a bit of me, born in France, in this land of distillers, of vintage moonshiners. We have regions with magical products, with enormous potential for discovery. When I was 20, I had the intuition it could be exciting; at 40, I try to share it every day. ●



SafSpirit™

Fermentis has a complete range of eight active dry yeasts to help spirit producers steer the final quality, flavor and overall perception of their creations.



As always, our team will be very happy to meet with you on these events; to share experience, tips and drinks!

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the
date!

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05-06

UNIFIED WINE & GRAPE SYMPOSIUM
Sacramento, CA, USA

19-23

**VINARIA, INTERNATIONAL EXHIBITION
OF VINE-GROWING AND WINE PRODUCING**
Plovdiv, Bulgaria

MARCH
25

WIVI CENTRAL COAST (WBM)
Paso Robles, CA, USA

MAY
07-08

ENOFORUM
Zaragoza, Spain

27-29

SITEVINITECH
Mendoza, Argentina

DEC.
01-03

VINITECH SIFEL
Bordeaux, France