

CULVÉE

3



NEWS 2025

New products

TECHNICAL ARTICLE

Natija Alma™
IOC Smoozberry™

INSIGHTS

**New research
project: Bioprotection
Synergies in the
wine industry**

**Yeast inoculation
reinvented:
Actiprotect Express™**

**Choose the right
nutrient for
your yeast!**

EVENTS

Enoforum



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Perdomini
ioc

NATJJA ALMA™

- It's part of the NATJJA™ range, 100% organic yeast nutrients.
- Thanks to zinc, magnesium, organic nitrogen, and a special chitosan, it's able to improve yeast well-being, reduce oxidative stress, and optimize aromatic biorevelation.
- It can enhance the expression of minerality in wines.

IOC DI-VINA™

- Combine the exceptional sensory capabilities of a specific *Hanseniaspora vineae* strain with the fermentative robustness of a *Saccharomyces cerevisiae* yeast.
- Enhanced autolytic capacity: Early and intense release of natural yeast peptides and polysaccharides for greater volume, softness, and balance.
- Contribution to foam and protein stability, representing a natural alternative to "coating" additives.

IOC SMOOZBERRY™

- Winemaking yeast for red wines, created to meet the expectations of an evolving market.
- Contributes to providing fullness and roundness on the palate, thanks to exceptional polysaccharide release.
- Ability to reveal fruity and varietal notes, suppressing undesirable vegetal aromas, lending freshness and drinkability to wines.

FULLRED™

- Blend based on grape tannins and yeast derivative rich in polysaccharides.
- Used during the devatting of red wines, it protects coloring matter from oxidation and prevents the precipitation of responsible complexes.
- It contributes to structure, volume, and taste, and is suitable as an adjuvant in fining operations.

ACTIVIT READY PS™ & ACTIVIT READY CH™

- Liquid nutrients based on a specific yeast autolysate with a high content of organic nitrogen, derived from free amino acids and peptides.
- Thanks to their liquid form, they can be used directly without the need for rehydration, allowing for simple, fast, and homogeneous dispersion in the must.
- They guarantee the success and speed of alcoholic fermentation, even under difficult conditions, by supporting the yeast during stress.

*Activit Ready PS™ is stabilized with malic acid. Activit Ready CH™ is stabilized with lactic acid.

ACTIPROTECT Express™

Reinventing yeast inoculation



SPEED UP YOUR PROCESS

To rehydrate
yeast easily and
quickly

To save time
and resources

For better fermentation
performance and
achieving sensory
goals

NATJJA ALMA™

Yeast wellness solutions

"Minerality" has become an increasingly sought-after characteristic in the wine world, appreciated by both experts and consumers. This descriptor, which initially emerged in the Chablis region of France around 2000, is now used to enrich the profile of wines in many other regions, including Italy and Spain. Producers seek to highlight this quality to distinguish themselves from more fruity, amyl, and floral profiles. However, minerality is a complex concept, and its perception can vary significantly among industry professionals, making a univocal definition difficult.

Despite this definitional challenge, there's a general consensus that minerality is a real and distinctive sensation.

BENZILTIOLO: A KEY PLAYER

Recent research has identified benzyl thiol as a fundamental compound in the perception of minerality in wines. This compound is primarily formed through two pathways:

- The Ehrlich pathway, which converts the amino acid phenylalanine into benzaldehyde.
- The reduction of benzaldehyde to benzyl thiol.

Several studies have shown that the concentration of benzyl thiols tends to increase with higher yeast assimilable nitrogen levels, and that their presence is less evident in wines produced with yeasts that do not produce H₂S.

NATJJA ALMA™: AN INNOVATIVE SOLUTION TO ENHANCE MINERALITY

To meet the growing demand for wines with pronounced minerality, **NATJJA ALMA™** was developed. This product is designed to optimize the nutritional environment and key yeast metabolisms, improving overall yeast well-being and reducing oxidative stress.

Synergistic anti-free radical actions that protect the physiological state of the yeast

Faced with the increasing presence of ethanol in the must, winemaking yeast produces a large quantity of free radicals which, in particular, cause:

- Yeast DNA alteration
- Onset of cell death
- Damage to the plasma membrane (likely causing reduced internalization of aromatic precursors)
- Destruction of enzymes and amino acids (which can limit the conversion of aromatic precursors).

Rich in exclusively organic nitrogen, **NATJJA ALMA™** ensures better-regulated nutrition to avoid excessive population growth, thereby limiting associated phenomena of induced deficiency. Furthermore, the high level of zinc in **NATJJA ALMA™**, as well as the presence of specific chitosan, help reduce the harmful activity of free radicals and oxidative stress to improve the overall health of the yeast and express its secondary metabolism for the enhancement of aromas present in the grape.

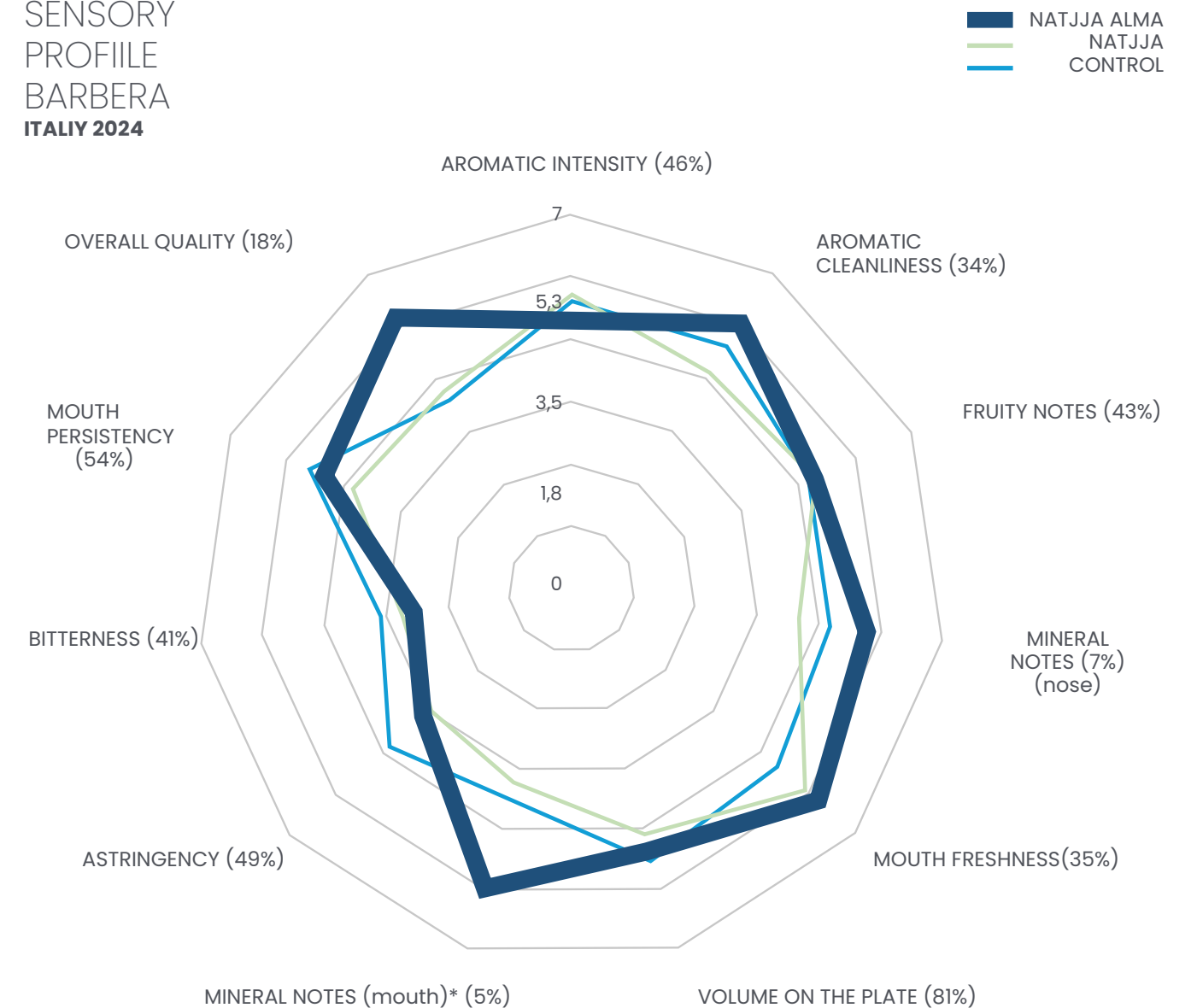
RESULTS AND APPLICATIONS

Trials conducted by the University of Turin have demonstrated the effectiveness of **NATJJA ALMA™** in improving the sensory profile of wines.

Specifically, we highlight the results obtained with **NATJJA ALMA™** in trials performed on Barbera and Arneis.

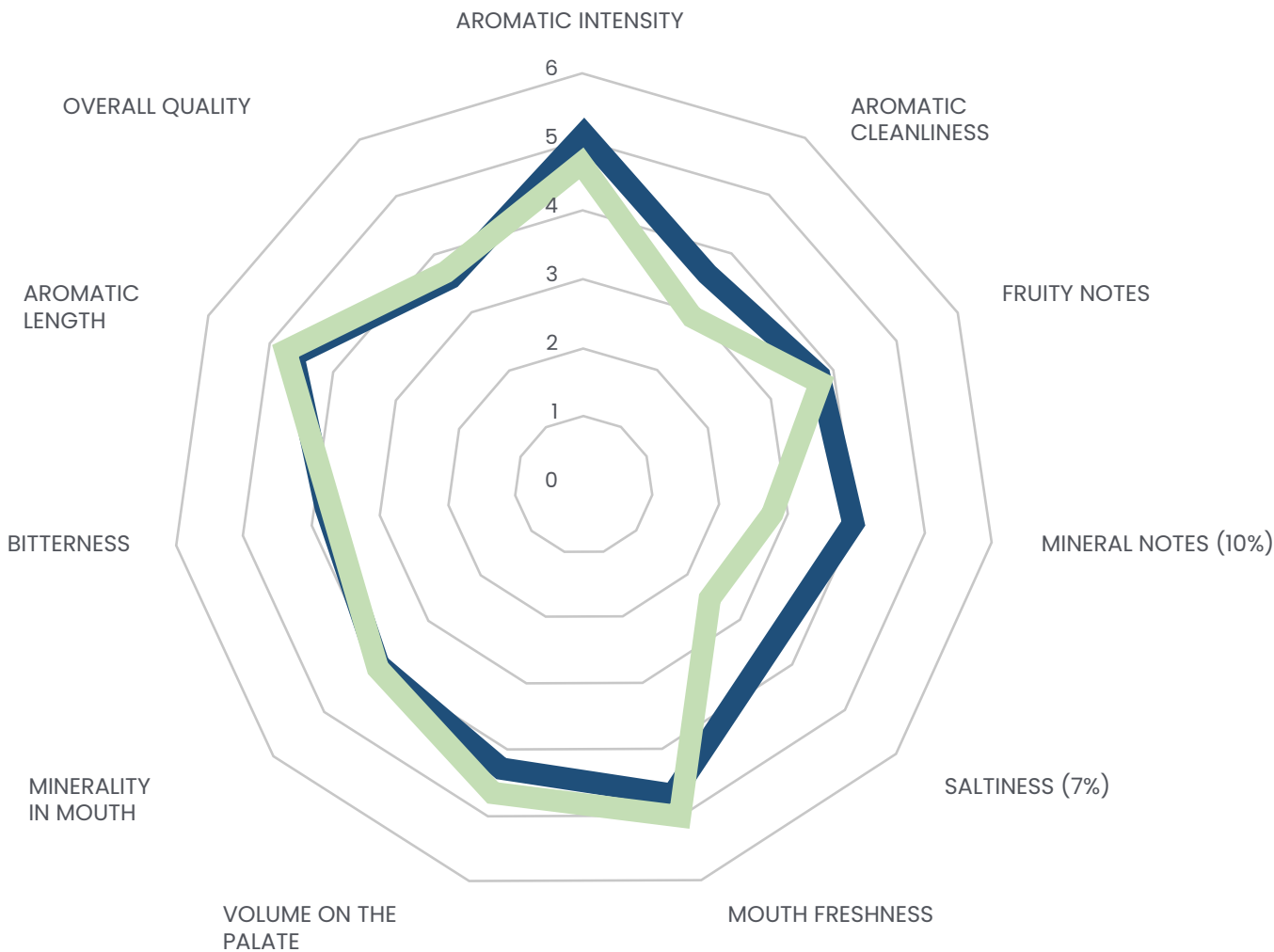
There are no contraindications for the use of **NATJJA ALMA™** in the Charmat method for wines where mineral notes are desired to be enhanced.

SENSORY PROFILE BARBERA ITALY 2024



SENSORY
PROFILE
ARNEIS
PIEMONTE 2024

NATJJA ALMA
NATJJA



NATJJA ALMA™ joins the **NATJJA™** range, which already includes NATJJA™ and NATJJA fizz™. These are all 100% organic nutrients developed to improve yeast well-being and optimize aromatic biorevelation. NATJJA ALMA™ enhances minerality notes in both white and red wines.

In conclusion, **NATJJA ALMA™** represents a significant innovation, offering a natural and effective way to boost minerality in white and red wines by supporting the metabolism of naturally selected yeast strains capable of revealing mineral perception.

NATJJA Alma

Yeast nutrient



YEAST WELLNESS SOLUTIONS

Optimizing Yeast Mineral Expression: An innovative approach to organic nutrition. It improves yeast well-being and optimizes aromatic and minerality revelation through free radical control.

IOC SMOOZBERRY™

Softness, fruitiness, and varietal expression.

The *Saccharomyces cerevisiae* yeast IOC SMOOZBERRY™ was specifically developed to meet the new demands of the red wine market and its consumers. The result of a targeted research program, this active dry yeast stands out for its fermentative robustness and its ability to modulate the taste structure and aromatic profile of red wines, particularly enhancing the varietal characteristics of the grapes.

Its action primarily focuses on two crucial aspects of red winemaking:

- **Enhancement of Structure and Volume on the Palate:** Thanks to a remarkable release of mannoproteins during fermentation IOC SMOOZBERRY™ helps to coat the more astringent tannins, softening bitter and unpleasant sensations. This natural process increases the wine's fullness and roundness, making it more balanced and accessible, even for young wines.
- **Enhancement of varietal aromatic intensity:** IOC SMOOZBERRY™ possesses an exceptional ability to reveal the intrinsic aromatic potential of grapes. In particular, it promotes the liberation and stabilization of beta-damascenone, a key compound that intensifies fruity notes and helps suppress undesirable vegetal aromas. Furthermore, this yeast promotes the formation of complex esters, responsible for persistent fruity aromas, and the expression of varietal thiols characteristic of different grape varieties.

ACCELERATED MANNOPROTEIN RELEASE: IMPLICATIONS FOR WINE QUALITY

The ability of IOC SMOOZBERRY™ to release mannoproteins early and significantly during fermentation represents a distinct advantage. These macromolecules interact with tannins, reducing their harshness and imparting greater softness and a fuller palate volume to the wine. This effect helps make red wines produced with IOC SMOOZBERRY™ more accessible and enjoyable sooner, while still maintaining good aging potential.

IOC Smoozberry™

SMOOTH STRUCTURE, VARIETAL FRUITINESS

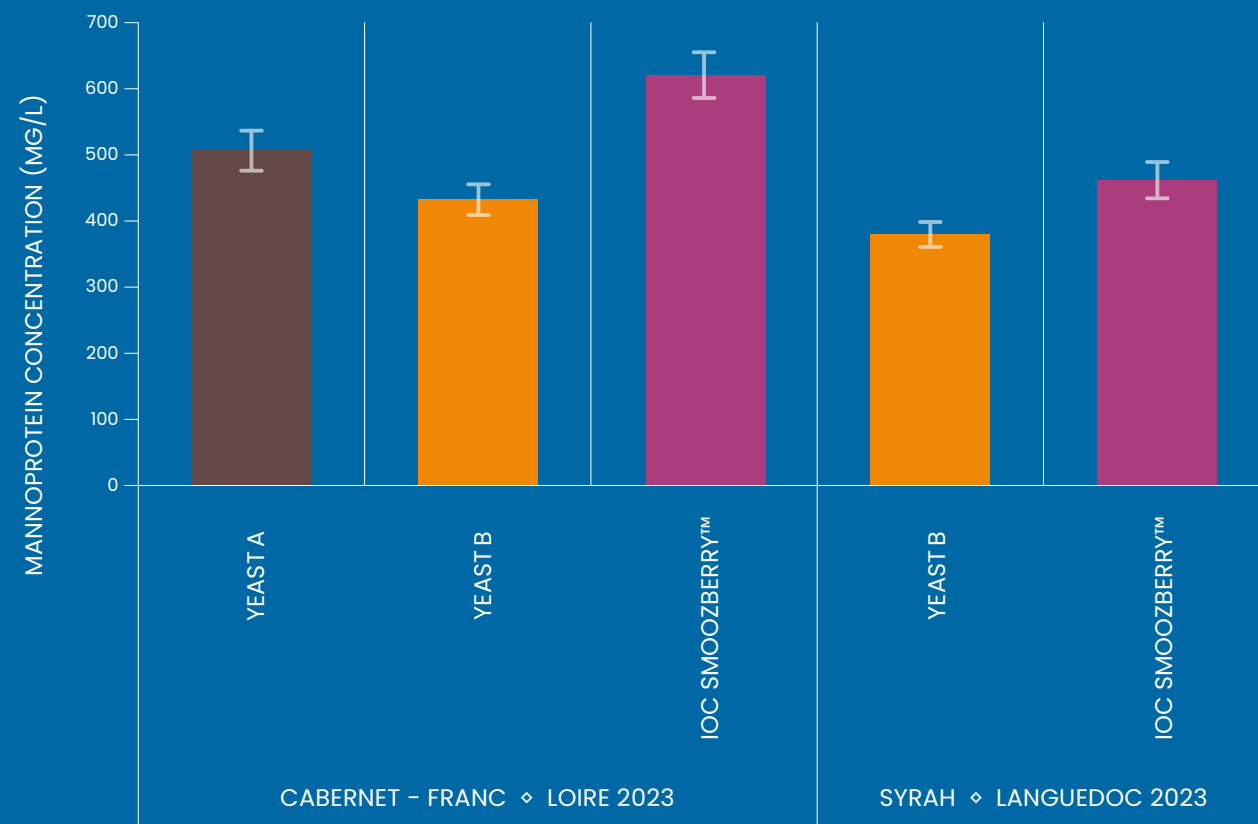


A more accessible palate, for new red wine drinkers

Revelation of varietal fruity aromas towards an original expression

Robustness adapted to climatic changes

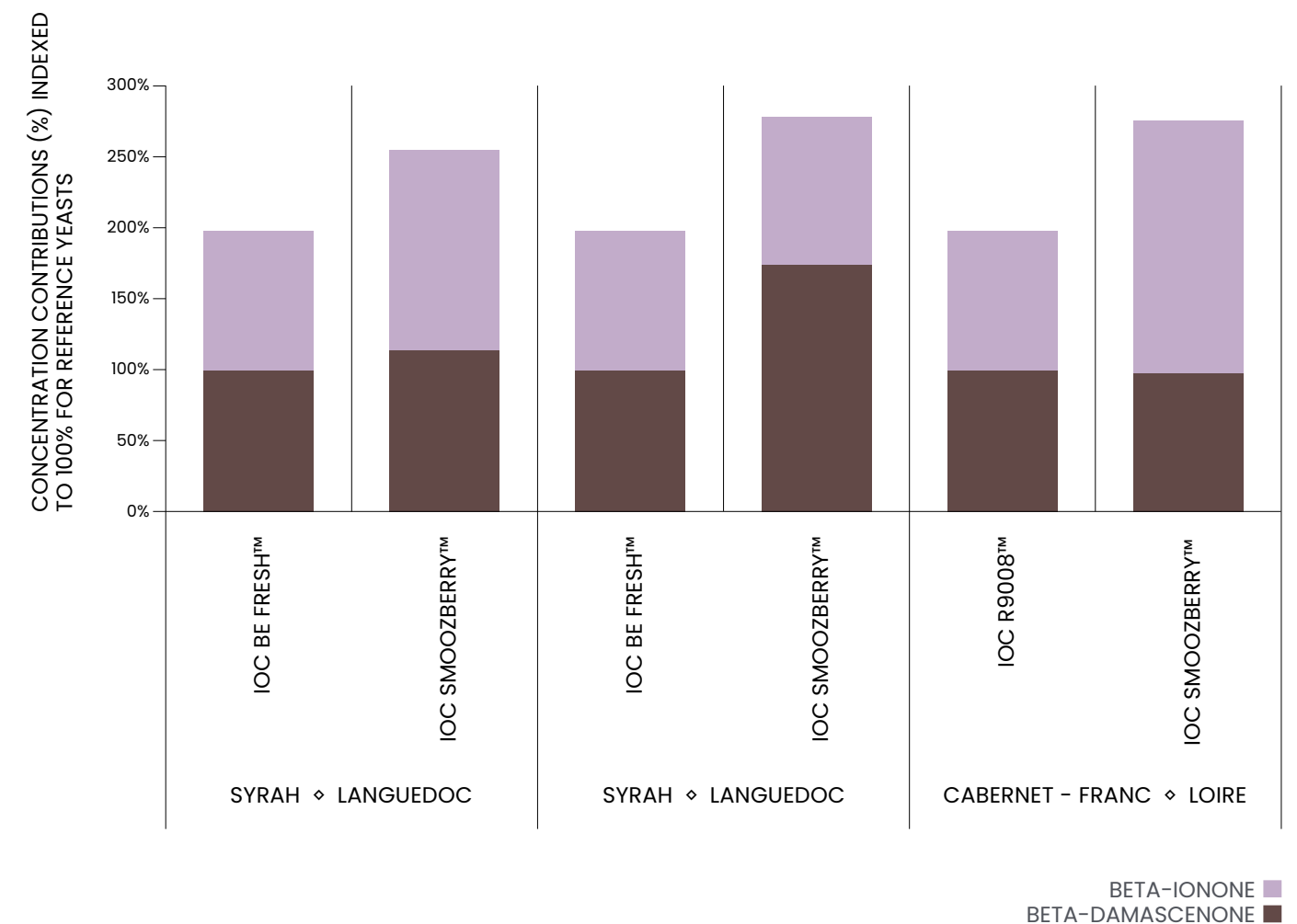
ANALYSIS OF MANNOPROTEIN LEVELS IN FINISHED WINES USING HPLC



ENHANCING VARIETAL CHARACTERISTICS: AN OPTIMIZED AROMATIC PROFILE

The specific enzymatic action of IOC SMOOZBERRY™ promotes the release of aromatic precursors present in grapes, particularly beta-damascenone. This compound intensifies the perception of fruity aromas, contributing to a richer and more complex olfactory profile. Simultaneously, the production of complex esters and the revelation of varietal thiols typical of different black grape varieties allow for wines that express their distinctive aromatic peculiarities more clearly and intensely.

RATIO OF C-13 NORISOPRENOID CONCENTRATIONS IN IOC SMOOZBERRY™ VERSUS REFERENCE YEASTS



IOC SMOOZBERRY™ represents an advanced enological tool for producing high-quality red wines. Its ability to enhance taste structure through the accelerated release of mannoproteins, and to boost the intensity and aromatic typicity of black grapes, makes it an ideal choice for

producers aiming to obtain balanced, fruity, and approachable wines that can meet the expectations of an evolving market.

NEW RESEARCH PROJECT

BIOPROTECTION SYNERGIES IN THE WINE INDUSTRY

Microorganisms at the Service of Grape Quality – Focus on Recent Innovations

The project "Bioprotection Synergies in the Wine Industry," carried out in collaboration with CREA (Council for Agricultural Research and Economic Analysis), Microbion Laboratory, and Manica, aims to delve into crucial issues for sustainable viticulture and agriculture. It promotes innovative practices and solutions that reduce reliance on agrochemicals through the use of antagonistic microorganisms. This addresses the growing need to develop agricultural methods with low environmental impact and greater human health safety, in line with the European Green Deal objectives for reducing high-risk plant protection products.

A central aspect of the research project concerns the management of *Botrytis cinerea*, responsible for "grey mold," a pathology that threatens grape quality. Currently, its management relies on an integrated approach combining agricultural practices and chemical fungicides, whose use near harvest is limited. This situation highlights the importance of research and development of natural and effective alternatives based on biocontrol.

Despite the potential, the number of bioprotective microorganisms registered in the EU is still limited, underscoring the need to optimize selection processes and application protocols. The work explores both the optimization of already available microorganisms, through new experiments and protocols, including in combination with synthetic products, and the selection of new strains with criteria that include tolerance to integrated application with agrochemicals.

The initiative is based on the results of the BioProtect and FutuRAME research projects, which evaluated the efficacy of new biocontrol microorganisms against fungal pathogens of the vine, both pre- and post-harvest. The compatibility of plant protection products based on microorganisms with copper fungicides has also been studied, with particular attention to optimizing application protocols to make bioprotectants a concrete and valid alternative, including through an integrated approach with reduced dosages of traditional products.

The project activities focus on the following themes: the use of bioprotective microorganisms to reduce the use of traditional pesticides, innovative methodologies for grape protection pre- and post-harvest (with a focus on defense against *Botrytis cinerea*), and the compatibility between antagonistic microorganisms and copper-based plant protection products. The risks associated with the use of plant protection products and their persistence in the soil are also considered.

The preliminary results of the project encourage further research to validate synergistic defense approaches that employ antagonistic microorganisms to inhibit the growth of pathogenic fungi, offering effective crop protection and allowing for a

Progressive reduction in the use of chemical pesticides.

In November 2025, in collaboration with the partners of the "Bioprotection Synergies in the Wine Industry" project, we're organizing a conference for enologists, agronomists, and viticultural technicians. The goal is to delve into topics of great relevance for sustainable viticulture and agriculture. The event will present the project's results and focus on innovative practices and sustainable solutions aimed at reducing the use of agrochemicals and promoting bioprotection practices, with particular attention to the use of antagonistic microorganisms.

With this conference, we aim to raise awareness among participants about the importance of reducing the use of agrochemicals, especially copper-based ones, without compromising crop protection. We also intend to provide tools and knowledge to adopt innovative practices, thus contributing to the transition towards more sustainable viticulture.



YEAST INOCULATION REINVENTED: ACTIPROTECT EXPRESS™

The world of enology is constantly evolving, seeking solutions that optimize processes without ever compromising the quality of the final product. In this scenario, ACTIPROTECT EXPRESS™ emerges as an innovative yeast protector that promises to revolutionize the crucial inoculation phase.

This product stands out for its advanced formulation, which is extremely rich in sterols—fundamental components for the vitality and functionality of the yeast cell membrane. The true innovation lies in its micro-aggregated form, a characteristic that significantly simplifies the inoculation process while preserving all the precious qualities of the selected yeast strain.

Fewer Steps, More Security, Enhanced Aromatic Expression

A comparison with traditional yeast rehydration protocols highlights a clear advantage. ACTIPROTECT EXPRESS™ ensures equally protected, if not superior, fermentation kinetics by eliminating the need to heat water for rehydration and to acclimate the "ped de cuve" to the must temperature, even when the must is particularly cold.

This simplification of the process not only saves valuable time and resources in the cellar but also contributes to greater fermentation security. By reducing handling and thermal shocks, the risk of stress to the yeast is minimized, promoting a rapid and regular fermentation start. Thanks to the high concentration of bioavailable sterols, ACTIPROTECT EXPRESS™ ensures optimal cell membrane function for the yeast, improving the integration of aromatic precursors present in the must. This translates into a greater ability for the yeast to fully express the intrinsic aromatic potential of the grapes, varietal, and terroir of origin. The result is a more complex sensory profile that is true to the wine's identity.

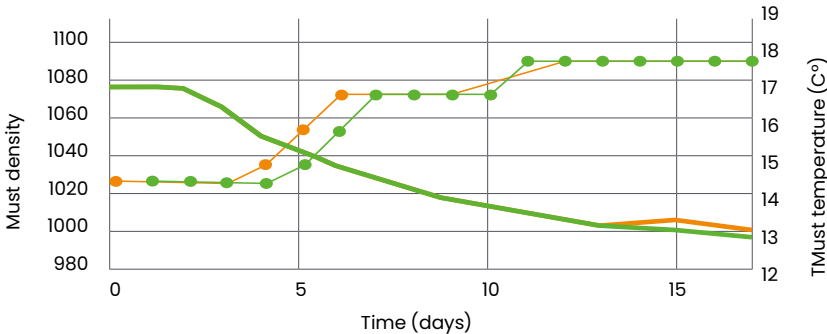
Its exceptional wettability is another strong point of ACTIPROTECT EXPRESS™. Thanks to its micro-aggregated form, it allows for extremely rapid resuspension of the product with minimal dust formation and no need to heat the rehydration water.

The optimized bioavailability of survival factors provided by ACTIPROTECT EXPRESS™ gives the inoculated yeast remarkable tolerance to a wide range of rehydration conditions. It's possible to use water at ambient temperature (≥ 15°C), and a rehydration time of just 15 minutes is sufficient, without the need for an acclimatization phase to the must temperature.

In conclusion, ACTIPROTECT EXPRESS™ represents a cutting-edge solution for combining operational efficiency with quality excellence. Its ability to simplify inoculation without compromising fermentation security, and indeed enhancing the wine's aromatic expression, makes it a valuable ally for enologists.

ALCOHOLIC FERMENTATION

RIESLING-ALSACE
TAP 13% VOL-PH 3
< 50 N TU - YAN 180 MG/L



Density CONTROL 37°C - T° acclimatization - 30/45 min - Gen. 1 Protector
ACTIPROTECT EXPRESS™ 15°C - 15 min
Temperature CONTROL 37°C - T° acclimatization - 30/45 min - Gen. 1 Protector
ACTIPROTECT EXPRESS™ 15°C - 15 min

ORGANIC NUTRITION

To avoid any type of malnutrition, choose the most suitable menu for your yeast!

COMPOSITION		Source of Nitrogen		Assimilable nitrogen provided (mg/l) from 40 g/hl addition	Ammoniacal nitrogen		Factors contributed by yeast				Others	
		ORGANIC NITROGEN	MINERAL NITROGEN		DIRECT CALCULATION	PHOSPHATES	SULPHATES	AMINO ACIDS	STEROLS AND LIPIDS	MINERALS	VITAMINS	THIAMINE AGGIUNT
Yeast protectors	Ecobiol pied de cuve			na			na	ooo	oooo	oooo		
	Ecobiol pied de cuve Arom			na			na	oooooooo	ooo	oooo		
	Actiprotect Express™			na			na	oooooooo	ooooo	oooo		
Stimulating yeast aromatic methabolism	Natija™ *	ooooo		13			ooooo	o	ooooo	oooo		
	Natija Fizz™ *	ooooo		13			ooooo	o	oooooooo	oooo		
	Natija Alma™ *	ooooo		13			ooooo	o	ooooo	oooo		
Organic nutrients	Activit 0	oooooooo		17			oooooooo	o	ooo	ooo	ooo	
	Extra PM	oooo		12			oooo	o	ooo	ooo		
	Activit Safe™	ooo		8			ooo	oo	oo	oo		
Mixed nutrients	Activit	oo	ooo	52	X		o		oo	oo	oo	
	Activit AD	oooo	ooo	57	X		ooo		oo	oo	oo	
	Ecobiol	oo	ooo	48	X	X	o		oo	oo		oo
Detossificant	Ecobiol Perlage	ooo	oo	36	X		oo		oo	oo		
	Cellclean			na			na	oo	oo	oo		
	Fosfovit		ooooo	84	X						ooo	
Simple nutrients (minerals)	Fosfovit +		oooo	76	X						ooooo	o
	MinVit		oooo	76	X	X					ooo	o
	Phosphate Titres		oooo	84	ok						oooooooo	

* Contains a specific chitosan with antiradicalic effect.

ENOFORUM 2025

We're delighted to participate once again in Enoforum, the benchmark event for innovation in the wine sector. We'll be presenting:

"THE 'SPARKLING WINE BASE,' A FUNDAMENTAL STARTING POINT: NON-CONVENTIONAL YEASTS WITH AN IMPACT ON THE STABILITY AND SENSORY PROFILE OF SPARKLING WINES."

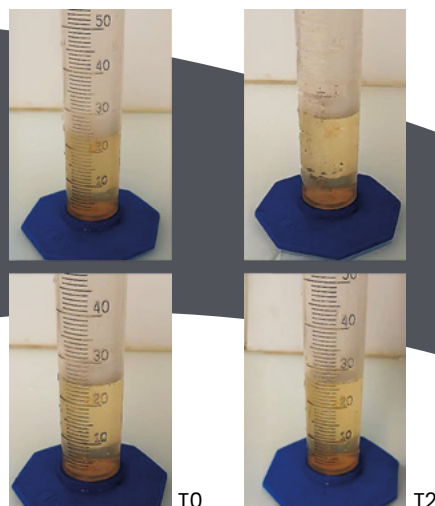
Yeast compounds that significantly influence the quality of sparkling wines include fatty acids, fatty acid esters, high molecular weight mannoproteins, proteins, nucleic acids, and other compounds that affect effervescence, stability, and the sensory profile. Polysaccharides and proteins are crucial for foam formation.

Hanseniaspora vineae is a non-*Saccharomyces* yeast that has attracted considerable interest due to its ability to improve the sensory profile of wines.

Base wine Sémillon 2024

It maintains a foam layer 20% thicker than the control after 2 minutes.*

*Continuous agitation of the base wine at a 90°C angle and monitoring of foam height for 2 minutes.



EVENTS

This yeast is known for its ability to undergo early autolysis, leading to an anticipated release of polysaccharides and peptides, which improves the wine's softness and balance. Furthermore, *H. vineae* can contribute to aromatic complexity and foam stability, making it an interesting option for producing high-quality sparkling wines.

A research program analyzed the combined use of *H. vineae* and an ethanol-tolerant fermentative yeast. This combination allowed for secure fermentations while maintaining sensory elegance. An increase in autolytic capacity was observed, with the early release of high molecular weight polysaccharides and peptides, improving the wine's softness and balance. In addition, a significant contribution to foam stability was noted, offering an alternative to traditional additives. The release of natural yeast compounds improved roundness and volume, mitigating acidity and the aggressiveness of bubbles, thereby enhancing the wine's overall quality.

IOC Di-Vina™

SMOOTHNESS, FULLNESS AND VOLUME ON THE PALATE FOR SPARKLING WINES



H. vineae e *S. cerevisiae*
complementary

Enhanced
autolytic
capacity:
smoothness
and balance

Contribution
on foam
stability

Cuvée

3

PRODUCTS INSERT

HARVEST

OPTIMIZATION OF ALCOHOLIC
FERMENTATION

YEAST FOR
ALCOHOLIC FERMENTATION

RANGE La Claire
IOC RANGE
RANGE BLASTOSEL
Yeasts for
Bioprotection

TREATMENTS
CONTAINING
SELECTED YEAST
DERIVATIVES

ENZYMES
ENO&ZYMES RANGE
Zimopec range

VINIFICATION AND FINING

MICROBIOLOGICAL
STABILIZATION
Specific antioxidants:
OxyLess

TREATMENTS TO CORRECT
SPECIFIC DEFECTS

MALOLACTIC
FERMENTATION

TANNINIS



Products AUTHORIZED in the production of organic wines as required by Regulation (EU) N.2018/1584. They can be directly allowed or allowed if obtained from organic raw materials, if available (products indicated with * / necessary request to Perdomini of specific declaration).



Product with BIO certification.



Vegan Product.



Scan the QR CODE to download the product sheets



 Actiprotect Express™

Innovative yeast protector that significantly simplifies the inoculation process because it can be rehydrated in water at room temperature. It also ensures better aromatic expression for the yeast.

 Activit O™

An alcoholic fermentation nutrient, 100% organic with added thiamine. When used in yeast inoculation and 1/3 of the way through fermentation, it generates greater production of fruity and floral aromas and reduces the production of sulphur.

 Activit Safe™

Activit Safe™ is a 100% organic nutrient to be used at the two-thirds stage of alcoholic fermentation.

 Ecobiol Pied de Cuve Arom™

Specially formulated fermentation regulator. When used during the rehydration of yeasts, it provides vital components allowing the yeast to fully express its potential for aromas and flavours.

 Fosfo Vit+™

A yeast nutrient made up of phosphate, cellulose and thiamine.

 Natjja Fizz™

Organic nutrient containing a special chitosan of fungal origin, developed to improve and protect the well-being and physiological conditions of wine yeasts during second fermentation with the Charmat method, as well as to guarantee re-fermentation

 Activit™

A fermentation activator, made up of ammonium salts, inactive yeast and thiamine. It generates organic and inorganic nitrogen and has a detoxifying effect, allowing the full aromatic expression of the yeast.

 NEW Activit Ready PS™

A ready-to-use liquid nutrient specifically developed for greater convenience in the cellar. For white and rosé wines.

 CellClean™

100% Saccharomyces cerevisiae yeast hulls with high detoxifying power. Cellclean yeast hulls absorb alcoholic fermentation inhibitors such as medium-chain fatty acids (hexanoic acid, octanoic acid and decanoic acid and residue of plant protection products.

 OEnocell™

A special fermentation regulator for use in all situations. It makes must less cloudy, regulates fermentation and enhances the potential of yeast.

 Min Vit™

A yeast nutrient made up of ammonium salts (sulphates and phosphates, thiamine and inert material.

 NEW Natjja Alma™

An innovative, 100% organic yeast nutrient, ideal for improving and protecting the well-being and physiological conditions of enological yeasts. Thanks to its specific composition of certain peptides and amino acids, Natjja Alma™ is specifically dedicated to nourishing naturally selected yeasts capable of promoting minerality in white, red, or rosé wines. In fact, it tends to increase the yeast's potential to express mineral notes without increasing reduction defects.

 Activit AD™

Nutrient made up of organic and inorganic nitrogen (biammonic phosphate) and thiamine. Unlike conventional complex nutrients, the main organic base is an autolyzed yeast.

 NEW Activit Ready CH™

A ready-to-use liquid nutrient specifically developed for greater convenience in the cellar. For red wines.

 Ecobiol Pied de Cuve™

Specially formulated fermentation regulator. When used during the rehydration of yeasts, it provides sterols and other vital components to aid yeast metabolism.

 Fosfo Vit™

A yeast nutrient made up of phosphate and thiamine. It can also be used in the production of organic wine.

 Natjja™

Organic nutrient containing a special chitosan of fungal origin, developed to improve and protect the well-being and physiological conditions of wine yeasts during alcoholic fermentation (antioxidant and anti-radical effect), with consequent optimization of aromatic development

 C58™ **CGC62™** **EM2™** **eXtase™** **eXtreme™** **SP665™** **T73™** **Varietal Touch™** **VDP™** **IOC 18-2007™** **IOC Be Fresh™** **IOC Be Fruits™** **IOC Be Thiols™** **IOC BIO™** **IOC Boreal™** **NEW IOC Di-Vina™** **IOC Fresh Rosé™** **IOC Infini'TWICE™** **IOC Prime Rouge™** **IOC R-9008™**

TYPE OF WINE	FERMENTATION KINETICS	RECOMMENDED FERMENTATION TEMPERATURE	ALCOHOL TOLERANCE	NITROGEN REQUIREMENTS	SENSORY PROFILE
La Claire range					
	rapid	15°C to 35°C	high (16% vol.)	low	fruity aromas that remain stable over time
	rapid	15°C to 35°C	high (16% vol.)	high	maintains and enhances the defining features of the grape variety; enhances fruity, floral and fresh notes
	rapid	15°C to 30°C	high (15% vol.)	average-high	releases varietal terpenic aroma compounds; greater roundness and softness; adds reductive notes, enhances fruity and floral notes
	rapid	13°C to 20°C	elevata (14,5% vol.)	average-high	aromatic intensity, freshness, fruity, thiolic, persistence
	short	15°C to 35°C	high (17,5% vol.)	low	aromas of ripe red fruit and jam accompanied by notes of dried fruit and spicy notes
	rapid	10°C to 30°C	high (18% vol.)	low	elegance, fineness, structure and aomatic complexity
	rapid	15°C to 35°C	high (17% vol.)	high	enhances fruity notes; adds softness and balance
	regular	14°C to 22°C	high (15% vol.)	moderate	Expression on of aromatic varietal notes
	rapid	15°C to 32°C	high (15,5% vol.)	average-high	enhances fruity and floral notes
IOC range (Institut Oenologique de Champagne)					
	rapid	18°C to 30°C	high (15% vol.)	low	fineness, preservation of the terroir
	regular	20°C to 28°C	high (15,5% vol.)	high	revelation of aromas associated with fresh fruity notes
	from regular to rapid	12°C to 24°C; for fruity ester expression 12-15°C	moderate (14% vol.)	low	fruity esters (notes of red fruit, pineapple, citrus fruits); avoids aroma masking because of its inability to produce SO ₂
	very fast	13-25°C; max. thiol expression: 15-18°C	high (15% vol.)	moderate	thiol expression (citrus and exotic fruits), enhancement of 3MH
	regular	14°C to 28°C	high (16% vol.)	low	full and balanced expression of the grape variety and the terroir
	rapid	15°C to 35°C	high (16% vol.)	high	Bio-acidification of musts. Lachancea thermotolerans yeast capable of producing high levels of lactic acid to rebalance the freshness of wines. A natural alternative to acidifying additives.
	normal	15°C to 25°C	moderate (13,5% vol.)	moderate	smoothness fullness, and volume on the palate of base wines for sparkling wines
	very fast	12°C to 25°C	high (16% vol.)	moderate	development of floral notes in young wines made from grapes considered "neutral"
	regular	18°C to 25°C;	high (15% vol.) in case of turbidity higher than 80 NTU	high	perfect balance between body and freshness in white wines, now without limits.
	regular	14°C to 24°C	moderate (14% vol.)	high	rounded, intensely aromatic wines with notes of red fruit (strawberry and raspberry), am and blackcurrant
	very fast	18°C to 30°C	high (16% vol.)	low	expression of ripe and complex fruity aromas, volume in the mouth



Specifically for wine
WHITES | ROSÉ | REDS | CLASSIC METHOD | CHARMAT METHOD

 **IOC Revelation Terroir™**

 **NEW IOC Smoozberry™**

 **Delice™**

Delta™

FR95™

Grand Cru™

Horizon™

Lambda™

P346™

WhiteFeel™

	regular	18°C to 30°C	high (15% vol.)	high	fruity varietal notes, freshness, fineness and elegance
	regular	18°C to 30°C	high (16% vol.)	moderate	improvement of structure and volume on the palate, enhancement of varietal fruitiness
BLASTOSEL range					
	regular	18°C to 32°C	high (15,5% vol.)	average-high	complex range of spicy aromas
	rapid	12°C to 35°C	high (18% vol.)	low	full and balanced expression of grape variety and terroir
	very fast	12°C to 30°C	high (15% vol.)	low	fruity notes, hints of rose
	regular	16°C to 30°C	high (17,5% vol.)	low	full expression of complex aroma compounds
	regular	15°C to 30°C	moderate (14,5% vol.)	average-low	enhances aromatic cleanliness and perception of the terroir
	regular	18°C to 32°C	high (18% vol.)	average-high	complex range of spicy aromas
	rapid	10°C to 18°C	moderate (14,5% vol.)	average-low	aroma of fresh fruit (citrus fruits, apple and pear), exotic fruits and white flowers
	rapid	15°C to 24°C	moderate (14,5% vol.)	low	notes of exotic fruits and fresh fruit

Yeasts for Bioprotection

 **IOC Gaïa™**

 Metschnikowia fructicola yeast, which has no fermentation activity but can combat unwanted yeasts. Gaïa™ has been shown to be a useful tool in limiting pre-fermentation sulphitation.

 **IOC BoreAl™**

 Pre-fermentation Lachancea thermotolerans yeast which takes sugars and turns them into L-lactic acid. To be used at least twenty-four hours before inoculating the chosen Saccharomyces cerevisiae strain for alcoholic fermentation. Also helps enhance the complexity of the flavours and bouquet in the wines produced.

 **IOC Calypso™**

 A Metschnikowia pulcherrima yeast selected for its unique enzyme activity. When used at the pre-fermentation stages on white or rosé must – in particular when cold-macerating on the lees – it acts as an innovative bioprotection tool which helps enhance the sensory potential of the grapes.

 **Ecobiol Rouge™**

 Product deriving from yeast hulls rich in rapid-release parietal polysaccharides. It allows you to obtain more stable wines both from the point of view of color and taste (softness and structure) and bouquet.

 **Edifys Inciso™**

 Innovative product based on specific yeasts, improves the gustatory quality of wines by reducing the hint of bitterness and green characteristic of some tannins and sulphurous hints known as “reduction”.

 **Edifys Rilievo™**

 Innovative product based on specific inactivated yeasts allows you to quickly perceive a sensation of volume and structure of the wine, thanks to the presence of polysaccharides that interact with phenolic compounds; promotes a greater perception of fruitiness fresh, it neutralizes the sulphurous scents known as “reduction”.

 **Fullprotect™**

 Blend of tannins and yeast polysaccharides, effective in protection of the color and aromas of white and rosé wines. It specifically acts against oxidation in the prefermentation phases.

 **Glutarom Extra™**

 Specific inactivated yeast with guaranteed glutathione content (reduced glutathione). Thanks to the presence of glutathione and reducing peptides, Glutarom Extra has a high antioxidant activity, allowing you to obtain wines with a better shelf-life.

 **Netarom™**

 An ageing adjuvant made with inactive yeast selected for its ability to absorb products responsible for the reduction taste.

 **Netarom Extra™**

 An ageing adjuvant made with inactive yeast rich in copper, makes it possible to absorb products that cause reduction taste without adding copper to the wine.

Cuvée

3

 **ultiMa Fresh™**

 A product made with special completely soluble mannoproteins. When added to the wine before bottling, it stabilises the softness (“sugariness”) and aromatic persistence by increasing the overall freshness of the wine. It does not alter the filterability of the wine.

 **ultiMa Jump™**

 Preparation based on 100% soluble yeast mannoproteins, specifically selected for the enhancement of wines white and rosé. UltiMa Jump is particularly exciting the citrus thiol notes excellently enhancing the ultimate freshness of the taste.

 **ultiMa Ready Expression™**

 Selected mannoprotein fractions in liquid form for instant activation and solubility in the wine to add a touch of freshness in terms of the balance of flavours. In red wines, this product is highly effective at reducing sourness and astringency, while in white wines it enhances sapidity.

 **ultiMa Ready Fizz™**

 Specific fractions of mannoproteins in liquid form, instantly active and soluble in wine for creamier bubbles. It contributes significantly to obtaining a finer perlage in sparkling wines produced with the Charmat method.

 **ultiMa Ready Life™**

 Liquid preparation made from selected mannoproteins which interacts with the aromatic components of the wine. Increases the colloidal balance of the wine and increases both length in the mouth and “sugariness”.

 **ultiMa Soft™**

 A product made with special completely soluble mannoproteins. When added to the wine before bottling, it stabilises the softness (“sugariness”) and aromatic persistence by increasing salinity and roundness and decreasing acidic edges. It does not alter the filterability of the wine.

Eno&Zymes range

 **AromColor™**

 Pectolytic enzyme in granule form, for use when macerating red-wine grapes. Boosts the breakdown of the polysaccharides, tannins and aroma precursors contained in the skins. Moreover, thanks to its special formulation, it frees aroma precursors right from the fermentation stage.

 **AromPress™**

 A granular pectolytic enzyme for skin maceration for aromatic white wines. It is conducive to aromatic extraction and expression.

 **** ClearSpeed™**

 A granular pectolytic enzyme to accelerate the clarification of white must, thereby guaranteeing fresher, fruitier aromas.

 **EnzyFlow™**

 A granular pectolytic/β-glucanase enzyme, one of a kind, with supplementary action to improve the filterability of must and wine.

 **EvolutionPlus™**

 A granular pectolytic/β-glucanase enzyme for the ageing of white and red wines. It improves the overall sensory profile (taste and aromas) of the wine.

 **** Process Extreme™**

 In granule form, for clarifying or macerating troublesome base materials. Thanks to its formula, it is active even at low pH and in difficult conditions in general. Suitable for working on sparklingwine bases or not-fully-ripe grapes.

 **** SweetPress™**

 A granular pectolytic enzyme for the skin maceration of white grapes. It is conducive to aromatic extraction.

 **** TrueColor™**

 Granular pectolytic enzyme for the maceration of red grapes. It promotes the dissolution of tannins, polysaccharides and aromatic precursors contained in the peel.

Zimopec range

 **** 2 Flotto lash™**

 Is a product developed for flotation in the most difficult cases. It has a high pectolytic activity that breaks down pectins and assists the formation and growth of flocs that are easier to separate.

 **** Clear Flash™**

 A liquid enzyme for the clarification of white wines. The formula makes it possible to obtain clear must in rapid time and at low temperatures.

 **** Color Flash™**

 A liquid enzyme for extraction and stabilisation during red maceration.

 **** Flotto lash™**

 A liquid enzyme for continuous and discontinuous flotation. The formula makes it possible to obtain clear must in rapid time and at low temperatures.

 **** Press Flash™**

 A liquid enzyme for the skin maceration of white grapes.

 **** P110L™**

 A liquid enzyme formula for the rapid clarification of white must. The formula makes it possible to obtain clear must in rapid time.

 **** PML™**

 A liquid enzyme formula for the pre-fermentation maceration of white grape varieties. It is conducive to the release of aromatic precursors. It increases the yield of flower must.

 **** PX5™**

 A solid enzyme formula for optimising the extraction of precursors and polyphenols from red grape varieties. It improves the sensory profile.

 **** PXL-09™**

 A liquid enzyme formula for extraction from red grape skins. It improves the overall quality and the production processes.

ENZYMES

 Bent'Up™

 Sodium bentonite clay particularly recommended for flotation with excellent clarification properties. Strongly recommended for use when the wine has been treated with carbon, as it can remove any residual particles still suspended.

 Clear GT F™

Clarifier formulated using PVPP, non-animal origin protein and silica gel for rapid, high-performance flotation.

 Clear GT R™

 Product containing nonanimal-origin protein, selected yeast hulls and silica gel for phenol clarification during fermentation leading to greater softness in the mouth.

 Clear GT W™

Clarifier formulated using PVPP, non-animal-origin protein and bentonite for the synergistic removal of unstable proteins and oxidizable phenols.

 Cristalline Liquid™

High quality liquid isinglass, stabilised and ready to use.

 Cristalline Plus™

Isinglass derived from swim bladder. A natural clarifying agent with high molecular weight and incomparable brightening power.

 Easy'Up™

 Liquid fining agent specifically for flotation, based on vegetable carbon, pea protein, and bentonite. It effectively improves browned/oxidized musts, reduces oxidized and oxidizable phenolic compounds, and facilitates clarification and compaction of the flotation cap.

 Fyneo™

 Protein-rich yeast extract which provides a powerful clarifying action and aid to rapid sedimentation. It fines the wines by eliminating any hard or bitter sensations, yet preserves the desirable sensory characteristics.

 Inobent Nat™

 Unactivated bentonite for clarifying musts and wines, in granular form for easy dispersion. It interacts with proteins for optimal protein stabilization in white and rosé wines.

 Inofine V Mes™

 A liquid fining agent for clarifying musts, also ideal for flotation, based on pea protein. It's particularly suited for the preventive treatment of easily oxidizable musts. It improves organoleptic qualities, reduces bitterness, and eliminates vegetal or herbaceous notes.

 LumiClean Plus™

A stabilizer for musts and wines used to remove oxidized and oxidizable polyphenols. It also promotes wine longevity, significantly improves color, and is effective at reducing riboflavin content in white and rosé wines, thereby helping to prevent the phenomenon known as 'lightstruck' (or 'light taste').

 MetalClean™

It leverages the synergistic capacity of its components to adsorb metals such as copper, iron, lead, and aluminum. By doing so, it creates the ideal environment for the correct initiation and progression of alcoholic fermentation, while simultaneously preventing the tendency towards oxidation and pinking.

 P-Cell™

A multi-compound fining and stabilizing agent (PVPP, activated bentonites, and α -cellulose fibers) ideal for use during fermentation.

 Phenox free™

Improved color, aroma preservation, and taste perception (less bitterness on the palate). Used as a preventive treatment on white and rosé musts, it allows for the production of wines less susceptible to oxidation, which significantly gain in roundness due to the presence of inactivated yeasts.

PK SOL M™

An allergen-free fining agent for white, red, and rosé wines, based on chitin polysaccharides. It offers excellent clarifying capabilities and effectively removes oxidized and oxidizable polyphenolic fractions.

 Qi Fine™

 Ideal for the elimination of phenolic compounds, this is an excellent natural, biodegradable, allergen-free, and animal-product-free solution that's effective for rapid flocculation in red wines. It's recommended as the best alternative to PVPP.

 Qi Fine Mes™

 A liquid fining agent for clarifying white and rosé musts, also ideal for flotation, based on fungal chitosan and pea protein.

 Qi No[Ox]™

 A fining and stabilizing agent for wines and musts, an alternative to casein. It's the first non-allergenic and biodegradable formulation that contains no animal-derived or synthetic products. It is, in fact, composed of bentonite and plant-derived polysaccharides from chitin.

 Qi Up-XC™

 A powdered fining agent for the flotation of white, rosé, and red musts. It is natural, biodegradable, allergen-free, and free from animal-derived products.

 Qi Up-XC Mes™

 A liquid fining agent for clarifying white and rosé musts, also ideal for flotation, based on chitosan.

 VinOfine Rouge™

 An innovative alternative to traditional animal-based fining agents (gelatins, albumins), formulated with specific vegetable proteins for the clarification, color stability, and improved sensory quality of wines.

Specific antioxidants: OxyLess

 OxyLess M™

 A specific antioxidant for white and red musts. It protects the aromatic profile obtained at the end of alcoholic fermentation. It's rich in glutathione and antioxidant amino acids.

 OxyLess U™

 A specific antioxidant for white and red grapes. It prevents the browning and oxidation of must aromas.

 OxyLess V™

 A specific antioxidant for white and red wines. It protects against oxidation and stabilizes the anthocyanin fraction that is still unstable during wine rackings.

 Absolute MV™

 A product for the selective reduction of pesticides. To be used during alcoholic fermentation or on wine during fining. Suitable for both white and red wines.

 Absolute SP™

 Blend of yeast hulls from various strains of *S. cerevisiae*. Ideal for reducing pesticide residues, which can potentially inhibit alcoholic fermentation.

 Carbo Clean™

 Highly bleaching vegetable activated carbon, preserves the organoleptic characteristics of the wine.

 Carbo F™

 Special vegetable carbon with intense decolourizing power, s highly porous, making it perform extremely well in winemaking, as the contact surface between the carbon and the must/wine is exceptionally large.

 Carbo Grané™

 Carbo Grané is a carbon in pellet form with an exceptional decolourizing ability. The chemical activation process leads to extremely porous particles which can adsorb various different types of molecules, depending on their size.

 Lumyclean Rex™

 Special treatment made with a Blend of a special activated vegetable charcoal and silica gel, for white and rosé wines that helps winemakers avoid the so-called 'light-struck taste' caused by the photoreduction of riboflavin.

 Qi Smoke™

 Formulated with fungal chitosan and enological carbon, it's designed to eliminate smoke taints in wines from vineyards located in areas affected by fires.

SPECIFIC CORRECTIVE TREATMENTS

 Extra lore Co-In™

 Bacteria used by direct inoculation. Increases the fruity and floral notes, with a minimal production of diacetyl ("butter" notes). Ideal if used in the yeast/bacteria co-inoculation technique. Especially suitable for white wines red and rosé.

 Extraflore Complexity™

 Bacteria used by direct inoculation. Increases spicy and fruity notes, and the sensation of roundness and volume. Ideal if used in the technique of post-alcoholic inoculation. Especially suitable for red wines.

 Extra lore Density™

 Contributes to the volume and fullness of the wines in the mouth, favoring the expression of a quality structure. It guarantees robustness in limiting winemaking conditions (high alcohol, low pH, very weak malic acid). It also reduces any aggressive sensations in the mouth.

 Extraflore Pure Fruit™

 Direct inoculation *Oenococcus oeni* enological bacteria for the purity of fruit notes and for the control of malolactic fermentation under difficult conditions. It promotes the purity of the wine's fruit profile and helps confer roundness.

 IOC Inobacter™

 Long-preparation (Standard) bacteria. Suitable for all enological situations due to low diacetyl production, enhancing the wine's varietal notes, for the preparation of traditional method sparkling wine bases, or in wines with 'difficult' enological conditions.

 IOC Maxi lore Elite™

 Short-preparation (1-Step) bacteria. It increases fruity notes and the sensation of body and volume on the palate. Suitable for large volumes in white and red winemaking.

 IOC Maxi lore Satine™

 Short-preparation (1-Step) bacteria. It increases fruity notes with low diacetyl production. Highly resistant to high alcohol content. Particularly suitable for red wine vinification.

 IOC Sentinel™

 An innovative product, completely allergen-free and GMO-free, for the control of bacterial flora pre and post-malolactic fermentation.



Nutri lore FML™



A regulator and activator of malolactic fermentation. It provides the essential nutrients to allow the bacteria to perform malolactic fermentation optimally, with a high fermentation speed.



Nutri lore PDC™



A specific nutrient to ensure the optimal initiation of malolactic fermentation. Particularly indicated when alcoholic fermentation conditions are difficult.



Zimopec Ovolys™

Pure lysozyme derived from hen egg white. Its activity is effective against Gram-positive bacteria (lactic acid bacteria).



* Cromo ix SR™



An ecological tannin for color stabilization in red wines.



* Cromox™



Tannin derived from a blend of proanthocyanidin and gall tannins; it possesses a marked antioxidant activity and stabilizing effect on the coloring fraction.



* Essential AntiOxidant™



Gallnut tannin, extremely pure and very rich in polyphenols, with excellent antioxidant power. It inhibits the enzymatic activity responsible for the oxidation of musts from harvests affected by Botrytis.



* Essential PEL™



A proanthocyanidin-based tannin, derived from white grape skins. It improves the wine's structure, body, and softness. It enhances the wine's primary aromas, increasing their intensity, without influencing its sensory profile.



* Essential PEP™



A grape seed-based tannin. Ideal for achieving protein stabilization and color stabilization, and for improving wine structure (ideal when combined with micro-oxygenation).



* FullColor™



A blend based on proanthocyanidin and ellagic tannins and polysaccharides (yeast origin) to be used during red fermentation for color stabilization and taste improvement.



NEW FullRed™



Used during the racking of red wines, it performs a protective action on the coloring matter, contributes to the wine's structure, volume, and taste, and is also suitable as a fining agent in clarification operations.



* Mann Bouquet B19™



A product for white and rosé musts, composed of tannins and a yeast derivative rich in polysaccharides and glutathione. It imparts floral and white fruit notes and provides excellent antioxidant action.



* Mann Bouquet R16™



A product for red musts, composed of tannins and a yeast derivative rich in polysaccharides. It imparts complexity, spicy notes, and black fruit (currant) aromas, in addition to contributing to color stabilization.



* Tan FlavourFF™



A proanthocyanidin tannin for white and red winemaking, rich in flavonoids and aromatic precursors.



* Tanin Bouquet R36™



Cherry-based tannin for red and rosé musts, expressing red fruit notes while stabilizing color.



* Tanin Bouquet B45™



Citrus-based tannin for white and rosé musts, expressing citrus notes along with effective antioxidant action.



* Tanin Bouquet B49™



Tannin for white and rosé musts, with a small fraction derived from yeast rich in glutathione. It's designed to produce wines with a fruity and exotic character while also performing a marked antioxidant action.



* Tanifase Elevage™



Pure ellagic tannin. Ideal for eliminating sulfur-containing proteins, preventing oxidation, and improving the sensory profile of any wine.



* Tanin SR™



Pure quebracho tannin for color stabilization.



* Tanin TC™



Pure ellagic tannin derived from chestnut, characterized by the absence of bitterness and high chemical reactivity.



* Volutan™



100% liquid white grape tannin. It is 100% soluble with no precipitation. It is used for color stabilization and to impart softness to the wine.

TANNINS

Cuvée 3