

CATALOGUE • EDITION 2026 - 2027

LAMOTHE-ABIET

Solutions for winemaking



Exclusive Distributor



FOCUS ON AROMATICS

Climate change influences the grape ripeness and disrupts the balance of wines. Maintaining freshness, harmony and aromatic expression is now a real challenge for winemakers. **Lamothé-Abiet** supports you in addressing this challenge.

Our **R&D department** continuously develops innovative and high-performance œnological solutions designed to preserve the style of wines while adapting to new climatic and structural realities.

The **ease of use** of our solutions is also at the heart of our developments, helping to simplify the winemakers' daily work.



Guillaume MARTINEAU
General Manager

Quality requires absolute rigour in terms of safety. **FSSC 22000** certified, Lamothé-Abiet guarantees reliable, controlled and perfectly traceable products so that your technical choices can be made with complete peace of mind.

Our responsibility goes even further. Through our **CSR approach**, we affirm our commitment to the environment, our employees and our partners, convinced that performance and sustainability are inseparable.

This catalogue brings together **our œnological solutions** and **our expertise** to support you with precision, confidence and passion in crafting your wines.

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YEASTS

The high standards of the Excellence® yeast range are now widely recognised.

Our yeasts are very rigorously selected and developed at the Institut des Sciences de la Vigne et du Vin (ISVV) of Bordeaux by our R&D teams.



The Excellence® FTH, TXL, STR, CHD & Rosé strains are signature references for the production of aromatic white and rosé wines. These yeasts' specific capacities and their resilience to fermentation result in clean wines with intense aromatic profiles.

EXCELLENCE®

FTH

Fresh Thiols

- ◆ Revelation of volatile thiols
- ◆ Citrus notes, fresh aromatic profile
- ◆ Vivacity

Aromatic profile

EXCELLENCE®

TXL

Intense Thiols

- ◆ Revelation of volatile thiols
- ◆ Box-tree, citrus and tropical fruits
- ◆ Perfect balance: volume, complexity and aromatic finesse

Aromatic profile

EXCELLENCE®

STR

Esters

- ◆ Revelation of fermentation esters
- ◆ Stone fruit and tropical fruit notes
- ◆ Aromatic complexity

Aromatic profile

EXCELLENCE®

CHD

Sélection Bourgogne

- ◆ Enhancing the varietal aromatic expression of Chardonnay
- ◆ Aromatic intensity and complexity
- ◆ Balance of wines between volume and tension

Aromatic profile

EXCELLENCE®

Rosé

Pure Fruit

- ◆ Clean and precise profile (no aromatic masks)
- ◆ Aromatic intensity and freshness (white flowers, stone fruits)
- ◆ On the palate: vivacity, L-malic acid preserved

Aromatic profile

◆ Fresh fruit

◆ Tropical fruits

◆ Citrus fruits

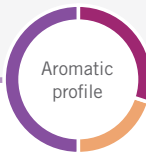
◆ Floral



Excellence® XR, DS, SP & FR are specifically suited to the production of red wines. These yeasts can be used for various winemaking objectives, in order to obtain precise profiles whilst respecting varietal typicity and ensuring excellent fermentation dynamics.

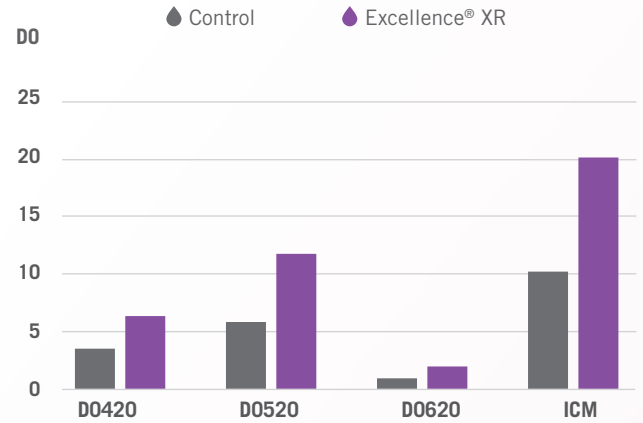
EXCELLENCE® **XR** Grand rouge

- ◆ Powerful wines with structure and volume
- ◆ Ideal for carrying out MLF in co-inoculation
- ◆ High polysaccharide production: stabilisation of colour and volume increase
- ◆ Adapted to high potential alcohols, low production of volatile acidity



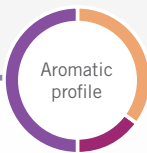
Static colour stabilisation - post-MLF analysis

Harvest 2019 • Cabernet Sauvignon • Adelaide Hills, Australia



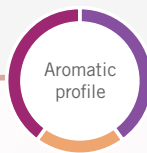
EXCELLENCE® **DS** Prestige

- ◆ Fleshy profile, fresh fruit aromas
- ◆ Traditional vinification / thermovinification
- ◆ Adapted to high ABV, low volatile acidity production



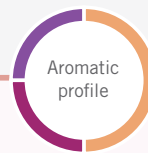
EXCELLENCE® **SP** Spicy

- ◆ Structured profile, spice aromas
- ◆ Traditional vinification / thermovinification
- ◆ Ideal for fast rotation wines or for medium-length bottle ageing

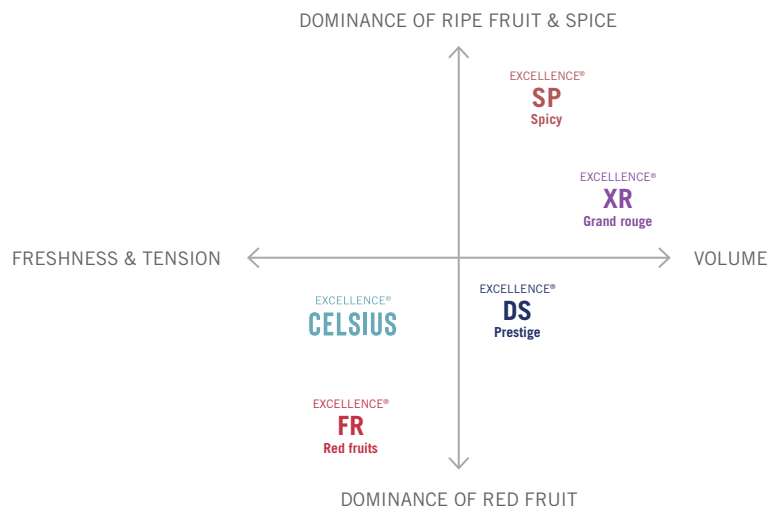


EXCELLENCE® **FR** Red fruits

- ◆ Easy-drinking profile, red fruit aromas
- ◆ Recommended to ferment thermo-macerated grapes
- ◆ Fresh and balanced wines



◆ Structure, volume ◆ Fresh fruits ◆ Ripe fruits, spices



Non-*Saccharomyces* yeasts have raised increasing interest in enology over the past few years. Overlooked for a long time, they now reveal the secrets of specific and valuable metabolisms. Integrating these microorganisms into winemaking protocols can help to produce wines using an innovative approach.



EXCELLENCE® B-NATURE

Bioprotection

Through its research efforts, Lamothe-Abiet has selected Excellence® B-Nature, a strain from the species *Metschnikowia pulcherrima* (a non-*Saccharomyces* yeast).

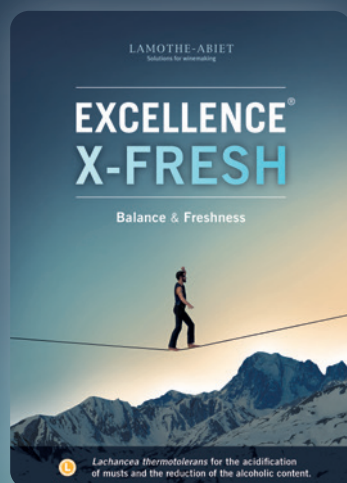
BENEFITS

- ◆ Control of the microbiological flora from the harvest
- ◆ Decrease in SO₂ application rate on grapes
- ◆ Decrease in SO₂-combining compounds
- ◆ Increased aromatic complexity of the wine
- ◆ Rapid consumption of dissolved oxygen in the must

DID YOU KNOW

Bioprotection involves an early control of the **natural flora** present on the grapes. The flora's balance is extremely sensitive between the grapes' harvest and the yeast addition to the must. This lapse of time represents a major risk of microbial spoilage (development of non-*Saccharomyces* yeast

that are often the source of defaults, such as *Brettanomyces*, bacteria...). As opposed to sulphite addition which destroys these microorganisms, biological control involves **inoculating a fermenting yeast to occupy the medium** and thus **avoid the growth of undesirable microorganisms**.



EXCELLENCE® X-FRESH

Balance & Freshness

Strain of *Lachancea thermotolerans* (non-*Saccharomyces* yeast).

This yeast has a unique metabolism which enables it to transform fermentable sugars into **L-lactic acid** during the fermentation.

BENEFITS

This production of L-lactic acid directly influences certain parameters:

- ◆ Increased total acidity
- ◆ Lower pH
- ◆ Decrease in alcohol content

Used in association with *Saccharomyces cerevisiae*, it restores **balance** and **freshness** to wines.

✓ BENEFITS OF USING BIO-ACIDIFICATION

- Produce L-lactic acid, a molecule that is stable in wine
- Increase the total acidity by generating a mild and integrated acidity
- Natural alternative to avoid chemical inputs
- Cost per hectoliter and cellar labour optimisation compared with the addition of organic acids

LEARN MORE ABOUT
EXCELLENCE® X-FRESH



EXCELLENCE® ROSÉ

Its purity makes it shine



A strain of *Saccharomyces cerevisiae* selected using the Breeding technique to produce rosé wines with a **fresh** and **intense** aromatic profile.

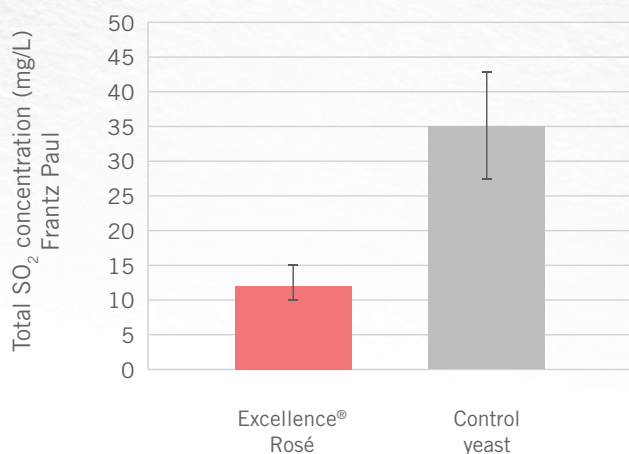
Benefiting from the latest knowledge in microbiology from our R&D teams, **Excellence® Rosé** is characterised by its **high consumption of SO₂** and its **low production of combining compounds** (ethanal and others). This specific feature

allows winemakers to reduce their sulfite rates whilst maximising their effectiveness and amplifying the revelation of a rich and **intense aromatic palette**.

Wines present an aromatic profile marked by notes of fresh fruits and **flowers**, reinforced by an **intense freshness** on the palate. With no masking compounds, the resulting **aromatic purity** gives wines a real sparkle.

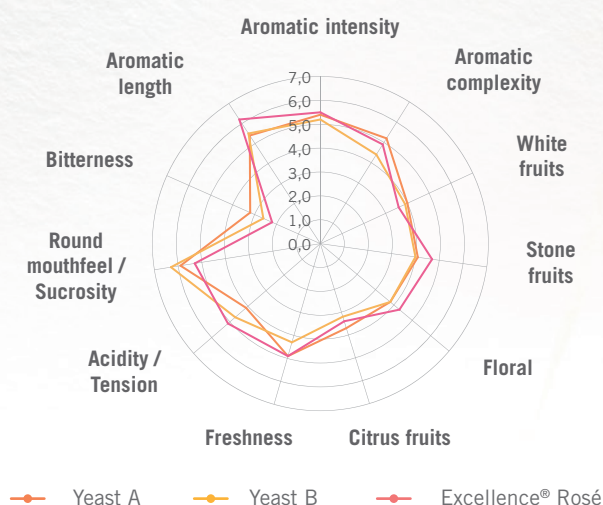
Total SO₂ content after alcoholic fermentation

Centre du Rosé • Grenache/Syrah/Cinsault Rosé 2023
Total SO₂ in must: 31 mg/L



Blind tasting result (19 trained tasters) of rosé wines made with 3 different yeasts

Grenache rosé • 2022



EXCELLENCE® CHD

Burgundy Selection



Strain of *Saccharomyces cerevisiae* selected in Burgundy in partnership with the IFV (Institut Français du Vin et de la Vigne).

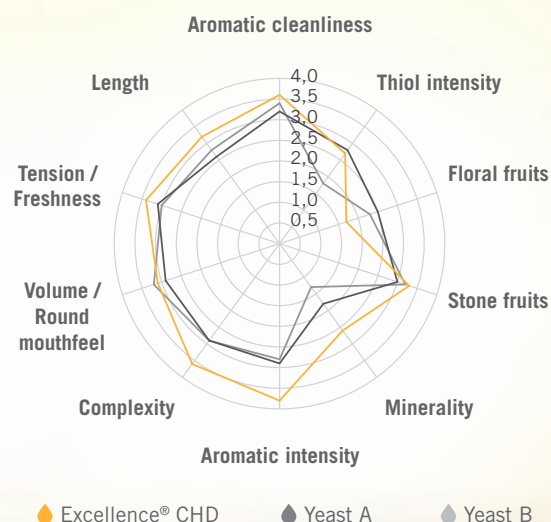
Specifically adapted to the requirements of Chardonnay winemaking, it helps to produce wines that fully reflect the **varietal typicity** of this iconic and ubiquitous variety.

Excellence® CHD helps to express an **intense aromatic complexity**, mixing aromas of **fresh stone fruit**

with **minerality**. It produces wines that are characterised by a **great tension** and a notable increase in **volume** on the palate, ensuring the **organooleptic balance**.

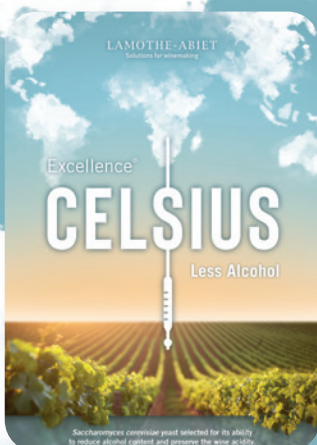
Results of blind tasting of chardonnay wines made with 3 different yeasts.

Chardonnay 2020 • Beaune, Burgundy
ABV: 13,70 % vol. • pH = 3,36



EXCELLENCE® CELSIUS

Less Alcohol



Using the latest advances in genetics applied to enology, Lamothe-Abiet has selected a new yeast, **Excellence® Celsius** (*Saccharomyces cerevisiae*), whose main characteristic is to **reduce the alcohol content** of the wines produced.

Selection through the Breeding technique has conferred Excellence® Celsius with QTL (Quantitative Trait Loci) that are specifically associated with decreased fermentary yield. Therefore its sugar consumption metabolism is oriented towards other products than ethanol (glycerol for example).

Furthermore, wine **freshness is enhanced** through the use of Excellence® Celsius,

due to its ability to **produce L-malic acid** during alcoholic fermentation. This has a direct action in **increasing the total acidity** and **decreasing the pH**.

The resulting wines offer an **aromatic profile centered on fresh fruits** thanks to the production of fermentation esters. On the palate, this yeast offers wines with an **elegant tension** and good mouthfeel. Red, white and rosé wines are therefore **balanced** and **harmonious**.

These unique properties make Excellence® Celsius an **essential tool for managing wines' balance**, especially in the context of **climate evolution**.

Acidity management (post-MLF measurements)

Syrah 2024 (Corbières) • TA: 2.89 g/L H₂SO₄ • pH: 3.64



YEASTS	ABV (% VOL.)
Control	14,53
Excellence® Celsius	14,08

EXCELLENCE® FINISHER

Don't stay stuck



Complicated vintages are more and more common, causing an increased number of stuck fermentations.

To meet this challenge, Lamothe-Abiet has developed **Excellence® Finisher**, after ten years of research.

This reliable strain, produced thanks to the Breeding technique, with a strong fructophilic action, is an effective tool to restart stuck alcoholic fermentations.

Thanks to its resistance and its reliability in fermentation, **Excellence® Finisher** reduces the risks of organoleptic alterations.



ALCOHOLIC FERMENTATION
RESTART PROTOCOL WITH
EXCELLENCE FINISHER®.





	STRAIN	THIOLS	ESTERS	VARIETAL	ROUND MOUTHFEEL	NITROGEN NEEDS	ALCOHOL TOLERANCE	VARIETALS	
									
EXCELLENCE® YEASTS	CHD Burgundy Selection	•	•	•	•	Medium	15 %	chardonnay	
	ROSÉ	•	•		•	Medium	14,5 %	sémillon, viognier	grenache, shiraz, cinsault, mourvèdre, merlot, cabernet franc, cabernet sauvignon
	FTH® Fresh thiols	•	•	•		Medium	15 %	sauvignon, riesling, gewurztraminer, vermentino	merlot, grenache, cinsault, cabernet franc, cabernet sauvignon, shiraz
	TXL® Intense thiols	•	•	•	•	Medium	15 %	chardonnay, sauvignon, gewurztraminer, grenache blanc, chenin blanc, riesling, vermentino, viognier, pinot gris	mourvèdre, grenache, cinsault, cabernet franc, cabernet sauvignon
	STR Esters	•	•		•	Medium	15 %	chenin, chardonnay, muscadet, viognier, muscadelle	grenache, cinsault, cabernet franc, shiraz, merlot
	B2 Elegant white	•		•	•	Medium	14 %	chardonnay, sauvignon, colombar, sémillon, chenin, muscat, mauzac	
	FW Floral	•	•			High	14,5 %	chardonnay, sauvignon, chenin, muscat	
L.A. YEASTS	AROM	•	•	•	•	Low	14 %	chardonnay, sauvignon, chenin, sémillon, viognier, muscadelle	merlot, grenache, cinsault, cabernet franc, shiraz, cabernet sauvignon

	STRAIN	FRUITY ELEGANT	FRUITY INTENSE	STRUCTURED	NITROGEN NEEDS	ALCOHOL TOLERANCE	VARIETALS
EXCELLENCE® YEASTS	XR® Grand rouge	•	•	•	Medium	> 16 %	cabernet sauvignon, merlot, grenache, shiraz, pinot noir, malbec
	DS Prestige	•	•	•	High	16 %	merlot, cabernet sauvignon, cabernet franc, shiraz, grenache, malbec
	SP Spicy	•	•	•	Medium	15 %	cabernet franc, shiraz, grenache, merlot, malbec, mourvèdre
	FR Red fruits	•	•	•	Medium	15 %	gamay, grenache, duras, carignan, carbonic maceration
L.A. YEASTS	HIGH DEGREE	•	•	•	Low	18 %	all
	BJL	•	•		Low	14 %	gamay, carbonic maceration
	L13	•	•	•	Medium	16 %	all
	RB2	•	•	•	Medium	15 %	pinot noir, merlot
	CEREVISIAE	•	•	•	Low	14 %	all

	STRAIN	ACTION	VARIETALS
EXCELLENCE® SPECIFIC YEASTS	CELSIUS	<i>Saccharomyces cerevisiae</i> strain selected for reducing ABV and improving wine balance. This yeast gives aromas of fresh fruits with freshness and vivacity.	all
	X-FRESH	Non- <i>Saccharomyces</i> yeast for natural acidification of musts.	all
	B-NATURE	Non- <i>Saccharomyces</i> yeast for musts and grapes bioprotection.	all
	FINISHER	A high fructophilic <i>Saccharomyces cerevisiae</i> specifically selected for AF restart.	all
	E2F Sparkling	Production of wines with great aromatic finesse thanks to its resistance to alcohol and its fructophilic characteristics. Recommended for the second fermentation.	all
L.A. SPECIFIC YEASTS	SPUMANTE	Highlights the aromatic floral (Terpens) and fruity (Esters) notes of the wine. Recommended for sparkling wines made from second fermentation in pressure tanks (Charmat method).	all
	BAYANUS	A yeast strain capable of ensuring the restart of alcoholic fermentation while exhibiting a negative SO ₂ balance.	all



As a true pioneer of the co-inoculation technique more than 20 years ago, Lamothe-Abiet has developed a unique expertise in the field and offers strains tailored to the most recent needs to control malolactic fermentation.

ŒNO 1®

Strain of *Œnococcus œni* selected for its resistance to difficult conditions. Can be used for direct inoculation and is also well adapted to co-inoculation.

BENEFITS

- ◆ Robust strain
- ◆ High quality production
- ◆ Control of the MLF and prevention of faulty, off-flavours
- ◆ No production of biogenic amines
- ◆ Moderate diacetyl production, particularly under co-inoculation conditions.



"Lamothe-Abiet, a pioneer in co-inoculation techniques, has long highlighted the benefits of this approach while emphasizing the critical importance of strain selection (yeast and bacteria).

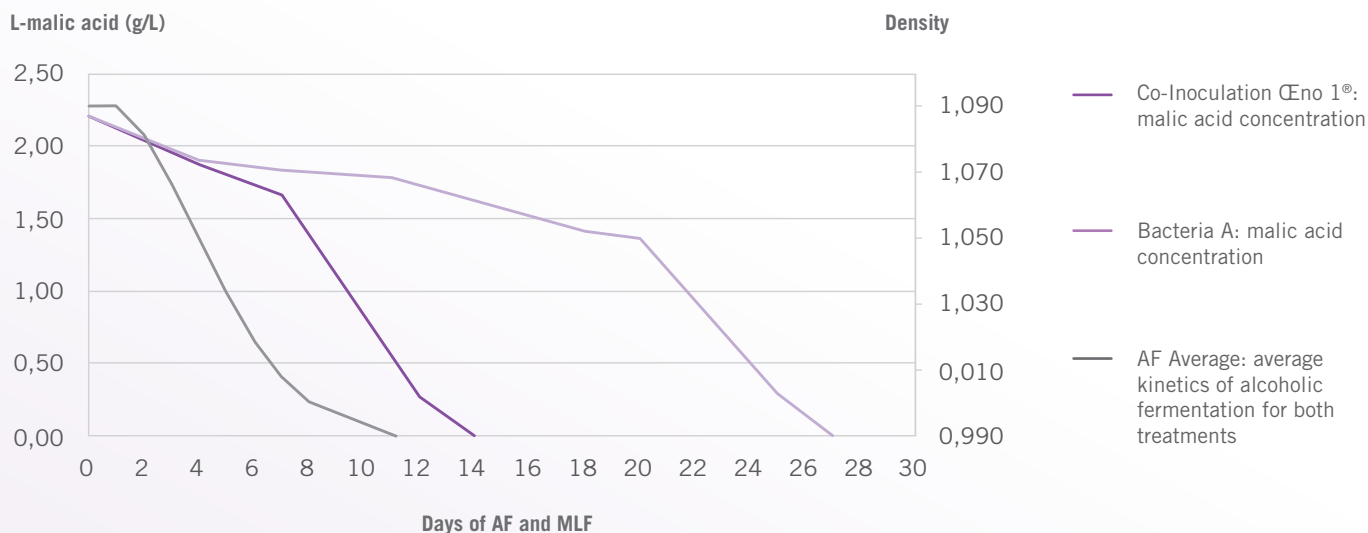
After years of extensive testing, the combination of **Excellence® XR** and **Œno 1®** has proven to be the most reliable to **carry out both alcoholic and malolactic fermentations**, even under challenging winemaking conditions. This practice is becoming increasingly widespread in Australia, as it results in **more aromatic, fresher wines** while **enabling earlier wine stabilization** thus **maximizing the quality potential**."



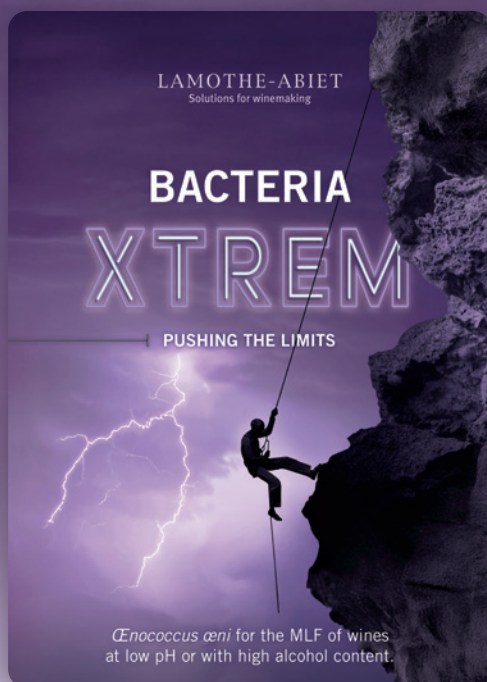
TRAVIS LEMM, ŒNOLOGY SPECIALIST, ACCOUNT MANAGER
BHF TECHNOLOGIES, AUSTRALIA

Monitoring of co-inoculations of Œno 1® and Bacteria A

Merlot 2024 (Graves) • Vinification with Excellence® XR • ABV: 13.5 % vol. • pH: 3.3



"The **Excellence® XR / Œno 1®** combination carried out AF and MLF simultaneously (14 days), with Œno 1® completing MLF 3 days after the end of AF. By contrast, with the second bacterial strain, MLF only properly started after AF was completed, resulting in a total duration of 27 days".



BACTERIA XTREM

Pushing the limits

A strain of *Œnococcus oeni* for MLF in difficult conditions.

Malolactic fermentation is a key stage in winemaking. It contributes to the improvement of the organoleptic profile by adding **softness** and **round mouthfeel** on the palate. MLF is a highly

effective solution to balance wines with high acidity. Bacteria XTREM initiates the MLF, thus **avoiding the development of indigenous strains** which can lead to organoleptic spoilage.

Usable in **direct inoculation**, XTREM bacteria:

- ◆ Resists to high alcohol contents (up to 16% abv.)
- ◆ Efficient at very low pH (down to pH 3)
- ◆ Fast malic acid consumption kinetics

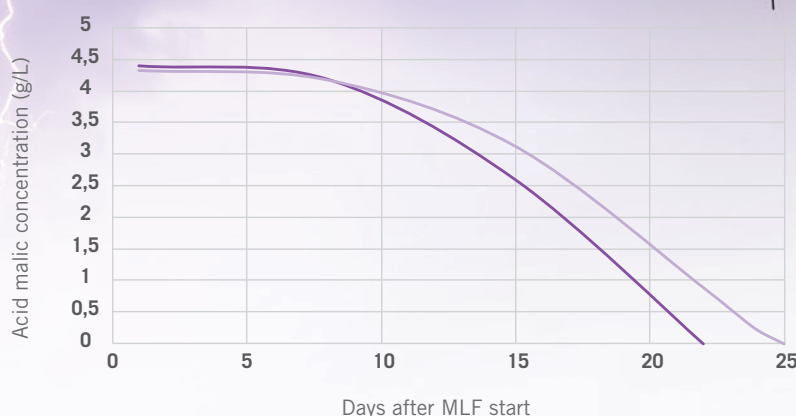
BENEFITS

Malic acid breakdown kinetics by the bacteria (g/L)

Spain • Albarino 2020 • TAV 12,88% vol.
pH 3,15 • 5,87 g/L (en H₂SO₄)

◆ Control ◆ Bacteria XTREM

Bacteria XTREM, used in direct inoculation, helps to quickly complete the MLF. It shows itself to be as effective as the control bacteria which benefited from a rehydration and acclimatization protocol.



LAMOTHE-ABIET BACTERIA LIST

L.A SOLUTIONS

BACTERIA	EARLY CO-INOCULATION	LATE CO-INOCULATION	SEQUENTIAL INOCULATION	CURATIVE INOCULATION	PROTOCOL
ŒNO 1®	●	●	●	●	Direct inoculation without rehydration possible in co-inoculation. In order to improve the distribution, rehydrate 15 minutes.
ŒNO 2	●	●	●	●	12 hours (rehydration + acclimatization) with malolactic activator kit provided.
BACTERIA XTREM		●	●	●	Direct inoculation without rehydration possible. In difficult conditions (pH < 3,2 or ABV > 15%), add 30 g/hL of d'OptiML®.
INOCULATION TIMING	24 - 48 hours after the start of AF	1010 density	AF completed or running off	Contact us	
TECHNICAL OBJECTIVES	Save time, avoid alterations	Save time, ensure the traditional process AF	MLF after AF, MLF in barrel	Sluggish MLF, restarting MLF	

OPTIMAL CONDITIONS FOR MALOLACTIC ACTIVITY

*These factors are co-dependent.

BACTERIA	pH*	TOTAL SO ₂ *	TEMPERATURE*	ALCOHOL TOLERANCE* (% vol.)
ŒNO 1®	≥ 3,3	< 50 mg/L	18 - 24 °C	< 15
ŒNO 2		< 60 mg/L		
BACTERIA XTREM	≥ 3	< 50 mg/L		< 16

Explore our decision-making tool dedicated to **management of the MLF** available on our website. It will give you personalised recommendations adapted to your fermentation process:



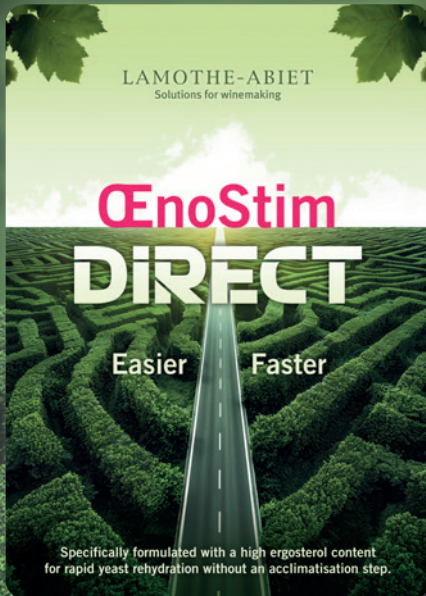
Our decision-making tool for **Malolactic fermentation management** is also available on our application: **ŒnoSolutions**



NUTRIENTS

Yeast nutrition and protection are key factors for a successful fermentation.

Nutrition gives safe fermentation kinetics but also helps to optimise the production of aromas and to avoid off-flavours.



ÆNOSTIM® DIRECT

Easier, Faster NEW

Yeast preparation providing growth and survival factors essential for optimal performance throughout alcoholic fermentation. Thanks to its formulation enriched with ergosterols, Ænostim® Direct enables rapid and easy yeast rehydration without the need for an acclimatisation step.

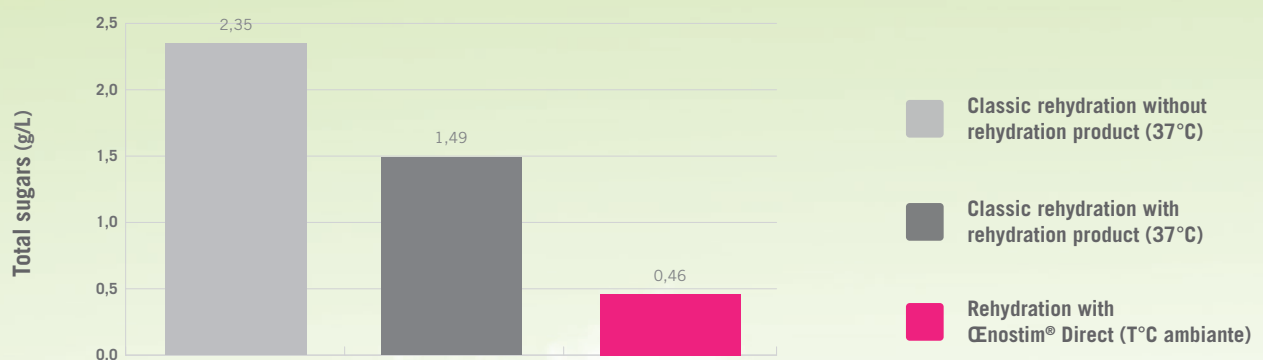
BENEFITS

- ◆ Promotes membrane permeability and fluidity of yeast, thereby enhancing their resistance.
- ◆ Better dispersion in water at room temperature.
- ◆ Improved efficiency in preparing a starter: no acclimatization step with must required.
- ◆ Ensures fermentation quality, avoiding the risk of contamination and deviations.



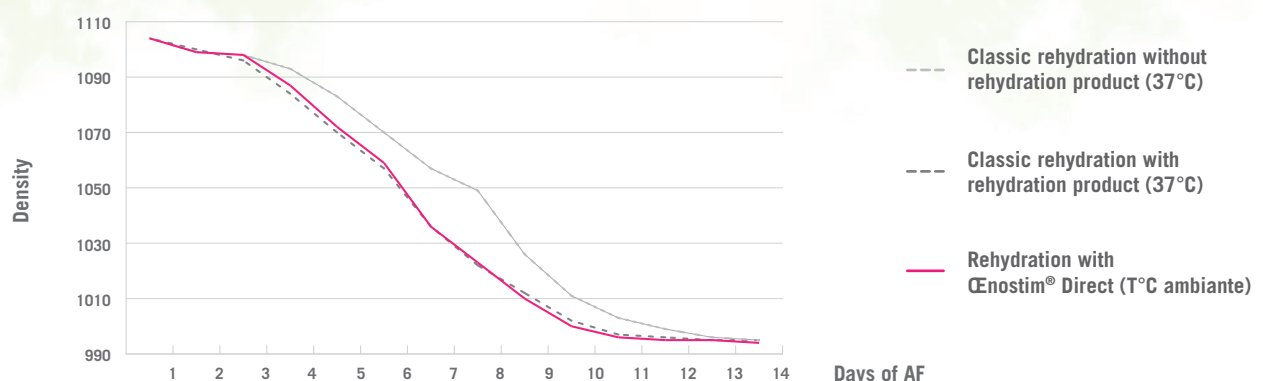
Total sugars at the end of fermentation (g/L)

Sauvignon Blanc • 2025 • ABV: 13.5 % • Assimilable nitrogen: 200 mg/L



Density tracking

Cabernet sauvignon • 2025 • Bordeaux • 14% abv





OPTIFLORE® O

Complex nutrient based on yeast autolysates, rich in organic nitrogen (amino acids, peptides), vitamins and minerals.

BENEFITS

- ◆ Guarantees a high quality and progressive yeast nutrition
- ◆ Avoids the risks linked to an exclusively mineral nutrition (nitrogen catabolic repression, induced deficiency, etc.)
- ◆ Maintains the populations' viability throughout the fermentation
- ◆ Adds aromatic complexity

MINERAL NITROGEN NUTRITION

- Used preferentially by the yeast
- Fast consumption
- Fast increase in yeast population

In case of excess:

- ◆ Excessive heat production
- ◆ Induced deficiency
- ◆ H₂S production
- ◆ Sluggish and/or stuck AF
- ◆ Stimulatory effect on nitrogen catabolic repression (NCR)

ORGANIC NITROGEN NUTRITION

- Progressive use
- Prevents H₂S production
- Nutrition for yeasts and malolactic bacteria
- Does not cause nitrogen catabolic repression
- Increases the aromatic complexity

Discover our decision-making tool on our website which will give you personalised guidance adapted to your fermentations on the type of nitrogen to use and when to add it:



AROMA PROTECT®

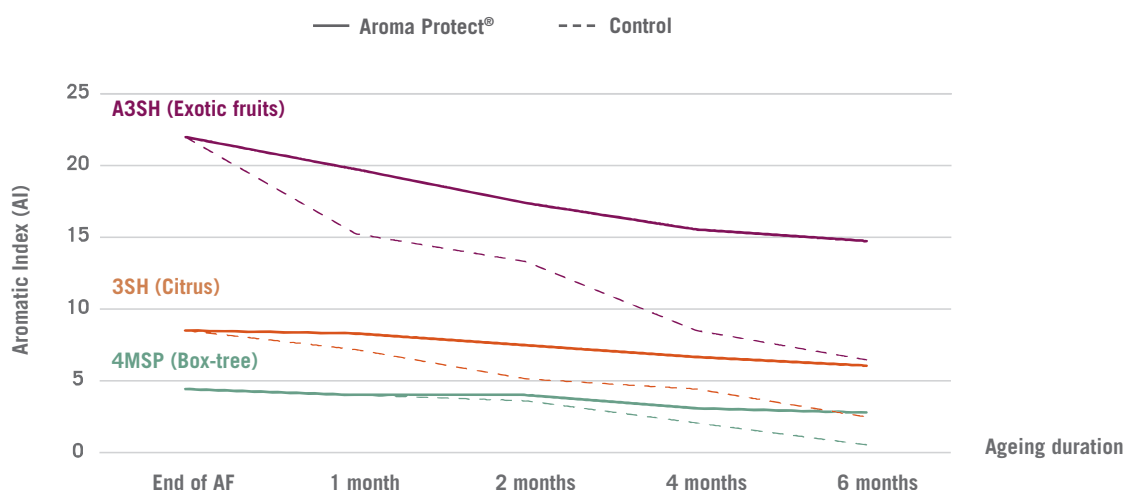
Preparation of inactivated yeast naturally rich in reductive compounds including glutathione.

BENEFITS

- ◆ Specific formulation providing optimal protection of aromas and freshness in white, rosé, and red wines
- ◆ Preservation of the aromatic potential of wines during ageing
- ◆ Instantly counters oxidative mechanisms thanks to its high glutathione (GSH) levels. This sulphur tripeptide is naturally formed by yeast and possesses a very strong reductive capacity

The role of Aroma Protect® on thiols during aging

Sauvignon blanc • added at 30 g/hL at the end of alcoholic fermentation (d ≈ 1.010)



Thanks to its expertise in the process of aromatic expression by yeast, Lamothe-Abiet has developed **specific solutions** to increase the **revelation of thiols** and **esters** during alcoholic fermentation. These solutions enhance the aromatic profiles of wines and improve their intensity.

OPTITHIOLS®

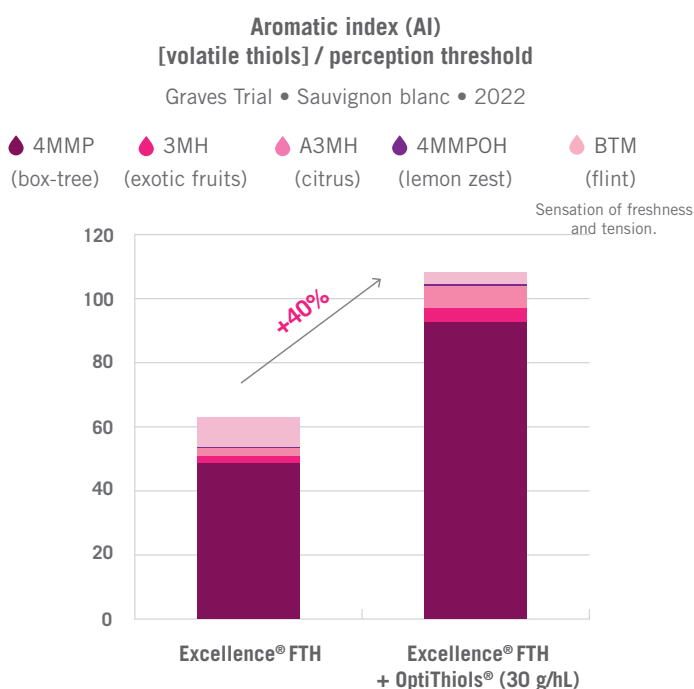
Inactivated yeasts naturally rich in reductive compounds.

BENEFITS

- ◆ Essential tool to optimize the thiol potential of white and rosé wines
- ◆ Double effect: antioxidant and significant aromatic increase of thiols (4MSP, 3SH, A3SH), from 30% to 120%
- ◆ Regularity and repeatability of the results on many different harvests (variety, terroir)

Note: Favour the use of Excellence® FTH and Excellence® TXL strains for an even greater revelation of volatile thiols.

Appropriate fining of musts before addition will ensure better efficiency.



OPTIESTERS®

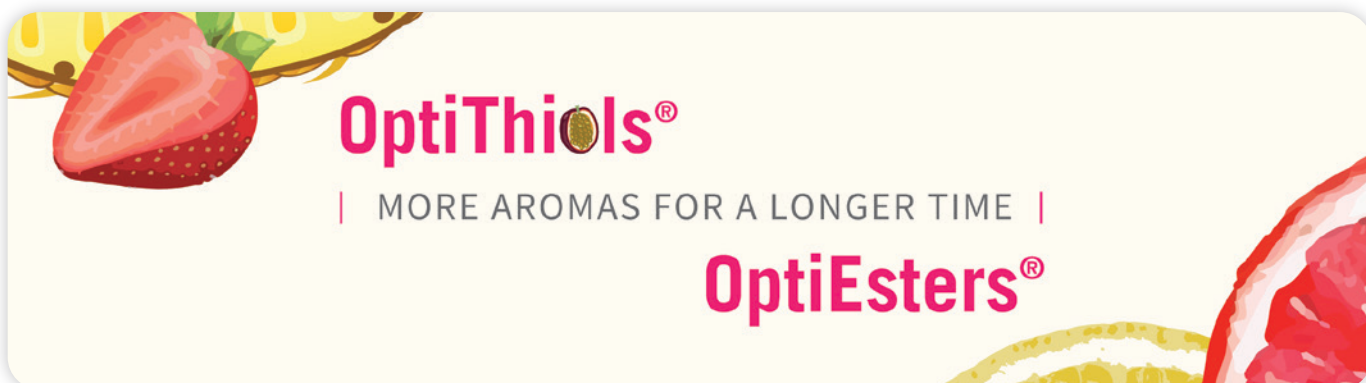
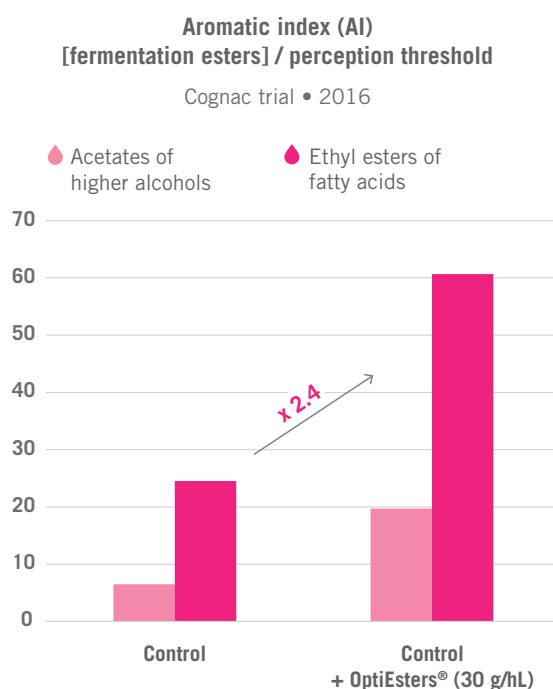
Inactivated yeasts naturally rich in amino acids and ergosterols to stimulate the production of fermentation esters by yeasts.

BENEFITS

- ◆ An essential tool to maximising the ester potential of white, rosé and red wines
- ◆ Revealing fruity and floral aromas, especially on wines lacking varietal aromatic precursors
- ◆ Crucial role in both the quality and quantity of these aromatic esters

Note: Make sure to use a strain with high esters production: Excellence® STR / Excellence® Rosé / LA Arom.

Ester formation is closely linked to the nitrogen and lipid metabolism of the yeast and can therefore be improved by adding yeast derivatives.



AROMATIC PROTECTION & BOOSTER		AROMATIC REVELATION	VARIETAL PROFILE	COMPLEX AND FRUITY PROFILE	AROMATIC PROTECTION	COLOUR FIXATION	ROUND MOUTHFEEL	DOSAGE (g/hL)
AROMA PROTECT®	P	.			●			10 - 40
AROMA T'N'T	P / AR	●		●	●			10 - 40
OPTIESTERS®	AR	●	.	●			.	30 At the end of the first third of AF
OPTITHIOLS®	P / AR	●	●	.	.		.	30 At the beginning of AF
NATUR'SOFT®	P			.		●	●	20 - 100

COMPLEX NUTRIENTS		THIAMINE	AMMONICAL NITROGEN	ORGANIC NITROGEN	VITAMINS / MINERALS	DETOXIFICATION	YAN INCREASE ADDED (mg/L PER 20 g/hL)	DOSAGE (g/hL)
OPTIFLORE® 0	N			●	●		20	20 - 80 before end of AF
OPTIFERM®	N	●	DAP ●	●	●		30	20 - 40
OPTIML® (BACTERIA)	N			.	●	●	0	20 - 40

SIMPLE NUTRIENTS	AMMONICAL NITROGEN	THIAMINE	YAN INCREASE ADDED (mg/L PER 20 g/hL)	DOSAGE
SULFATE D'AMMONIUM (SA)	●		40	10 - 50
PHOSPHATE D'AMMONIUM (DAP)	●		40	10 - 50
VITAFERMENT®	SA ●	●	40	10 - 50
VITAFERMENT® PH	DAP ●	●	40	10 - 50
THIAMINE		●	0	30 - 60 mg/hL Dose max. légale en UE : 60 mg/hL

YEASTS PROTECTION		CELLULOSE POWDER	DETOXIFICATION	VITAMINS / MINERALS	STEROLS / UNSATURATED FATTY ACIDS	DOSAGE (g/hL)
CENOSTIM® DIRECT	P			●	●	30
CENOSTIM®	P			●	●	30
ACTIBIOL	N / P / S	●	●	●	.	30 - 60
GRANUCEL®	P / S	●				30 - 60
FLOR'PROTECT®	P / S		●			20 - 40 Maximum legal dose in the EU: 60 mg/hL

N

Nutrition

P

Protection

S

Support element

A

Aromatic revelation



Lamothe-Abiet and Novozymes®, a +20-year success story.

The combination of Lamothe-Abiet's oenological expertise and this Scandinavian biotechnology leader enables us to offer the most comprehensive and trusted enzymatic preparations on the market. Lamothe-Abiet and Novozymes® offer you the guarantee of enzymes that are certified by the latest FSSC 22000 quality standards.

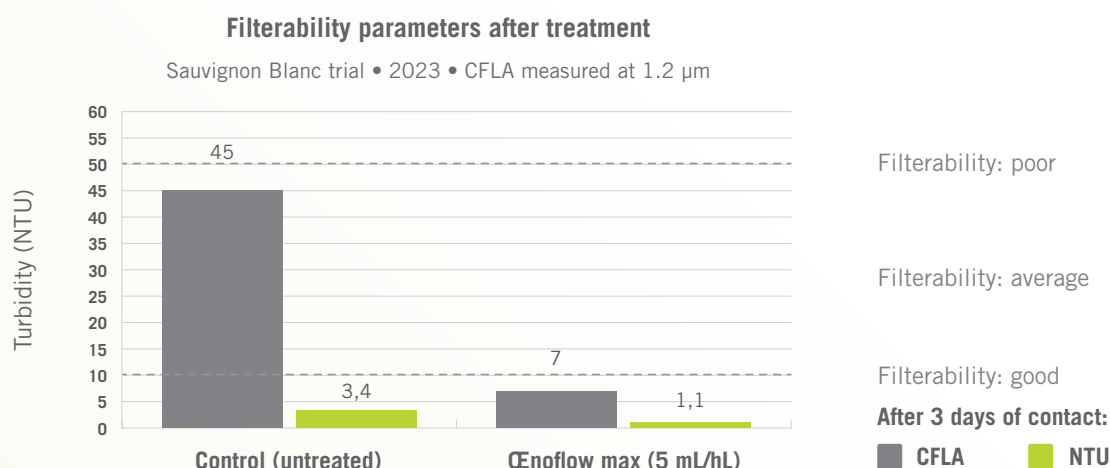
ÆNOFLOW MAX

Optimise your filterability!

A mixed formulation of pectolytic enzymes from *Aspergillus niger* and β -glucanase from *Trichoderma harzanium*, to improved filterability of wines and musts.

The typicity of the grape variety and vintage influences wine filterability, with sometimes significant levels of polysaccharides that are difficult to filter. These filtration issues often originate from the pectic matrix, whose hydrolysis is incomplete. Since conventional pectinases are not sufficient, it is necessary to employ additional enzymatic activities to broaden the spectrum of action.

Ænoflow Max, with its formulation rich in specific enzymatic activities (pectinase, AG-II hydrolase, cellulase, hemicellulase, and β -glucanase), targets the most highly branched regions of pectin and optimises its hydrolysis. This releases suspended polysaccharides (pectins and glucans) from the wine, significantly improving filterability.



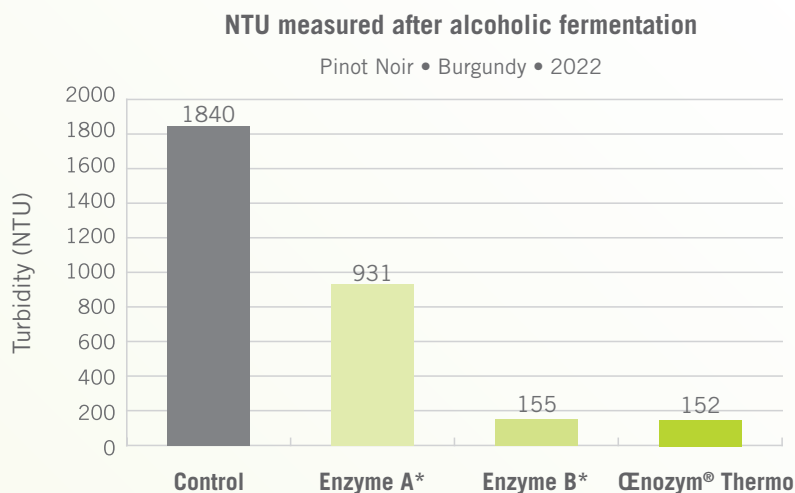
ÆNOZYM THERMO

A specific enzyme!

A pectolytic enzyme preparation from *Aspergillus niger*, specifically designed to clarify heat-treated musts.

Heat treatment of grapes helps to extract the compounds of interest **quickly** and **effectively** from the grapes (anthocyanins and tannins). However, temperatures above 70 °C denature the grape enzymes and alter the structure of pectins. As a result, natural clarification is not possible with this type of must.

Thanks to its formulation rich in pectin lyase and secondary activities, **Ænozym® Thermo** ensures the **clarification** of thermovinified musts. Due to its **resistance to high temperatures**, **Ænozym® Thermo** can be added as soon as the temperature of the must falls below 65°C. This early application ensures **maximum enzyme activity** and a **rapid clarification**.



*Market-leading enzymes for heat-treated musts.

CENOZYM® THIOLS

The secret of varietal aromas

Pectolytic enzyme preparation from *Aspergillus niger*, rich in secondary activities. Increases the aromatic expression of white and rosé wines.

Depending on the moment of application, CEnozym® Thiols can modulate the **aromatic profile** of wines:

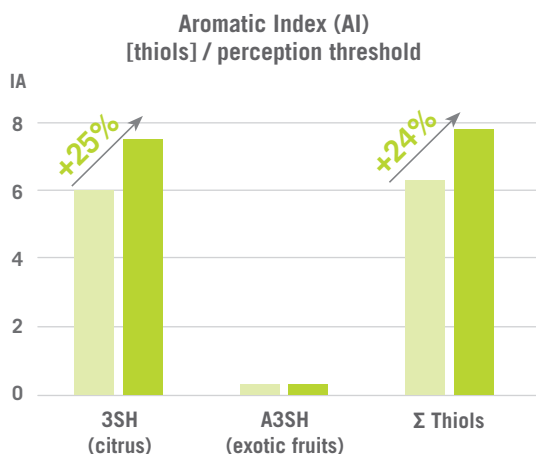
BENEFITS

- ◆ **Used during alcoholic fermentation:** promotes typical aromas of boxwood, citrus, and tropical fruits
- ◆ **Added during maturation or a few weeks before bottling:** it provides a genuine increase in wine freshness by enhancing the perception of fruity aromas

CEnozym® Thiols added during maturation

White wine Pecorino variety • 2016 • Italy
ABV: 12,65% vol • pH: 3,3 • TA: 4,4 g/L H₂SO₄

● Control ● CEnozym® Thiols



CENOZYM® RED EXPRESSION

Bring together sweetness and freshness

A new pectolytic enzyme preparation derived from *Aspergillus niger*, rich in secondary activities and highly specific for enhancing the aromatic expression of red grapes.

Drawing on our expertise in thiol varietal aroma revelation, Lamothe-Abiet has developed CEnozym® Red Expression. When used during fermentation, this enzyme:

BENEFITS

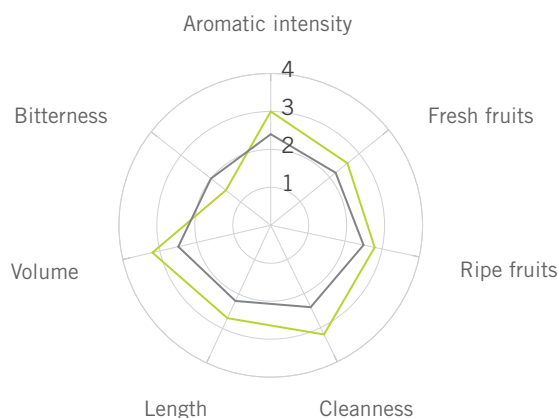
- ◆ Helps to extract polysaccharides and aroma precursors, thus revealing the intensity of “fresh fruit” characteristics
- ◆ Brings softness and sucrosity to red wines
- ◆ Enhances the extraction of key compounds such as anthocyanins and tannins

Blind tasting by 12 professionals

Pinot noir • 2020 • Beaujolais • Addition of 5 mL/hL during AF

● Control ● CEnozym® Red Expression

SENSATIONS ON THE PALATE



LAMOthe-ABIET ENZYMES LIST

L.A SOLUTIONS

SPECIFIC ENZYMES	CLARIFICATION	FERMENTATION	MATURATION	FILTRATION	TYPE OF WINE	DOSAGE	RECOMMENDATIONS
CENOFLOW MAX	●		●	●	◆ ◆ ◆	2 - 5 mL/hL	Adjust the dose according to the length of time before filtration.
CENOZYM® RED EXPRESSION		● Freshness and sweetness	● Freshness and sweetness		◆	4 - 6 mL/hL	Add after the start of AF to benefit from natural inerting. When used in combination with an extracting enzyme, we recommend to slightly reduce its dose.
CENOZYM® THIOLS	L	● Enhancement of aromatic freshness	● Increase in freshness		◆ ◆	4 - 6 mL/hL	Add after the start of AF to benefit from natural inerting.
CENOZYM® (FW) FRUITY WHITE			● Revelation of terpenes		◆ ◆	Dry wine: 3 - 6 g/hL Sweet wine: 6 g/hL	Check the level of SO ₂ , stop the enzymatic activity with 20 g/hL of bentonite.
VINOTASTE® PRO*	P	●	● + Round mouthfeel	●	◆ ◆ ◆	4 - 10 g/hL	Active at all pH. Increase the dosage by 30 % if T < 12 °C
CENOZYM® THERMO	L	●			◆	2 - 4 mL/hL	Recommended for the clarification of heat-treated musts. Stable at high temperatures.

ENZYMES	MACERATION	CLARIFICATION	EXTRACTION	DOSAGE	RECOMMENDATIONS
CENOZYM® CLEAR		●		0.5 - 3 mL/hL	◆ ◆ Addition at press pan or in tank; static settling and flotation. Can be used on wines to improve filtrability.
CENOZYM® CRUSH	L	●	●	10 - 40 mL/Ton	◆ Improves extraction of skin compounds, color, phenolic structure, press yield. ◆ ◆ Improves extraction of skin compounds (aromatic precursors, polysaccharides), press yield.
CENOZYM® PROCESS	P	●	●	20 - 40 g/Ton	◆ ◆ ◆ Increase the dosage at 50 g/Ton for small or unripe grapes.

L

Liquid

P

Powder



Developed through cutting-edge research, our tannins are crafted in our specialised production unit.

The quality of the products and their effectiveness are guaranteed by rigorous selection of the raw materials, and by our expertise and control of our production process. The specific micro-granulated (MG) and granulated (G) formulations of our tannins, with instant solubility, allows direct addition to must or wine. Homogeneous dispersion by stirring or pump-over guarantees immediate and effective actions of the tannins.

PRO TANIN R®

Preparation of instantly soluble proanthocyanidic tannins.

BENEFITS

- ◆ Binds the must proteins that cause an early loss of desirable phenolic compounds
- ◆ Inhibits laccase, an enzyme that causes drastic and irreversible oxidation in botrytised musts and wines

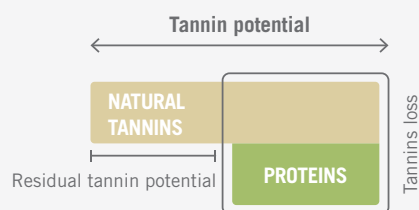
PRESERVING THE TANNIN POTENTIAL

- 1 The tannin potential of a must is preserved thanks to the buffer effect of Pro Tanin R®.

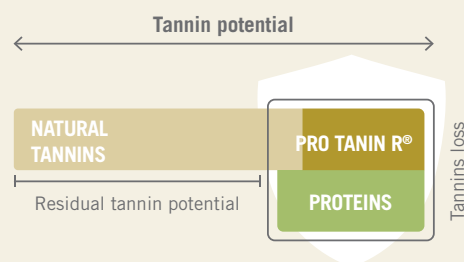
LACCASE ACTIVITY INHIBITION

- 2 A small laccase activity in the must considerably diminishes the visual quality of the future wine. Using Pro Tanin R® inhibits this laccase activity and preserves the colour potential of the future wine.

WITHOUT PRO TANIN R®



WITH PRO TANIN R®



Trials conditions

Cabernet Sauvignon • Graves • 2016 • ABV: 11,5% vol • pH: 3,52

*Dosage recommended by Botrytest

	Laccase activity on must (U/ml)
Control	4
½ dosage Pro Tanin R® (10 g/hL)*	1
1 dosage Pro Tanin R® (20 g/hL)*	0



Amount of Pro Tanin R® to add to inhibit laccase activity

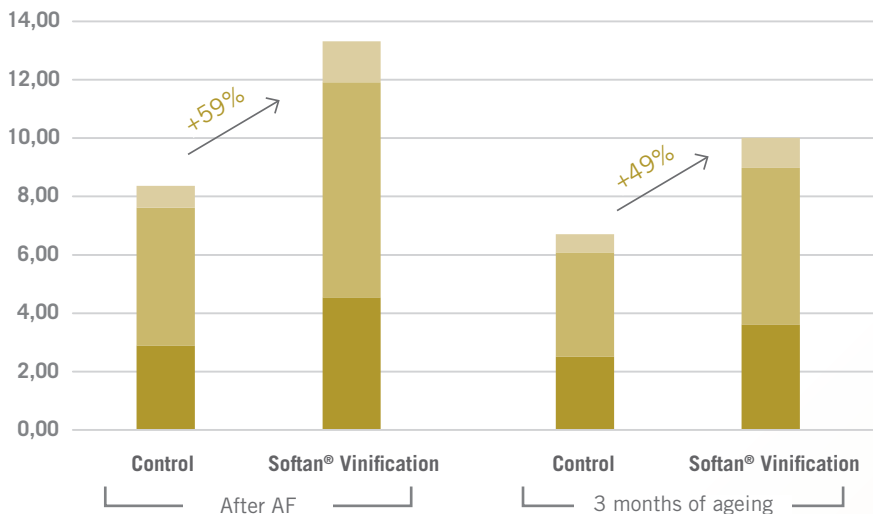
Laccase activity of must to be treated (U/mL)	Dose (g/hL)
5	30
10	60
15	90
20	125

SOFTAN® VINIFICATION

A combination of catechic tannins and plant polysaccharides to be added at the beginning of alcoholic fermentation for the early stabilisation of colour.

Softan® Vinification: addition of 30 g/hL during fermentation on D+1.
ICM variation after AF and after 3 months of ageing

Thermovinified Merlot • Bordeaux • ABV: 14.1% vol • pH: 3.45



BENEFITS

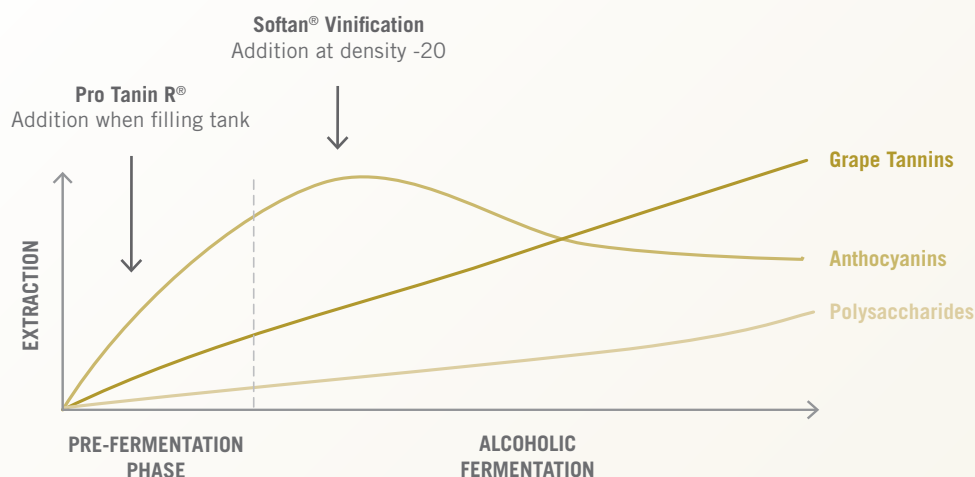
- Stabilises the colour of wines
- Creates stable bonds with anthocyanins
- Balances wines' structure
- Good reaction with must proteins

DID YOU KNOW

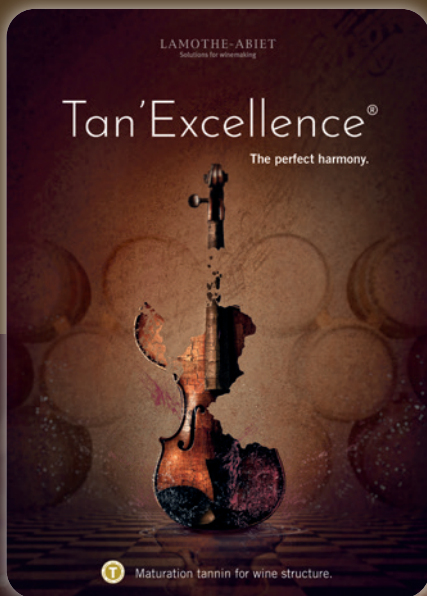
Based on Lamothe-Abiet's own technology, the Softan® range offers solutions for the entire winemaking process thanks to its specific tannin formulations combined with natural plant derived polysaccharides.

This technique is based on a phenomenon that occurs naturally in wine: the polymerisation of tannins with polysaccharides. Softan® products significantly increase volume and length on the palate without causing dryness or astringency.

Optimise your colour with the synergy between Pro Tanin R® / Softan® Vinification



The synergistic action of Pro Tanin R® and Softan® Vinification, when added at the right moment, is effective in preserving the tannin potential and stabilising the colour.



TAN'EXCELLENCE®

The perfect harmony

A rigorous selection of oak tannins, grape tannins and proanthocyanidic tannins rich in catechins to be use during vinification and ageing.

Its instantly soluble formulation makes this tannin easy to use.

BÉNÉFICES

- Participates in wine clarification
- Durable colour stabilisation
- Protection against wine oxidation
- Improves the structure and provides a harmonious balance to great red wines

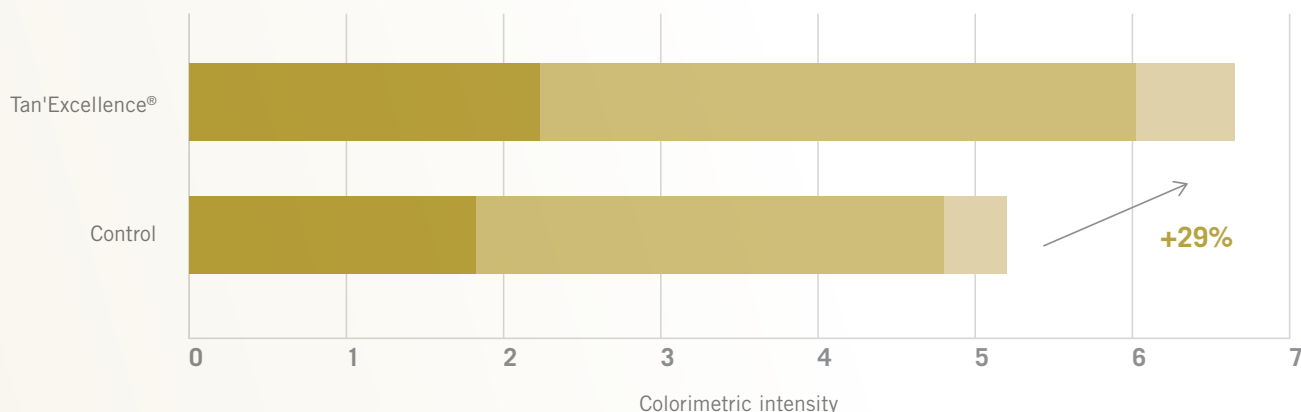
Colorimetric Analyses (ICM)

Merlot • 2024 • Graves • Lamothe-Abiet Experimental Center (WEC)
Tan'Excellence® at 10 g/hL • Analysis 1 month after bottling

◆ D0420

◆ D0520

◆ D0620



TAN&SENSE®

The final touch

High quality oak and grape tannins for ageing.

Added during ageing or before bottling, Tan&Sense® tannins act as clarification adjuvants and **protect wines against oxidation**, while maintaining **balance** and **fruitiness**.

Thanks to a unique extraction process and gradual toasting, the Tan&Sense® tannins reveal a strong potential to craft harmonious wines that meet winemakers' expectations.

UNTOASTED
TANNIN



→ INTENSELY
TOASTED
TANNINS

	VINIFICATION TANNINS	COMPONENTS	INHIBITION OF LACCASE ACTIVITY	ANTIOXYDANT ROLE	REACTIVITY WITH PROTEINS	COLOUR STABILISATION	ROUND MOUTHFEEL	ADDITON TIME	TYPE OF WINE	DOSAGE* (g/hL)
MUST & WINE	PRO TANIN R®	Proanthocyanidic tannins	●	●	●	●		Tank filling	●	Healthy harvest: 10 - 30 Affected harvest: 30 - 80
	SOFTAN® VINIFICATION	Catechic tannins bound to plant polysaccharides			●	●	●	D+1 post tank filling	●	2 - 60 (The maximum legal dose: 60 g/hL)
	TANIN GALLIQUE À L'ALCOOL	Gallic tannins	●	●	●			Spoiled mechanical harvest, pre-fermentation maceration, pressing, fining	● ●	3 - 15

	MATURATION TANNINS	COMPONENTS	COLOUR STABILISATION	CONTROL OF REDOX POTENTIAL	STRUCTURE	ROUND MOUTHFEEL	PROFILE HARMONISATION	TYPE OF WINE	DOSAGE (g/hL)
BEGINNING OF AGEING	TAN' EXCELLENCE®	Grape tannins, oak tannins and catechic tannins	●	●	●	●	●	●	5 - 30 (15 - 20 g/hL at racking)
	SOFTAN® POWER	Proanthocyanidic and ellagic tannins bound to plant polysaccharides	●	●	●	●	●	●	10 - 40 (The maximum legal dose: 60 g/hL)

THROUGHOUT THE AGEING PROCESS	VINITAN® ADVANCE	Grape tannins	●	●	●	●	●	●	1 - 10
	TAN&SENSE® VOLUME	Pure oak tannins	●	●	●	●	●	●	5 - 20
								● ●	0,5 - 5
	SOFTAN® SWEETNESS	Proanthocyanidic and ellagic tannins (from fresh and toasted oak) bound to plant polysaccharides	●	●	●	●	●	●	10 - 40 (The maximum legal dose: 60 g/hL)
								● ●	1 - 3 (The maximum legal dose: 60 g/hL)

END OF AGEING PROCESS	TAN&SENSE® ORIGIN	Pure tannins of toasted oak of stave quality	●	●	●	●	●	●	1 - 10
								● ●	0,5 - 5
	TAN&SENSE® EXPRESSION	Medium toasted oak tannins	●	●	●	●	●	●	1 - 10
								● ●	0,5 - 5
	TAN&SENSE® FORTE	Intensely toasted oak tannins	●	●	●	●	●	●	1 - 10
								● ●	0,5 - 5
	SOFTAN® FINITION	Toasted oak tannins bound to plant polysaccharides	●	●	●	●	●	●	10 - 40 (The maximum legal dose: 60 g/hL)
								● ●	1 - 3 (The maximum legal dose: 60 g/hL)

*Guidelines only: carry out trials to determine the optimal dosage for each type of wine.

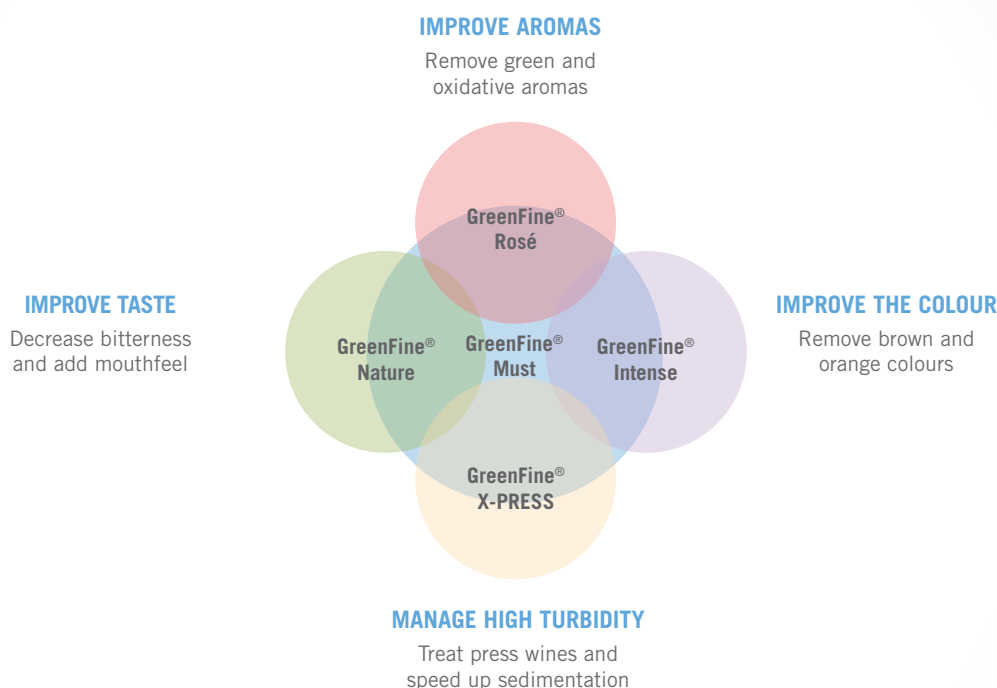
Must fining, carried out before or during alcoholic fermentation, is an essential step in white and rosé winemaking. Lamothe-Abiet offers enological solutions that are adapted to the winemaker's objectives.

GREENFINE®

Give peas a chance

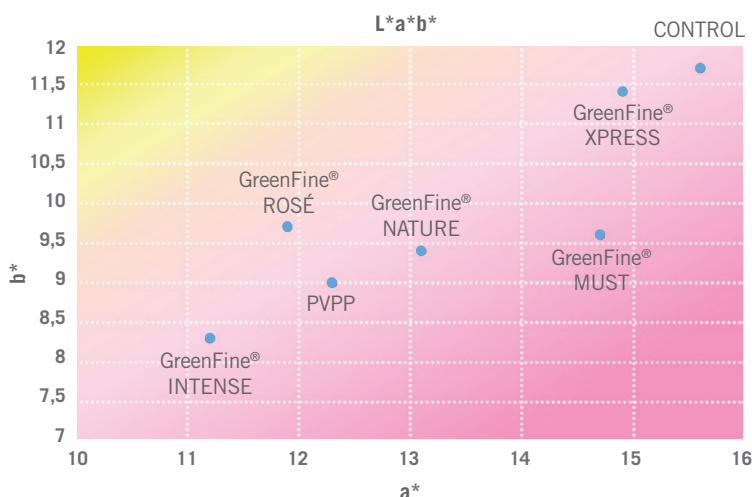
Based on white pea proteins and without allergens, products from the Greenfine® range are formulations that specifically fulfill various objectives:

*Except GreenFine® Must L, stabilised with sulphur dioxide (E220).



Effect of must fining on the colour of rosé wines

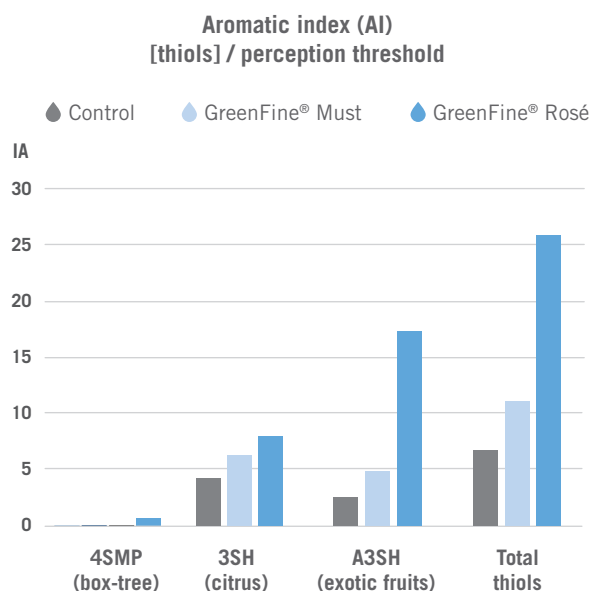
Merlot Rosé • Bordeaux • 2023
Dosage: 50 g/hL - Addition during clarification

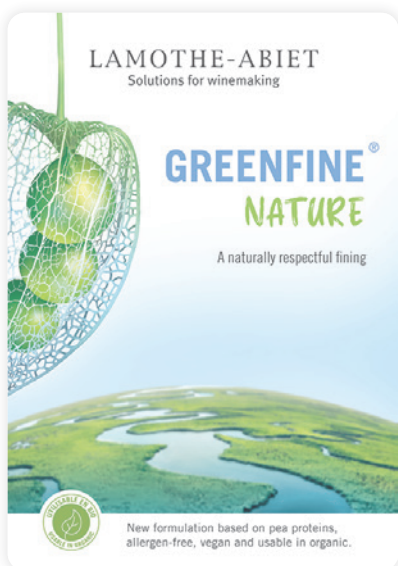


*analysis by chromametry (L*a*b*) enables a simple, quick and objective measurement of must and wine colours as perceived by the human eye.

Effect of must fining on wines' aromatic profile

Sauvignon blanc • Graves • 2016 • Dosage: 50 g/hL





GREENFINE® NATURE

A naturally respectful fining

Specifically formulated to offer a **100% natural alternative to PVPP**, Greenfine® Nature combines the physical and chemical properties of white pea proteins, inactivated yeasts and bentonite to **effectively remove oxidised and oxidisable polyphenols**.

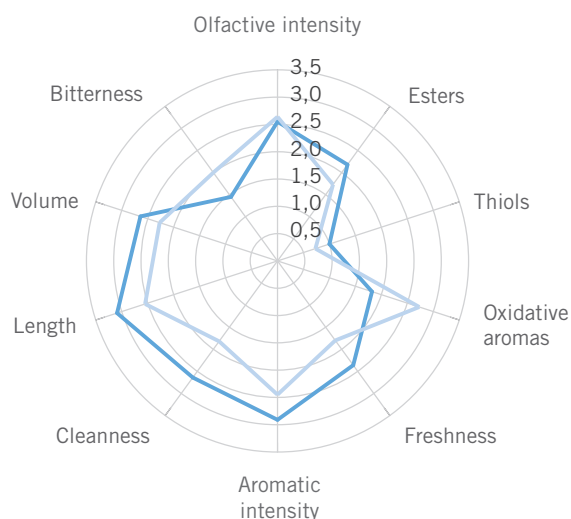
Its use in must and wine fining **enhances aromatic potential, protects against oxidation and reduces bitterness** by adding **fullness on the palate**.

Greenfine® Nature is part of an innovative dynamic to use **environmentally-friendly** fining products, and represents a solution that is perfectly suited to **managing colour** and **enhancing the aromatic** profile of wines.

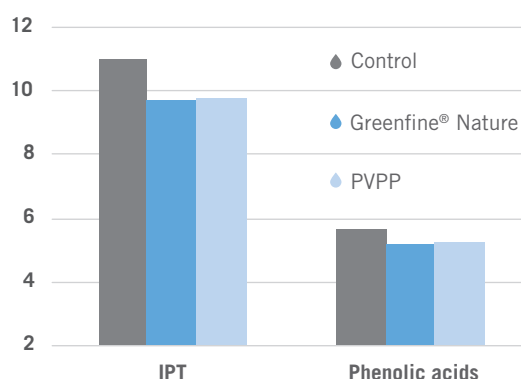
Vegan, allergen-free fining solution for use in organic winemaking.

Comparative tasting

● PVPP ● GreenFine® Nature



Total Polyphenol Index (D0280) and Phenolic Acids (D0320)



Fining with Greenfine® Nature produced an effect similar to treatment with PVPP.



*"We use **GreenFine® Nature** on all types of white and rosé musts, changing the rate depending on what kind of correction needs to be made. It can also be used during fermentation, if prior fining doesn't appear to be enough.*

*Having been an active player in the development of this formulation, GreenFine® Nature is today an essential product in the GreenFine® range, allowing **early improvement of must colour**, but also **increasing finesse** and **removing bitterness** when necessary. GreenFine® Nature is an excellent alternative to casein on musts affected by downy mildew."*

GILLES BAUDE, CONSULTANT WINEMAKER
PROVENCE ŒNOLOGIE, FRANCE

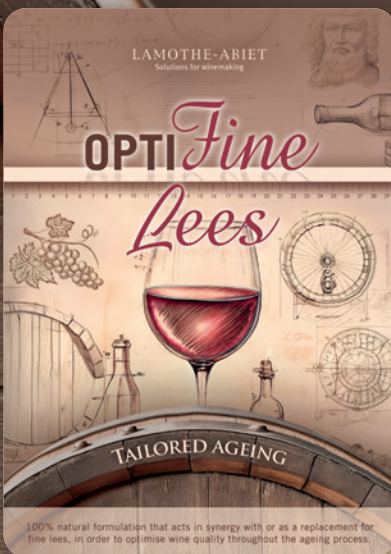
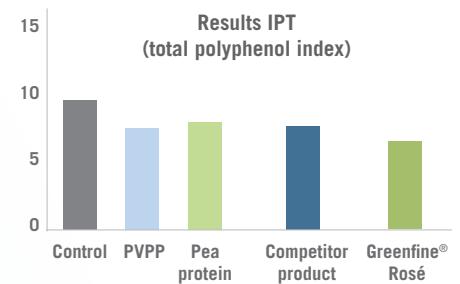
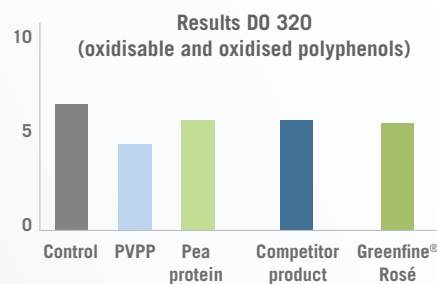
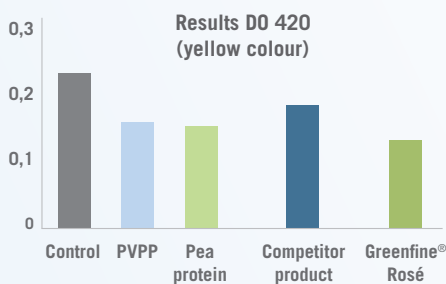
Allergen free formulation for preventative and curative treatment of white and rosé musts.

BENEFITS

- ◆ The combination of pea proteins and PVPP provides a comprehensive action to reduce oxidisable phenolic compounds (DO 320) and oxidised phenolics (DO 420). It decreases bitterness and off-flavours (mouldy/herbal).
- ◆ Removal of undesirable components in must maximises aromatic potential and ensures better preservation of aromas in the wine.
- ◆ It also allows an effective reduction of yellow colour, thereby minimising orange hues.



Fining trial on white must | Sauvignon blanc must



OPTIFINE® LEEES

Tailored ageing

NEW

A 100% natural fining agent based on pea proteins and yeast derivatives, which works in synergy or as a replacement to fine lees, to optimise wine quality throughout ageing.

The precise knowledge of the inactivated yeasts selected for the OptiFine®Lees formulation provides an effective alternative to animal-based fining agents. Free from allergenic substances, OptiFine®Lees is not subject to labelling requirements.

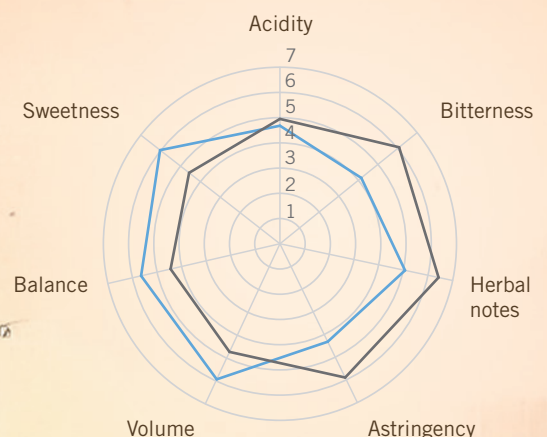
BENEFITS

- ◆ Balances the wine by adding volume, complexity, and aromatic persistence
- ◆ Improves tartrate and colour stability
- ◆ Protects against premature oxidation, supporting ageing potential
- ◆ Optimises clarity by facilitating fining and reducing suspended particles

Tasting after 4 weeks of contact Panel of 8 experienced tasters

Merlot • Entre deux Mers • 2023 • Dose : 30 g/hL

● Control ● OptiFine®Lees



			CLARIFYING IMPACT	REDUCE BITTERNESS	COLOUR STABILITY	DECREASE GREEN NOTES	TREAT OXIDATION	TYPE OF WINE / APPLICATION	DOSAGE*
FINING PRODUCTS BASED ON PEA PROTEINS	GREENFINE® MUST (Pea proteins) Greenfine® Must L: liquid	P	●	●	●	●	●		10 - 50 g/hL L: 100 - 500 mL/hL
	GREENFINE® NATURE (Pea proteins, inactivated yeasts, calcium bentonite)		●	●	●	●	●		10 - 80 g/hL
	GREENFINE® FLOT (Pea proteins, chitosan)		●	●	●	●	●		10 - 15 g/hL
	GREENFINE® ROSÉ (Pea proteins, PVPP)		●	●	●	●	●		15 - 80 g/hL
	GREENFINE® INTENSE (Pea proteins, discolouring activated carbon, PVPP, calcium bentonite)		●	●	●	●	●		15 - 120 g/hL
	GREENFINE® X-PRESS (Pea proteins, PVPP, calcium bentonite, chitin-Glucan)		●	●	●	●	●		15 - 100 g/hL

			REDUCE BITTERNESS	COLOUR STABILITY	DECREASE GREEN NOTES	TREAT OXIDATION	TYPE OF WINE APPLICATION	DOSAGE*
PROTEIN FINING AGENTS	GELFINE® (Gelatin)	P	●	●	●			5 - 10 g/hL
	GÉLATINE SPÉCIALE VINS FINS	L	●	●	●			20 - 100 mL/hL
	GELFLOT® (Gelatin)		●	●	●			1 - 10 cL/hL
	GELDOR® (Gelatin)		●	●	●			1,5 - 5 cL/hL
	GÉLATINE SUPÉRIEURE		●	●	●			10 - 50 mL/hL
	OVALINE® (Ovalbumin)		●	●	●			10 - 90 mL/hL
	ALBUMINE D'ŒUF	P	●	●	●			5 - 10 g/hL
	COLLE DE POISSON LA		●		●			0,5 - 3 g/hL
	CASÉIMIX (Potassium caseinate)			●	●	●		10 - 75 g/hL
	NATUR'FINE® PRESTIGE (Inactivated yeasts, pectolytic enzymes)		●	●	●			5 - 40 g/hL
	OPTIFINE LEES (Inactivated yeasts, pea proteins)		●	●	●	●		20 - 50 g/hL

COMPLEX FINING & PVPP	POLYMIX® NATUR' (PVPP, calcium bentonite, inactivated yeasts)	P	●	●	●	●		15 - 100 g/hL
	POLYMIX® (PVPP, potassium caseinate)		●	●	●	●		10 - 100 g/hL
	CLARFINE (PVPP, cellulose)		●	●	●	●		10 - 100 g/hL
	PVPP	G MG	●	●	●	●		10 - 80 g/hL

			PROTEIN STABILISATION				TYPE OF WINE / APPLICATION	DOSAGE*
BENTONITES	BENTOSOL PROTECT (Sodium)	G		●				10 - 120 g/hL
	BENTOSOL POUDRE (Sodium)	P		●				10 - 120 g/hL
	BENTOSOL FT (Compatible with tangential)			●				10 - 120 g/hL

			ENHANCING THE EFFECTIVENESS OF A PROTEIN FINING				TYPE OF WINE	DOSAGE*
FINING ADJUVANTS	SOL DE SILICE (Alkaline silica)	L		●				30 mL/hL

L Liquid
 G Granulated
 P Powder
 MG Micro-Granulated

*Guidelines only: carry out fining trials to determine the optimal dosage for each type of must and wine.
Respect the maximum authorized dosages according to the current regulations.



STABILISATION

Stabilisation strategies help increase the effectiveness of oenological treatments, limit the number of subsequent treatments, and also limit organoleptic losses (colour, aromas).



KILLBRETT®

Take control

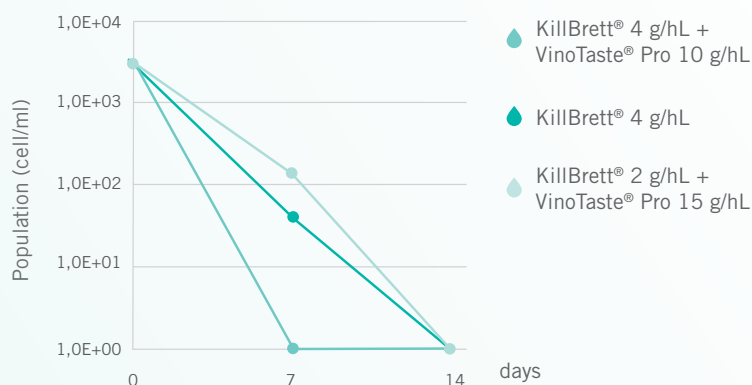
Made 100% from a high purity chitosan exclusively of fungal origin.

To eliminate *Brettanomyces*, **KillBrett®** has shown to be the easiest and most wine-friendly alternative to DMDC and physical treatments. Chitosan contained in **KillBrett®** causes the lysis of the cell walls of *Brettanomyces* and its sedimentation at

the bottom of the barrel or tank. **KillBrett®** is a natural product, from non-animal origin and non-allergenic, produced from 100% fungal chitosan (*Aspergillus niger*) for which the decrease in the microbial load is widely demonstrated.

Effect of KillBrett® on *Brettanomyces* populations

Initial population = 3.000 Cell/mL



Recommended dosages:

Initial contamination	Recommended treatment
Moderate $\pm 10^2$ cell/mL	KillBrett® 4 g/hL
High $\pm 10^3$ cell/mL	KillBrett® 4 g/hL + VinoTaste® Pro 10 g/hL
Very high $\geq 10^4$ cell/mL	KillBrett® 6 g/hL + VinoTaste® Pro 10 g/hL
Preventive treatment (after MLF)	KillBrett® 4 g/hL

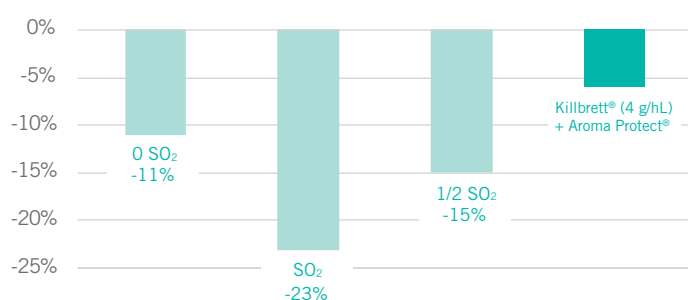
DID YOU KNOW

KillBrett® causes cellular lysis and a fining of *Brettanomyces*, saving your wines from contamination. We recommend that you adapt the treatment according to the observed population of *Brettanomyces*.

KillBrett® enables effective management of the microbial environment during the ageing of red wines. When combined with Aroma Protect®, a yeast-derived product rich in reducing compounds such as glutathione, it is an excellent tool to reduce or even eliminate the addition of sulfites during ageing. An early addition helps to preserve the wine colour intensity as well as its organoleptic profile.

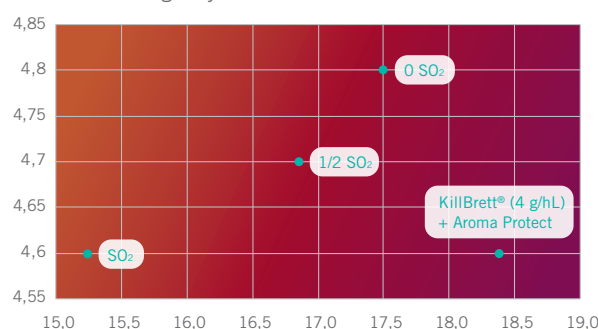
Loss of ICM between start of maturation and after 9 months

Burgundy • Static 2019 • Pinot Noir



Loss of ICM between start of maturation and after 9 months

Burgundy • Static 2019 • Pinot Noir



MANNO'GOM®

Enhance the richness of wines

A combination of plant polysaccharides and yeast cell wall extract rich in mannoproteins and sapid peptide.

Manno'Gom® enhances the organoleptic qualities of wines thanks to precise thanks to a precise and better balance on the palate.

BENEFITS

- ◆ Increases the sensation of sucrosity
- ◆ Reduces bitterness
- ◆ Enhances fruitiness
- ◆ Increases colloidal stability

MANNO'SENSE®

Increase your balance

Formulation of mannoproteins rich in Hsp12 sapid peptides.

This peptide, released during yeast autolysis, plays a crucial role in the perception of sucrosity in dry wines. Manno'Sense® is a natural solution to improve the organoleptic qualities of white, rosé and red wines.

BENEFITS

- ◆ Brings balance and freshness on the palate
- ◆ Improves aromatic persistence
- ◆ Does not affect the clogging index or CFLA (Lamothe-Abiet filtration criteria)
- ◆ Contributes to wines' tartaric stabilisation

SUBLI'SENSE®

Sublime flavours

Solution of plant polysaccharides and mannoproteins from *S. Cerevisiae* yeast mannoproteins for fine-tuning the organoleptic qualities of your wines.

Subli'Sense® contributes to the colloidal stability of white, rosé and red wines.

BENEFITS

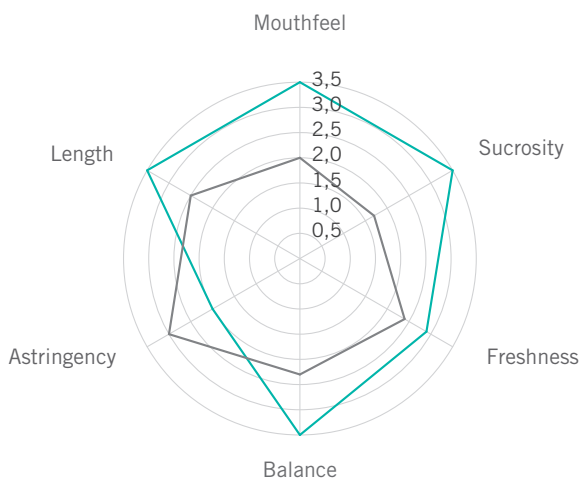
- ◆ Increases round mouthfeel and flavours
- ◆ Reduce tannins' harshness
- ◆ Improves softness and length on the palate
- ◆ Does not affect the clogging index or CFLA (Lamothe-Abiet filtration criteria)

TASTING RESULTS OF WINES (15 TRAINED TASTERS)

After treatment with Manno'Sense®

10 cL/hL before bottling
Médoc • cabernet-sauvignon • Merlot • 2019

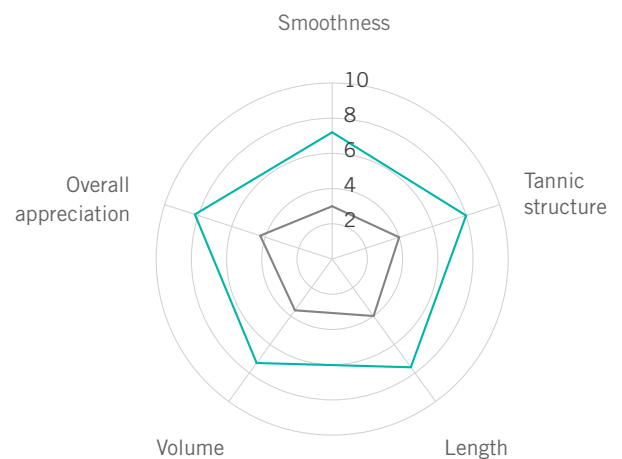
◆ Control ◆ Manno'Sense®



After treatment with Subli'Sense®

20 cL/hL before bottling
Côtes-du-Rhône • Shiraz • 2019

◆ Control ◆ Subli'Sense®



SUBLI'SENSE®, improves the mouthfeel and flavour of wines without weighing down the mid-palate.

VINOPROTECT®

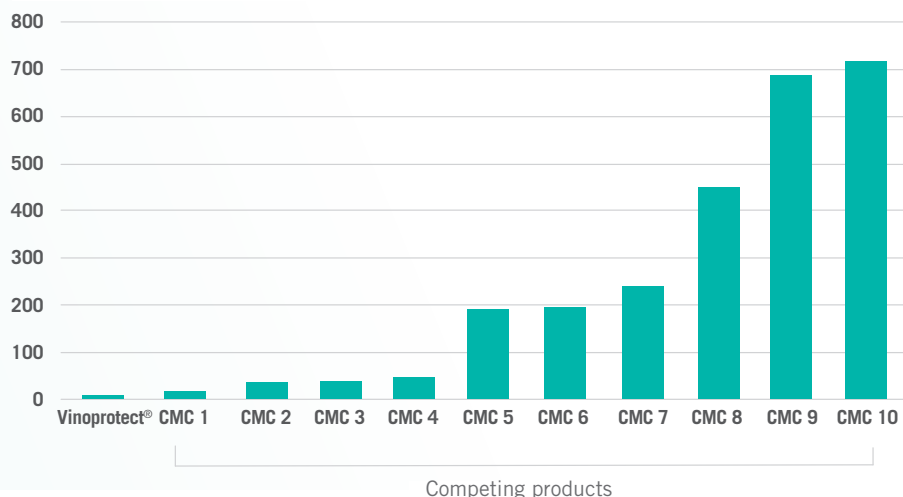
Cellulose gum for white and rosé wines stabilisation regarding the risk of precipitation of potassium bitartrate.

In addition to its remarkable effectiveness, Vinoprotect® allows you to save preparation time, reduce the risk of filter clogging and any risk of over or under-dosage in the final product.

DID YOU KNOW

Vinoprotect® is a product with a very low viscosity, it is actually a liquid solution which is both **easy to use, mix** in tanks, and **well adapted to in-line injection** using a dosing pump.

CMC viscosity, for 5% concentrations



DOSAPOMPE

Dosapompe is an in-line injection system for liquid enological products, specially designed for automatised in-line continuous injection.

It allows **any type of liquid product** to be safely added to the wine, even the most viscous, such as arabic gum, cellulose gum, liquid SO₂, enzymes...

BENEFITS

- ◆ Avoids loss of product and premature clogging of filter cartridges
- ◆ Guarantees the hygiene and entire integrity of the product and the wine since the product is injected directly from the container
- ◆ Easy cleaning and in-line disinfection through a completely automatised programme
- ◆ Ensures perfect traceability thanks to a management system for batches and volumes



PRODUCT	PRODUCTION LINE RATE	DOSAGE RATE	DOSAGE PRECISION	MAX. PRESSURE PUT ON LINE	WORKING TEMPERATURE
Dosapompe 100-20	Up to 10 000 bottles/h	Up to 20 liters/h	+/- 3% with calibration	4 bars	5 to 60°C (resistant to steam)
Dosapompe 200-50	Up to 20 000 bottles/h	Up to 50 liters/h		7 bars*	

*Compatible with counter-pressure bottling line.



"The arabic gums provided by Lamothe-Abiet meet our quality expectations for the stabilisation and mouthfeel enhancement of wines.

Building on these positive results, we have installed several dosing pumps in Argentina to enable inline injection of arabic gum. We have also decided to install an additional dosing pump to further facilitate inline injection."



MACARENA CARMONA, WINEMAKER, ACCOUNT MANAGER,
ARPEX ARGENTINA, ARGENTINIAN

ARABIC GUMS & MANNOPROTEINS			STABILISATION				TYPE OF WINE	RECOMMENDED DOSE*	MAXIMUM LEGAL DOSE
			COLLOIDAL	COLOUR	ROUND MOUTHFEEL	FILTERABILITY			
ARABIC GUMS	GOMME L.A.	L						12 cL/hL (single dose)	12 cL/hL
						5 - 12 cL/hL			
	GOMME ARABIQUE ST							12 cL/hL (single dose)	12 cL/hL
								5 - 12 cL/hL	
	POLYGOM					13 cL/hL (single dose)		13 cL/hL	
						5 - 13 cL/hL			
	VINO GOM®							7 - 15 cL/hL	15 cL/hL
						5 - 15 cL/hL			
	EXCEL GOM®	MG					15 - 30 g/hL	30 g/hL	
ORGANIC CERTIFIED ARABIC GUM	GOMME L.A. BIO 	P					20 - 30 g/hL		
	VINO GOM® BIO 						10 - 30 g/hL		
MANNOPRTEINS & GUMS	MANNO'GOM®	P	+ tartaric		+ sucrosity		5 - 35 g/hL	35 g/hL	
	SUBLI'SENSE®	L	+ tartaric				10 - 15 cL/hL	15 cL/hL	
MANNOPROTEINS	MANNO'SENSE®		+ tartaric		+ sucrosity		2,5 - 15 cL/hL	-	

TARTRIC / CALCIUM STABILISATION			STABILISATION			TYPE OF WINE	DOSAGE*
			TARTARIC	EFFECTIVENESS OVER TIME	INTERACTIONS WITH PROTEINS		
CMC	VINOPROTECT®	L					14 - 40 cL/hL
MANNOPROTEINS	STAB K®				-		≤ 40 cL/hL
METATARTARIC ACID	ANTITARTRE 40	P					10 g/hL
CREAM OF TARTAR	BITARTRATE DE POTASSIUM	C					4 g/L
CREAM OF CALCIUM	TARTRATE DE CALCIUM		calcium				1 g/L

MICROBIOLOGICAL STABILISATION			STABILISATION				TYPE OF WINE	DOSAGE*
			BRETTANOMYCES	ACETIC BACTERIA	LACTIC BACTERIA	YEASTS		
CHITOSAN	KILLBRETT®	P						2 - 10 g/hL
LYSOZYME	LACTICIDE	P						15 - 50 g/hL
FUMARIC ACID	ACIDE FUMARIQUE	C						30 - 60 g/hL
SORBATE	SORBASOL	P						10 - 20 g/hL
SO ₂	COEFF 2 AND 5 G	E					According to objectives	
	SULFISOL 6%, 10%,15% AND 18%	L						
	PYROSULFITE OF POTASSIUM	P						

CHARCOALS			STABILISATION		TYPE OF WINE	DOSAGE*
			COLLOIDAL / COLOUR	AROMATIC		
CHARCOALS	GÉOSPRIV	P G		 + decontaminating		10 - 100 g/hL before end of FA
	SUPER ULTOSE	P G	 + colour removal			≤ 20 - 100 g/hL

L	Liquid	G	Granulated	P	Powder	MG	Micro-Granulated	C	Crystal	E	Effervescent tablets
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*Guidelines only: carry out trials to determine the optimal dosage for each type of wine.
Respect the maximum authorized dosages according the current regulations.



SPARKLING WINES

Lamothé-Abiet has developed a range of specialised products for the production of sparkling wines. These are equally suitable for winemaking using the "traditional method" and for the Charmat method in closed tanks.

For the alcoholic fermentation of base wines and the secondary fermentation, we have selected 6 strains of yeast to achieve the different desired wine profiles:

EXCELLENCE® CELSIUS

- ◆ Decrease in alcohol content (ABV)
- ◆ Increased freshness and added tension (L-malic acid production)
- ◆ Elegant, slightly fruity profile

EXCELLENCE® TXL

- ◆ Revelation of volatile thiols
- ◆ Box-tree, citrus and tropical fruits
- ◆ Perfect balance: volume, complexity and aromatic finesse

EXCELLENCE® STR

- ◆ Revelation of fermentation esters
- ◆ Stone fruit and tropical fruit notes
- ◆ Aromatic complexity

EXCELLENCE® *Rosé*

- ◆ Aromatic clarity and freshness (absence of aromatic masking, notes of white flowers and yellow fruits)
- ◆ On the palate: liveliness, preservation of L-malic acid
- ◆ Consumes SO₂ and facilitates foam formation

EXCELLENCE® E2F

- ◆ The most robust yeast
- ◆ Aromatic purity
- ◆ Resistant to pressure and difficult environments
- ◆ Good bubbles quality

L.A. SPUMANTE

- ◆ The best adapted yeast for producing sparkling wines in closed tanks (Charmat)
- ◆ Produces aromatic, easy-drinking wines
- ◆ Floral and fruity notes

L.A. SPUMANTE

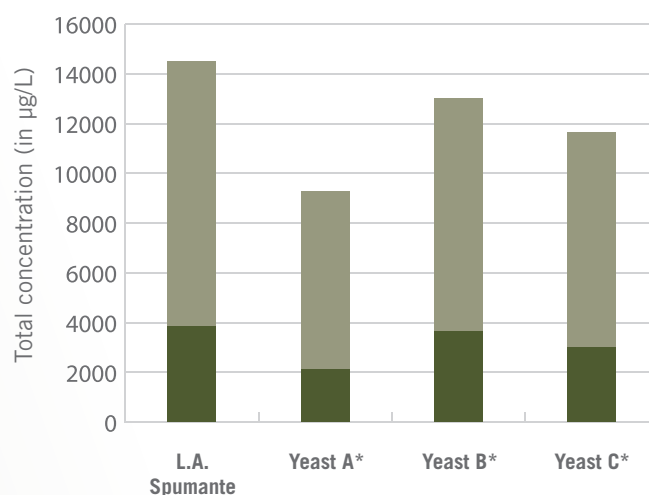
The best adapted yeast for producing sparkling wines in closed tanks (Charmat).

L.A Spumante is a particularly robust yeast for **safe** and **optimal production** of sparkling wines. It can ensure the alcoholic fermentation of base wines, and the secondary fermentation of sparkling wines without **producing undesirable compounds**, even in difficult conditions with high pressure (6 bars). It also helps to **reveal intense fruity** and **floral aromas**. **L.A Spumante** ensures the production of aromatic, easy-to-drink wines.

- Concentrations of esters and acetates (Fruity) (µg/L)
- Phenylethanol (Floral) (µg/L)

*Market benchmarks for the production of sparkling wines.

Aromatic profile of L.A Spumante



CLARIFICATION

			APPLICATION	DOSAGE
ENZYME	CENOZYM CLEAR	L	Particularly suitable for flotation, improved lees compaction and optimises volumes	1 - 3 mL/hL

FINING

			DECREASES BITTERNESS	TREATING COLOUR	DECREASES GREEN NOTES	TREATING OXIDATION	DOSAGE
Pea protein (GREENFINE MUST L: Liquid)	GREENFINE MUST	P	•	•	●	●	10 - 50 g/hL L : 10 - 50 cL/hL
Pea protein, inactivated yeast, calcium bentonite	GREENFINE NATURE	P	●	•	●	•	10 - 80 g/hL
Pea protein, decolouring activated carbon, PVPP, calcium bentonite	GREENFINE INTENSE	P	•	●	•	●	10 - 120 g/hL
Gelatin	GELFLOT®	L	•	•	•	•	1,5 - 6 cL/hL
PVPP	PVPP	G MG	●	•	●	•	20 - 80 g/hL
PVPP, potassium caseinate	POLYMIX	P	•	●	•	●	15 - 100 g/hL

FERMENTATIONS

	STRAIN	BASE WINE	SECONDARY FERMENTATION	NITROGEN REQUIREMENT	ALCOHOL RESISTANCE (%Vol)
EXCELLENCE YEASTS	CELSIUS	●		High	16
	TXL	●		Medium	16
	STR	●		Medium	15
	ROSÉ	●	●	Medium	16
	E2F	●	●	Low	> 17
L.A. YEASTS	SPUMANTE	●	●	Medium	14,5

BOTTLING

			APPLICATION	DOSAGE
TANNIN	TANIN E2F®		Antioxidant, precipitates unstable proteins, adds elegance and structure	4 to 6 cL/hL of wine to be bottled
SODIUM BENTONITE	BENTOSOL PROTECT		Riddling adjuvant for traditional method, optimum yeast clarification, forms a compact deposit	5 g/hL

DISGORING & DOSAGE

			COMPONENTS	DOSAGE
ARABIC GUM & MANNOPROTEINS	VINO'GOM	L	Liquid <i>Acacia seyal</i> -type gum arabic (coating) to increase mouthfeel	5 - 30 cL/hL
	SUBLI'SENSE		Plant polysaccharides and mannoproteins in solution to enhance the mid-palate and balance bitterness	10 - 30 cL/hL
	MANNO'SENSE		Pure mannoproteins, rich in Hsp12 sapid peptide	2,5 - 15 cL/hL
	MANNO'GOM	P	Mannoproteins and plant polysaccharides powder to enhance sucrosity and reveal fruity notes	5 - 30 g/hL
TANNINS	SOFTAN SWEETNESS	P	Lightly toasted oak tannins combined with plant polysaccharides	1 - 3 g/hL
	SOFTAN FINITION		Medium toasted oak tannins combined with plant polysaccharides	
	TAN&SENSE VOLUME		Untoasted oak tannins	0,5 - 5 g/hL
	TAN&SENSE ORIGIN		Lightly toasted oak tannins	
	TAN&SENSE EXPRESSION		Medium toasted oak and grape tannins	
	TAN&SENSE FORTE		Strongly toasted oak tannins	

L Liquid
 G Granulated
 P Powder
 MG Micro-Granulated

Located in Bordeaux for over 20 years, Œnoboïs® produces oak for enology. Our synergy with Lamothe-Abiet, which has been working with winemakers since 1878, provides in depth knowledge of winemaking and the profiles our customers seek.

Œnoboïs® offers a wide range of carefully selected woods to achieve any production objective.



STAVES & BLOCKS

• Œnoboïs® offers a range of thick French oak staves designed for long ageing of "vins de garde" (6 to 10 months). Our specific «double toasting» process allows us to create highly complex, varied and consistent profiles.

• Blocks are based on our thick staves for slightly shorter maturation periods (2 to 4 months).

• Œnoboïs® Staves & blocks ensure the gradual and stable extraction of oak components while respecting the terroir typicity of the wines produced.

ORIGIN	EXPRESSION	ABSOLUTE
		
TYPE OF TOAST	TYPE OF TOAST	TYPE OF TOAST
  	  	  
- Lightly toasted French oak. - Enhances the typicity of terroir wines without adding toasted notes. - Adds softness and volume on the palate. - For fresh, balanced white, rosé and red wines.	- Medium-toasted French oak. - Delicious and complex aromatics, with subtle notes of vanilla, caramel and crème brûlée. - Adds sucrosity and length on the palate. - For fresh white, rosé and red wines.	- Strongly toasted French oak. - Brings finesse and aromatic freshness with mineral and fresh spice notes. - Adds tension and length on the palate. - For ripe white, rosé and red wines that lack freshness.
  	  	  
Red berries	Vanilla	Mineral
Yellow fruits	Crème brûlée	Smokey
Coconut	Caramel	Pepper

STICKS INSIDE

Œnoboïs® Sticks Inside range made from French oak aims to extend the life of your old barrels.

Our Sticks Inside are made of a chain of 12 segments to be inserted into your barrel. Adding one 12-segment chain provides an effect equivalent to ± 30% of a new 225L barrel. Different profiles are available, from light toasting that respects the fruit, to medium to strong toasting levels that have a greater impact on the aromatic profile, depending on the desired objectives.



STICKS & 3D

- Œnoboïs® offers a range of 22mm thick French oak sticks for long maturation (6 to 10 months). The unique format of the Œnoboïs® stick gives a deeper extraction of the oak compounds to further enhance intensity, aromatic persistence and tannic concentration on the palate.
- The 3D cubes, made from our sticks quality oak, are designed for slightly shorter maturation periods (2 to 4 months).

 HIGHLIGHT	 MEDIUM	 MEDIUM PLUS
TYPE OF TOAST	TYPE OF TOAST	TYPE OF TOAST
  	  	  
◆ Lightly toasted French oak. ◆ Enhances the intensity of the varietal fruit flavours without adding toasty notes. ◆ Adds structure and tannic concentration. ◆ For fresh white, rosé and red wines that lack body on the palate.	◆ Medium-toasted French oak. ◆ Brings out very intense patisserie notes. ◆ Adds sucrosity and tannic concentration. ◆ For "under-ripe" white, rosé and red wines that lack body on the palate.	◆ Strongly toasted French oak. ◆ Intense notes of smoke, coffee and mocha. ◆ Concentrated tannins and persistent aromas on the palate. ◆ For ripe or overripe white, rosé and red wines that lack length on the palate.
 Red berries  Yellow fruits  Coconut	 Vanilla  Pastry  Caramel	 coffee  Mocha  Tiramisu

CHIP'S RANGE!

CEnobois® offers a complete range of French and American oak chips with specific organoleptic characteristics, to work on both the wines' aromatic expression and on their balance on the palate.



Toffee Chips are **100% French** medium toast oak, delivering very **intense notes of fresh vanilla and lactones**. Toffee chips are the **sweetest** of our oak chip range.



TOFFEE

TYPE OF TOAST



Coconut



Vanilla



Sucrosity

◆ Goal of an addition of 2g/L during vinification: adding sucrosity on the attack and increasing the intensity of fruity notes.

◆ Goal of an addition of 3-5 g/L during maturation: adding intense notes of whisky lactone and vanilla whilst adding strong sweetness on the palate.

◆ For white, rosé and red wines that lack sweetness.

◆ To soften the 'tougher' tannins of concentrated red wines, as well as the dry tannins produced during very hot and dry vintages.



MAKE THE RIGHT CHOICE OF OENOLOGICAL OAK WITH OUR DECISION-MAKING TOOL:



Available on our CEnosolutions application, downloadable from AppStore & Google Play Store.



Also available on our new website:

WWW.OENOBOIS.COM





STAVES & BLOCKS, STICKS & 3D		AROMATIC BALANCE					BALANCE ON THE PALATE				RECOMMENDATIONS
		RESPECTS & ENHANCES FRUIT NOTES	NOTES OF COCONUT & WHISKY LACTONE	COMPLEX & GOURMAND Vanilla, crème brûlée, caramel	AROMATIC INTENSITY & PERSISTENCE Mocha, coffee	FINESSE & FRESHNESS Minerality	TANNIC STRUCTURE	SUCROSITY (Attack on the palate)	OVERALL VOLUME (Mid- palate)	LENGTH & FRESHNESS (Finish)	
STAVES 900x50x18mm BLOCKS 150x50x18 mm	Origin	●	●			●	●	●	●	●	Application during AF ensures better integration with the wine. Using during maturation, after MLF, brings out the full aromatic complexity of the selected oak. Contact time: • Stave: 6 to 10 months. • Blocks: 2 to 4 months. • Sticks: 6 to 10 months. • 3D: 2 to 4 months.
	Expression	●	●	●			●	●	●	●	
	Absolute	●				●	●	●	●	●	
STICKS 900x22x22 mm 3D 22x22x22 mm	Highlight	●	●			●	●	●	●	●	
	Medium		●	●			●	●	●	●	
	Medium +			●	●		●	●	●	●	

STICKS INSIDE (For barrels)

INSERT 12 segments of 300x22x22 mm	Highlight	●	●			●	●	●	●	It is estimated that adding one 12 segment chain gives the effect of using ± 30% new 225L barrel. Dosage: 1 to 3 chains per 225L barrel. Contact time: 4 to 10 months.
	Medium		●	●			●	●	●	
	Medium +			●	●		●	●	●	

CHIPS & GRANULARS			AROMATIC BALANCE				BALANCE ON THE PALATE				RECOMMENDATIONS
			RESPECTS & ENHANCES FRUIT NOTES	NOTES OF COCONUT & WHISKY LACTONE	VANILLA AND GOURMET NOTES	TOASTED AND SPICY NOTES	TANNIC STRUCTURE	SUCROSITY (Attack on the palate)	VOLUME & ROUNDNESS (Middle)	LENGTH (Finish)	
CHIPS	FR	Fresh	●	●			●		●		Using during AF ensures better integration with the wine. Using during maturation, after MLF, brings out the full aromatic complexity of the selected oak. Dosage: 1 to 5 g/L depending on objective. Contact time: 1 to 3 months.
		Light	●	●			●			●	
		Toffee	●	●	●			●	●	●	
		Medium			●	●		●	●	●	
	US	Medium +			●	●		●	●	●	
		Medium			●	●		●	●	●	
		Medium +			●	●		●	●	●	
	BLEND	Pure Fresh fruits	●	●			●		●		
		Fun Gourmet			●	●		●	●	●	
		Chic Toasted spicy			●	●		●	●	●	

GRANULARS	FR	CEnofresh®	●				●				The granular format allows the potential of the oak in the wine to be extracted quickly. This format is particularly adapted to use during the alcoholic fermentation. Application: immediately after filling the tank. Dosage: 1 to 5 g/L depending on the objective. AF contact time: 3 to 5 days.
		Fresh	●	●			●		●		
		Light	●	●			●			●	
		Medium			●	●		●	●	●	
	US	Medium			●	●		●	●	●	
	BLEND	Ferm'Oak	●	●	●	●	●	●	●	●	



DECLARATION ON HONOUR

We hereby confirm that all products and auxiliaries listed below, contain **no substances of animal origin**.

Furthermore, we confirm that for the production of the raw materials no processing aids of animal origin are

being used. The substances **were not tested on animals** (conducted or sponsoring directly by our company).

This is individually true for all substances (ingredient or auxiliary material), and for the final product.

PRODUCTS & AUXILIARY MATERIALS CONCERNED

All our products are concerned by this document, except these listed below*.

Information provided on this product information sheet is intended solely for internal use or for Vegan certification and is not intended to be shared in any other context.

*Products that couldn't be used with this document:

- | | | |
|-------------------------------|-----------------------|-------------|
| • Albumine d'œuf poudre | • Gélatine Supérieure | • Ovaline® |
| • Caséimix | • Geldor® | • Lacticide |
| • Colle de poisson L.A. | • Gelfine® | • Polymix® |
| • Gélatine spéciale vins fins | • Gelflot® | |

PRODUCT & PACKAGING CATALOGUE



Consult our Product & Packaging catalogue online.

This directory is comprehensive. The availability of certain references may vary depending on the geographical area.

For any further information, please contact your Lamothe-Abiet representative.

Updated on **10/02/2026**, this document is provided for information purposes only and may be subject to regular updates.

Consult



Protocols

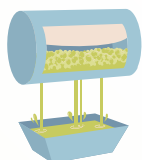




FERMENTATION ESTERS

Optimal turbidity = 50 – 100 NTU

Optimal AF temperature = 14-16°C



Pressing



Settling tank



Fermentation tank



Ageing

CEnozym® Clear

Application: After pressing.

Benefits:

- ◆ Fast depectinisation of must for improved clarification

GreenFine® Range

Application: At clarification step: cold soaking or flottation.

Benefits:

- ◆ Clarification of must
- ◆ Removal of polyphenols
- ◆ Colour management

CEnoStim®

Application: In rehydration water for the yeast.

Benefits:

- ◆ Optimised fermentation kinetics
- ◆ Better implantation of selected yeast
- ◆ Better revelation of aromas by yeast

Excellence® STR

Application: Yeast addition.

Benefits:

- ◆ Synthesis of fermentation esters
- ◆ Good fermentation kinetics

OptiEsters®

Application: At the end of the 1st third of AF.

Benefits:

- ◆ Stimulate synthesis of fermentation esters during AF

Optiflore® O

Application: After 1st third of AF.

Benefits:

- ◆ No effect on nitrogen catabolic repression
- ◆ Increased aromatic complexity

Aroma Protect®

Application: At the end of AF (density 1.010) or during maturation.

Benefits:

- ◆ Protection of thiol aromas thanks to high concentration in glutathione

DID YOU KNOW

The production of fermentation esters **depends directly on the strain of yeast used**. Certain enzymatic activities specific to the yeast are essential for an optimal **revelation** of acetate esters and ethyl esters of fatty acids. **Excellence® STR** was selected for this very reason.



THIOLS

Optimal turbidity = 150 – 200 NTU

Optimal AF temperature = 18°C

Harvest



CEnozym® Crush / CEnozym® Process

Application: On fresh grapes as soon as possible.

Benefits:

- ◆ Depectinise must
- ◆ Extract aroma precursors



Settling tank

GreenFine® Range

Application: At clarification step: cold soaking or flottation.

Benefits:

- ◆ Clarification of must
- ◆ Removal of polyphenols
- ◆ Colour management



Fermentation tank

OptiThiols®

Application: After tank filling and clarification.

Benefits:

- ◆ Stimulates the synthesis of thiols during AF
- ◆ Better preservation of thiols after AF

CEnoStim® / CEnoStim® Direct

Application: In rehydration water for the yeast.

Benefits:

- ◆ Optimised fermentation kinetics
- ◆ Better implantation of selected yeast
- ◆ Best revelation of aromas by yeast

Excellence® FTH / TXL

Application: Yeast addition.

Benefits:

- ◆ Reveal aroma precursors (4MSP, 3SH et A3SH)
- ◆ Good fermentation kinetics

CEnozym® Thiols

Application: Start of AF.

Benefits:

- ◆ Improve thiols expression and freshness

Optiflore® 0

Application: After 1st third of AF.

Benefits:

- ◆ No effect on nitrogen catabolic repression
- ◆ Increased aromatic complexity

Aroma Protect®

Application: At the end of AF (density 1.010) or during maturation.

Benefits:

- ◆ Protection of thiol aromas thanks to high concentration in glutathione

CEnozym® Thiols

Application: During ageing.

Benefits:

- ◆ Increase in freshness and enhancement of fruity aromas



Ageing



REDUCING THE USE OF SO₂: BIOPROTECTION



ON WHITE & ROSÉ WINES

DID YOU KNOW

Bioprotection is based on the **controlled occupation of must** by **selected micro-organisms** (non-fermentative) in order to **prevent the development of spoilage species**. This **natural approach** makes it possible to **reduce sulphite additions** while **preserving and enhancing the aromatic potential** of wines. Alcoholic fermentation is then carried out by inoculation with an *S. cerevisiae* yeast from the Excellence® range.

Harvest



Settling tank



Fermentation tank

Excellence® B-Nature

Application: On fresh grapes, as soon as possible.

Benefits:

- ◆ Control of microbial flora
- ◆ Reduction of compounds that combine SO₂
- ◆ Consumes dissolved oxygen

Aroma Protect®

Application: On fresh grapes, as soon as possible.

Benefits:

- ◆ Consumes dissolved oxygen
- ◆ Reacts with quinones

Tanin gallique à l'alcool

Application: On fresh grapes, as soon as possible.

Benefits:

- ◆ Inhibition of oxidases (tyrosinase, laccase)

GreenFine® Range

Application: At clarification step: cold soaking or flottation.

Benefits:

- ◆ Decrease oxidised and oxidisable compounds

Excellence® ROSÉ

Application: Yeast addition.

Benefits:

- ◆ High SO₂ consumption during alcoholic fermentation and very low production of binding compounds

Vitaferment® PH / Optiflore® O

Application: During AF.

Benefits:

- ◆ Meets the nitrogen needs of yeast
- ◆ Optimisation of selected yeast metabolism

Aroma Protect®

Application: At the end of AF (if MLF not desired) at the end of MLF.

Benefits:

- ◆ Consumes dissolved oxygen
- ◆ Reacts with quinones





ON RED WINES

Harvest



Excellence® B-Nature

Application: On fresh grapes, as soon as possible.

Benefits:

- ◆ Control of microbial flora
- ◆ Reduction of compounds that combine SO₂
- ◆ Consumes dissolved oxygen

Tan&Sense® Volume

Application: On fresh grapes, as soon as possible.

Benefits:

- ◆ Consumes dissolved oxygen
- ◆ Protects grape tannins and anthocyanins

Pro Tannin R®

Application: On fresh grapes, as soon as possible.

Benefits:

- ◆ Inhibition of oxidases (tyrosinase, laccase)
- ◆ Grapes tannic potential preservation
- ◆ Colour preservation



*Fermentation
tank*

Excellence® XR / SP / DS / FR

Application: Yeast addition.

Benefits:

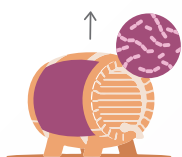
- ◆ Low production of SO₂ and compounds that combine SO₂

Vitaferment® PH / Optiflore® O

Application: During AF.

Benefits:

- ◆ Answer to yeast nitrogen requirements
- ◆ Optimisation of selected yeast metabolism



*Malolactic
fermentation*

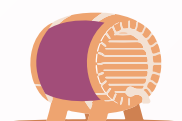
Œno 1® / Œno 2

Application: Œno 1 : 24 to 48 hours after the start of AF.

Œno 2 : At the end of AF (density 1.010).

Benefits:

- ◆ Shorten the gap between AF and MLF through controlled inoculation: limit microbial contamination and oxidations



Ageing

Killbrett®

Application: After FML.

Benefits:

- ◆ Eliminate *Brettanomyces* populations (Killbrett®)
- ◆ Reduce populations of lactic bacteria and non-*Saccharomyces* yeasts (Killbrett®)

Tan&Sense® Volume / Tan'Excellence® / Softan® Power

Application: After FML.

Benefits:

- ◆ Consumes dissolved oxygen
- ◆ Protects grape tannins and anthocyanins
- ◆ Colour stabilisation



ON RED WINES

Harvest



Œnozym® Crush / Œnozym® Process

Application: On grapes.

- Benefits:**
- ◆ Extraction of beneficial phenolic compounds
 - ◆ Increasing colour and its stability
 - ◆ Improving filterability

Pro Tannin R®

Application: On grapes.

- Benefits:**
- ◆ Fast reaction with must proteins
 - ◆ Keep beneficial phenolic compounds
 - ◆ Inhibit laccase when *Botrytis cinerea* is present on grapes (refer to *Botrytest* to modulate the dosage)

Excellence® XR / DS

Application: Yeast addition.

- Benefits:**
- ◆ High production of polysaccharides during AF, contributing to stabilisation of wines
 - ◆ Steady fermentation kinetics that enable optimal extraction of phenolic compounds



Fermentation tank

Softan® Vinification

Application: Beginning of AF.

- Benefits:**
- ◆ Catechic tannin that is highly reactive with ethanal enabling specific anthocyanins to be stabilised
 - ◆ Better colour stability
 - ◆ Brings structure and balance to wine profile

OR

Natur'Soft®

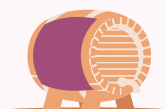
Application: Beginning of AF.

- Benefits:**
- ◆ Autolysed yeasts rich in polysaccharides that fix colour during the alcoholic fermentation
 - ◆ Adds volume and round-mouthfeel on the palate

Aroma Protect®

Application: At the end of AF (if MLF not desired) or MLF.

- Benefits:**
- ◆ Consumes dissolved oxygen
 - ◆ Reacts with quinones



Ageing (end of mlf)

Tan'Excellence®

Application: End of FML.

- Benefits:**
- ◆ Stabilise colour thanks to its formulation rich in catechic tannins
 - ◆ Manage oxidation thanks to ellagic tannins

DEALCOHOLISED WINES & BEVERAGES

Dealcoholised and partially dealcoholised wines now represent a **growing category** and offer an **opportunity for diversification** for producers.

However, the partial or total reduction of alcohol content alters the physico-chemical balance of the wine. The decrease in ethanol directly impacts the structure, aromatic perception and microbiological stability (reduced antiseptic effect), making these beverages more sensitive.

The success of a dealcoholised wine therefore relies both on the **control of the dealcoholisation process**, the **choice of the base**

wine, and on an **appropriate oenological approach** to **correct possible imbalances**.

Among the most frequently observed effects are an increased **perception of acidity** in white and rosé wines, **more pronounced astringency** in red wines, as well as an **overall reduction in freshness** and **aromatic intensity**.

Thanks to its experience in this beverage category, Lamothe-Abiet offers oenological tools designed to **address the challenges of microbiological, colloidal and organoleptic stabilisation**.



Microbiological stabilisation

Sulfisol

- ◆ Protection against yeasts and bacteria.

Sorbasol

- ◆ Inhibitor of yeast development.

Lacticide

- ◆ Inhibition of lactic acid bacteria activity (Gram+).



Colloidal stabilisation

Gomme L.A. & Polygom

- ◆ Based on Acacia Verek: arabic gums for colour stabilisation in red and rosé wines.

Antitartre 40

- ◆ Metatartaric acid for the inhibition of tartrate precipitation.

Stab K®

- ◆ Specific yeast mannoproteins for tartrate stabilisation.

Organoleptic refinement

Subli'Sense® & Manno'Gom

- ◆ Combination of plant polysaccharides and yeast mannoproteins for colloidal stabilisation and the coating of aggressive tannins.

Manno'Sense®

- ◆ Purified mannoprotein solution to improve colloidal stability and enhance round mouthfeel and balance in wines.

Tan&Sense®Range

- ◆ Range of high-quality pure oak tannins (merrain grade) for precise management of the redox potential and the organoleptic balance of white, red and rosé wines.

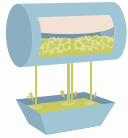
Œnozym® Thiols & Œnozym® FW

- ◆ Specific pectolytic enzyme preparations to enhance aromatic complexity and intensity in white and rosé wines.



BASE WINES PROCESS

Optimal turbidity = 100 - 150 NTU
Optimal AF temperature = 15 -17°C



Pressing

Enozym® Clear

Application: When filling tank.

Benefits: ♦ Rapid depectinisation of must in cold sedimentation or flottation



Settling tank

GreenFine® Range

Application: At settling.

Benefits: ♦ Must clarification
♦ Polyphenol removal
♦ Colour management



Fermentation tank

EnoStim®

Application: In yeast rehydration water.

Benefits: ♦ Optimised fermentation kinetics
♦ Better implantation of selected yeast

Excellence® E2F / L.A. SPUMANTE / Excellence® TXL

Application: Yeast addition.

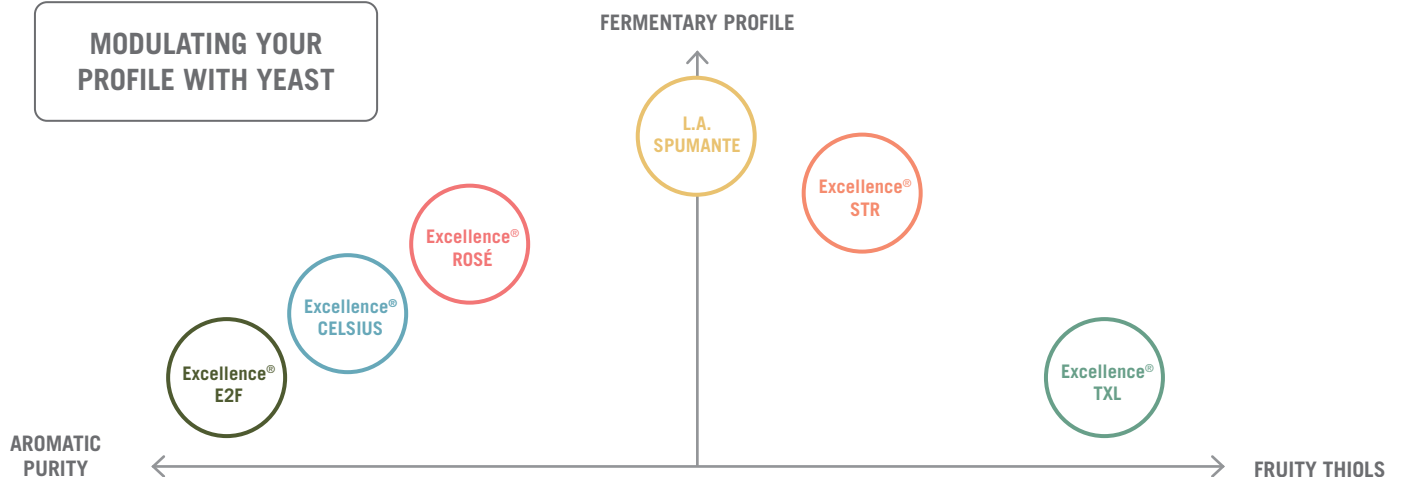
Benefits: ♦ Modulate the aromatic profile according to the desired objectives: either aromatic neutrality or a specific profile.

OptiFlore® 0

Application: After one third of the AF.

Benefits: ♦ High quality yeast nutrition, limits appearance of reductive aromas

MODULATING YOUR PROFILE WITH YEAST





SECOND FERMENTATION & BOTTLING



Tirage

Excellence E2F® / L.A. SPUMANTE

Application: In the tirage liquor.

Benefits: ♦ Resistant to alcohol, pressure, and difficult conditions, produces a high quality mousse

Tannin E2F®

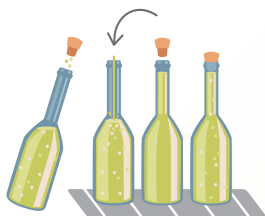
Application: In the tirage liquor.

Benefits: ♦ Antioxidant
♦ Causes unstable proteins to precipitate
♦ Brings elegance and structure

Bentosol Protect

Application: Riddling adjuvant for traditional method.

Benefits: ♦ Optimum yeast clarification, forms a compact deposit



Disgorging & dosage

Vinogom® / Subli'Sense® / Manno'Sense® / Manno'Gom®

Application: At disgorging / dosage.

Benefits: ♦ Adds round mouthfeel, sucrosity, aromatic persistence

Softan® Finition / Gamme Tan&Sense®

Application: At disgorging / dosage.

Benefits: ♦ Adjust your wine profile to market demands, mitigate bitterness

DID YOU KNOW

SO₂ can seriously disrupt the secondary fermentation. The active SO₂ content must be less than 1.5 mg/L. It is important to avoid any sulphite additions less than 15 days before bottling.

Use our Cœnosolutions mobile application to calculate your active SO₂ at any time and optimise your sparkling wine production:

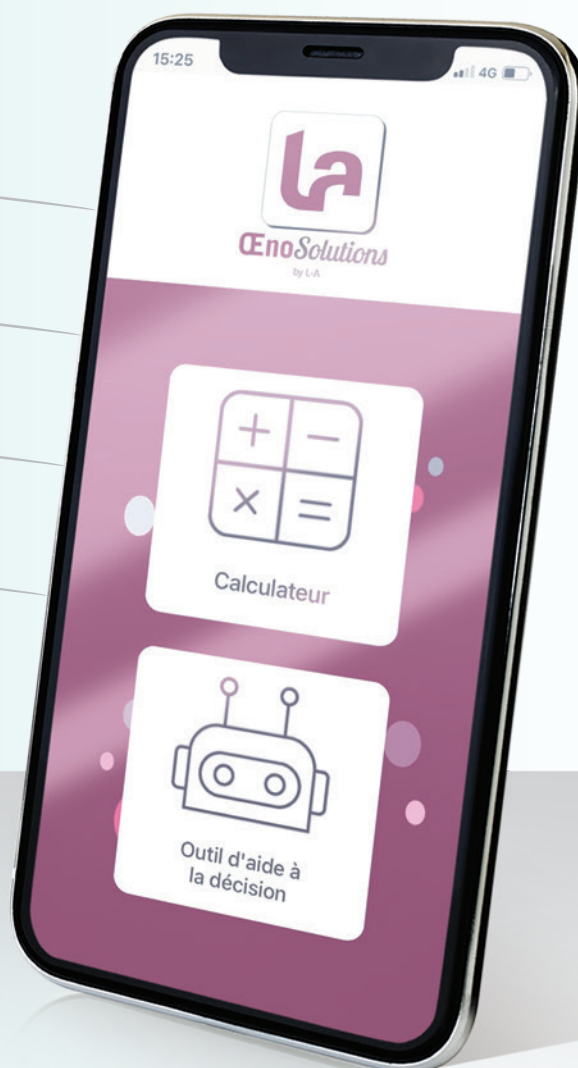
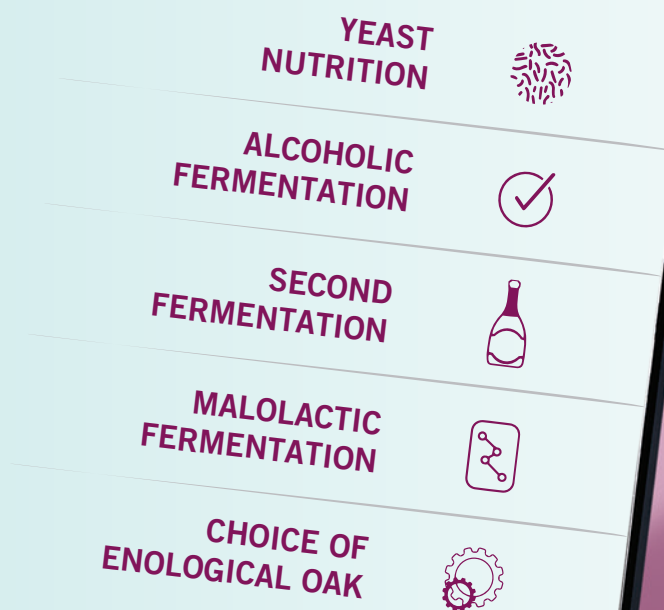


A turnkey tool

Discover œnoSolutions, Lamothe-Abiet's mobile app available on Android and IOS.

User-friendly, this app features enological calculators, such as **SULPHITING**, **ACIDITY MANAGEMENT** or **œNOLOGICAL AUXILIARIES MANAGEMENT**.

USING A VIRTUAL ASSISTANT,
œNOSOLUTIONS HELPS YOU TO MANAGE:



œNOSOLUTIONS IS AVAILABLE ON:



Decision making tools



FINDING YOUR FINING SOLUTION

UNBALANCED DUE TO ASTRINGENCY

MEDIUM TO HIGH IN TANNINS

Gélatine Supérieure:	3-5 cL/hL
Polymix® Natur':	30-80 g/hL
Clarfine:	30-60 g/hL
GreenFine® X-PRESS:	30-80 g/hL
OptiFine® Lees:	30-40 g/hL

LOW IN TANNINS

Gélatine Supérieure:	1-2 cL/hL
Geldor®:	1,5-4 g/hL
GreenFine® Nature:	10-20 g/hL
Natur'Fine® Prestige:	20-40 g/hL
OptiFine® Lees:	20-30 g/hL

OTHER CAUSES OF IMBALANCE

Treating imbalance
ex: lack of sweetness

**Subli'Sense®, Manno'Sense®,
Softan® Sweetness**

ex: lack of round mouthfeel / volume

Vinotaste®Pro + works on lees



REFINING

HIGH IN TANNINS

Gélatine spéciale vins fins:	5-10 cL/hL
Gelfine®:	5-10 g/hL
Ovaline®:	5-9 cL/hL
GreenFine® X-PRESS:	30-80 g/hL
OptiFine® Lees:	30-40 g/hL

MEDIUM IN TANNINS

Geldor®:	3-8 cL/hL
Gélatine spéciale vins fins:	4-8 cL/hL
Gelfine®:	2-4 g/hL
Ovaline®:	3-6 cL/hL
GreenFine® Nature:	20-30 g/hL
OptiFine® Lees:	20-30 g/hL

LOW IN TANNINS

Geldor®:	1,5-4 cL/hL
Gélatine spéciale vins fins:	2-4 cL/hL
Natur'Fine® Prestige:	10-30 g/hL

EXCESS OF POLYPHENOLS

SECONDARY OXIDATION

Polymix® Natur':	40-80 g/hL
Polymix®:	40-80 g/hL
Clarfine:	40-80 g/hL
PVPP:	30-60 g/hL
Caséimix:	40-80 g/hL
GreenFine® Must:	10-50 g/hL
GreenFine® Nature:	30-50 g/hL

BITTERNESS, ASTRINGENCY

Polymix® Natur':	15-30 g/hL
Polymix®:	15-30 g/hL
Clarfine:	10-30 g/hL
GreenFine® Rosé:	10-50 g/hL
OptiFine® Lees:	20-30 g/hL

COLOUR MANAGEMENT

GreenFine® Intense:	40-120 g/hL
GreenFine® Rosé:	30-80 g/hL
Polymix®:	40-100 g/hL
GreenFine® Nature:	30-50 g/hL



REFINING

Colle de poisson LA:	0,5-1,5 g/hL
Gélatine spéciale vins fins:	1-3 cL/hL
Geldor®:	1,5-3 cL/hL
Natur'Fine® Prestige:	10-30 g/hL
GreenFine® Nature:	10-30 g/hL
OptiFine® Lees:	20-30 g/hL

CLARIFYING

Colle de poisson LA:	1-3 g/hL
Gélatine spéciale vins fins:	3-5 cL/hL

⊕ In association with:

Sol de Silice:	3 cL/hL
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PROTEIN STABILITY

Bentosol Protect (granulated)

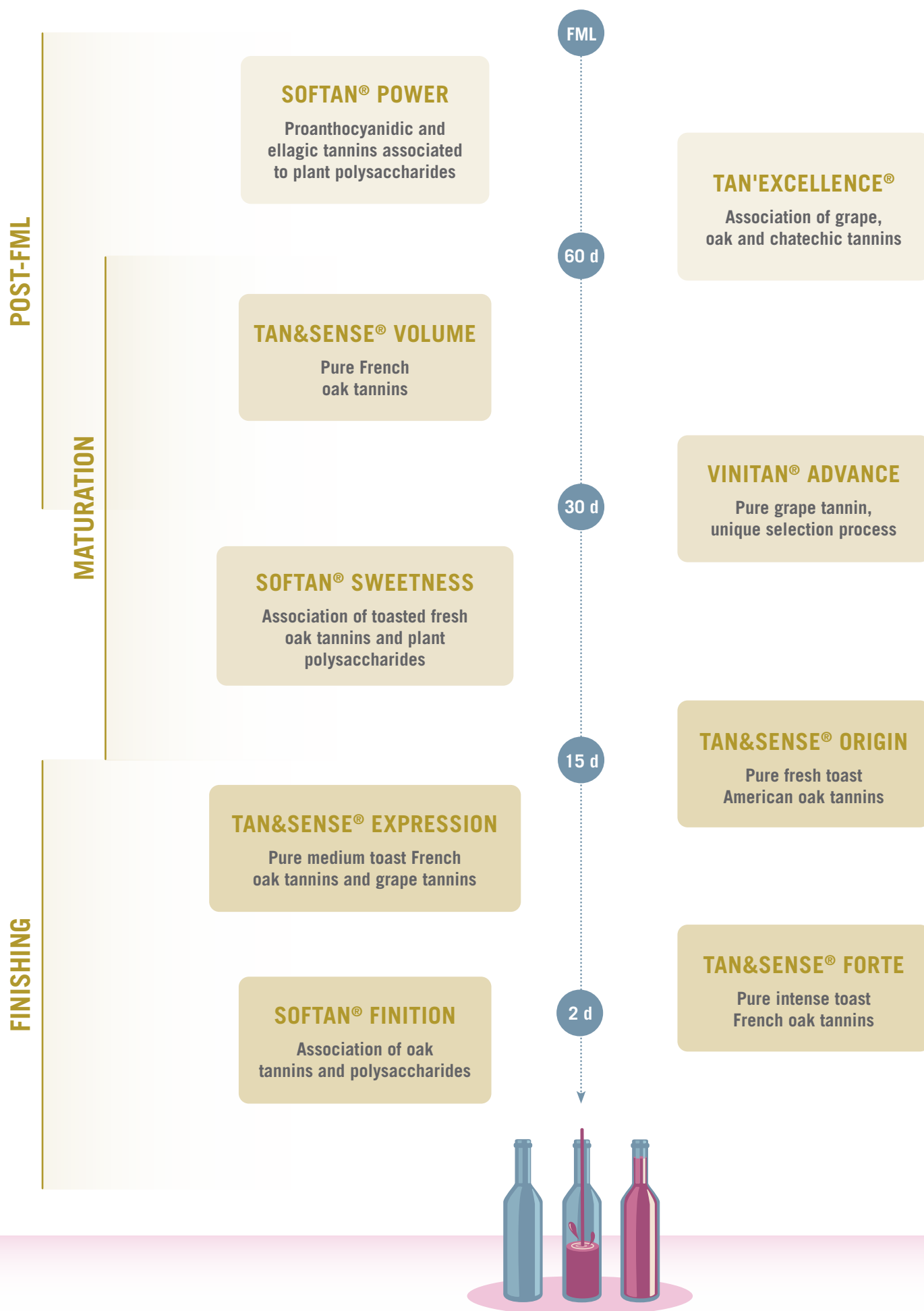
Bentosol Poudre (powder)

Bentosol FT (tangential)

Dosage to be determined by heat test.



AGEING TANNINS: FIND YOUR SOLUTION





TARTARIC STABILISATION: FIND YOUR SOLUTION

Clarity and the absence of deposits are essential for white, rosé, and red wines. Therefore, stabilisation is a crucial step.

Lamothé-Abiet provides specific solutions to obtain tartaric, protein and aromatic stabilisation in wines, whilst respecting their organoleptic characteristics.

What is tartaric precipitation?

Tartaric acid is the acid with the highest concentration in grapes. When the concentration is too high (saturation) in musts or wines, it precipitates during the vinification or storage. The crystals (tartar, potassium bitartrate or KHT) can then be seen at the bottom of the bottle. Although these crystals do not affect the organoleptic qualities of the wines, **many consumers reject wines that contain**



them. Tartaric acid is found in an equilibrium in wines in the form of two salts: potassium hydrogen tartrate (KHT) and neutral calcium tartrate (CaT). These salts have specific solubilities which vary according to the **temperature**, the **pH** and the **alcohol content**. If the amount of KHT or CaT are greater than the solubility limit at a given temperature, there is therefore the risk of “**precipitation**”.

Tartar crystal precipitation in 2 steps

NUCLEATION (KHT / CaT)

Complexation of tartaric acid with potassium bitartrate or calcium tartrate.

GERM ENLARGEMENT

Formation of crystals.

PRECIPITATION

Appearance of crystals that are visible to the naked eye.

INHIBITION OF NUCLEATION

KHT



STAB K®
Mannoproteins

◆ Dosage : 5 - 20 cL/hL



VINOPROTECT®
CMC

◆ Dosage : ≤ 40 cL/hL

BLOCK GERM GROWTH



ANTITARTRE 40
Metatartaric acid

◆ Dosage : 10 g/hL

PROMOTES CRYSTALLISATION

Crystals are quickly and fully formed, which can then be removed.



CREAM OF TARTAR
+ COLD

◆ Dosage : 4 g/L

LAMOTHE-ABIET

Solutions for winemaking



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