GOOD NEWS
BY FERMENTIS. NEWS, ADVICE, PERSPECTIVES.

OUTLOOK | p.06
WINE COLOUR
ALL ABOUT SYMBOLS

YEAST SECRETS | p.08
HOW CAN WE INFLUENCE FLAVORS?

THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION
Dear wine passions,

The pleasure of the senses are teasing us every day of our life; wherever, whenever, however. At Fermentis, we do understand your passion and willingness to sublimate those experiences; and we take great pride in exploring all possible ways to improve the sensory characteristics of your favorite fermented beverage. This is one of the major axis of our research and development program; which integrates a large number of aspects such as taste, aroma, flavor, color, brightness, body, sparkle... We search for products and solutions enhancing those sensory aspects either directly or through complex processes and interactions.

In light of this we are proud to deliver you this year a new version of our SpringCell™ Color which we hope will allow you to significantly improve the quality of your red wines. Also we are happy to tell you more in this latest edition of Goodnews all the secrets held by a large selection of our wine yeast strains; more specifically we have explored the expression of those yeasts on different wine grape must and in different conditions. Last but not least, we are excited to share with you our visions of the market and expose to you once more our products under the E2U™ brand.

With that said, I welcome you to the Fermentis world of taste and pleasure; hoping you will enjoy our latest information and developments; and I wish you another great year of winemaking.

Cheers!

Stéphane Meulemans
General Manager, Fermentis

PLEASURE IS OUR COMMON GOAL.
SHARING
YEAST
— Ready for demystification?

Fermentis is more and more often invited to participate in debates and conferences on the quality of wines, the research on aromas and also creation of new trends. Many winemakers question us to understand the fermentation stage and the role played by the yeast. Our experts explain it: yeast is not a myth, neither than a magic ingredient to integrate in the must and for which we wouldn’t know exactly how it acts. On the contrary, it is a “tool” that can be chosen very precisely to act on taste, color, roundness or sensation left in the mouth. Fermentation is an art based on very rational characteristics and data. All our experts are trained to introduce you to it.

NEW PRODUCTS
SAFÈNO™ GV S107 — For elegant whites
With a very high aromatic expression, this active dry yeast offers excellent fermentation abilities. Highly suitable for grapes which have less aromatic precursors to start with, it is well adapted to premium white Chardonnay-style wines, in which customers are primarily looking for aromatic elegance and long lasting sweet finish.

SPRINGCELL™ BIO — An organic activator
This is a great fermentation activator. It helps detoxifying the must, strengthening yeast viability and achieving complete consumption of the sugars.

NEW PRODUCTS
SAFÈNO™ HD S562 — For intense reds
This active dry yeast is perfect for deeply colored and structured reds, and for long ageing premium reds. It favors high polyphenol extraction and stabilization and resists to difficult fermentation conditions. It also offers a rapid fermentation start, fast kinetics and high alcohol tolerance.

SAFÈNO™ HD S135 — To combine fruit and mouthfeel
This active dry yeast offers a subtle combination of full bodiness and fruitiness to premium wines. It has great fermentation characteristics and delighted those looking for a balanced structure on high alcohol wines.

RECRUITMENTS
USA, BRASIL, CHINA... — We get closer to you
Ten experienced experts joined us these last months to strengthen our presence by your side in Brazil, China, India, Northern Europe and in the United States of America. They are enologists, agro- or bio-engineers, experts in enzymes, graduated in nutrition, food technology, microbiology or even food hygiene, and they are all very professional in sensory characterization.
In many civilisations, white wine was the wine of luxury, the wine of distinction; for the Greeks, for the distinguished Romans, and for the clergy as well. Common wine was white, not red. White wine was often associated with purity and elegance, as well as a lighter form of committing the sin of gluttony. It was thus the wine more easily allowed for women.

Conversely, red wine symbolised the life force, and blood. Drunk red wine meant getting your strength up. For centuries, it was even the wine given to sick people. Long before this, however, back when the Romans appreciated white wine, the Gauls loved red wine! They took ampoules of wine and ‘decapitated’ them to act as sacrifices. The association of red wine with blood got back a long way.

The colour of wine has always had a statutory function. To create a lot of a mental image, we can say that, regardless of the time period, the nobles did not drink the same ‘colour’ as the common people. And often, the elites developed an infatuation with wines of unusual colours. Colour has also always been associated with the qualities of wine, particularly its medicinal ones. Most of the time, whites were recognised ‘diuretic’ and reds ‘nourishing’.

Of course, the colour was much related to conservation techniques. Today, sulphur is added to wine in order to stabilise it. Our ancestors added antiseptic aromatics, spices, resin, pitch and other substances. Greek and Roman wines didn’t spoil, but they eventually oxidised. “White” wines became almost black.

During the Middle Ages, to determine the quality of a red wine, some was poured onto a cloth. The darker the stain, the better the wine was deemed to be. The more tannins a wine contained, the more antioxidant properties it had. The determining factor was not taste at all; it was how well the wine kept. For centuries, people cheated to make wines look darker. Until the turn of the 20th Century, for example, some added elderberries to wine in order to darken it.

Talking about red and white is of course very limiting. In his famous encyclopedia, Pliny the Elder (1st Century AD) records 5 colours: white, yellow, grey, red and black. The vocabulary of wine colours has also always been very inventive - oeil-de-perdrix (literal ‘partridge eye’), straw wine, etc. The term ‘rosé’ came in the 19th Century, when techniques were developed that could stabilise its colour.

Rosé wines were originally called ‘dew wines’. They were seen as the wines of youth and youth, the colour of roses and the cheeks of young girls. In the USA, they were even referred to as blush wines. Today, their star is on the rise.

At all times and in all places, people project not only current social codes but also the emotions from their memories into the colour of wine, memories of anything from eating strawberries to stoking the fireplace. And this cultural aspect extends to the packaging. Whether it is black, red or golden, a label will evoke different promises.

Reflecting on different vowels, Véronique Lemoine, scientist at La Cité du Vin in Bordeaux, France, shows us that the colour of wine has always been associated with the qualities of wine, particularly its medicinal ones. Most of the time, whites were recognised ‘diuretic’ and reds ‘nourishing’.

In charge of the permanent exhibition and scientific content at La Cité du Vin, Bordeaux, Véronique Lemoine is an agronomist by training, published by Féret, and a member of the jury of the European wine competition at the Concours Mondial de Bruxelles. She is also a co-author of the book ‘Des vins et des hommes’, published by Féret.

Véronique Lemoine

**Scientific Director at La Cité du Vin**

In charge of the permanent exhibition and scientific content at La Cité du Vin, Bordeaux.

An agronomist by training.

**Co-author of the book, ‘Des vins et des hommes’, published by Féret.**

---

**SPRINGCELL™ COLOR G2**

**KEY ELEMENTS**

SpringCell™ Color G2 is an optimisation of the SpringCell™ Color. Based on pure inactivated yeast of Saccharomyces cerevisiae particularly rich in polysaccharides, it improves the action of the SpringCell™ Color on the intensity and the stability of the polyphenolic profile of red wines. SpringCell™ Color G2 brings a better wine structure (especially tannins) consequently improving the organoleptic profile of full bodied medium to long ageing premium reds.

**WE RECOMMEND IT...**

**FOR INTENSE AND LONG AGING REDS**

- SpringCell™ Color G2 is particularly recommended for the elaboration of intense and round medium to long ageing red wines.
- It is highly suitable for long maceration musts or musts that have undergone a too strong extraction (softening of green tannins).
- We also recommend it for wines with highly tannic and colored cultivars;
- As well as for wines with already experienced unstable color.

**Effect on organoleptic profile**

- SpringCell™ Color G2 when compared to SpringCell™ Color (% of improvement)

**Effect on polyphenolic profile**

- SpringCell™ Color effect
- G2 extra improvement

**NEW PRODUCT**

- Free anthocyanins
- Total Polyphenol Index
- Color intensity
- Tannins
- DMACH Index
- Complexes 1-4
- Tannin PD

**Polyphenol content increase**

**Polyphenol stability increase**

**Ethanol index**

**Global tasting preference**

**Aromatic quality**

**Mouthfeel quality**

**Tannin power**

These results are related to the average effect after 6.5 months ageing of the addition of 30g/hl of SpringCell™ Color G2 or G1 at yeast inoculation on 3 different Argentinian red wines issued from 3 different vintages. Detailed conditions available upon request.

---

**Outlook**

**ALL ABOUT SYMBOLS**

Good News Organisation

- 0%
- 5%
- 10%
- 15%

**GOODNEWS**

- 20%
- 22%
- 25%
- 30%

**BY FERMENTIS**

- 30%
- 40%
- 50%
- 60%

**NEW**

- 70%
- 80%
- 90%
- 100%

**S**

**PRODUCT**

- 100%
- 110%
- 120%
- 130%

**PRODUCT**

- 150%
- 160%
- 170%
- 180%

**PRODUCT**

- 200%
- 210%
- 220%
- 230%

**PRODUCT**

- 250%
- 260%
- 270%
- 280%

**PRODUCT**

- 300%
- 310%
- 320%
- 330%

**PRODUCT**

- 350%
- 360%
- 370%
- 380%

**PRODUCT**

- 400%
- 410%
- 420%
- 430%

**PRODUCT**

- 450%
- 460%
- 470%
- 480%

**PRODUCT**

- 500%
- 510%
- 520%
- 530%

**PRODUCT**

- 550%
- 560%
- 570%
- 580%

**PRODUCT**

- 600%
- 610%
- 620%
- 630%

**PRODUCT**

- 650%
- 660%
- 670%
- 680%

**PRODUCT**

- 700%
- 710%
- 720%
- 730%

**PRODUCT**

- 750%
- 760%
- 770%
- 780%

**PRODUCT**

- 800%
- 810%
- 820%
- 830%

**PRODUCT**

- 850%
- 860%
- 870%
- 880%

**PRODUCT**

- 900%
- 910%
- 920%
- 930%

**PRODUCT**

- 950%
- 960%
- 970%
- 980%

**PRODUCT**

- 1000%
- 1010%
- 1020%
- 1030%
To help winemakers piloting the aromatic expression of their wines, our teams engage themselves daily by picking the right strain, advising on precise temperature impacts, suggesting yeast nutrition management… Five of our experts explain how they work with their different partners. Their testimonials are available in full on fermentis.com

HOW CAN WE INFLUENCE FLAVORS?

To help winemakers piloting the aromatic expression of their wines, our teams engage themselves daily by picking the right strain, advising on precise temperature impacts, suggesting yeast nutrition management… Five of our experts explain how they work with their different partners. Their testimonials are available in full on fermentis.com
Yeasts secrets

IN THE NEW WORLD, DEEP REDS LOOK FOR HARMONY.

Today’s more rational, intelligent approach to viticulture is responsible of the deeper colour and fuller body of New World wines. Sunnier climates allow the grapes to ripen fully, yielding more than 220 g/l of sugar, and permit higher rates of photosynthesis and accumulation of anthocyanins, tannins and aromatic precursors.

In Chile and Argentina, grapes are grown at higher altitudes than almost anywhere else, endowing them with greater body that contribute to create exceptional red wines. Malbec, Cabernet Sauvignon, Tannat, Petit Verdot, Carmener, Syrah and even Bonarda in Argentina are among the most expressive varieties used to achieve this style of full-bodied, intensely fruity, deep red (almost black) wines. However, in wines with a high phenolic content, care must be taken not to lose the qualities of harmony and balance. Many deep red wines may be pleasing to the eye but conceal phenolic defects; being astringent and chemical, with a nose of cloves and a bitter, dry finish in the mouth that rather than inviting another sip, may even require water to refresh the mouth. To achieve complex and “elegant” wines, it is crucial to know the best time to harvest, use optimal wine-making procedures and work with the right strain.

My daily mission is to share everything I know about yeasts and their characteristics so that winemakers can find this precious equilibrium. The yeast strain used for fermentation, the type of nutrition and the combination and orchestration of specific functional derivates are all essential to elevate the structure of a wine with a pronounced fruity aromas and some residual sugars. However, we notice some new trends such as prolonged ageing and late disgorgement. Regardless of preferred style, I often help producers to manage aromas formation and prise de mousse, as well as ageing process without undesirable sulfur off flavours. “Bubbly” business in Russia is now open for newcomers. It is a perfect time for them to define their own style and identity. And for Fermentis to give them the tools to achieve this goal.

VARIETAL OR AROMATIC PROFILES?

Today, fermentative profiles are still popular for easy-to-drink, quick-release wines. In France, producers of Beaujolais Gamay Primeurs or Languedoc Chardonnays are typically looking for them. But varietal profiles are more and more trendy, especially thiolic profiles in premium White and Rosé wines. Producers of Sauvignon Blanc in Loire Valley or Rosé wines in Provence are particularly interested. Without forgetting the Rhin Valley, where German producers search terpeinic expression for their Gewürztraminer and Riesling.

Yeasts have a tremendous impact on the wine aromatic expression by producing enzymes that transform precursors from the grapes into actual aromas. Our mission is to help them choose the right one, like SafEin™ CK S102 or SafEin™ NDA 21 which release more thiols and esters than others in the same conditions. In parallel, we have protocols adapted to specific types of wine (“fresh and fruity Sauvignon Blanc”, “Barrel fermented Chardonnay”,) with guidelines regarding the yeast strain choice, temperature and yeast nutrition management. So crucial to optimize thiols or ester expression, this last point is yet often neglected.

Do you know that some blind tasting studies suggest that the preferred aromatic profiles depend on the ratio ester/thiols? So between varietal and fermentative profiles, it’s all about finding the right balance, it is impossible to predict exactly the aromatic result. The best way to learn is to try in controlled conditions and taste without any preconceived idea. I have been surprised more than once: wine keeps you humble!

Nathan is oenologist and agro-engineer. He lives in Lille, France, and takes care of Western Europe.

Sergio — ALOISIO

IN THE NEW WORLD, DEEP REDS LOOK FOR HARMONY.

Today’s more rational, intelligent approach to viticulture is responsible of the deeper colour and fuller body of New World wines. Sunnier climates allow the grapes to ripen fully, yielding more than 220 g/l of sugar, and permit higher rates of photosynthesis and accumulation of anthocyanins, tannins and aromatic precursors.

In Chile and Argentina, grapes are grown at higher altitudes than almost anywhere else, endowing them with greater body that contribute to create exceptional red wines. Malbec, Cabernet Sauvignon, Tannat, Petit Verdot, Carmener, Syrah and even Bonarda in Argentina are among the most expressive varieties used to achieve this style of full-bodied, intensely fruity, deep red (almost black) wines. However, in wines with a high phenolic content, care must be taken not to lose the qualities of harmony and balance. Many deep red wines may be pleasing to the eye but conceal phenolic defects; being astringent and chemical, with a nose of cloves and a bitter, dry finish in the mouth that rather than inviting another sip, may even require water to refresh the mouth. To achieve complex and “elegant” wines, it is crucial to know the best time to harvest, use optimal wine-making procedures and work with the right strain.

My daily mission is to share everything I know about yeasts and their characteristics so that winemakers can find this precious equilibrium. The yeast strain used for fermentation, the type of nutrition and the combination and orchestration of specific functional derivates are all essential to elevate the structure of a wine with a pronounced fruity aromas and some residual sugars. However, we notice some new trends such as prolonged ageing and late disgorgement. Regardless of preferred style, I often help producers to manage aromas formation and prise de mousse, as well as ageing process without undesirable sulfur off flavours. “Bubbly” business in Russia is now open for newcomers. It is a perfect time for them to define their own style and identity. And for Fermentis to give them the tools to achieve this goal.

BUBBLY BUSINESS IS GAINING RUSSIA.

Today, fermentative profiles are still popular for easy-to-drink, quick-release wines. In France, producers of Beaujolais Gamay Primeurs or Languedoc Chardonnays are typically looking for them. But varietal profiles are more and more trendy, especially thiolic profiles in premium White and Rosé wines. Producers of Sauvignon Blanc in Loire Valley or Rosé wines in Provence are particularly interested. Without forgetting the Rhin Valley, where German producers search terpeinic expression for their Gewürztraminer and Riesling.

Yeasts have a tremendous impact on the wine aromatic expression by producing enzymes that transform precursors from the grapes into actual aromas. Our mission is to help them choose the right one, like SafEin™ CK S102 or SafEin™ NDA 21 which release more thiols and esters than others in the same conditions. In parallel, we have protocols adapted to specific types of wine (“fresh and fruity Sauvignon Blanc”, “Barrel fermented Chardonnay”,) with guidelines regarding the yeast strain choice, temperature and yeast nutrition management. So crucial to optimize thiols or ester expression, this last point is yet often neglected.

Do you know that some blind tasting studies suggest that the preferred aromatic profiles depend on the ratio ester/thiols? So between varietal and fermentative profiles, it’s all about finding the right balance, it is impossible to predict exactly the aromatic result. The best way to learn is to try in controlled conditions and taste without any preconceived idea. I have been surprised more than once: wine keeps you humble!

Nathan is oenologist and agro-engineer. He lives in Lille, France, and takes care of Western Europe.

ANASTASIA KACHURINA

BUBBLY BUSINESS IS GAINING RUSSIA.

The Russian sparkling wine market is offering more and more interesting and challenging innovations. There is such a great diversity! Several producers follow «Methode Champenoise» procedure, while others actively experiment. They deal with new terroirs and indigenous Russian varieties with naturally high acidity level, like Sibirkovy. I must say that some of them were specifically impressed by the characteristics of our SafEin™ VR 44 strain, especially the fresh and clean profile it had, describing the strain as strongly fructophilic.

Today, the biggest part of the market is held by light and refreshing sparkling wines with pronounced fruity aromas and some residual sugars. However, we notice some new trends such as prolonged ageing and late disgorgement. Regardless of preferred style, I often help producers to manage aromas formation and prise de mousse, as well as ageing process without undesirable sulfur off flavours. “Bubbly” business in Russia is now open for newcomers. It is a perfect time for them to define their own style and identity. And for Fermentis to give them the tools to achieve this goal.

Anastasia lives in Moscow. She has M.Sc. in Viticulture and Enology and represents Fermentis in Russia.

Sergio is winemaker for 30 years. Based in Buenos Aires, he is our Sales Manager in South Latin America.

Manager in South Latin America.

Based in Buenos Aires, he is our Sales Manager in South Latin America.
The Good Idea

WHAT IS IT?

TOLL MANUFACTURING

You want us to maintain or manufacture a microorganism or its derivatives for you? You can trust our expertise and technology. We can guarantee you quality, technical service and highest standards of yeast, operational support.

WHO’S INVOLVED?

Our oenologists and researchers, but also our best-in-class industrials. A team who will accompany you in achieving your widest dreams of creativity, quality and consistency; to get the wine you expect, especially in terms of flavor expression.

HOW SAFE IS IT?

Operations are carried out on a strictly confidential basis, and in compliance with the most stringent international standards in terms of quality, hygiene and safety.

WHERE IS IT POSSIBLE?

Fermentis is supported through a network of 10 production centres around the world. A guarantee that we can respond to your needs in the shortest possible time, wherever you are.

GOODNESS #4

BY FERMENTIS

Between 2016 and 2017, Fermentis started an ambitious and not very orthodox study on its yeasts with the aim to characterize their aromatic properties. This study first dealt with white and rosé wines but its philosophy as well as its results give a broader concern. Explanations from Etienne Dorignac, oenologist within Fermentis and study coordinator.

You took the 11 strains from the Fermentis active dry yeast range and you compared them within the same frame. Why this?

— We indeed wanted to test all our yeasts on the same matrices variety/vinification, whatever their first selection was oriented for reds, whites, rosés or sparklings. We deeply knew several of their qualities in their own category but we wanted to « open the window », to see what their capabilities were on wines not designed for them at a first glance. (Or at least, not directly focused on.) According to the first results, it was rather worthy to do it.

What surprised you?

— We saw that some of our yeasts behaved very well in matrices we didn’t expect great results from them. This opens new perspectives. From there to say that it surprised us: no, yeasts are living microorganisms. Change a parameter – nutrition, temperature…, and it will behave differently. A bit like us, facing warm or cold weather, aggressive or protective environment…

In concrete terms, how did you run the study?

— We did four experimental microvinifications on a scale representative of the real and allowing a professional tasting (between 100 and 200 liters per conditions). For each matrix variety/vinification, we first evaluated the fermentative performances (kinetics, base oenological analyses), then we measured the main aromatic notes from an analytical and organoleptic point of view.

What will be the results for? What can expect winemakers?

— Today, after 17 months of study and our previous background, we have a big amount of data as diverse as precise. Thanks to these ones, we better understand what our yeasts need to express their potential at its best on whites and rosés and on the other side what stresses or inhibits them. This is a wonderful matrix to advise winemakers. The difficulty of the exercise is much more to take out trends and to draw conclusions.

What does this study bring to you, personally?

— Confirmation that we continuously need to search, to make steps ahead but also steps aside. Certain results were definitely surprising (see page 14). We always have to ask ourselves questions, to try differently and to accept being surprised. This is the magical part of these normally rather rational exercises.

Etienne Dorignac
TECHNICAL MANAGER, OENOLOGIST, FERMENTIS

GOODNESS #4

BY FERMENTIS

Yeasts Yield (some of) Their Secrets

You tested your yeast on Chardonnay, Sauvignon Blanc, Muscat, Shiraz… what did you precisely analyze?

— First of all, these four matrices have been chosen as they draw a map rather complete of our customers’ needs. Chardonnay is intrinsically rather poor in aroma. It has some aroma precursor but it fundamentally needs fruitiness to come with. A part of this study was then aiming to characterize all our yeasts on varieties without any major natural aroma components. On the opposite, on Sauvignon Blanc and Muscat that are very rich in precursors, we looked for the release of thiols for the first one and of terpenes for the second. We wanted to see what the capabilities of our yeasts were to reveal this natural aromatic potential. Today, even if the work is still ongoing, this will allow us to better drive our recommendations for those who want more exotic fruits, citrus, green notes… or candy.

And for Shiraz, what drove your choice?

— Pragmatism. (smile) Our customers produce more and more rosés and the world consumption is constantly increasing. Nevertheless, rosé wine making comprises a lot of constraints (highly clarified musts, high sulphites, available nitrogen deficiency, low temperature fermentation…). And there are two predominant types: trolic or estery rosés depending on winemakers’ will. Shiraz variety contains quite a lot of thiol precursors… So, we chose it because we wanted to see the revealing of these both aspects through the use of our yeasts.

What does this study bring to you, personally?

— Confirmation that we continuously need to search, to make steps ahead but also steps aside. Certain results were definitely surprising (see page 14). We always have to ask ourselves questions, to try differently and to accept being surprised. This is the magical part of these normally rather rational exercises.

Because you gain flexibility and time. You stay focused on your core business and flagship products while we give a hand on extras. All this, with the highest standards of yeast quality, technical service and operational support.

You tested your yeast on Chardonnay, Sauvignon Blanc, Muscat, Shiraz… what did you precisely analyze?

— First of all, these four matrices have been chosen as they draw a map rather complete of our customers’ needs. Chardonnay is intrinsically rather poor in aroma. It has some aroma precursor but it fundamentally needs fruitiness to come with. A part of this study was then aiming to characterize all our yeasts on varieties without any major natural aroma components. On the opposite, on Sauvignon Blanc and Muscat that are very rich in precursors, we looked for the release of thiols for the first one and of terpenes for the second. We wanted to see what the capabilities of our yeasts were to reveal this natural aromatic potential. Today, even if the work is still ongoing, this will allow us to better drive our recommendations for those who want more exotic fruits, citrus, green notes… or candy.

And for Shiraz, what drove your choice?

— Pragmatism. (smile) Our customers produce more and more rosés and the world consumption is constantly increasing. Nevertheless, rosé wine making comprises a lot of constraints (highly clarified musts, high sulphites, available nitrogen deficiency, low temperature fermentation…). And there are two predominant types: trolic or estery rosés depending on winemakers’ will. Shiraz variety contains quite a lot of thiol precursors… So, we chose it because we wanted to see the revealing of these both aspects through the use of our yeasts.

In concrete terms, how did you run the study?

— We did four experimental microvinifications on a scale representative of the real and allowing a professional tasting (between 100 and 200 liters per conditions). For each matrix variety/vinification, we first evaluated the fermentative performances (kinetics, base oenological analyses), then we measured the main aromatic notes from an analytical and organoleptic point of view.

What will be the results for? What can expect winemakers?

— Today, after 17 months of study and our previous background, we have a big amount of data as diverse as precise. Thanks to these ones, we better understand what our yeasts need to express their potential at its best on whites and rosés and on the other side what stresses or inhibits them. This is a wonderful matrix to advise winemakers. The difficulty of the exercise is much more to take out trends and to draw conclusions.

What does this study bring to you, personally?

— Confirmation that we continuously need to search, to make steps ahead but also steps aside. Certain results were definitely surprising (see page 14). We always have to ask ourselves questions, to try differently and to accept being surprised. This is the magical part of these normally rather rational exercises.
### Yeast Characterization

<table>
<thead>
<tr>
<th>Matrix</th>
<th>Type</th>
<th>Sugars (g/l)</th>
<th>Turbidity (N/10)</th>
<th>pH</th>
<th>Ratio YAN (mg/l)/Sugars (g/l)</th>
<th>Fermentation temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thios</td>
<td>Sauvignon Blanc</td>
<td>205</td>
<td>120</td>
<td>3.15</td>
<td>0.73 (**)/0.85 (*) 3.00</td>
<td>61-68°F 16-19°C</td>
</tr>
<tr>
<td>Esters</td>
<td>Chardonnay</td>
<td>207</td>
<td>150</td>
<td>3.50</td>
<td>1.00</td>
<td>57-64°F 14-18°C</td>
</tr>
<tr>
<td>Thios/Esters</td>
<td>Shiraz (read)</td>
<td>188</td>
<td>83</td>
<td>3.49</td>
<td>0.88</td>
<td>61-68°F 16-19°C</td>
</tr>
</tbody>
</table>

### Analytic Results

<table>
<thead>
<tr>
<th>Matrix THIOLS</th>
<th>YAN deficiency / Recommended adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>GV S107 (**)</td>
<td>(**)</td>
</tr>
<tr>
<td>CK S102 (*)</td>
<td>(*)</td>
</tr>
<tr>
<td>BC S103</td>
<td></td>
</tr>
<tr>
<td>VR 44</td>
<td></td>
</tr>
<tr>
<td>NDA 21 (*)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MATRIX THIOLS/ESTERS</th>
<th>No YAN deficiency / No adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>GV S107 (*)</td>
<td></td>
</tr>
<tr>
<td>GK S102 (**, *)</td>
<td></td>
</tr>
<tr>
<td>BC S103</td>
<td></td>
</tr>
<tr>
<td>VR 44</td>
<td></td>
</tr>
<tr>
<td>NDA 21 (*)</td>
<td></td>
</tr>
</tbody>
</table>

### ORGANOLEPTIC RESULTS

<table>
<thead>
<tr>
<th>YAN deficiency</th>
<th>Recommended adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>GV S107 (*)</td>
<td></td>
</tr>
<tr>
<td>GK S102 (**, *)</td>
<td></td>
</tr>
<tr>
<td>BC S103</td>
<td></td>
</tr>
<tr>
<td>VR 44</td>
<td></td>
</tr>
<tr>
<td>NDA 21 (*)</td>
<td></td>
</tr>
</tbody>
</table>

### Yeast Varieties

**Saférieux™ BC S103**

A workhorse more valuable than expected!

This is the workhorse of the Fermentis range. THE yeast we advise for all extreme fermentation conditions (low nitrogen needs, high alcohol tolerance, ...). In short, a yeast we use for safety and in that case (matrix thios), it is quite neutral in aromatic terms. But if we put it in good conditions (matrices Esters and Esters/Thios), we showed a very high production of isomyl acetate (amylic notes) and of phenylethanol (floral) as well as a rather high thiol release and low ethyl ester production. And this was strictly correlated with fresh, floral and amyl notes, especially on Chardonnay. It was a very nice confirmation of the feedback we had from our most staunch customers!

**Saférieux™ CK S102**

For intense aromatic whites and roses. But why really?

Saférieux™ CK S102 is always recommanded with high nutrition to avoid possible sulphur issues whereas it is a very robust yeast towards extreme fermentation conditions, what was ascertained in this study. It is greatly appreciated all over the world on thiolic whites and rosés for its fruity “varietal” intensity and its floral notes... And this is confirmed by very high isomyl acetate and 2-phenylethanol levels, two aroma enhancers, as well as fully correlated with sensorial attributes being almost always the most intense of our yeasts. But we have to say that this typicality is not completely related to thiol release, as previously evaluated and thought. This wasn’t the main drive of this yeast!

**Saférieux™ NDA 21**

Only for spaklings?

I don’t think so…

Saférieux™ VR 44 is very valuable for spaklings as it produces very low H2S and is resistant to low temperature and high alcohol with low nitrogen needs. It always gives nice bread crust and ripe fruit flavors. This “evolution” notes are fully correlated with the tastings, especially in both Esters matrice. However, we discovered that it was the highest producer of ethyl esters (fruity, pineapple, peach, banana, green apple...). In our range whatever the conditions. And this is coupled with a rather medium isomyl acetate production orienting the tasting on a nicely balanced and complex fruitiness that could certainly benefit to other wine types!

**Saférieux™ GV S107**

Remarkable on American Chardonnay.

What else?

As you may know, Saférieux™ NDA 21 has been selected in Sicily on Nero d’Avola, a highly spiced red variety. Because of its characteristics, it’s an excellent choice on other spicy varieties like Shiraz, Mouvèdre... But in Shiraz, there are thiol precursors and surprisingly, this yeast is the most active on thiol release as we see in both Thios matrices! This feature combined with a low SO2 production (so possibly consequently higher other sulphur compounds production) gives fresher but also more reductive notes. Finding conditions in which this feature could be acceptable, like in the rosé showed with no nitrogen deficiency and higher temperature, would give a very nice thiolic yeast not disturbed by high ester production!

**Saférieux™ GV S107**

The newest in our range, Saférieux™ GV S107 was selected for its potential to ferment at very low temperature for complex (floral/fruity), buttery, full bodied and persistent ripe Chardonnay. Yes but its first selection was on Alvarinho, a thiolic Portuguese variety... and it appears clearly its capabilities to release thiols and to give varietal flavors on Sauvignon. The complexity of this yeast is very well illustrated by its balance between 2-phenylethanol, isomyl acetate, ethyl esters and thiols. It is also the most mineral on thiol matrices. As we nowadays know that there are also thiol precursors in Chardonnay, it surely enhances its interest on that variety.
Save the date!

Events offer us a unique opportunity to meet, to share discussions, advice and drinks. They are also very challenging because we receive your concrete demands and clarify where our R&D investment has to be focused on. That’s why we hope we’ll see you soon, here and there!

USA
- **JANUARY**
  - 23-25
  Unified Wine & Grape Symposium

USA
- **FEBRUARY**
  - 6-8
  Washington Association of Wine Grape Growers

BULGARIA
- **FEBRUARY**
  - 21-25
  Vinaria, International Exhibition of Vine-Growing and Wine Producing Wine Festival

USA
- **MARCH**
  - 21
  WiVi central coast (WBM)

USA
- **MAY**
  - 23-24
  I+Q (WBM)

CHINA
- **JUNE**
  - 13-15
  Sitevinitech

JAPAN
- **JUNE**
  - 27-29
  Drink Japan

GERMANY
- **NOVEMBER**
  - 4-6
  Intervitis Interfructa Hortitechnica

FRANCE
- **NOVEMBER**
  - 20-22
  Vinitech Sifel

Give us your feedback and receive some Fermentis goodies!