ESSENCE

Dal Cin Master Book

2026/27

DAL CIN

DAL CIN: ESSENCE

There is a guiding principle behind every choice we make, a constant presence that shapes how we think, design, and create.

It's our way of being.
A balance between vision and expertise, between consolidated experience and the drive for innovation. It's a commitment that translates into precision and responsibility.

It's purpose, shaping every detail.
It's consistency, even amidst complexity.

This is why each product is more than just the result of a process: it's our essence taking shape in tangible solutions.

Letter from the president

The passion that drove my father, Gildo, to found Dal Cin in 1949 – Italy's first wine-making company – continues to guide our work today. When we look back at the wine industry of that era, we see challenges that may seem distant now, but every era has its own complexities, and today's challenges require adaptability, vision and practicality.

We live in a constantly evolving global context: geopolitical tensions, market instability, shifts in consumer behaviour and a growing focus on sustainability. Added to this are climate changes, which profoundly affect work in the vineyard and in the winery.

In this context, we are committed to standing by you, the winemakers, with reliable and innovative solutions that effectively address every need and the dynamics of various markets. Our strength lies in our ability to listen and adapt: every production operation is unique, and our goal is to help you make the most of it.

With the same passion as always, we continue on this journey together with you.

Marzio Dal Cin

Speech by Lorenzo Dal Cin

In an increasingly dynamic and competitive market, we have chosen to strengthen our business approach, aligning it even more closely with the needs of our customers and various international contexts.

The renewal of our brand identity and this catalog stems precisely from this vision: to offer clear, up-to-date tools that align with Dal Cin's evolution, while highlighting our experience and market positioning. A growth journey focused on the future, with the goal of becoming increasingly effective, recognizable and close to our partners.

Lorenzo Dal Cin

1949

Gildo Dal Cin creates the company.

1950s

Introduction to the world of oenology of the **application of bentonite** (Superbenton ™), of which a large-scale production was carried out for the first time. At the same time, through an intuition of the founder, the use of **metatartaric acid** (Plus Anticremor DC) in the **stabilization of wines** was introduced, once again for the first time in the world. That decade also saw the birth of the famous **anti-flor floating discs** (Flor-Stop™).

1960s

Research and start-up of the **production of innovative filter materials** for solid-liquid separation.

1949, Dal Cin's first headquarters in Milan

1970s

Research and start-up of the **production of plant protection products** with low environmental impact.

1980s and 1990s

The company, among the first in the world, engages in **research and production of biotechnology**, focusing mainly on the selection of **specific yeast** strains and **yeast derivative nutrients** (Lisem™ line).

In parallel, the revolutionary **pre-dispersion technology of filter materials** for the solid-liquid separation based on natural cellulosic fibres (Predisperso™ line) is developed.

2004

Birth of the first Dal Cin range for elevage based on **yeast derivatives and tannins** (**Harmony™** line).

2006

Following the regularisation of **vegetable proteins for fining**, Dal Cin introduced its first solutions to the market (**Phytokoll™** line), on which was working for some time.

2009

Birth of the **innovative miniTubes™ production technology**, resulting in the development of the first **granular and non-dusty** carbon (Grandecò) and PVPP (DC POL G) in the oenological world.

2013

Introduction on the market of the first solutions to achieve **fining and organoleptic enhancement in a single step** (**Mosaico** line), with miniTubes™ technology.

2014

Development of the first **granular yeast nutrients** in the oenological world (wynTube line), with miniTubes™ technology.

2015 - 2025

In collaboration with universities and research institutes, the company undertakes numerous works, each of which adds a piece to the main topic, the **Longevity of wines**:

"**Light-struck taste**" (Kolirex™ Go Fresh and Redox Longevity), "**Removal of phytosanitary products**" (Fito-Stop), "**Colloidal stability of red wines**" (Absolute Gold and Fender Color), "**Management of O_2**" (Harmony™ Vitality), "**Pinking**" (Metaless and Phytokoll™ Vip).

And much more awaits us...

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miniTubes

MiniTubes™ is the technology developed by Dal Cin to overcome the critical issues associated with the use of powder-based processing aids in the winery.

Thanks to an exclusive production system, it completely eliminates dust formation and the resulting product loss through airborne dispersion, improving both efficiency and working conditions. At the same time, it ensures excellent wettability of the granules, enabling rapid, uniform, and complete dispersion in must or wine.

Discover our products with MiniTubes™ technology:

- DC-POL G (page 131)
- GRANDECÒ (page 124)

And any more...

Our innovations

Lifty Sense | Lifty Bloom | KitoClear | Phytokoll VIP | Mosaico Hype | Mosaico Protect | Mosaico Round | Harmony Vitality | Harmony Floral | Harmony Cherry | Harmony Pastry | Harmony Moka | Harmony Intense | Harmony Refine

Lifty Sense

Category: **ENHANCERS**

Used right since the beginning of alcoholic fermentation, it optimises the fermentation environment and releases antioxidant and characterising compounds. Wines fermented with Lifty Sense stand out for their taste, full-body, structure and flavour. On the nose, depending on the dosage used, the results range from maximum cleanliness of the aroma with drastic lowering of herbaceous notes to a characterisation with elegant wood notes.

LEARN MORE:

Lifty Bloom

Category: **ENHANCERS**

Used during the fermentation of white and rosé wines it allows you to obtain cleaner aroma, reduce herbaceousness and enhance floral and fruity notes. Lifty Bloom optimises the fermentation environment and helps improve the longevity of wines.

LEARN MORE:

KitoClear

Category: **FINING AGENTS**

Liquid fining agent based on pre-activated chitosan for the rapid clarification and significant reduction of indigenous microflora in white and rosé musts. Particularly suitable for flotation.

LEARN MORE:

Phytokoll® VIP

Category: **FINING AGENTS**

Allergen-free plant protein. In white and rosé musts and wines, it avoids and tackles early oxidative phenomena, and maintains the freshness of aroma and taste over time. Also available in liquid form.

LEARN MORE:

Mosaico Hype

Category: **FINING AGENTS**

Fining agent based on yeast protein extract. Used in red wines to reduce astringency and vegetal characters. In white and rosé wines it reduces bitter notes and results in greater organoleptic cleanness.

LEARN MORE:

Mosaico Protect

Category: **FINING AGENTS**

In white and rose wines, for fining, stabilization and sensory refinement. The yeast derivatives smoothen out the acidity and balance the mouthfeel. The reactivity of chitosan with oxidized compounds, as well as with copper and iron, contrasts oxidative phenomena, giving back freshness and reducing bitter notes while restoring the right hue of wine.

LEARN MORE:

Mosaico Round

Category: **FINING AGENTS**

In red wines it corrects the oxidative defects of the colour, smooths the tannic asperity, gives body in the mouth and increases filterability. The yeast derivatives make the wine softer and more balanced. The chitin derivatives guarantee the elimination of fractions susceptible to oxidative degradation and at last the chitosan action reduces Brettanomyces contamination risks.

LEARN MORE:

Harmony™ Vitality

Category: **YEAST DERIVATIVES**

It ensures the longevity of white, rosé and red wines thanks to the high content of peptides with antioxidant activity: used during ageing it has a protective action against the degradation phenomena of colour and aromas. It extends the shelf-life of wines by delaying oxidative ageing.

LEARN MORE:

Harmony™ Floral

Category: **YEAST DERIVATIVES**

Enriches the structure and complexity of white and rosé wines, with particular attention to their harmony and flavour balance. The phenolic fraction helps create clean and fresh aromas, as well as protect against oxidation phenomena.

LEARN MORE:

Harmony™ Cherry

Category: **YEAST DERIVATIVES**

A specific action aimed at red and rosé wines. Thanks to the combination of yeast derivative and red fruit tannin, it gives structure and complexity, enhancing wines that lack body and character. Over time it protects the colour against degradation phenomena, especially in the case of wines from grapes that are not perfectly healthy.

LEARN MORE:

Harmony™ Pastry

Category: **YEAST DERIVATIVES**

Yeast derivative enriched with medium-toasted oak tannin. In white wines, the tannins enhance notes of well-integrated wood and pastry; in red wines, sweet and vanilla-like aromas are brought forward while vegetal notes are attenuated and gradually eliminated. Body and structure are also improved.

LEARN MORE:

Harmony™ Moka

Category: **YEAST DERIVATIVES**

Suitable for the ageing of all wines. The combination of the yeast derivative with a strong toasted tannin is suitable when, in addition to complexity and volume in the mouthfeel, you also want to add strong notes of moka, chocolate and liquorice.

LEARN MORE:

Harmony™ Intense

Category: **YEAST DERIVATIVES**

Yeast derivative and oak tannin for the ageing of all wines. Adds elegance, finesse, complexity and cleanness to the treated products. The vanilla and toasted notes vary in their intensity depending on the dose and the contact time.

LEARN MORE:

Harmony™ Refine

Category: **YEAST DERIVATIVES**

At low dosages it preserves the wine aromas and softens herbaceous notes. It works on both the aromatic profile and the palate impact. In the mouth it provides volume, persistence and "sweetness". It is extremely useful to reduce and eliminate acid and dry sensations.

LEARN MORE:

Yeasts

Nature at the service of wine

Choosing and using the yeast according to the characteristics of the must, the technology available in the winery and the final objective allows you to make the most of all the potential of a natural and valuable tool.

BEST SELLER

Best Seller

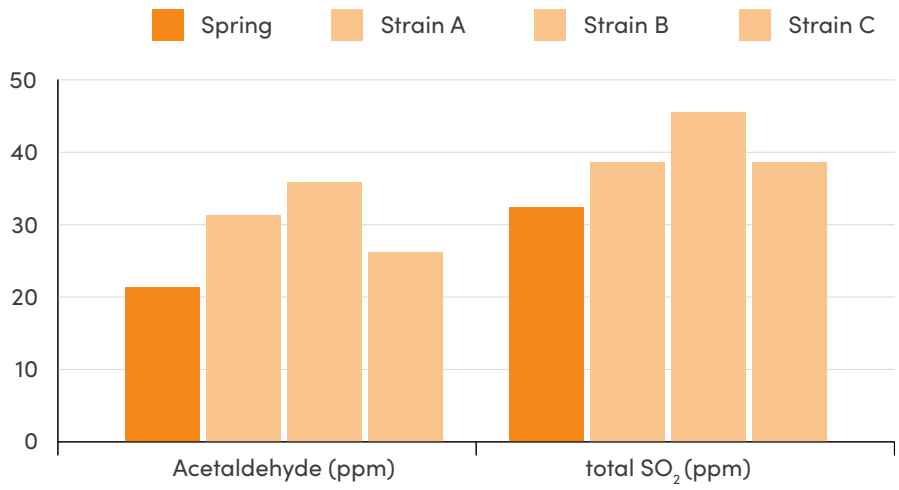
Fervens Spring | Fervens EmoThion | Fervens Evoke | Fervens Fragrance

FERVENS™ SPRING

The ideal strain for modern, fresh and long-lasting wines. Among wine yeasts, Spring stands out for the negligible production of acetaldehyde and SO_2.

Particularly suitable for the vinification of varieties that tend to go into reduction, thanks to the very low production of H_2S. The white, rosé and sparkling base wines obtained with Spring retain their varietal aromatic complexity over time.

FERVENS AF VEGAN FRIENDLY organic



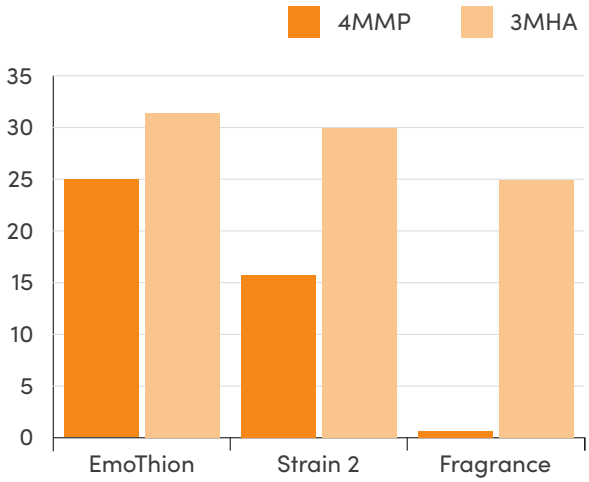
Acetaldehyde and SO_2 at the end of AF (Pinot gris).
Initial SO_2 35 ppm.

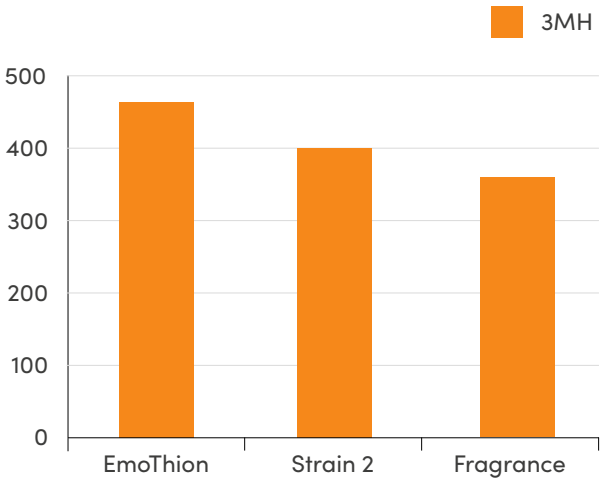
FERVENS™ EMOTHION

The yeast that expresses the aromatic potential of thiol-rich grapes. Fervens EmoThion releases aromatic thiols even during low temperature fermentations (14°C).

It guarantees a greater presence of 3MH (grapefruit), 3MHA (passion fruit) and 4MMP (currant, boxwood) in the finished wine, giving it a fruity and tropical profile.

FERVENS AF VEGAN FRIENDLY organic DE DAL CEN

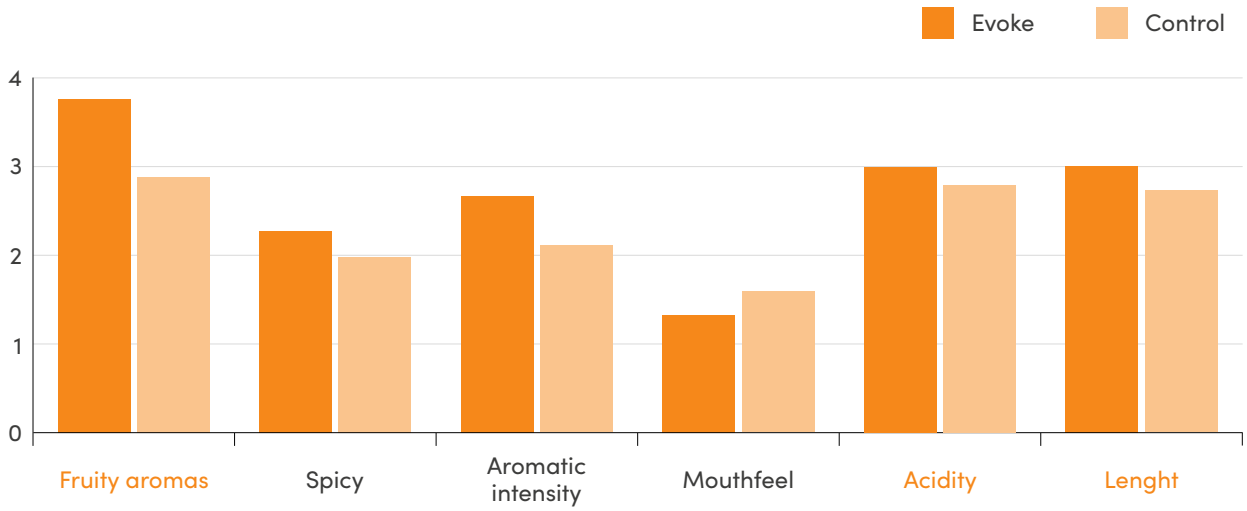




Aromatic production (ng/l) in Sauvignon Blanc must (South Tyrol).
Fermentation temperature: 17 °C.

FERVENS™ EVOKE

A yeast particularly suitable for the production of full-bodied red wines. It brings out the aromas of red and black fruit. During alcoholic fermentation it releases a high quantity of polysaccharides and contributes to increase the softness and stability of the colour. The wines obtained are fresh, intense and well-balanced with an excellent long finish. Suitable for fermentations in difficult conditions and at high alcohol contents (up to 17% v/v).



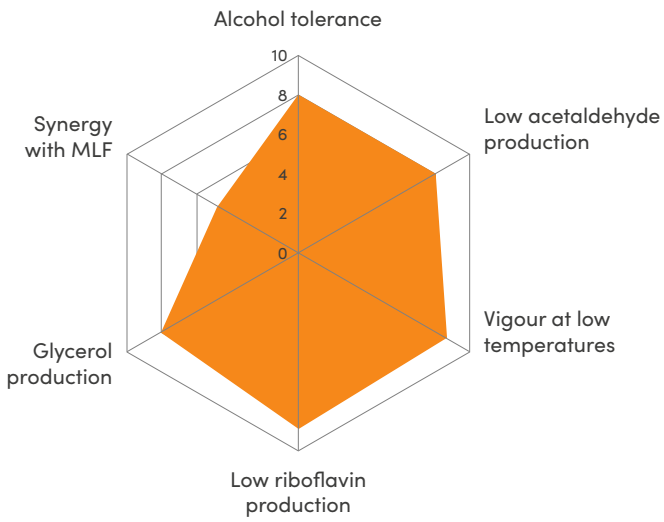
Organoleptic description of Syrah wine (south of France) fermented with Fervens Evoke.

FERVENS™ FRAGRANCE

To obtain the full aromatic fermentative expression in white and rosé wines. The ability to ferment at low temperatures allows you to obtain aromas ranging from tropical fruits to citrus notes. Indispensable for increasing the longevity of bottled wines, it actually stands out for its very low production of riboflavin, precursor of the "light-struck" taste defect. Appreciated for the rapid start of fermentation, speed of kinetics and high alcohol tolerance.

FERVENS AF

CHARACTERISTICS



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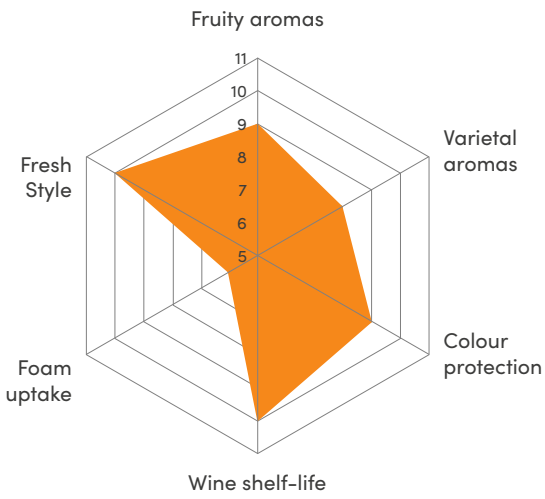


Other products of the category:

WHITE WINES

GO-FRUIT

Saccharomyces cerevisiae dedicated to obtaining white wines characterised by an excellent floral and white fruit aroma. It adapts well to technological needs with fast fermentation kinetics, medium-low production of SO_2 and acetaldehyde and resistance to high alcohol content. Having no demalicating action, it keeps the acidity present.

TREBBY

Saccharomyces cerevisiae for the primary fermentation of white grapes with faint aromatic patrimony. Trebby is distinguished by the high production of fermentation esters and acetates, that is higher if nitrogen nutrition is well managed. Trebby is successfully used in musts which, due to the imperfect ripening of the grapes, have an aromatic content lower than expected.

TWENTY

Saccharomyces cerevisiae characterised by regular fermentation kinetics and adaptable to different temperature and nutrition conditions. Regarding the aroma, it ensures respect for typical varietal features. The white and rosé wines obtained are highly pleasant thanks to their aromatic complexity and cleanliness.

BA-02

It ensures a regular fermentation cycle and makes it possible to obtain balanced white and rosé wines, with intense fruity aromas and, thanks to the high production of glycerol, a pleasant softness on the palate. BA-02 ensures the complete consumption of sugars even under difficult fermentation conditions.

BV-03

A strain recommended for white or rosé winemaking of grapes with varietal aromas (Muscat, Pinot, Chardonnay, Riesling, etc.), especially from musts coming from skin maceration or cold settling. BV-03 has a high resistance to alcohol content, so much so that it can also be used successfully to prevent or treat stuck fermentation.

RED WINES

BERRY

AF

Saccharomyces cerevisiae particularly suitable for obtaining rosé wines, young and medium-aged red wines. The aromatic expression is mainly fermentative and is favoured by a non turbulent kinetic; the best results are obtained with temperature control especially in the initial stages of fermentation. The good release of polysaccharides and the negligible absorbent effect of the cell wall favour the intensity and stability of the colour.

MS-08

AF

Yeast with a high resistance to alcohol content (15,5% v/v), it adapts to different fermentation conditions, for example at high temperatures, and has a good varietal expression. Depending on the fermentation conditions, it slightly degrades malic acid, a feature that could favour a faster start of malolactic fermentation. The wines have a soft, structured and complex sensory mouthfeel.

RJ-11

AF

Selected in France for the production of medium or short ageing red wines. The wines obtained are characterised by fruity aromas on the nose and soft tannins on the palate. Thanks to the release of polysaccharides, it improves colour stability over time.

RG-12

AF

A strain selected to obtain long-ageing red wines. The good resistance to high temperatures and the regular kinetics make RG-12 suitable for long macerations. It develops intense notes of ripe fruit, jam and a spicy complexity. Thanks to the release of polysaccharides, on the palate it provides volume and fullness with soft tannins.

MULTI-PURPOSE STRAINS

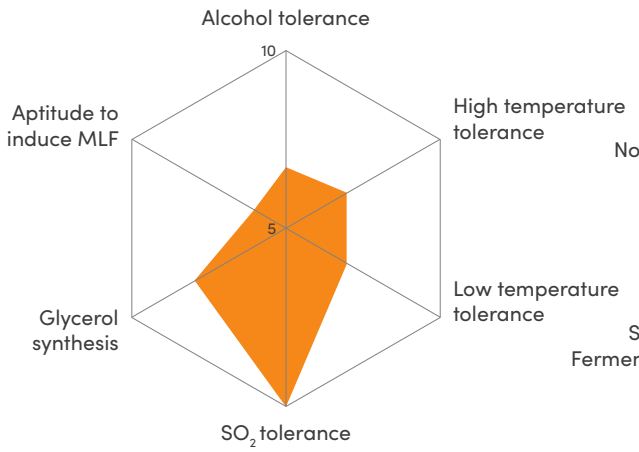
FERVENS

GN

AF

It is interesting for the ability to "release" primary aromas; it lets you increase the characteristic scents of some varietal grapes. The bringing to the fore of those characteristics is also expressed through a remarkably long finish, thereby creating wines with a good balance between smell and taste. It is suitable for white, rosé, red and nouveau wines, where a strong varietal aromatic exaltation is required.

CHARACTERISTICS



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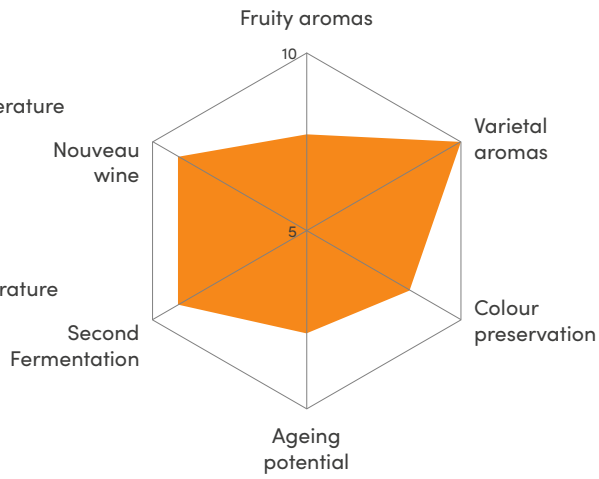


FERVENS

SLC

AF

A strain recommended for large-scale winemaking with problems such as availability of tanks, cooling systems, workers or the time necessary for following strict protocols. SLC is aimed at "technological" fermentation that requires speed and a reduction of controls on the must and in the winery.

ENODOC

FA-01

AF

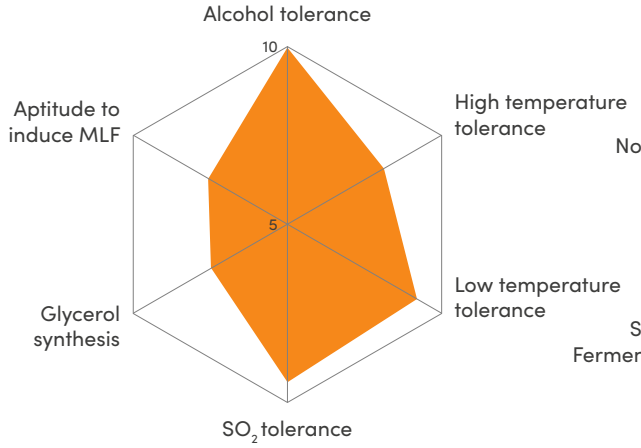
Selected for its ability to ferment even in conditions of low YAN, high SO_2 and the presence of spoiling microflora. It is suitable for both white and red winemaking, making it possible to obtain balanced wines with good structure and respecting the varietal aromatic characteristics.

FERVENS GREEN

AF

Versatile organic yeast suitable for different fermentation conditions. It is used in the first fermentation of red, rosé and white wines. It has an excellent dominance over indigenous microflora, adapts to high sugar levels, does not interfere with the typical grape variety aromas.

CHARACTERISTICS



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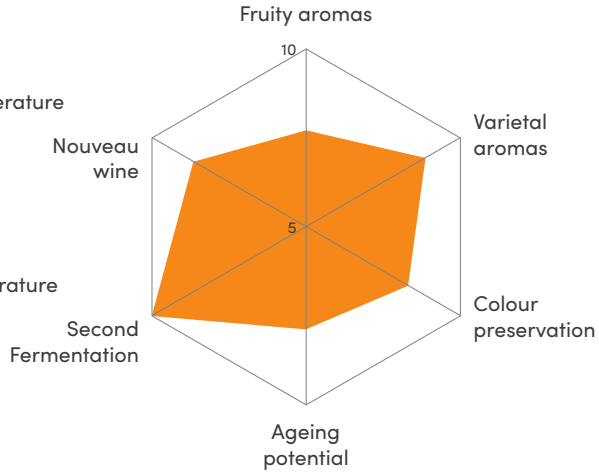


NON SACCHAROMYCES

TD3

AF

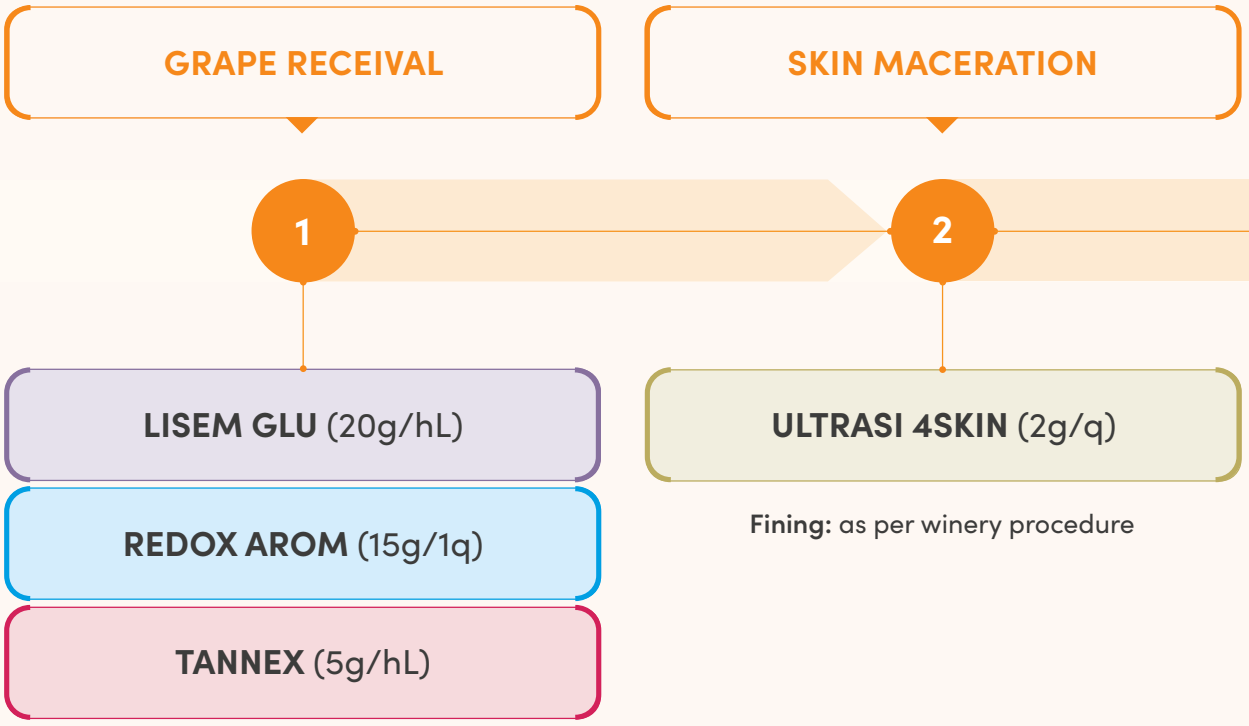
Selected strain of *Torulaspora delbrueckii*, a yeast that is part of the indigenous flora always present on the grapes. It characterises white wines for their intensity and olfactory complexity, as well as giving great softness and persistence on the palate. The organoleptic complexity and the good fermentation cycle are supported and guaranteed by the subsequent inoculation of Saccharomyces.

	Applications	Killer character	Alcohol content	Fermentation kinetics	Nutritional requirements	Fermenta-tion T°	
Trebby		K+	<14% V/V	regular	moderate	>14°C	
Go-Fruit		neutral	<14,5% V/V	fast	medium/high	>14°C	
Emothion		K+	<14,5% V/V	regular	low/moderate	>14°C	
Fragrance		K+	<14% V/V	moderate	high	>12°C	
Spring		K+	<15% V/V	regular	low	>13°C	
Twenty		K+	<14,5% V/V	regular	low/moderate	>14°C	
GN		K+	<14% V/V	regular	low	>14°C	
SLC		neutral	<14% V/V	regular	medium/low	>14°C	
Berry		K+	<14,5% V/V	moderate	moderate	>14°C	
Evoke		K-	<17% V/V	regular	low	>15-30°C	
MS-08		K+	<15,5% V/V	regular	high	>14°C	
BA-02		K+	<15% V/V	regular	medium/low	>15°C	
BV-03		neutral	<16% V/V	fast	low	>12°C	
FA-01		K+	<15% V/V	fast	low	>15°C	
RJ-11		neutral	<15% V/V	fast	medium/low	>15°C	
RG-12		K+	<15% V/V	regular	high	15-35°C	

	Interaction with MLF	Sensitivity to copper	Production of				
			Glycerol	H_2S	SO_2	Volatile acidity	Acetaldehy-de
		medium	medium	low	medium	low	medium/low
		low	medium	low	low	low	low
		medium	medium	low	low	low	medium/low
	-	low	medium	low	low	low	low
		medium/high	medium	very low	very low	low	very low
		medium/low	medium	low	low	low	low
	-	low	medium	low	medium	low	medium/low
		medium/low	medium	low	low	low	medium/low
	+	medium	medium	low	low	low	medium/low
	+	low	high	low	low	low	medium
	+	medium	high	low	low	low	medium
	+	low	medium	very low	low	low	medium/low
	-		medium/low	low	medium	low	medium/low
	+		medium	low	low	low	medium/low
	-		medium	low	low	low	medium/low
	+		high	low	low	low	medium/low

Thiol enhancement

Yeast - ***Fervens and Enodoc***



Legend:

- Yeast Derivates
- Stabilising Agents
- Tannins
- Enzymes
- Nutrients
- Fining Agents

AF condition: T°: 14-20 °C - NTU>80 - YAN>150 mg/l

ALCOHOLIC FERMENTATION

3

FERVENS EMOTHION (25g/hL)

+

wynTube PREPARA (15g/hL)

At inoculation
wynTube REVELATHIOL (40g/hL)

1/3 of the AF
VITALYEAST (20g/hL)

At inoculation
ULTRASI PASSION (5g/hL)

KOLIREX CP (30g/hL)

Fining and colour stabilisation

LISEM GLU (15g/hL)

Antioxidant protection

STOP AND RACKING

4

Avoid FML
BATTKILL XXL (160-350g/hL)

Protect against oxidation

HARMONY VITALITY (10-20g/hL)

INFINITY REDOX (1-2g/hL)

FOCUS ON

Biocontrol

ACETALDEHYDE: MANAGING OF FERMENTATION TO REDUCE ITS ACCUMULATION

Acetaldehyde in wine can originate biologically (it is involved in countless metabolic processes, including alcoholic fermentation) or chemically (by oxidation of ethanol in the presence of oxygen). In AF it accumulates in the must during the yeast multiplication phase (early stages of fermentation) and is then at least partially reabsorbed in the second phase.

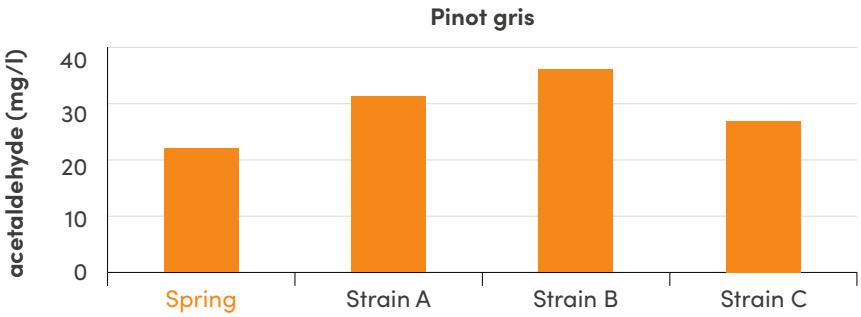
Taking into consideration what has just been said, it is impossible to think about avoiding the production of acetaldehyde; what must be done is to try to prevent its accumulation at the end of fermentation.

THE FACTORS TO FOCUS ON TO ACHIEVE THIS ARE:

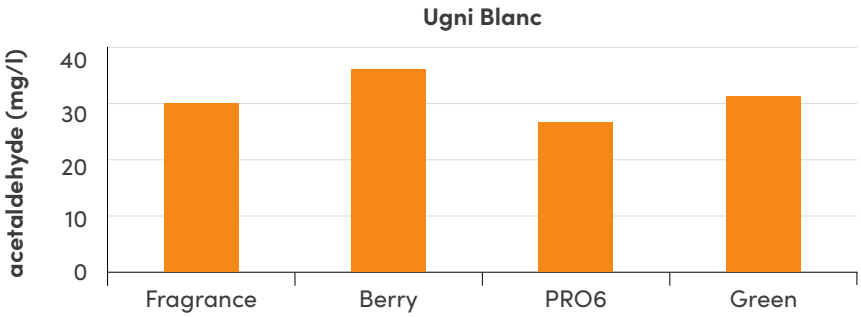
CHOICE OF YEAST STRAIN

Strains that multiply faster in the initial phase and characterised by faster kinetics give wines with a lower acetaldehyde content at the end of alcoholic fermentation. The composition of the must affects the kinetics of the yeast and therefore the production of acetaldehyde.

Recommendations: Fervens Spring, Fervens Pro6, Fervens Fragrance.



ACETALDEHYDE AT THE END OF FERMENTATION

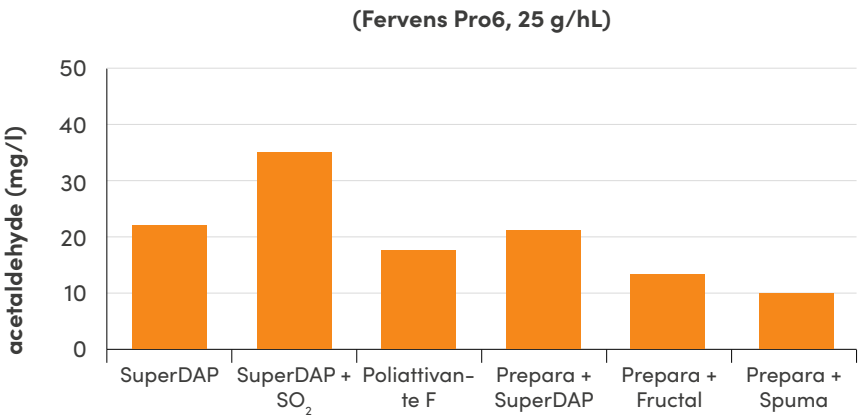


ACETALDEHYDE AT THE END OF FERMENTATION

CHOOSING SUITABLE NUTRITION

Inorganic nutrition allows the rapid development of yeasts and a quick start of the acetaldehyde reabsorption phase. However, the lowest levels of acetaldehyde at the end of AF are always found in the case of organic or complex nutrition; this is down to the effectiveness of organic nitrogen that ensures cell vitality even in the final stages of fermentation.

Recommendations: Prepara, Full, Fructal (Spuma in refermentation).



ACETALDEHYDE AT THE END OF FERMENTATION

CHOICE OF COADJUVANTS

Cellulose has a positive influence because it absorbs the inhibitors and guarantees more vitality to the yeast cells until the end of AF.

Recommendations: Polimersei, Lifty range, Kolirex CP.

Sulphur dioxide stimulates the production of acetaldehyde so it is important to lower the dosages as much as possible.

Recommendations: Alert, BattKill XXL, Battkill.

FOCUS ON

Yeast - Fervens and Enodoc

DIRECT INOCULUM OF OENOLOGICAL YEASTS

Proper rehydration allows the yeast to ferment well even under non-optimal conditions; however, to make the use of yeasts in the cellar more practical, we have tested, in the laboratory and in the cellar, some of our strains **inoculated with and without rehydration**.

Strains tested and results:

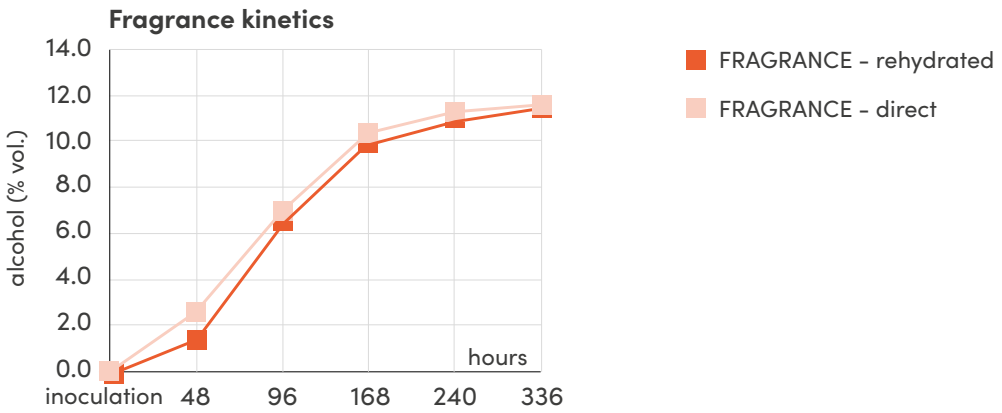
White and rosé wines: Fervens Spring, Fragrance, Twenty, Pro6.
Red Wines: Fervens Evoke, MS08.

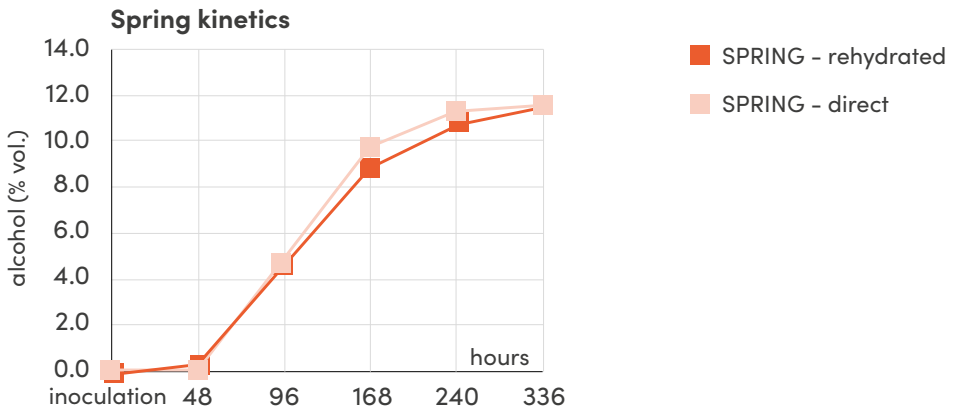
Viable cells:

cell count was assessed 2-24-48 hours after inoculation.

- **Fragrance, Pro6 and MS08:** the inoculation methods do not cause significant differences in the number of cells.
- **Spring, Twenty and Evoke:** the direct inoculation tests show a lower cellular count in the first 24 hours followed by optimal multiplication at 2 days after inoculation.

Fermentation kinetics: all strains showed similar kinetics with contemporary closures with both methods; regardless of the initial yeast cells viability.





Analytical parameters: the wines obtained from the various fermentations did not show significant differences between the tests, with and without rehydration, especially with regard to alcohol yield and volatile acidity. Spring and Twenty maintained, even in the non-rehydrated tests, the very low production of acetaldehyde and SO_2.

Sensory profile: there are no significant differences between tests. The strains tested in the cellar (Spring, Fragrance and Evoke) were appreciated by oenologists in both ways.

Direct inoculation conditions: it is possible to use the tested strains, without rehydration, while complying with the following conditions:

- Healthy must;
- Minimum inoculation: 20-25 g/hL;
- Potential alcohol: max. 13% (red up to 14.5%);
- Turbidity >50 NTU; adjust with Polimersei;
- Adequate nutrition (thiamine at the inoculation!)

Nutrients

From the yeast for the yeast

By choosing the right nutrition in each phase and for each objective, it is possible to get the maximum from the yeast used. Goodbye to slow or stuck fermentation, goodbye to off-lavours and hello to aromas, freshness, complexity, softness...

BEST SELLER

Best Seller

wynTube Fructal | Effervis | Nutriliquid | wynTube RevelaThiol

wynTube FRUCTAL

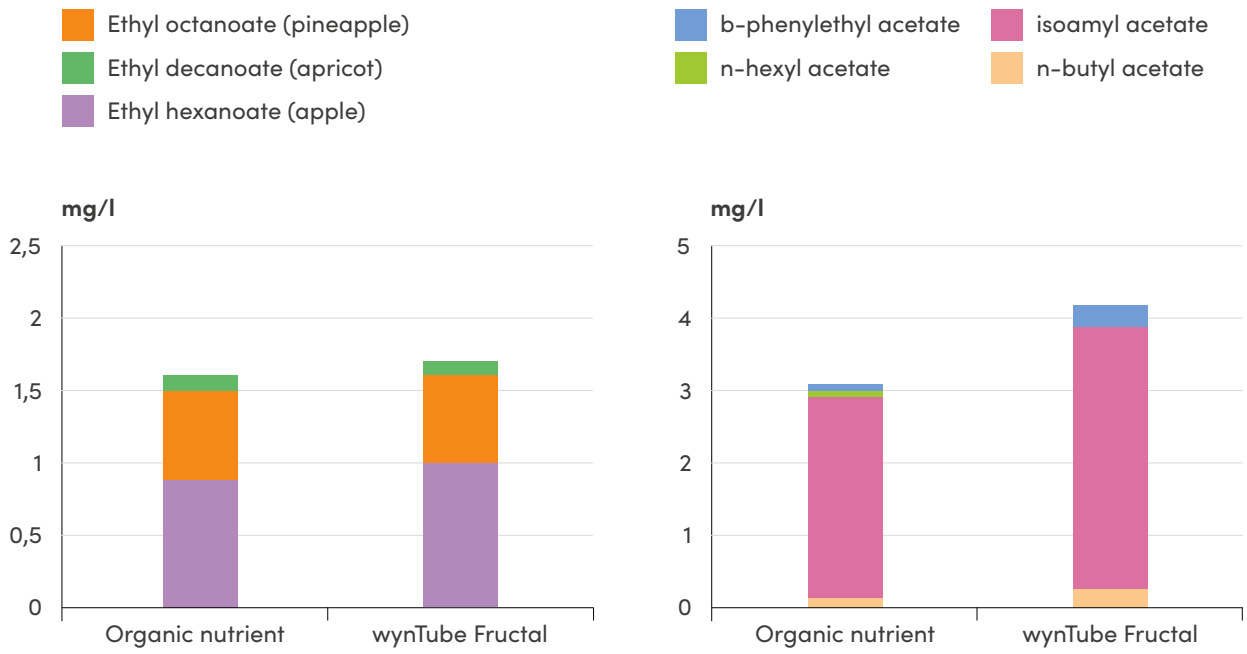
100% organic nutrient. The supply of aminoacids encourages the production of fruity and tropical notes. When combined with Fervens Fragrance, in addition to giving complex and interesting aromas, it makes it possible to control the supply of riboflavin and therefore limits the increase in precursor compounds of the light-struck taste.

Dosage:

15-40 g/hL.

Packaging:

2 kg and 10 kg bags.



Production of ethyl esters and acetates (fruity and tropical fruit).
wynTube Fructal (30 g/hL) stimulates the synthesis of both aroma families.

NutriLiquid

100% organic nutrient obtained from inactivation and subsequent autolysis of *Saccharomyces cerevisiae* Autolysis guarantees the immediate availability of organic nitrogen, vitamins, sterols and unsaturated fatty acids, with appreciable results especially in the improvement of fermentation kinetics. The liquid formulation facilitates its use.

Dosage:

30-150 ml/hL.

Packaging:

25 kg jerrycans.

wynTube RevelaThiol

A completely organic nutrient, characterised by the excellent supply of glutathione. In the fermentation of musts with thiol varietal potential, the presence of only organic nitrogen favours the entry of aromatic precursors into the yeast cell and their transformation into their aromatic form. Ideal pairing: Fervens Emothion.

Dosage:

20-40 g/hL.

Packaging:

2 kg and 10 kg bags.

Other products of the category:

REHYDRATION

wynTube Prepara

miniTubes AF

Added to the rehydration water, it supplies the yeast with the essential substances to perform alcoholic fermentation in an optimal way even in conditions of high-potential alcohol content, highly reductive conditions, excessively clarified must, and pied de cuve preparation.

Dosage:	Packaging:
10-30 g/hL.	2 kg and 10 kg bags.

COMPLETE NUTRITION

wynTube Full

miniTubes AF

It is used in every phase of fermentation starting from inoculation. It provides organic nitrogen, B vitamins, including biotin which promotes the formation of esters and pantothenic acid which prevents the formation of hydrogen sulphide. Trace elements include magnesium, which is important for increasing the yeast's resistance to the alcohol content.

Dosage:	Packaging:
20-60 g/hL.	2 kg and 10 kg bags

Bio S-Free and Bioattivante

AF - AF

They are used in every phase of fermentation starting from inoculation. They provide organic nitrogen and DAP, B vitamins, including biotin which promotes the formation of esters and pantothenic acid which prevents the formation of hydrogen sulphide.

Dosage:	Packaging:
20-60 g/hL.	Bio S-Free: 25 kg bags. Bioattivante: 1 kg and 25 kg bags.

Nutrigreen

AF

Complete supplement, with organic yeast hulls. It can be used at the beginning and at 1/3 of the fermentation, especially when it is necessary to use a single product to meet all the needs of the yeast.

Dosage:	Packaging:
20-60 g/hL.	1 kg bags.

MICROFLORA CONTROL

wynTube Alert

miniTubes

AF

Complex nutrient with antimicrobial activity. Indicated to avoid the growth of lactic acid bacteria during alcoholic fermentation. It makes it possible to reduce the dosages of SO_2 favouring the dominance of *Saccharomyces cerevisiae.*

Dosage:	Packaging:
20-50 g/hL.	2 kg bags.

AROMAS

Vitalyeast

AF

An exclusively organic nutrient which, thanks to amino acids and vitamins, in particular biotin and pantothenate, guarantees a regular fermentation and counteracts the appearance of reduced odours, the increase in volatile acidity and the slowdown in kinetics. Promotes the release of aromas and gives richness to the wine. Vitalyeast can be assimilated by yeasts even after half of alcoholic fermentation, therefore effective for emergency nutrition.

Dosage:	Packaging:
10-30 g/hL.	500 g and 10 kg bags.

YEAST DERIVATIVE NUTRIENTS

Lisem™ Green

Organic yeast hulls for yeast nutrition and for alcoholic fermentation management. It can be used starting from the rehydration step to provide the yeast a complete nutritional source.

Dosage:	Packaging:
In rehydration:10-20 g/hL. In fermentation: 15-30 g/hL. In second fermentation 20-40 g/hL before the inoclutaion	500 g bags.

Easy-Boost

Exclusively organic nutrient, it provides the yeast with the necessary nutrition to guarantee vitality and fermentative vigour that take the form of regular and complete fermentations.

Dosage:	Packaging:
10-40 g/hL.	25 kg bags.

DETOXIFICATION

Polimersei™

Plant-based fibre with very high surface to favour: restoration of the optimal turbidity of the must, regulation of fermentation avoiding excessive turbulence, reduced production of acetaldehyde and pyruvic acid, transport of oxygen in the fermenting volume, dispersion of yeast cells in the volume, adsorption of yeast inhibitors.

Dosage:	Packaging:
In fermentation: 30-80 g/hL for whites and 50-100 g/hL for reds. In second fermentation: 20-40 g/hL, keeping the mass under moderate agitation for 18-24 hours. Stuck fermentation treatment: 80–100 g/hL, maintening the mass under moderate agitation for 18–24 hours.	5 kg bags.

wynTube Prolife

miniTubes AF

It provides unsaturated fatty acids and sterols to the yeast, it also adsorbs endogenous inhibitors, such as medium chain fatty acids for excellent fermentation kinetics and better aromatic expression. Frees mannoproteins that accentuate the complexity of the wine and reduce the herbaceous notes. In stuck fermentation and in refermentation, it detoxifies the wine before the new inoculation.

Dosage:	Packaging:
In fermentation: 15–25 g/hL. In second fermentation: 20–40 g/hL. In stuck fermentation treatment: 40 g/hL.	2 kg and 10 kg bags.

INORGANIC NITROGEN

Poliattivante F

AF

DAP and cellulose-based nutrient complex to be added to the must at the beginning of fermentation to compensate for nutritional deficiencies and carry out an effective action of creating turbidity. It helps the dispersion of yeasts in the medium and performs a detoxifying action, thanks to the adsorption of medium-chain-length fatty acids (C6-C8-C10).

Dosage:	Packaging:
20-60 g/hL.	25 kg bags.

DAPFlow

NEW AF

Ammonium phosphate-based nutrient for yeast nutrition during alcoholic fermentation and second fermentation.

Dosage:	Packaging:
Up to 250 g/hL (max. dose in AF); up to 75 g/hL (max. dose in second fermentation).	25 kg jerrycans and 250 kg drums.

SuperDAP - Superattivante

AF - AF

Ammonium phosphate and thiamine for the nutrition of yeasts and the regular course of alcoholic fermentation. In the case of musts with severe deficiencies in nitrogen, it is recommended to distribute the dose in two stages. This is to avoid an excessive turbulent start to fermentation, with a rapid increase in alcohol and temperature, both of which are a source of stress for the yeast. Superattivante also contains ammonium sulphate.

Dosage:	Packaging:
Up to 60 g/hL.	1 kg and 25 kg bags.

	OENOLOGICAL CONDITIONS	PRODUCT	ADVANTAGES
REHY-DRAT.	High potential alcohol content; reductive winemaking; enhancing the organoleptic impact.	**wynTube PREPARA** (Assimilable nitrogen = 7 mg/l)	Sterols and unsaturated fatty acids for resistance to alcohol and anaerobiosis. Vitamins and organic nitrogen for clean aromas.
INOCULATION	Ensuring balanced and complete nutrition with a single operation.	**wynTube FULL** BIO S-Free / BIOATTIVANTE (Assimilable nitrogen = 11 mg/l)	Nitrogen for aromatic production and growth factors for alcohol resisance. wynTube Full and Bio S-Free are sulphate-free.
	Musts rich in thiol varietal precursors.	**wynTube REVELATHIOL** (Assimilable nitrogen = 10 mg/l)	Organic nitrogen and antioxidants to release and preserve thiol aromas.
	Must from unhealthy grapes.	**wynTube ALERT** (Assimilable nitrogen = 8 mg/l)	Organic nitrogen and DAP for nutrition; chitosan for the control of the indigenous microflora.
	Very clear must; presence of yeast inhibitors; risk of initial "boost".	**POLIMERSEI** (Assimilable nitrogen = 0)	Adsorption of abnormal odours off aromas (e.g. mould) and inhibitors for regular fermentation kinetics and cleaner aromas.
	Must with medium-low YAN and normal alcohol content; very clear must; presence of yeast inhibitors.	**POLIATTIVANTE F** (Assimilable nitrogen = 14 mg/l)	Nitrogen and fibre regulatory regulation action to improve the expression of the yeast. Sulphate-free.
	Must with medium-low YAN and normal alcohol content.	**SUPERDAP SUPERATTIVANTE** (Assimilable nitrogen = 20 mg/l)	YAN and thiamine for a good fermentation lag phase start. Super DAP is sulphate-free.
1/3 FERMENTATION	High alcohol content; strongly anaerobic environment.	**wynTube PROLIFE** (Assimilable nitrogen = 5 mg/l)	Lipid supply and removal of inhibitors for safe end to of fermentation.
	Normal YAN conditions and alcohol content; reductive winemaking.	**wynTube FULL BIO S-FREE**	Complete nutrition and absence of sulphates for excellent organoleptic results even in "stressful" situations.
	Normal YAN conditions and alcohol content.	**BIOATTIVANTE**	Complete nutrition to improve both the fermentation kinetics and the organoleptic aspects.
	High alcohol content; conditions that could favour the appearance of unwelcome secondary products.	**VITALYEAST** (Assimilable nitrogen = 11 mg/l) **NUTRILIQUID** (Assimilable nitrogen = 10 mg/l) **EASY-BOOST** (Assimilable nitrogen = 8 mg/l)	Amino acid nitrogen and growth factors to reduce volatile acidity and sulphur compounds. It stimulates the synthesis of aromas.
	Maximising the fruity expression of yeasts.	**wynTube FRUCTAL** (Assimilable nitrogen = 10 mg/l)	Let's you obtain the maximum aromatic production from the yeasts used. Limits the risks of volatile acidity and sulphur compounds.
STUCK FER-MENTATION	Must-wine rich in inhibitory catabolites.	**POLIMERSEI**	Removes the saturated fatty acids from the base wine to ensure the success of the second inoculation.
	Must-wine rich in inhibitory catabolites.	**wynTube PROLIFE**	Removes the saturated fatty acids from the base wine to ensure the success of the second inoculation. Enriches nutritional factors.
SECOND FERMENTATION	Acclimatisation of the yeast.	**wynTube FULL BIO S-FREE BIOATTIVANTE**	Removes the saturated fatty acids from the base wine to ensure the success of the second inoculation. Enriches nutritional factors.
	Refermentation.	**wynTube SPUMA** (Assimilable nitrogen = 11 mg/l)	Ensures good kinetics, aromatic development and longevity of colour and aromas.
	Refermentation.	**Effervis** (Assimilable nitrogen = 11 mg/l)	Ensures good kinetics, aromatic development and longevity of colour and aromas.

FOCUS ON

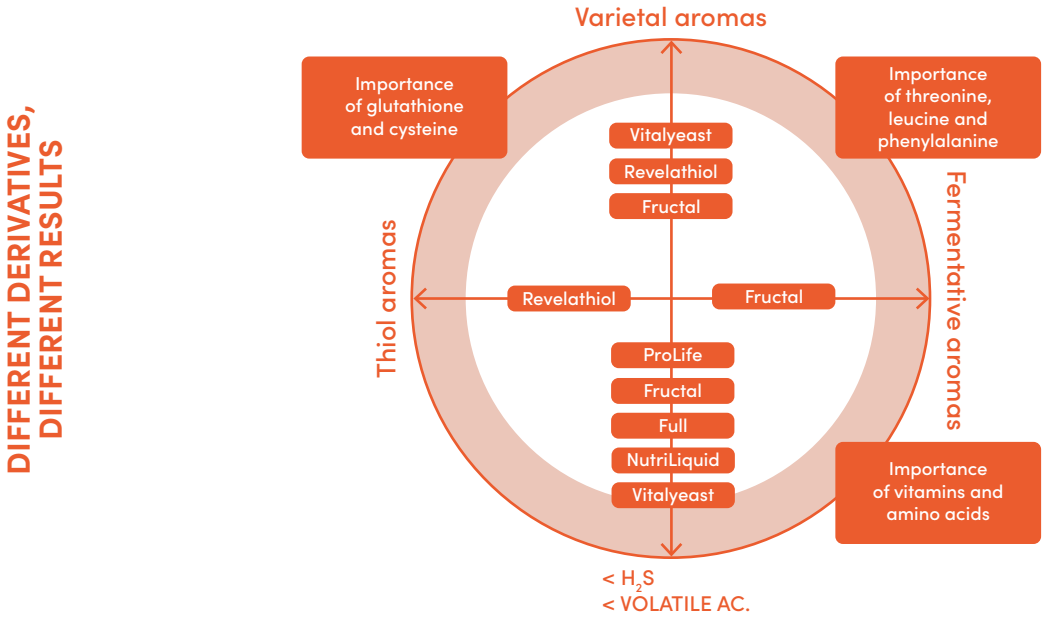
Yeast Nutrition

TO PREVENT DEFECTS

- the nitrogen demand depends on the yeast but, above all, on the potential alcohol content. An assimilable nitrogen content of at least 150 mg/l at the beginning of fermentation for a must with a potential alcohol content of 12% is considered acceptable. Starting from this basis, some authors (Granes et al.2008) propose to increase N by 25-30 mg/l for each additional alcohol content percent;
- thiamine especially at the beginning of fermentation is essential for cell multiplication;
- an excess of ammonia salts at the beginning of fermentation is often the cause of very rapid starts with subsequent stuck, in addition to the production of H_2S;

TO INCREASE THE QUALITY

- strictly organic nutrition in rehydration represents a supply of survival factors (e.g. sterols and unsaturated fatty acids) that the yeast will use in the advanced stages of fermentation (wynTube Prepara);
- some vitamins, such as pantothenic ac., prevent the development of defects such as volatile acidity and reductive hints (Vitalyeast); other vitamins such as biotin favour the formation of esters;
- to increase the release of thiol aromas, exclusively organic nutrition is mandatory throughout the first phase of fermentation (wynTube Revelathiol);
- some amino acids present in specific organic nutrients are direct or indirect precursors of aromatic esters (wynTube Fructal);
- detoxifying the must/wine from endogenous inhibitors allows the yeast to close fermentations well even with high alcohol content, containing the volatile acid and avoiding H_2S production (wynTube ProLife and Polimersei).



Malolactic bacteria

Not just reducing acidity!

Malolactic fermentation makes the wine more pleasant and more stable and makes it possible to reduce the number of analytical checks, the consumption of calories, the use of SO_2, and above all to have the wine ready for sale shortly after the end of alcoholic fermentation.

Other products of the category:

ML-Fast

Strain of *Oenococcus oeni*. It carries out MLF providing aromatic complex wines, with a reduction of herbaceous notes and a low production of diacetyl. It is suitable both for use in co-inoculation and for use at the end of alcoholic fermentation.

Dosage:	Packaging:
1 g/hL.	For 25 hL and for 250 hL.

ML-Fast Plus

Strain of *Oenococcus oeni*. Used in co-inoculation, it anticipate the development of MLF and avoid the growth of indigenous bacteria and Brettanomyces, thus delaying and reducing the use of SO_2.

Dosage:	Packaging:
1 g/hL.	For 25 hL and for 250 hL.

MALOLACTIC FERMENTATION CONTROL

LATTIvante

Specific nutrition to accelerate and improve malolactic fermentation, minimising the development of volatile acidity and production of diacetyl. In the case of co-inoculation, it is added to the wine at the end of the alcoholic fermentation if the malolactic fermentation has not yet started. Always use in case of sequential inoculation.

Dosage:	Packaging:
20-40 g/hL.	500 g bags.

Co-inoculation in standard conditions during winemaking in red (ph<3,5)

1. Moderate sulphitation:

Max. 5 g of SO_2 per quintal (100 kg) of grapes, higher values hinder the development of malolactic fermentation.

2. Rehydration of yeasts in the recommended way.

Recommended yeast strain: **Fervens Evoke** or **Enodoc** RG-12.

3. Inoculation and yeast nutrition:

20-25 g/hL + 20 g/hL of **wynTube Prepara** in rehydration.

With potential alcohol content > 14%: 25-30 g/hL of yeast.

In the inoculation stage guarantee YAN> 150 mg/l with **wynTube Full**.

4. Inoculation of bacteria ML-Fast Plus:

Dosage 1 g/hL (for red 1 g/100 kg crushed grapes), 24 hours after the inoculation of the yeasts (however, the beginning of alcoholic fermentation must be visible).

Check: malic acid and volatile acidity from mid AF.

The combination of alcohol and high temperatures can reduce the viability of bacteria, the °T in AF must not exceed 28 °C, especially with high alcohol content.

5. Nutrition of yeast during alcoholic fermentation:

30 g/hL of **Vitalyeast** at 1/3 of fermentation.

6. After the end of the AF:

Check the progress of the MLF (analysis of malic ac. and volatile ac.). Keep the °T of the wine between 18 and 24 °C. If MLF still has not finished, add **LATTIvante** (20 g/hL).

7. At the end of the MLF proceed with:

Racking and sulphiting of the wine. In red wines, if you want to delay sulphitation at the end of malolactic fermentation to carry out micro-oxygenation, it is recommended to use **BattKill** or **BattKill XXL**.

Enzymes

Natural catalysts

From must fining to wine élevage, enzymes are a valuable ally to increase the extraction of aromas and colour, to promote microbiological stability and to facilitate the filtration of wines.

BEST SELLER

Best Seller

ULTRasi Extreme | Quercezina

ULTRasi Extreme

Liquid pectolytic enzyme with high pectinlyase activity. It is particularly indicated for the depectinization of musts intended for flotation, in fact the optimal PG/PL ratio allows to quickly degrade the pectins of unripe grapes or difficult varieties, e.g. Muscat.

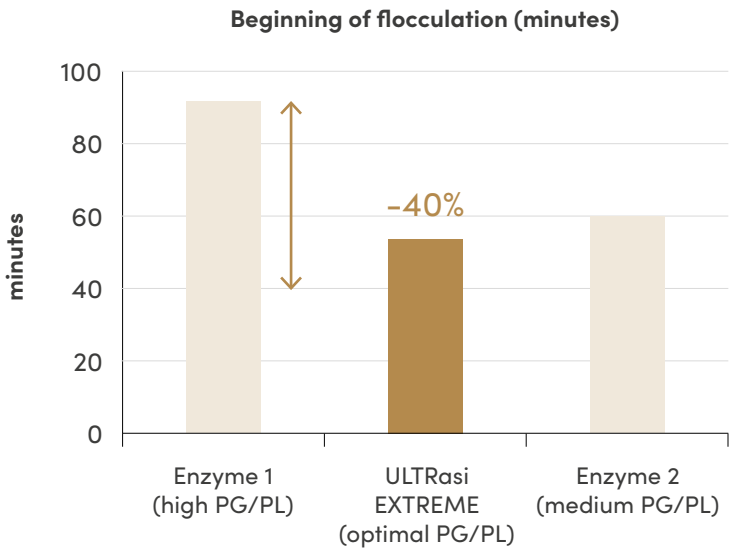
Dosage:

0,5-2 g/hL.

Packaging:

1 kg bottles.

AF



The presence of pectin lyase (PL) activity allows the rapid degradation of pectins in Muscat must obtained from grapes that are not perfectly ripe.

ENZYMES

Quercezina

Specific enzyme to facilitate quercetin stabilisation. The β-glucosidase activity transforms the glycoside form into the aglycone form, making it possible to plan the fining and stabilisation stages in order to reach bottling with a reduced risk of precipitation.

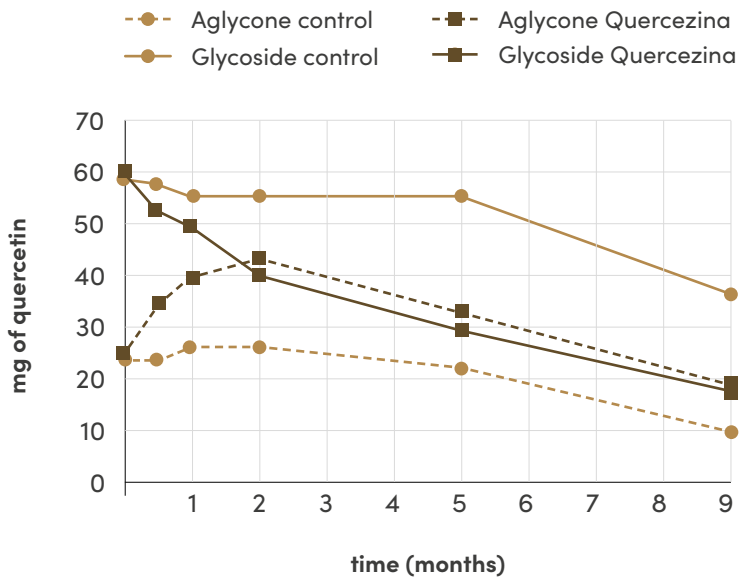
Dosage:

3 to 8 g/hL. Ensure a contact time of at least 4 weeks and a temperature no lower than 13 °C.

Packaging:

100 g jars.

NEW AF VEGAN FRIENDLY



Quercezina (5 g/hL) enabled the release of 20 mg/l of quercetin after 2 months of contact. In the control wine, release only began from month 5.

*After 9 months the control wine still showed a very high glycoside content (40 mg/l), indicating a **high instability potential**.*

Other products of the category:

WHITE AND ROSÉ WINEMAKING

ULTRasi G

Specific microgranular pectolytic enzyme for fining and clarifying white grape musts, with fast action (a few hours). Active in a wide pH range.

Dosage:	Packaging:
1-4 g/hL.	500 g bags.

ULTRasi L

Specific liquid pectolytic enzyme for fining and clarifying white grape musts, with fast action (a few hours). Active in a wide pH range.

Dosage:	Packaging:
1-4 g/hL.	5 kg jerrycans.

ULTRasi Select

Specific enzyme for difficult conditions: unripe grapes, low pH, varieties such as Muscat, Malvasia, Traminer, etc. The high concentrations of pectolytic and hemicellulasic activities allow the rapid fining of musts coming from grapes with a pectic content that is difficult to hydrolyse with regular pectinases.

Dosage:	Packaging:
0,5-2 g/hL.	500 g bags.

ULTRasi Flot

AF

Specific for preparing the must for the flotation process: it causes a very rapid decrease in must viscosity, thereby facilitating the particle agglomeration process. Ideal to use in continuous and discontinuous (tank flotation) flotation.

Dosage:	Packaging:
1-4 g/hL.	1 kg bottles and 25 kg jerrycans.

ULTRasi 4Skin

AF

To obtain well-distinguished varietal white wines. ULTRasi 4Skin used during grape skin maceration enhances the extraction of varietal aromatic precursors and free aromas, giving the finished wines an intense and complex sensory profile. Already active at 8 °C.

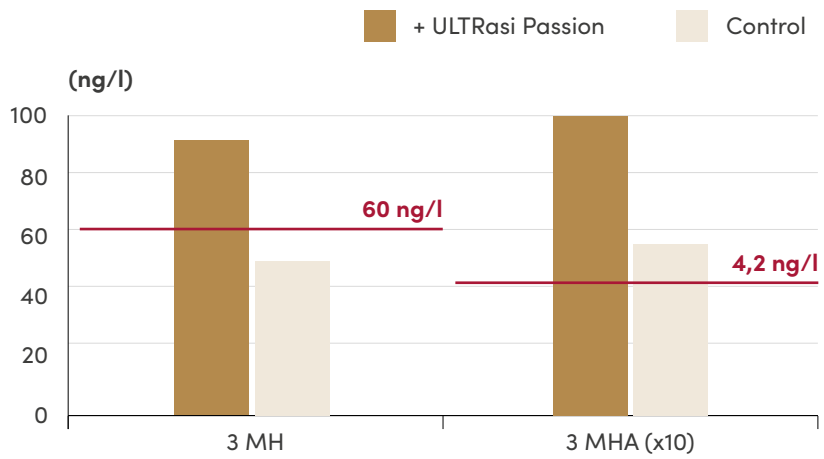
Dosage:	Packaging:
1-4 g/q.	1 kg bottles and 25 kg jerrycans.

ULTRasi Passion

AF

Enzyme with secondary macerative activity, specific to release the varietal thiol precursors (4MMP and 3MH). Used from the beginning of alcoholic fermentation or, alternatively, during the ageing and storage phases.

Dosage:	Packaging:
4-6 g/hL. Dissolve in must or wine (1:10) and add to the mass.	250 g and 1 kg bottles.



Aroma production (ng/l) in Ugni Blanc Spoletino with and without ULTRasi Passion (5 g/hL). In wine with enzymes the concentration of both aromatic compounds is above the perception threshold.

RED WINEMAKING

ULTRasi Redberry

AF

Specific enzymatic preparation for obtaining young red and rosé wines. Its maceration activity mainly extracts the soft tannins of the skin and increases the concentration of primary aromatic compounds and their precursors. It can also be used in thermovinification, thanks to its resistance to high temperatures.

Dosage:	Packaging:
1-4 g/q.	1 kg bottles.

ULTRasi Darkberry

AF

Pectolytic and secondary activities rapidly extract anthocyanins and non-astringent tannins from the skins during maceration. The specific action extracts tannins partially condensed with polysaccharides, making it ideal for ensuring colour stability and balanced mouthfeel. Provides excellent results in terms of colour and aromas even when used during cold pre-fermentation maceration.

Dosage:	Packaging:
2-4 g/q.	500 g bags.

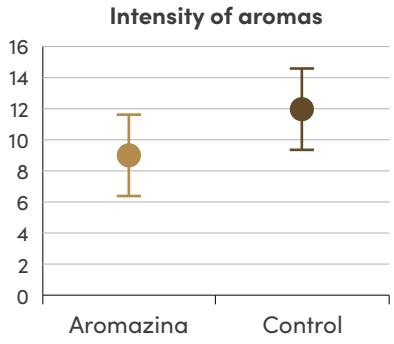
	ULTRasi						
	G y L	Flot	Select	Extreme	4Skin	Redberry	Darkberry
WHITE PRESSING AND FINING	****	***	***	***	***		
FINING OF DIFFICULT VARIETIES	**	***	****	****	***		
FLOTATION	**	****	***	****	***		
WHITE MACERATION					****	*	
AROMA EXTRACTION					***	***	***
YOUNG RED MACERATION						****	***
MACERATION OF REDS FOR AGEING						***	****
THERMOVINIFICATION						****	**
INCREASED FILTERABILITY	**	**	****	***	***	***	***

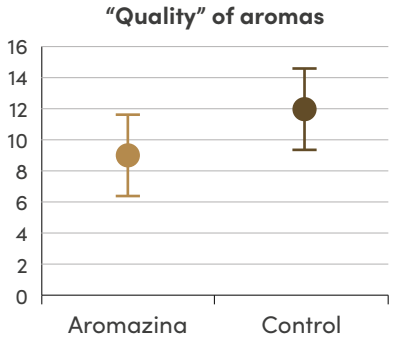
AGING

Aromazina

Enzymatic formula with aromatic-varietal action to intensify and heighten the aromatic notes in wines from grapes rich in terpenes, such as Muscat, Malvasia, Traminer, Riesling. Can also be used in red grape varieties that are rich in norisoprenoides.

Dosage:	Packaging:
4-6 g/hL. Minimum temperature of 15 °C.	100 g jars.



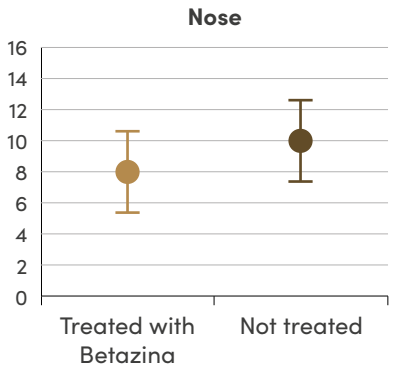


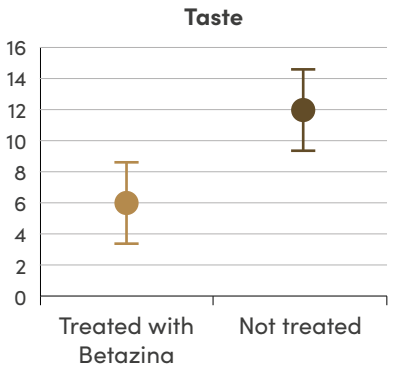
Classification test (Friedman Test) *This test defines a preference scale: the wine with the least points is the one which is preferred. In the areas of intensity and "quality" of aromas, a net preference for wines treated with Aromazina was observed.*

Betazina

Enzyme with ß-glucanasic action for aging on lees and for wine filterability. Facilitates yeast lysis hence increasing the wine mouthfeel, volume and body; also the nose is more persistent and complex. The degradation of glucans improves the clarification and filtration of wines from grapes affected by Botrytis.

Dosage:	Packaging:
3-5 g/hL. Minimum temperature of 15 °C.	250 g jars.





Classification test (Friedman Test) *This test defines a preference scale: the wine with the least points is the one which is preferred. There is a slight preference for the nose of wine treated with Betazina, but a distinct preference for the taste of wine treated with Betazina.*

FOCUS ON

Enzymes

PECTOLYTIC ENZYMES AND FLOTATION

The first condition necessary for a successful flotation is the complete depectinization of the must. **WHY?** Pectins are macromolecules capable of forming, in a water-based environment, a net that incorporates solid particles and other macromolecules, preventing their upward movement (or sedimentation, in case of static clarification).

Before proceeding with the flotation, it is advisable to check the complete depectinization by means of a simple alcohol test. The presence of flakes or hazes (figure 1) indicates the presence of pectins not yet hydrolysed.

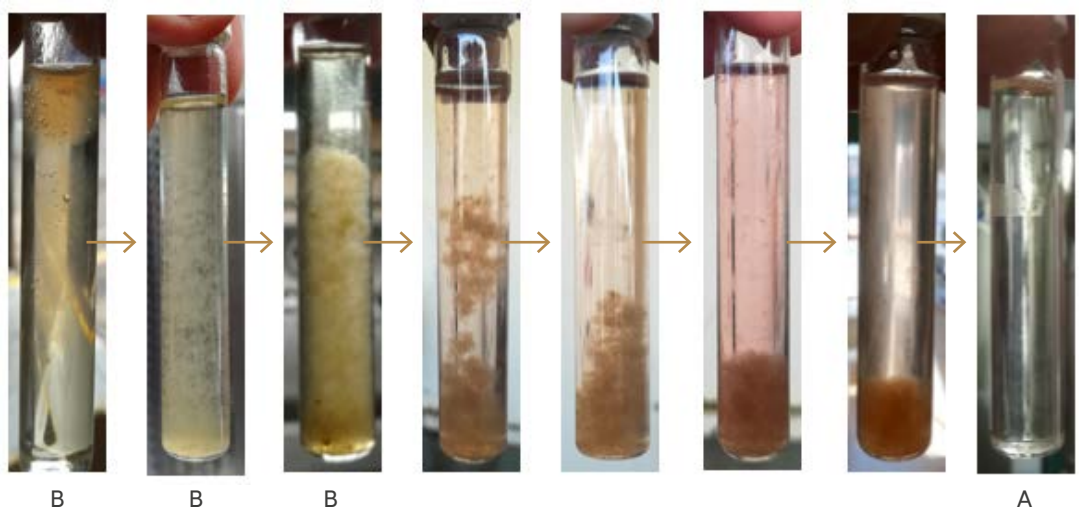
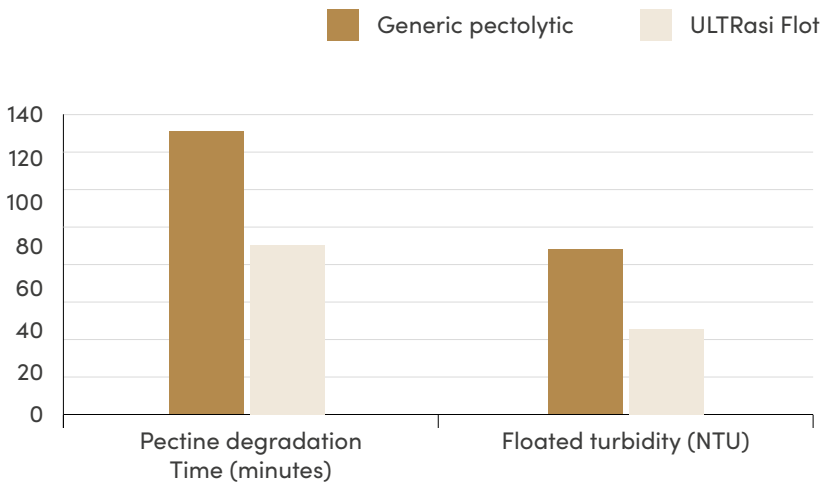


***Fig. 1**: fully depectinised must (A).*
Must with incomplete depectinization (B).

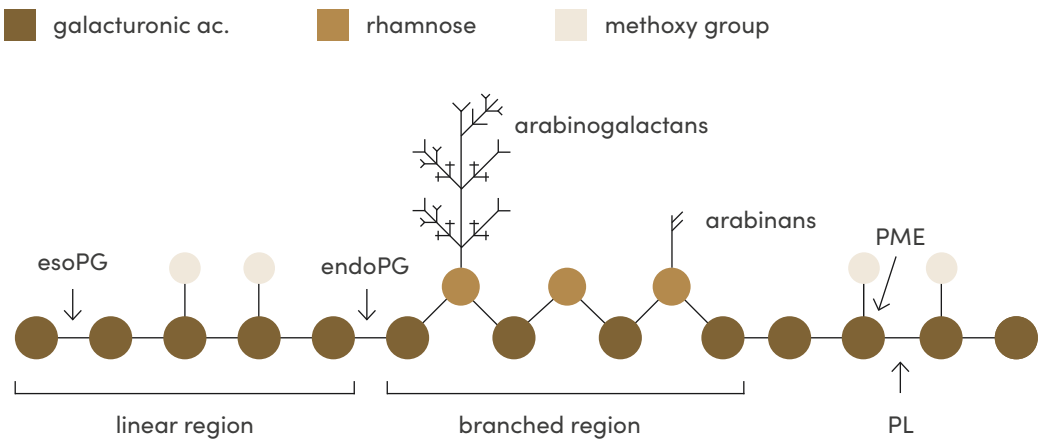
WHAT ARE THE CHARACTERISTICS FOR "FLOTATION" ENZYMES?

The **speed of action** of the enzymes is a direct function of the dose, time and temperature of the medium (must). Under normal cellar conditions, the temperature of the must to be clarified is relatively low to avoid microbial proliferation. **Ultrasi Flot**, characterised by **high endopolygalacturonase** (PG) activity, guarantees the complete hydrolysis of pectins and the rapid decrease of viscosity.



Muscat must flotation – dosage 2 g/hL.

In the case of flotation of aromatic varieties, low pH, unripe grapes, more difficult pectins can be present to hydrolyse. In this case, **Ultrasi Extreme** is the most suitable solution, thanks to the pectinlyase activity (PL) that accompanies the PG.



Fermentation enhancers

The many forms of yeast derivates

An aid in the search for stability, balance, complexity, longevity... right from fermentation!

BEST SELLER

Best Seller

Lifty Fresh | Lifty Fruity

Lifty Fresh

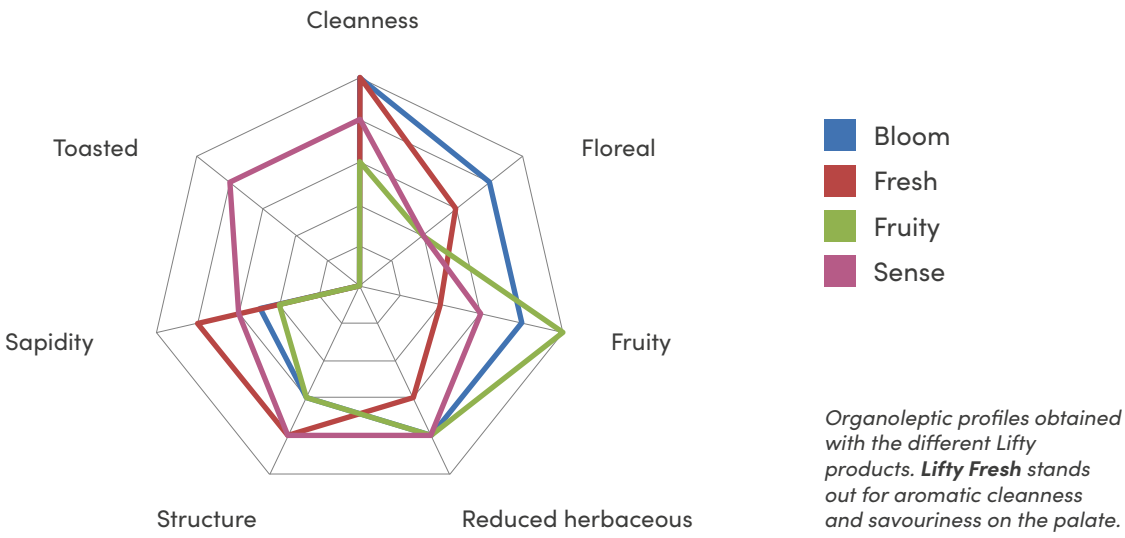
Recommended for all wines when you want to optimise fermentation kinetics, obtain cleaner aromas, reduce herbaceous notes and defects related to an unhealthy harvest, and increase sapidity and structure in the mouthfeel.

Dosage:

White, Rosé and sparkling winemaking: 10-20 g/hL to give freshness. 30-60 g/hL to give complexity. Red winemaking: 20-40 g/hL to obtain clean aromas. 50-80 g/hL to give complexity.

Packaging:

2 kg and 10 kg bags.



*Organoleptic profiles obtained with the different Lifty products. **Lifty Fresh** stands out for aromatic cleanness and savouriness on the palate.*

Lifty Fruity

Used during the fermentation of red and rosé wines, it enriches with elegant notes of red fruit, removes any notes of reduction and facilitates colour stabilisation. Creates a more complex mouthfeel depending on the doses.

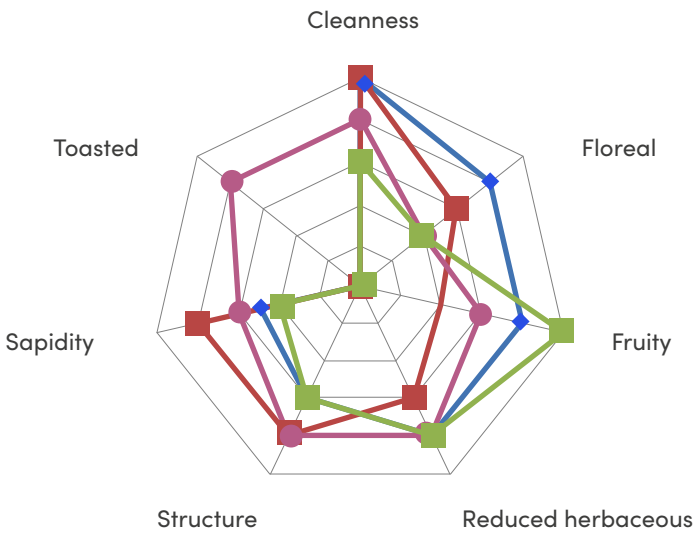
Dosage:

Red, Rosé and sparkling winemaking:
20-40 g/hL to give freshness.
50-100 g/hL to give complexity.

Packaging:

2 kg and 8 kg bags.

AF



Sensory profiles obtained with the different Lifty.
***Lifty Fruity** stands out for its notes of red fruit and reduced herbaceous notes.*

Other products of the category:

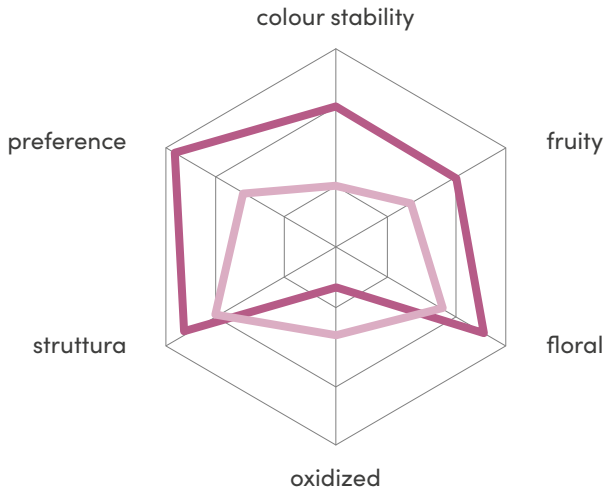
FERMENTATION ENHANCERS

Lisem™ Glu

AF

It ensures the longevity of wines thanks to the high content of reduced glutathione and peptides with antioxidant activity. Used during alcoholic fermentation, it has a protective action against oxidative phenomena. It extends aroma freshness, retains colour and delays oxidative spoilage.

Dosage:	Packaging:
10-30 g/hL.	500 g and 10 kg bags.



Lisem Glu

Control

Effect of the use of Lisem Glu (15 g/ hL) on the sensory profile of white wine, tasted 6 months after the end of AF.

Lifty Bloom

AF

Used during the fermentation of white and rosé wines it allows you to obtain cleaner aroma, reduce herbaceousness and enhance floral and fruity notes. Lifty Bloom optimises the fermentation environment and helps improve the longevity of wines.

Dosage:	Packaging:
White, Rosé and sparkling winemaking: 10-20 g/hL to give freshness. 30-80 g/hL to give complexity.	2 kg and 10 kg bags.

Lifty Sense

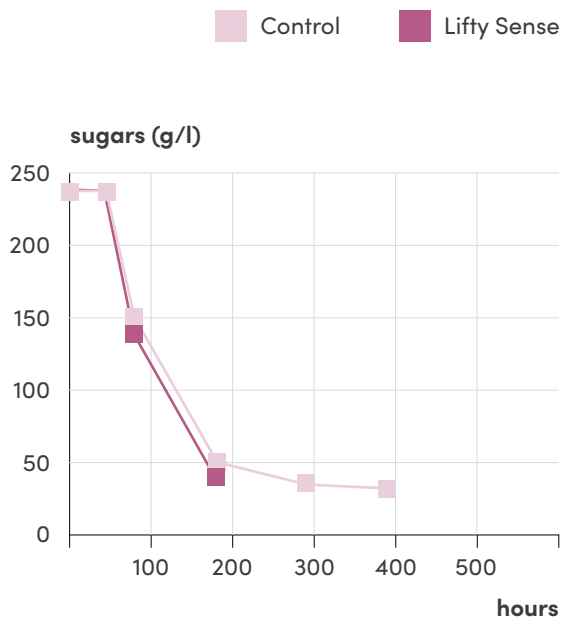
Used right since the beginning of alcoholic fermentation, it optimises the fermentation environment and releases antioxidant and characterising compounds. Wines fermented with Lifty Sense stand out for their taste, full-body, structure and flavour. On the nose, depending on the dosage used, the results range from maximum cleanliness of the aroma with drastic lowering of herbaceous notes to a characterisation with elegant wood notes.

Dosage:

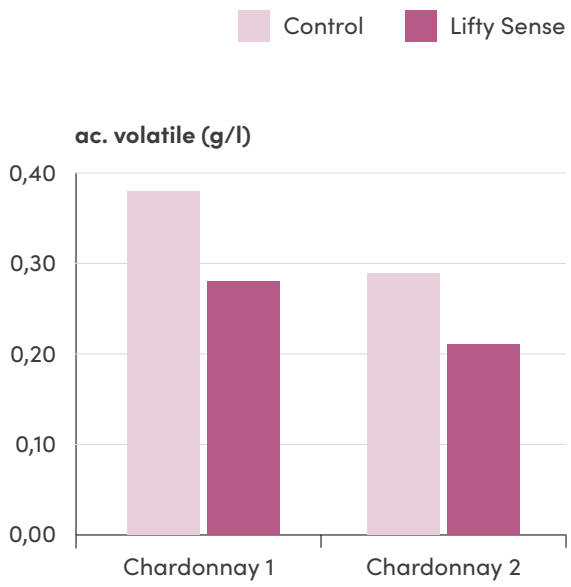
White, Rosé and sparkling winemaking:
10-20 g/hL to give freshness.
30-60 g/hL to give complexity.
60-100 g/hL to characterize
Red winemaking:
30-50 g/hL to obtain clean aromas.
60-100 g/hL to give complexity.
> 100 g/hL to characterize.

Packaging:

2 kg and 10 kg bags.



Fermentation curve in Chardonnay must fermented with and without Lifty Sense (100 g/hL).



Production of volatile ac. in fermented musts with and without Lifty Sense (Chardonnay 1, 100 g/hL; Chardonnay 2, 30 g/hL).

FOCUS ON

Enhancers

Lifty

FLAVOUR ON TOP!

WHAT IS IT?

A range of innovative enhancers to be used from the beginning of alcoholic fermentation so as to optimise the fermentation environment and release components that act on aroma cleanness, remove some defects (reduction, herbaceousness, etc.), ensure antioxidant protection, and improve complexity and structure.

The insoluble "frame" of vegetable polysaccharides (Polimersei) conveys yeast polysaccharides and tannins, allowing their gradual release throughout the course of fermentation.

All **Lifty** products have their own specific features and perform three distinct actions.

1. support for yeasts during all phases, from multiplication to actual fermentation;

2. detoxification of the fermentation environment thanks to the combined action of specific polysaccharides;

3. supply of yeast polyphenols and polysaccharides with specific sensory action.

RESULTS

Wines fermented with Lifty are characterised, depending on the product used, by:

Lifty Bloom: clean aroma, reduced herbaceousness and exaltation of floral and fruity notes. Greater resistance to oxidation.

Lifty Fresh: clean aromas, reduced herbaceous notes and defects related to an unhealthy harvest, increase in sapidity and structure in the mouthfeel.

Lifty Fruity: increase of red fruit notes, removal of any reduction notes, greater colour stability. More complex mouthfeel.

Lifty Sense: fullness, structure and sapidity on the palate. On the nose, reduces herbaceousness and releases elegant wood notes.

In any case, regular alcoholic fermentation is guaranteed, with quick starts and very fast finishes; yeast metabolism is optimised and this helps to reduce the synthesis of unwanted by-products, such as volatile acidity.

FOCUS ON

Enhancers

Lifty vs. Copper!

During fermentation, primary or second fermentation, sulphur compounds can form, mainly due to yeast fermentation problems.

As the red-ox potential of the wine varies during the processing phases in the cellar, these compounds will be more or less evident but, if not removed, the lowering of the red-ox potential in the bottle will certainly make them perceptible (**reduced fault**) at the time of consumption.

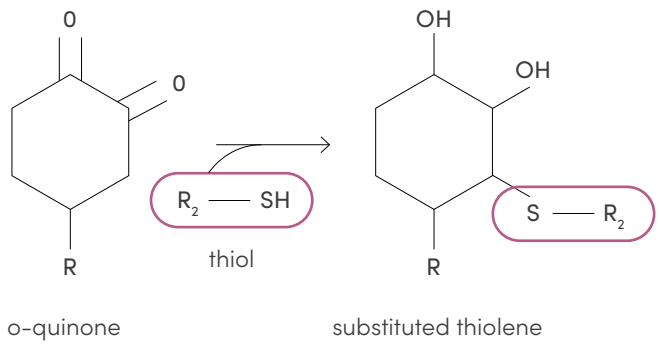
Copper is the best solution?:

when the red-ox potential is lowered (e.g. in the bottle) the bond between copper and sulphur is broken and the sulphide becomes noticeable again. In contrast to copper **yeast derivatives** and **tannins** act as a stabiliser for large sulphur and mercaptan molecules, which can be removed through racking or remain stable despite changes in the red-ox potential.

Lifty Bloom and **Lifty Fresh**, 2-8 g/hL in second fermentation, **prevent the formation of sulphur compounds and irreversibly bind those already present**.

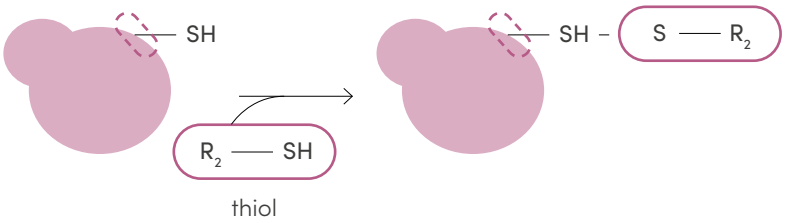
Role of tannins:
thanks to the quinones

The sulphur compound is **stably bound** *to phenol*



Role of derivatives:
thanks to wall proteins rich in SH groups

The sulphur compound ballasted to the yeast cell will be ***removed with racking***



Tannins

The essence of wood

From harvest to bottling the properties of wood to protect, stabilize, prevent defects and laying the foundations for a great vintage.

BEST SELLER

Best Seller

Infinity Vert | Infinity Class | Tanniblanc Flash

Infinity Vert

Condensed tannin obtained from green tea. In musts it helps protect the aromas and colour from oxidation reactions, both by reacting directly with oxygen and by inactivating the oxidase enzymes. In white and rosé wines it protects from oxidative phenomena, improving the colour and aromatic longevity. In red wines thanks to the proanthocyanidic structure it participates in anthocyanin condensation and colour stabilization. In all wines, including sparkling ones, it corrects off-flavours by binding with molecules responsible for reduction. Suitable for winemaking protocols that promote reduced SO_2 use.

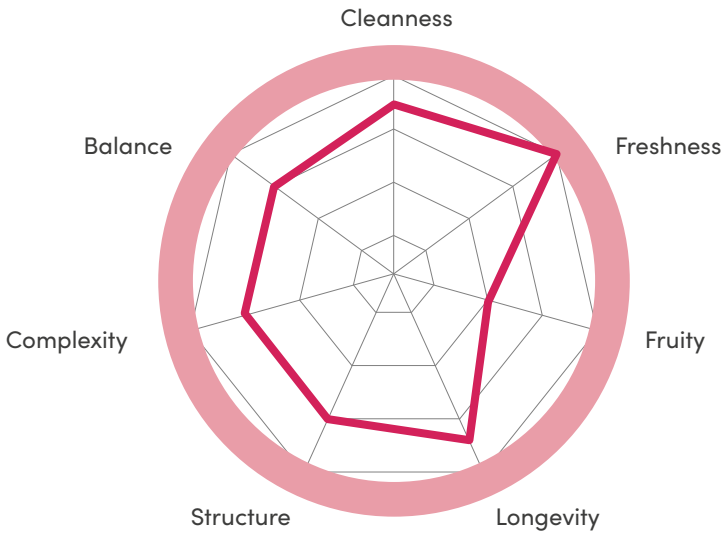
Dosage:

In must: 2-10 g/hL. During the aging of white and sparkling wines: 0,5-3 g/hL. During the aging of red and rosé wines: 0,5-5 g/hL. Before bottling: 0,5-1 g/hL.

Packaging:

500 g jars.

AF



Infinity Vert's contribution to the sensory profile of wines

Infinity Class

Oak extracted tannin with great harmony and finesse characteristics. Increases the aromatic complexity with vanilla, caramel and coffee notes. In the mouth it improves the general balance. It can be used both on white and red wines during the aging or for finishing touches.

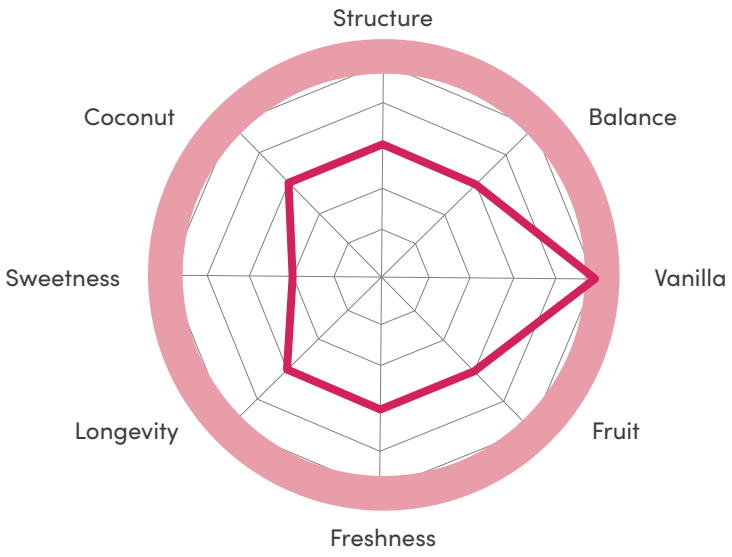
Dosage:

2–8 g/hL.
In sparkling wines: 0.5–2 g/hL.

Packaging:

250 g jars.

AF



The contribution of Infinity Class to the organoleptic profile of wines.

Tanniblanc Flash

Gallic tannin extracted exclusively from oak gall. It protects white and rosé wines against oxidative phenomena. It enhances the taste of white wines without affecting astringency, even at the highest dosages.

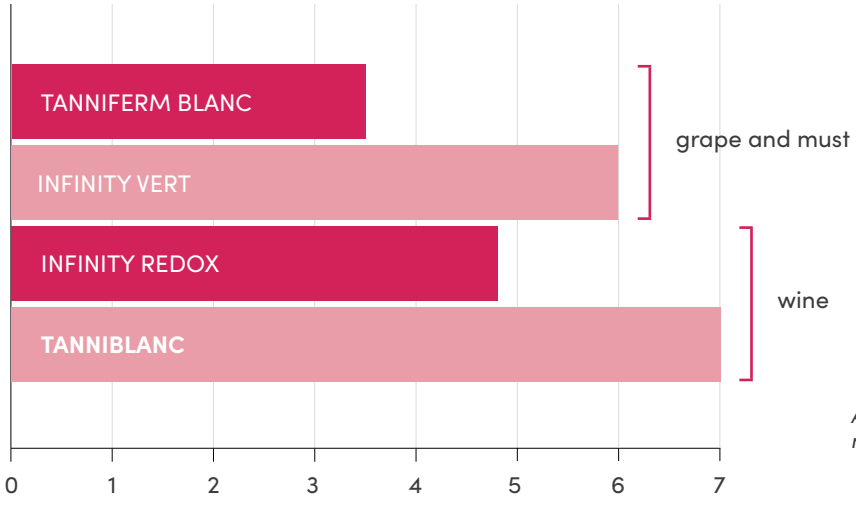
Dosage:

1–5 g/hL as needed.

Packaging:

500 g and 12,5 kg bags.

AF



Antioxidant power measured with TEAC method.

Other products of the category:

OXYGEN PROTECTION: ***WHITE AND ROSÉ WINEMAKING***

Infinity Redox

AF

It is used at the end of alcoholic fermentation to protect white and rosé wines from oxidative phenomena, both during tank storage and racking. The antioxidant action is particularly effective thanks to the presence of mainly gallic hydrolysed tannins which, by binding the oxygen present in the wine, prevent degradation reactions of the polyphenols, in particular catechins, and the aromatic components. Infinity Redox is ideal for winemaking with reduced use of SO_2, in particular when combined with the use of Tannex, Tanniferm Blanc or Infinity Blu on the grapes and must, and the use of Tanniblanc or Infinity Fruity White in pre-bottling.

Dosage:	Packaging:
In racking 1-2 g/hL. During storage: 2-5 g/hL.	500 g and 12,5 kg bags.

Tanniferm Blanc

AF

It is used from the harvest onwards to prevent oxidative and oxidasic reactions of catechins, polyphenols and aromatic substances. The protective action takes place by binding the oxygen present and making it unavailable for reactions with polyphenols and inhibiting the oxidative enzymes, responsible for colour degradation and consequent browning. Tanniferm Blanc lets you obtain wines with a lighter colour and citrus hues that are less susceptible to browning. The aromatic components retain great intensity and freshness.

Dosage:	Packaging:
For rot affected grapes: up to 20 g/100 kg. When filling the tank and during fermentation: 3-10 g/hL.	500 g and 12,5 kg bags.

RED WINEMAKING

Infinity Décuvage

AF

When used at devatting, it allows an initial polymerisation of the anthocyanins to stabilise the colour, both by direct condensation and mediated polymerisation. The excellent antioxidant capacity protects the colour and aromatic substances during racking. Infinity Décuvage can be used in winemaking with reduced use of SO_2, in particular if used with Tannex, Tanniferm or Infinity Blu on grapes and must, and with Infinity Fruity Red in pre-bottling.

Dosage:	Packaging:
At devatting for colour stabilisation: 5-10 g/hL. During racking for antioxidant protection: 3-5 g/hL.	500 g and 12,5 kg bags.

Tanniferm Flash

AF

It is used in the press-destemmer to prevent oxidative reactions of anthocyanins. Gallic and ellagic tannins consume oxygen and inhibit oxidative enzymes, laccases and polyphenol oxidases, responsible for colour degradation, especially in rot affected grapes. Procyanidin tannins support these actions and are directly involved in anthocyanin stabilisation reactions. Tanniferm Flash lets you obtain wines with higher polyphenolic content and better colour stability.

Dosage:	Packaging:
For rot affected grapes: 20-60 g/100 kg. During maceration and fermentation: from 20 g/hL.	500 g and 12,5 kg bags.

WHITE, ROSÉ AND RED WINEMAKING

Ecotan

AF

Ellagic tannin obtained from chestnut wood. Protects against oxidation right from the grape harvest. The extraction process ensures a high tannin content while eliminating any bitter and astringent fractions.

Dosage:	Packaging:
5-20 g/hL. Higher doses for rotten grapes. 5-10 g/hL for protein removal in musts or for red wine fining together with gelatin.	2 kg and 25 kg bags.

Infinity Blu

AF

Right from the harvest, it protects against oxidative reactions of catechins, aromatic substances, polyphenols and anthocyanins. Essential especially in grapes affected by rotting. In red wines, after devatting, at the end of alcoholic fermentation and in the early stages of ageing, it allows the formation of the ethyl bridge and tannin-anthocyanin condensation.

Dosage:	Packaging:
For rot affected grapes: up to 50 g/100 kg. When filling the tank and during fermentation: 8-30 g/hL. Up to 15 g/hL for the ageing of red wines.	5 kg, 25 kg and 250 kg.

RED WINEMAKING

PHASE	OBJECTIVE	PRODUCT	WHY CHOOSE IT
HARVESTING TRANSPORT UNLOADING	**Substitute for SO_2** Protection against O_2 Laccase inactivation	**INFINITY BLU**	Practicality of the liquid form in entry level wines
		TANNEX	High antioxidant capacity and respect for the sensory profile in premium wines
PRESSING	**Substitute for SO_2** Protection against O_2 Laccase inactivation	**INFINITY BLU**	Practicality of the liquid form and convenience
		TANNEX	High antioxidant capacity and respect for the sensory profile
		TANNIFERM FLASH	Partial stabilisation of anthocyanins and excellent value for money
FERMENTATION MACERATION	**Colour stabilisation** Enhance structure	**TANNIFERM FLASH**	Partial stabilisation of anthocyanins and excellent value for money
		INFINITY BLU	Stabilising action and convenience
		TOP-TAN CR	Anthocyanin condensation and structure in premium wines lacking in anthocyanins or tannins
		INFINITY VERT	High antioxidant capacity in premium wines
DEVATTING RACKING	Protection against O_2 Substitute for SO_2 **Colour stabilisation**	**INFINITY DÉCUVAGE**	Antioxidant capacity and colour stabilisation in sulphite-free winemaking
		TANNIROUGE	Contribution to the structure

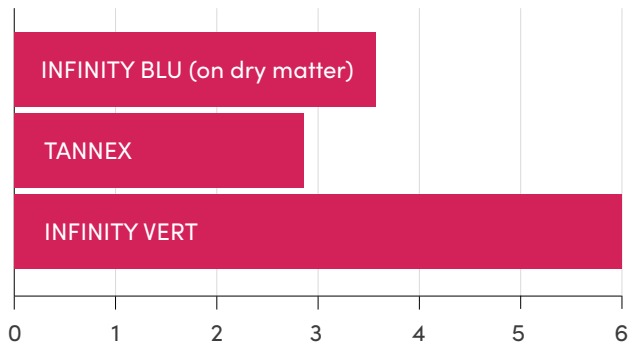
WHITE AND ROSE WINEMAKING

PHASE	OBJECTIVE	PRODUCT	WHY CHOOSE IT
HARVESTING TRANSPORT UNLOADING PRESSING	**Substitute for SO_2** Protection against O_2 Laccase inactivation	**INFINITY BLU**	Practicality in entry level wines
		TANNEX	High antioxidant capacity and respect for the sensory profile in premium wines
		TANNIFERM BLANC	Good antioxidant capacity and excellent value for money
FERMENTATION	**Protection against O_2** Laccase inactivation Increase of aroma	**TANNIFERM BLANC**	Good antioxidant capacity and excellent value for money
		TANNEX	High antioxidant capacity and respect for the sensory profile in premium wines
		INFINITY VERT	High antioxidant capacity in premium wines
		INFINITY YELLOW	Increase of aroma and good antioxidant capacity
RACKING	**Protection against O_2** Substitute for SO_2	**INFINITY REDOX**	Good antioxidant capacity and excellent value for money
		TANNIBLANC	High antioxidant capacity and respect for the sensory profile in premium wines

Tannex Flash

Gallic tannin with high antioxidant power, for the vinification of both white and red grapes.
The high reactivity with oxygen protects the aromas and colour from oxidative phenomena, in addition the oxidative enzymes, laccases and polyphenol oxidases, responsible for the degradation of the colour, especially in grapes affected by rotting, are inhibited. It does not interfere with the structure of the wine.

Dosage:	Packaging:
In red wine fermentation from 10 to 20 g/hL. In white and rosé wine fermentation from 3 to 10 g/hL.	500 g and 12,5 kg bags



Antioxidant power measured with TEAC method.

COLOUR STABILIZATION

Tannirouge Flash

Pyrocatechinic tannin, capable of binding anthocyanins and stabilising them at least partially, preventing colour depletions that can occur during fining and stabilising treatments.

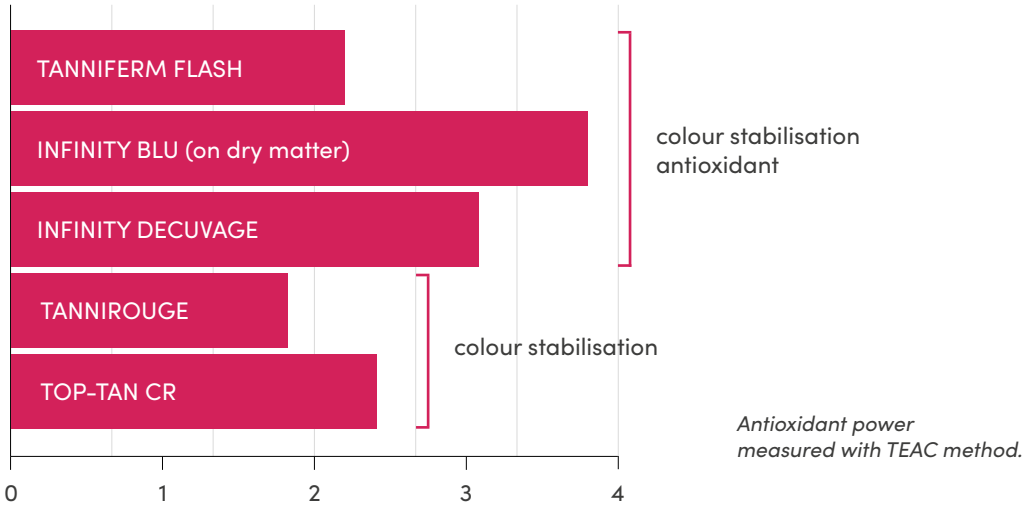
Dosage:	Packaging:
During maceration: 5-20 g/hL, also with subsequent additions. Wines: Up to 15 g/hL.	500 g and 12,5 kg bags.

Top-Tan CR

AF

Grape tannin derived from grape seeds, specific for colour stabilisation in red wines. Used from maceration, it integrates with all the polyphenols of the wine, as well as contributing to the condensation of the anthocyanins to increase the softness and structure of the wine. Adding Top-Tan CR lets you obtain a strong colour retention and a sensation of a full body and complexity of the wine.

Dosage:	Packaging:
During maceration: 5-10 g/hL, also with subsequent additions. During aging: 2-8 g/hL.	500 g jars.



Antioxidant power measured with TEAC method.

AROMAS AND PURITY

Infinity Yellow

It enhances the terpene and norisoprenoids aromatic precursors. Used during winemaking with distinctly varietal yeasts, e.g. Fervens Spring or Enodoc BV-03, helps obtain wines richer in fruity, floral and citrus notes. During the aging it helps enrich the wines sensory profile and improve the length and freshness. Perfect for use together with Aromazina.

Dosage:	Packaging:
During fermentation: 2-10 g/hL. During aging: 2-8 g/hL. Keep in contact for 1-2 weeks.	1 kg.

Infinity Creamy

Has a strong sensory impact on treated wines. On the nose the aromatic complexity is increased with notes that are like a bakery, with coconut and vanilla, typical of toasted oak. In the mouth the same sensations as on the nose are found with an improved structure. On the nose the aromas are more expressive and in red wines small ripe fruit notes can be found.

Dosage:	Packaging:
2–8 g/hL. Sparkling wines: 0.5–2 g/hL.	250 g jars.

Infinity Roble

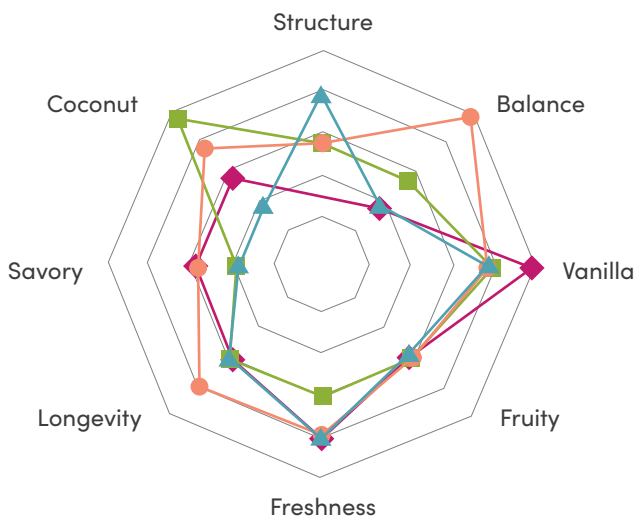
Oak extracted tannin. Brings coconut, vanilla, spicy and caramel notes. In red wines it can supplement the effect of barrels already used several times. In white and rosé wines when used together with Harmony Full it increases the aromatic complexity. Corrects the redox potential, restoring wine sensory purity, freshness and longevity.

Dosage:	Packaging:
5-15 g/hL. Sparkling wines: 0,5-2 g/hL.	1 kg bottles.

Tannino Q

Oak extracted tannin. Gives aromatic complexity and structure while respecting the original characteristics of the treated wine. For use on red, white and rosé wines.

Dosage:	Packaging:
White and rosé wines: 1–5 g/hL. Red wines: 5–15 g/hL. Sparkling wines: 0.5–2 g/hL.	500 g jars.



Class
Creamy
Roble
Tannino Q

Sensory profile given by Infinity Class, Infinity Creamy, Infinity Roble and Tannino Q.

STRUCTURE AND COMPLEXITY

Top-Tan AR

AF

Grape tannin based. As well as an effect on the structure it also gives a notable increase in aromatic intensity, improves the mouthfeel complexity and gives a balanced and expressive wine. In white wines it confers notes that are necessary for a wine to taste important, original and well structured. In red wines it heightens fruity notes by "opening" the nose and enriching it with aromas that go from spicy to toasted.

Dosage:	Packaging:
During aging: 5–10 g/hL. For finishing touches: 1–3 g/hL.	500 g jars.

Top-Tan SB

AF

Grape tannin with that provides structure and stability. Great for white wines that need more volume, body and harmony in the mouth. Protects the existent polyphenol content guaranteeing longevity.

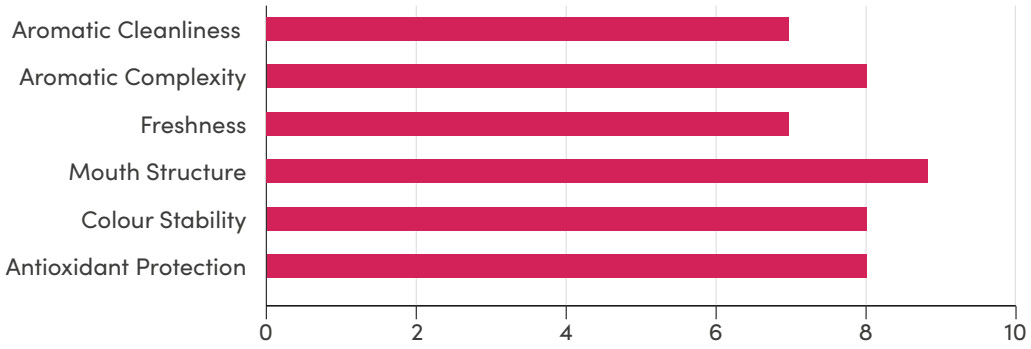
Dosage:	Packaging:
2-10 g/hL.	500 g jars.

Top-Tan SR

AF

All the qualities of grape tannins to increase the volume and purity of red and rosé wines, improving the structure and complexity. Stabilizes the colour, by participating the tannin-anthocyanin combination reactions.

Dosage:	Packaging:
During aging: 5–10 g/hL. For finishing touches: 1–3 g/hL.	500 g jars.



WINES' REVITALIZING

Infinity Fruity White

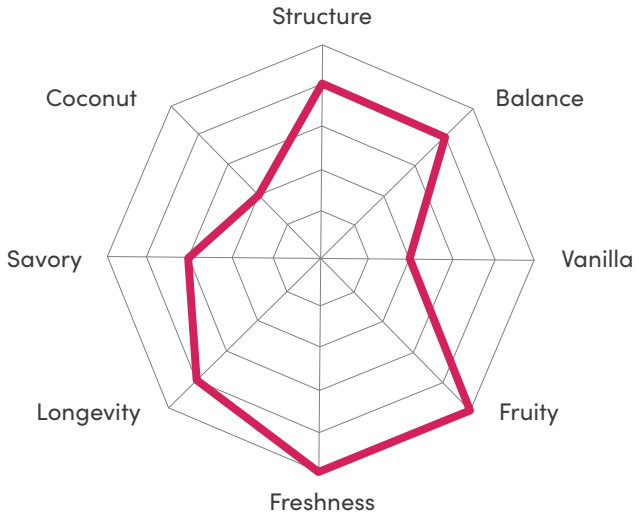
Tannin to revitalize white wines. Used for finishing touches and pre-bottling in order to give a good aromatic purity, adjust reductive notes and partially fix the redox balance. In the mouth the structure is improved with better balance and persistence. In many wines it also brings savoury and more length on the finish.

Dosage:	Packaging:
2-8 g/hL.	500 g jars.

Infinity Fruity Red

Tannins to revitalize red wines. Used for finishing touches and pre-bottling, it corrects molecules that mask the wine aromas and gives back wine purity and more open aromas, improving the expression of fruit and jam notes. In the mouth the structure is improved with more balance, persistence and length on the finish.

Dosage:	Packaging:
2-8 g/hL.	500 g jars.



TARGET	PHASE	PRODUCT	WINES
Protection From O_2 Substitute for SO_2	Racking Storage	TANNIBLANC	White wines, Rosé wines, Sparkling wines
		INFINITY REDOX	White wines, Rosé wines
		INFINITY DÉCUVAGE	Red wines
	Aging Storage Finishing Touches	INFINITY VERT	White wines, Rosé wines, Red wines, Sparkling wines
Colour Stabilization	Aging	INFINITY BLU	Red wines
		TANNIROUGE	Red wines
		TOP-TAN CR	Rosé wines, Red wines
Aromatic Complexity Structure Purity	Aging Finishing touches	INFINITY YELLOW	White wines, Rosé wines, Sparkling wines
		TOP-TAN AR	White wines, Rosé wines, Red wines, Sparkling wines
		TOP-TAN SB	White wines, Rosé wines
		TOP-TAN SR	Rosé wines, Red wines
		TANNINO Q	White wines, Rosé wines, Red wines, Sparkling wines
		INFINITY CLASS	White wines, Rosé wines, Red wines, Sparkling wines
		INFINITY CREAMY	White wines, Rosé wines, Red wines, Sparkling wines
		INFINITY ROBLE	White wines, Rosé wines, Red wines, Sparkling wines
Redox Balance Removal of sulphur mo lecules Aromatic complexity	Finishing touches Pre-bottling	INFINITY FRUITY WHITE	White wines, Rosé wines, Sparkling wines
		INFINITY FRUITY RED	Rosé wines, Red wines

White wines Rosé wines Red wines Sparkling wines

Yeast derivatives

From aging to bottling

Even after alcoholic fermentation, yeast products are among the best allies of the oenologist to accompany the wine towards its ideal evolution.

BEST SELLER

Best Seller

Harmony Vitality | Harmony Refine | Harmony Pastry

HARMONY™ VITALITY

It ensures the longevity of white, rosé and red wines thanks to the high content of peptides with antioxidant activity: used during ageing it has a protective action against the degradation phenomena of colour and aromas. It extends the shelf-life of wines by delaying oxidative ageing.

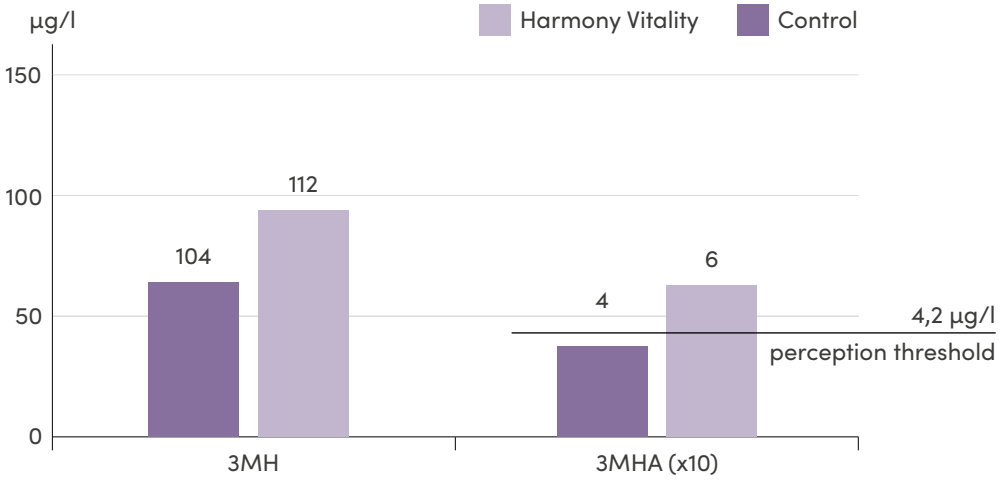
Dosage:

Ageing: from 10 to 40 g/hL
Racking and handling: 3-5 g/hL

Packaging:

500 g and 10 kg bags.

AF



Varietal thiol content in Sauvignon blanc wine after 2 months of ageing with Harmony Vitality (30 g/hL).

HARMONY™ REFINE

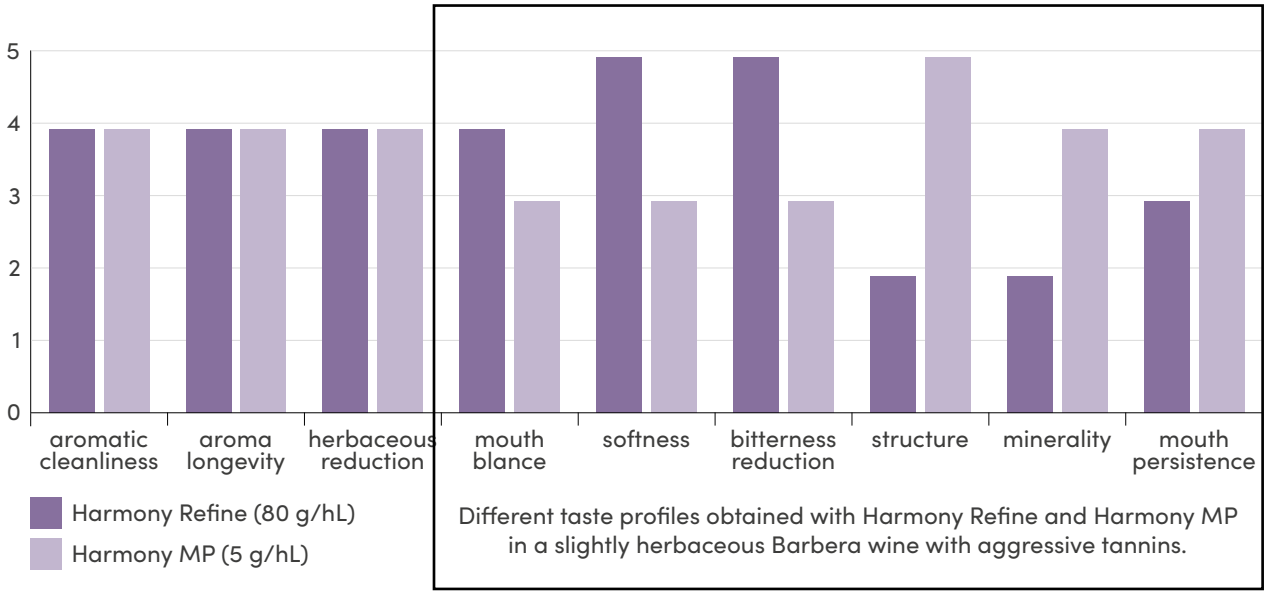
Mannoproteins for the final touches on white, rosé and red wines as well as Charmat and Champenoise method sparkling wines. At low dosages it preserves the wine aromas and softens herbaceous notes. In the mouth it provides volume, persistence and "sweetness". It is extremely useful to reduce and eliminate acid and dry sensations.

Dosage:

25-150 g/hL.

Packaging:

1 kg bottles.



Different taste profiles obtained with Harmony Refine and Harmony MP in a slightly herbaceous Barbera wine with aggressive tannins.

HARMONY™ PASTRY

Yeast derivative enriched with medium-toasted oak tannin. In white wines, the tannins enhance notes of well-integrated wood and pastry; in red wines, sweet and vanilla-like aromas are brought forward while vegetal notes are attenuated and gradually eliminated. Body and structure are also improved.

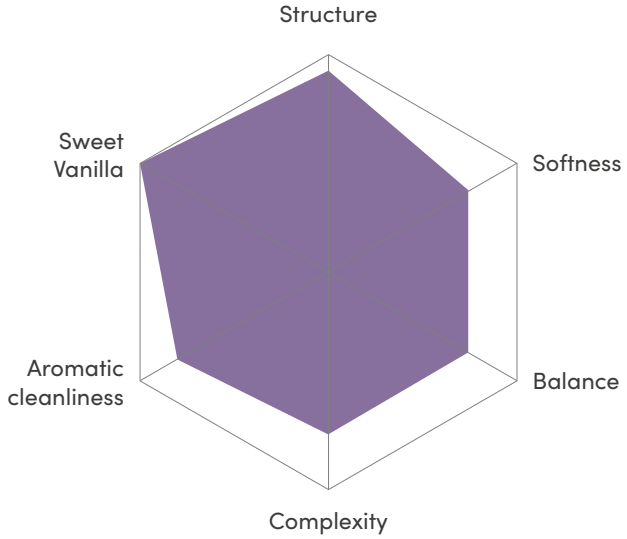
Dosage:

In white and rosé wines: 10–50 g/hL.
In red wines: 20–80 g/hL.

Packaging:

2 kg bags

AF



Other products of the category:

COMPLEXITY

Harmony™ Cherry

AF

A specific action aimed at red and rosé wines. Thanks to the combination of yeast derivative and red fruit tannin, it gives structure and complexity, enhancing wines that lack body and character. Over time it protects the colour against degradation phenomena, especially in the case of wines from grapes that are not perfectly healthy.

Dosage:	Packaging:
20-80 g/hL. Keep in contact at least two weeks with periodic bâtonnage.	2 kg bags.

Harmony™ Enne

AF

Enriches wines with sapidity and structure during the aging. The results are particularly appreciated in wines that have a simple sensory profile, for example those obtained from unripe grapes or with high production yields.

Dosage:	Packaging:
2-10 g/hL. Keep in contact at least two weeks with periodic bâtonnage.	500 g bags.

Harmony™ Floral

AF

Enriches the structure and complexity of white and rosé wines, with particular attention to their harmony and flavour balance. The phenolic fraction helps create clean and fresh aromas, as well as protect against oxidation phenomena.

Dosage:	Packaging:
10-50 g/hL. Keep in contact at least two weeks with periodic bâtonnage.	2 kg bags.

Harmony™ Full

AF

Aging "on the lees" that can be done in stainless steel, concrete or wood vessels. Allows for the evolution of wines that are still unbalanced, by bringing roundness and mouthfeel. It improves the aromas by bringing more complex and persistent notes. In red wines it is suitable to correct bitter tannins and for a harmonious taste evolution.

Dosage:	Packaging:
10-40 g/hL. Keep in contact for a few weeks with periodic bâtonnage.	500 g bags.

Harmony™ Intense

AF

Yeast derivative and oak tannin for the ageing of all wines. Adds elegance, finesse, complexity and cleanness to the treated products. The vanilla and toasted notes vary in their intensity depending on the dose and the contact time.

Dosage:	Packaging:
White and rosé wines: 10-50 g/hL. Red wines: 20-80 g/hL. Keep in contact at least two weeks with periodic bâtonnage.	2 kg bags.

Harmony™ Moka

AF

Suitable for the ageing of all wines. The combination of the yeast derivative with a strong toasted tannin is suitable when, in addition to complexity and volume in the mouthfeel, you also want to add strong notes of moka, chocolate and liquorice.

Dosage:	Packaging:
White and rosé wines: 5-30 g/hL. Red wines: 10-50 g/hL. Keep in contact at least two weeks with periodic bâtonnage.	2 kg bags.

FINISHING TOUCHES

Harmony™ MP

AF

Instantly available mannoproteins that can increase wine stability, volume and complexity. In a short amount of time it can make up for a lack sensory complexity in a wine.

Dosage:	Packaging:
1-8 g/hL.	500 g jars.

	Effects	Wine	Stage of using
HARMONY FULL	Roundness - Balance **Complexity**		Ageing - Second fermentation
HARMONY Floral	Structure - Balance **Freshness**		Ageing
HARMONY Cherry	Structure - Roundness **Fruitiness**		Ageing
HARMONY Intense	Cleanliness - Complexity - **Toasted**		Ageing
HARMONY Moka	Structure - Complexity **Toasted**		Ageing
HARMONY Pastry	Sweetness Structure **Pastry/Vanilla**		Ageing
HARMONY Vitality	Colour and aroma **protection**		Ageing
HARMONY Enne	Structure **Minerality**		Ageing
HARMONY Refine	Astringency, **herbaceous** and bitterness **reduction**		Pre-bottling
HARMONY MP	Structure **Minerality**		Pre-bottling

FOCUS ON

Yeast derivatives

YEAST DERIVATIVES: LONGEVITY AND REDUCTION OF SO_2

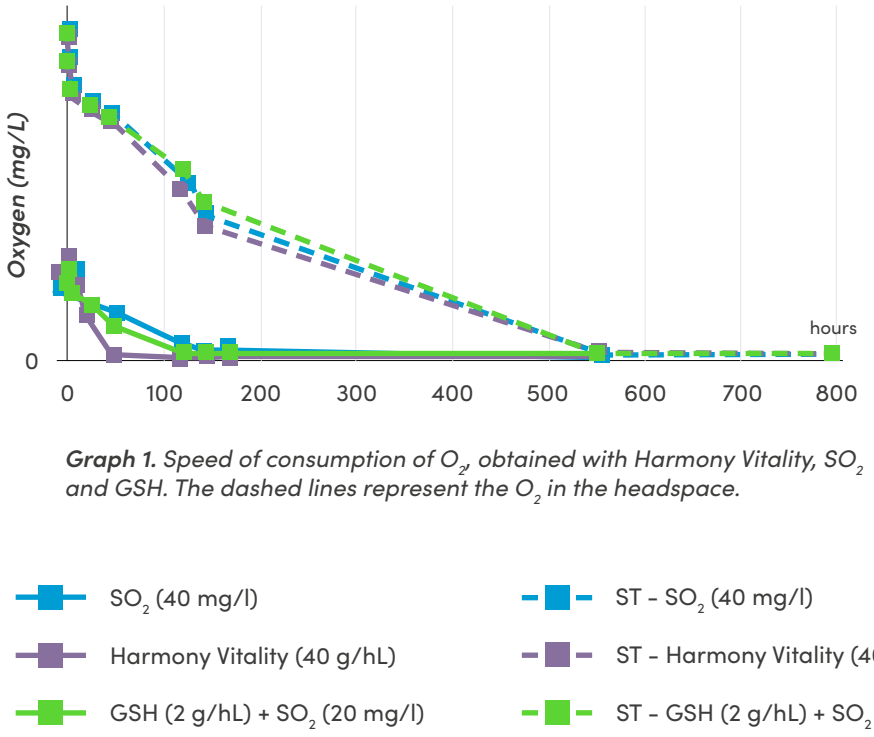
The demands of consumers to have fresh, intense and brilliant products are met with an increasingly important search for **organoleptic longevity** and **healthiness** with the commitment **to reduce the sulphite content** in finished wines. Two seemingly conflicting goals that need to be achieved.

Harmony Vitality, a specific derivative of yeast with antioxidant action is one of the products available to winemakers to ensure the **correct evolution of white and rosé wines by reducing the use of SO_2**.

HARMONY vitality

AGEING AND STORAGE

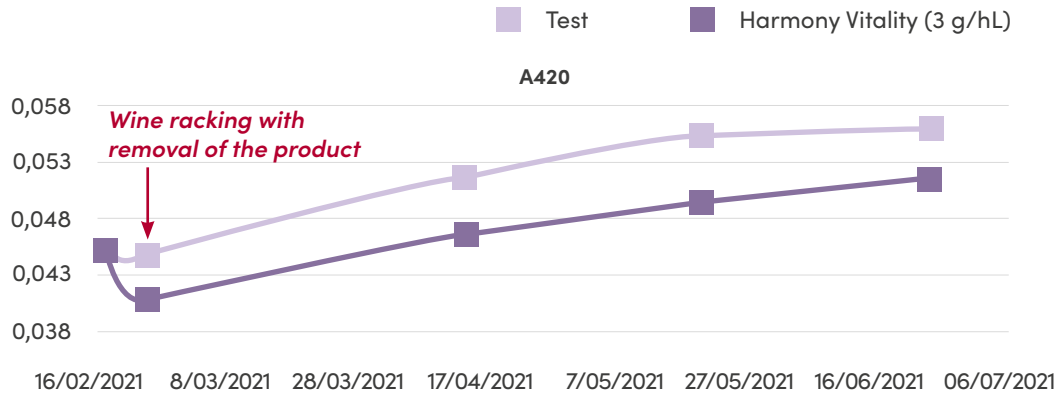
During storage periods Harmony Vitality provides **protection equal to or greater than SO_2 and reduced glutathione**; this ability is due to the rapid consumption of O_2 by sulphur peptides, e.g. glutathione, and sulphur amino acids and the oxidative degradation of cellular lipids.



Graph 1. *Speed of consumption of O_2, obtained with Harmony Vitality, SO_2 and GSH. The dashed lines represent the O_2 in the headspace.*

RACKING AND MOVEMENTS

Thanks to oxygen-derived reactivity, it is possible to use Harmony Vitality to protect wines during racking and movements. For this application, an average of 3 to 8 g/hL of Harmony Vitality are sufficient to protect against oxidative phenomena, avoiding or reducing the use of SO_2. (Graph 2).



Graph 2. *colour evolution after contact of* ***6 days*** *with* ***3 g/hL*** *of Harmony Vitality and subsequent separation of the product (Prosecco grape variety 2019)*

FOCUS ON

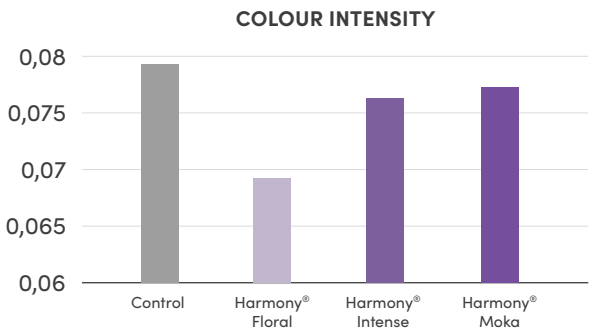
Yeast derivatives

HARMONY OVER TIME

The Harmony range has recently been enriched with innovative granular formulations, based on the synergy between specific yeast derivatives and tannins from various botanical species, designed to provide winemakers with allergen-free, practical, high-performing tools suited to achieving, in very short timeframes, a modern élevage in line with the changing needs of consumers, who are increasingly oriented towards recognisable, intense, fresh and pleasant wines.

The specific adsorbing and antioxidant activities of the derivatives and tannins also contribute to olfactory cleanness and freshness, thanks to their ability to stably bind light sulphur molecules (H_2S and mercaptans) and to promote longevity by stimulating resistance to organoleptic and chromatic degradation phenomena. The latter in particular is a key aspect, given the current context of growing market attention to product healthiness and the consequent gradual reduction in the use of sulphites.

	CHARACTERISTICS	WINE TYPE	OBJECTIVE
HARMONY FLORAL	Inactive yeasts Tannins from exotic species		Structure, balance and floral sweetness
HARMONY CHERRY	Inactive yeasts Red fruit tannins		Structure, softness and fruity intensity
HARMONY INTENSE	Inactive yeasts Low-toasted oak tannins		Cleanness, volume and light toast (vanilla, coconut)
HARMONY PASTRY (new entry)	Inactive yeasts Medium-toasted oak tannins		Structure, volume, pastry, caramel
HARMONY MOKA	Inactive yeasts High-toasted oak tannins		Structure, volume, toasted, spicy and balsamic



Colour intensity after 2 years of bottle ageing - (Ugni Blanc 2022)

WHITE WINE

- Distinctive, precise and long-lasting organoleptic characterisation;
- Long-lasting colour and reduction of any tendency towards pinking;
- Cleanness and freshness, counteracting the appearance of evolved notes;
- Increased volume, length and structure, without astringency.

UGNI BLANC 2022 – TASTING AFTER 2 YEARS OF BOTTLE STORAGE*	
CONTROL	Evolution, imbalance, bitter finish
HARMONY FLORAL	Slight evolution but fresher, cleaner and still lightly floral. Greater volume, savouriness and length
HARMONY INTENSE	Clean, with elegant vanilla notes. Structured, long, sweet and not dry
HARMONY MOKA	Fresh, balsamic, aromatic herb notes. Soft structure. Savouriness and length

* Ageing of 3 weeks (Harmony® Floral and Intense 50 g/hL, Harmony® Moka 20 g/hL)

RED WINE

- Extremely limited impact on colour intensity, but selective elimination of oxidised notes, with improvement of hue;
- Long-lasting preservation of a younger hue thanks to the prolonged protective action against oxidative phenomena affecting anthocyanins;
- Significant and persistent organoleptic characterisation;
- Drastic and permanent reduction of vegetal notes, resulting in greater elegance.

MERLOT 2022 – TASTING AFTER 2 YEARS OF BOTTLE STORAGE**	
CONTROL	Herbaceous, pyrazinic (green pepper), slightly unbalanced and dry on the palate
HARMONY CHERRY	Fresh, fruity and less herbaceous. Intense cherry. Increasing and soft structure
HARMONY INTENSE	Elegant, sweet, good vanilla and herbaceous notes gone. Soft structure. Long, vanilla-tinged finish
HARMONY MOKA	Complex nose, spicy and balsamic. Important but soft structure. Long finish

** Ageing of 3 weeks (Harmony® Cherry and Intense 80 g/hL, Harmony® Moka 50 g/hL)

FOCUS ON

Pinking

PREVENTION STRATEGIES IN THE CELLAR

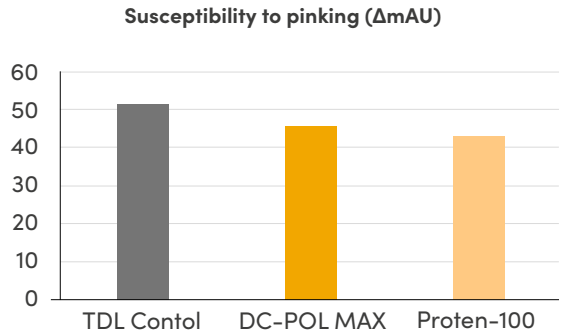
The **pinking** phenomenon affects white wines, made from many grape varieties, and manifests itself in a change of colour from yellow to pinkish-salmon.

The **University of Milan's DeFENS**, has conducted, with the participation of Dal Cin spa, extensive research work aimed at better understanding the molecules involved in the formation mechanism, the chemical and physical conditions that may favour it, and the cellar techniques useful in reducing its occurrence*.

Factors involved: polyphenol content; the presence of thiol compounds; oxygen and the presence of transition metals; grape varieties; processing and vintage techniques.

Alcoholic fermentation: the experiments conducted established a relationship between the yeast strain used and the susceptibility to pinking of the wine obtained. The **ENODOC BA-02** strain made it possible to obtain wines on average less susceptible to pinking than wines obtained with a reference strain under the same conditions. The differences found at the end of alcoholic fermentation are maintained even 1 month after bottling, both in the presence and absence of SO_2.

Wine clarification: the experimentation has shown how more effective clarifiers are in removing catechins and, secondarily, metals. The best results were obtained with **Proten-100, DC-POL Max and Metaless**. (Figure 1)



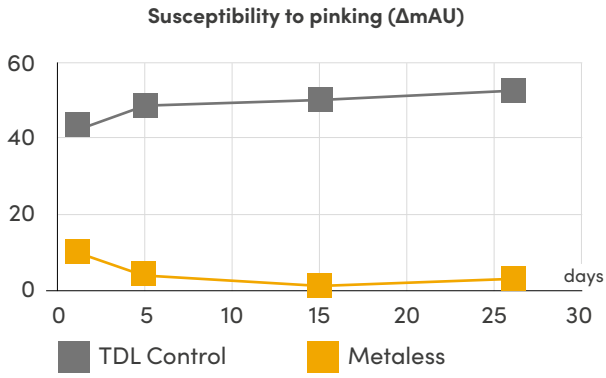
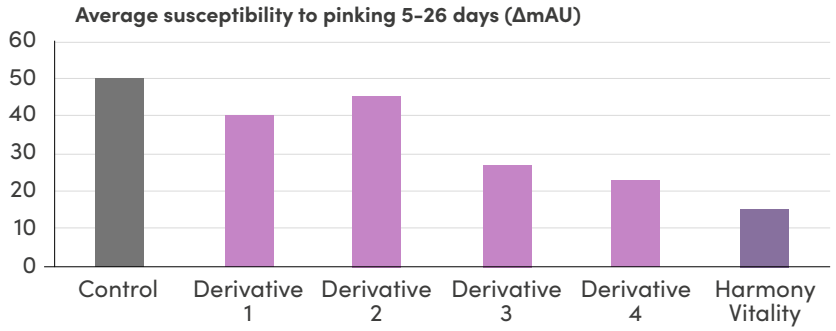


Fig. 1: Susceptibility to pinking following treatment with Proten100 (30 g/hL) and Metaless (50 g/hL). Trials on Ugni Blanc di Lugana wine, 2021. Average of data collected during the contact period 1-26 days. (Fracassetti et al. UniMi).

Fining: five different yeast derivatives were tested, including cell walls and inactive yeasts, with a contact time of 26 days and periodic measurements during this period. The derivative that showed the greatest effectiveness was **Harmony Vitality**. (Figure 2)



Note: with ΔmAU at 500 nm >5 the wine is susceptible to pinking. (Simpson method)

Figure 2: Trials on Ugni Blanc di Lugana wine, 2021 - dose 30 g/hL. (Fracassetti et al. UniMi).

Sparkling

Crisp bubbles and top aromas!

Products and suggestions to improve perlage both in Charmat and in Champenoise method, starting from base wine preparation up to bottling procedures.

BEST SELLER

Best Seller

EFFERVIS

EFFERVIS

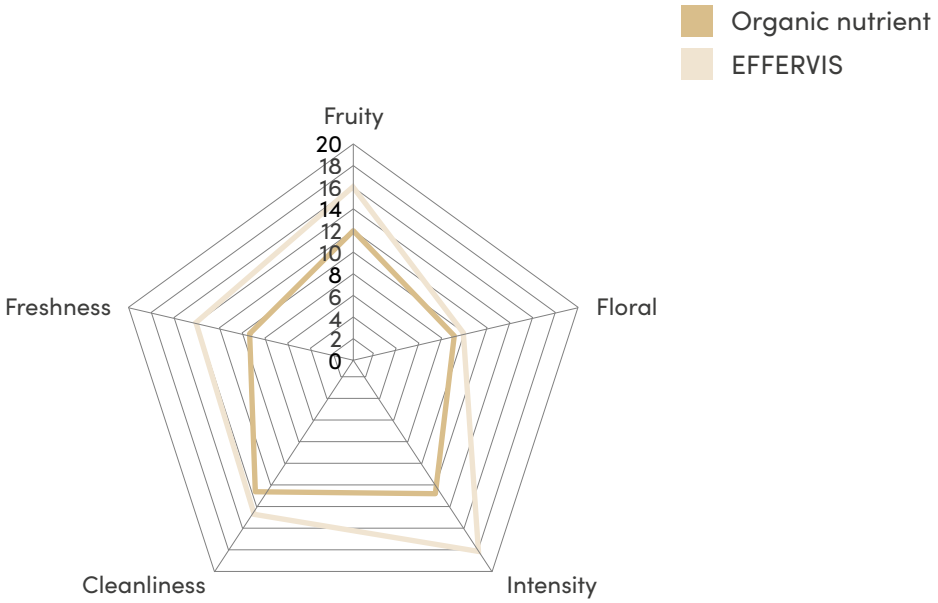
A purely organic nutrient rich in nitrogen sources, glutathione, vitamin, particularly pantothenate, thiamine and biotin, and trace elements. It ensures regular fermentation kinetics, resistance to alcohol content and maximum aromatic expression. It prevents increases in volatile acidity, the appearance of reduction notes and protects the freshness of aromas and colour over time.

Dosage:

5-40 g/hL.

Packaging:

2 kg and 10 kg bags.



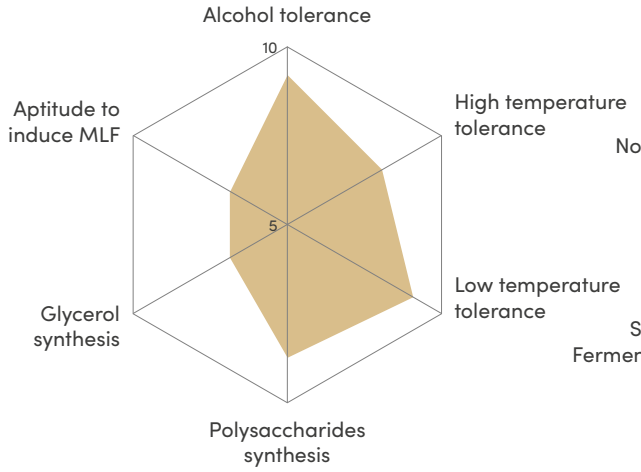
Aromatic profile of Prosecco grape variety wine after second fermentation with 30 g/hL of Effervis and a generic organic nutrient.

THE YEAST

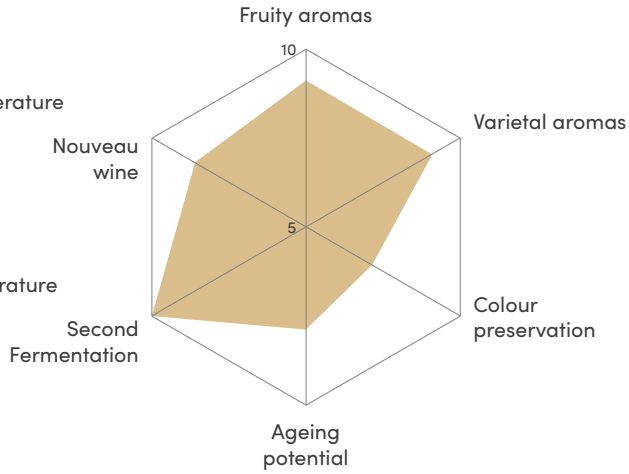
PRO6

Saccharomyce cerevisiae ex bayanus, grants quick and regular kinetic in quite a wide temperature range. Wines show notes of fruit and flowers and great aromatic and taste cleanliness. Widely used for "Prosecco" and different premium petillant and sparkling wines. It produces excellent results also in primary fermentation whenever you want to favour, not just varietal character, the freshness of the product.

CHARACTERISTICS



EFFICACY



SLB

It is highly tolerant of poor conditions, such as temperature, nitrogen content, indigenous microflora, and so on. It can be used in the vinification of large volumes and in refermentation for sparkling wines.

BM-04

Has some unique characteristics of alcohol, SO_2, high pressure and low temperature tolerance. Its own kinetic and metabolic properties make it suitable for sparkling wines through a second fermentation both in bottle and in pressurized tanks. Gives very noble and pleasant aromas to the final wine, with thin perlage and finesse over time.

BV-03

Suitable for both first and second fermentation in sparkling wine production. It improves the grape varietal aroma, even in second fermentation.

SPARKLING

	Applications	Killer character	Alcohol content	Fermentation kinetics	Nutritional requirements	Fermentation T°	
PRO6	Secondary fermentation (tank) Stuck AF	K+	<15% V/V	fast	low	>10°C	
SLB	Secondary fermentation (tank) Stuck AF	neutral	<14% V/V	regular	low	>14°C	
BM-04	Secondary fermentation (tank and bottle)	K+	<16% V/V	fast	low	>12°C	
BV-03	Secondary fermentation (tank) Stuck AF	neutral	<16% V/V	fast	low	>10°C	

	Interaction with MLF	Sensitivity to copper	Production of:				
			Glycerol	H_2S	SO_2	Volatile acidity	Acetaldehy-de
		low	medium	low	low	low	low
		medium/low	low	low	low	low	medium/low
	-		medium/low	low	medium	low	medium/low
	-		low	low	low	low	medium/low

NUTRIENTS

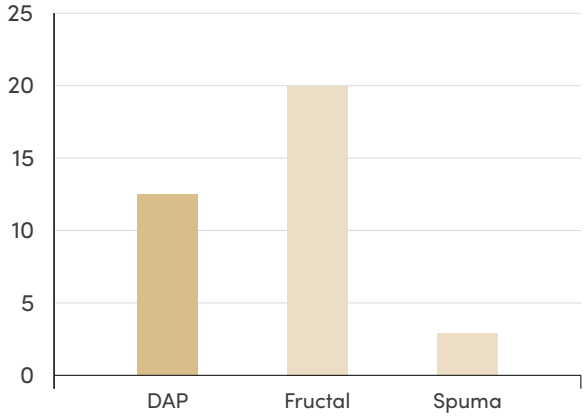
wynTube Spuma

miniTubes

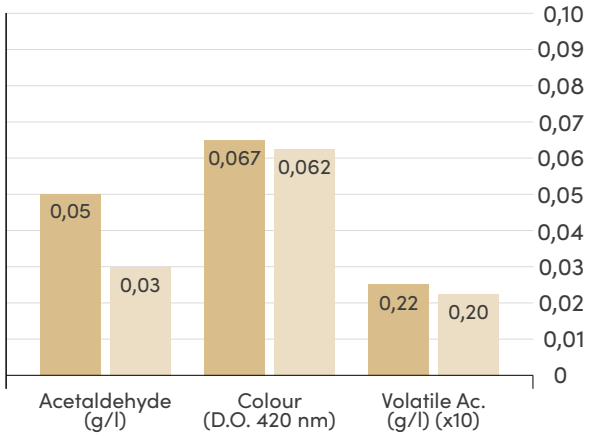
AF

Specific nutrient for second fermentation; supplies all the necessary nutrients for fast and safe fermentation kinetics and to limit the production of stress related metabolites: sulphur compounds, acetaldehyde, pyruvic acid. Thanks to yeast derivatives rich in reduced glutathione and reductive peptides, it protect the wine aromas and colour over time.

Dosage:	Packaging:
10-40 g/hL.	10 kg bags.



Acetaldehyde production with DAP, wynTube Fructal and (x10) wynTube Spuma (30 g/hL) in Prosecco grape variety base wine. Inoculation with Fervens Pro6 (25 g/hL) rehydrated with wynTube Prepara (20 g/hL).



Pignoletto sparkling wine. Nutrition during second fermentation with wynTube Full and wynTube Spuma (30g/hL).

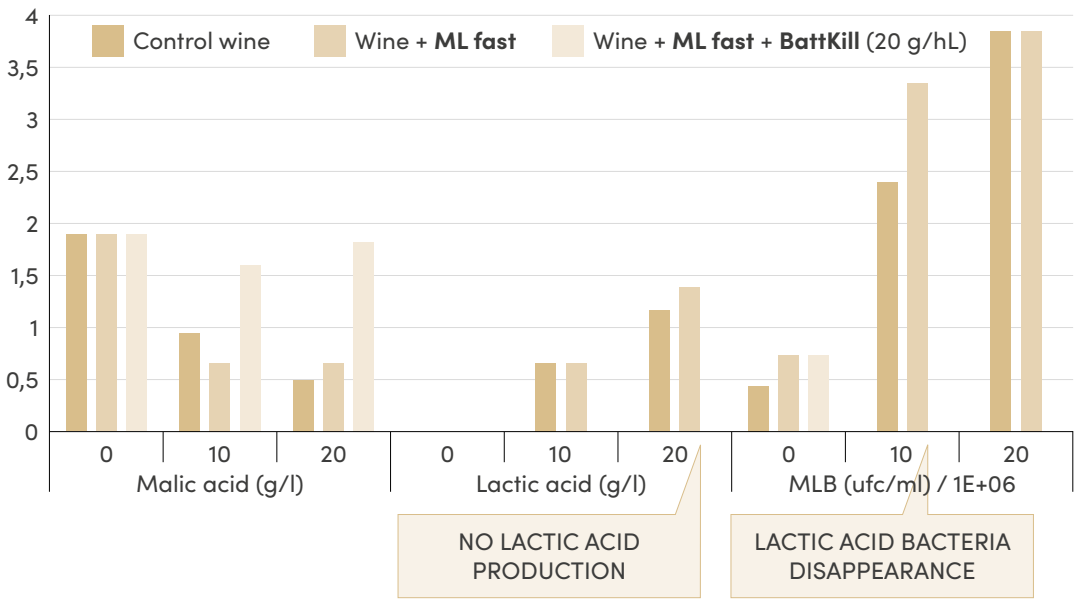
FOCUS ON

Sparkling

Avoid malolactic fermentation

Base Sparkling Wine	10-20 g/hL
Stabilization after MLF	20-30 g/hL

Degradation of malic acid, production of lactic acid and development of lactic acid bacteria in a wine inoculated with **ML-Fast** (1g/hL) and followed over 20 days.

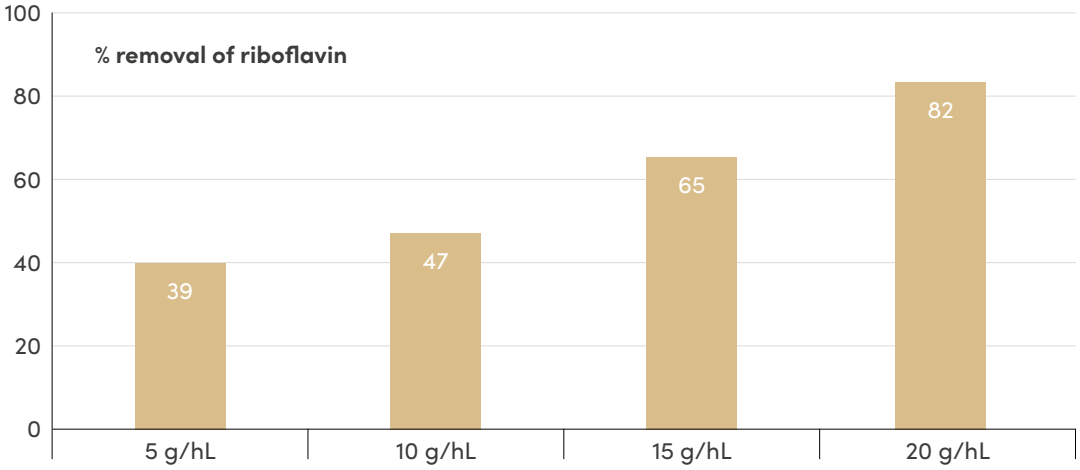


FOCUS ON

Sparkling

Preventing light-struck defect

Kolirex Go Fresh:
Reduces Riboflavin content and prevents the insurgence of "light-struck" in sparkling and fizzy wines in white glass bottles.



% removal of riboflavin at different Kolirex Go Fresh doses.
Average of 70 fining trials.

ppb Riboflavin	Indicative doses for riboflavin < 40-50 ppb
0 - 50	0 - 5 g/hL
50 - 100	5 - 15 g/hL
100 - 150	15 - 20 g/hL
150 - 200	20 - 25 g/hL
> 200	25 - 30 g/hL

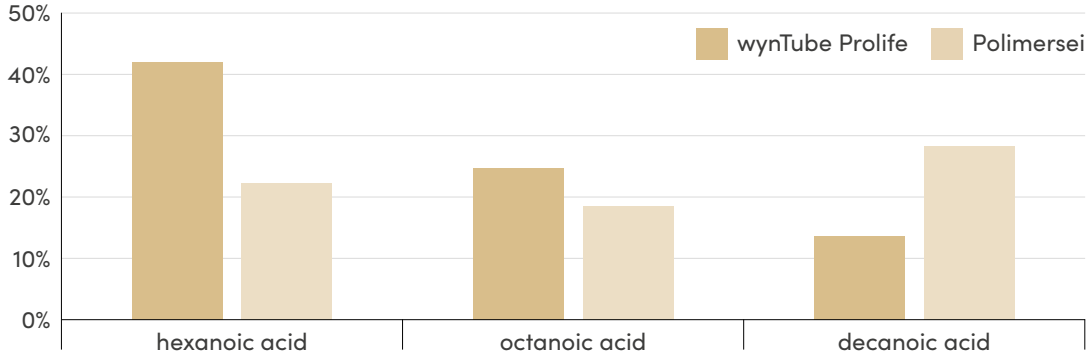
FOCUS ON

Sparkling

Detoxify base wine

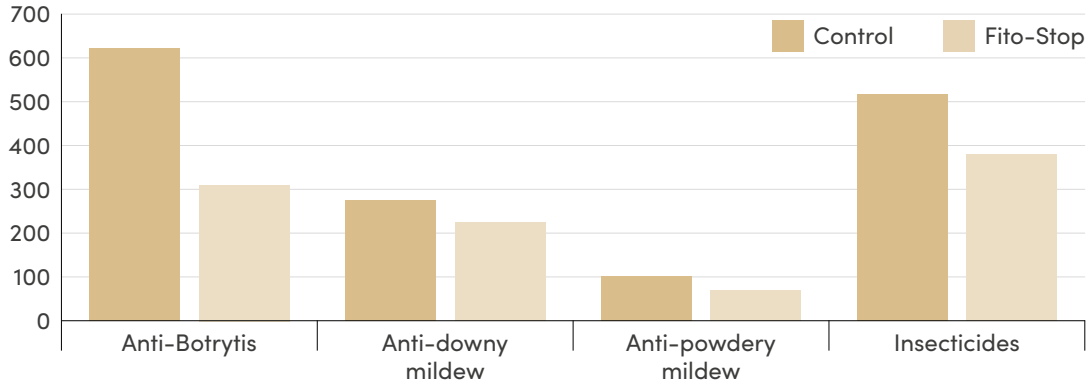
wynTube ProLife, Polimersei and Fito-Stop: create a better environment for the second fermentation by eliminating medium chain fatty acids that remain from the first fermentation and residues of phytosanitary treatments.

wynTube ProLife and Polimersei: reduce endogenous inhibitors



% Reduction of C6, C8 and C10 with wynTube Prolife (40g/hL) and Polimersei (80g/hL)

Fito-Stop: reduce exogenus inhibitors



Pesticide removal with Fito-Stop (5g/hL) added at the end of the alcoholic fermentation. Average result on 5 musts.

CHARMAT METHOD PROTOCOL

Second fermentation (yeasts)

PRODUCT	DOSAGE (g/hL)	NOTES
Fervens Fragrance	10 - 20	Good fruity, citrus and thiol aromatic expression. Low riboflavin production
Fervens PRO6		Enhances aromatic freshness and colour vibrancy. Specific for Prosecco production. High SO_2 resistance
Fervens SLB		Neutral and reliable fermenter yeast
BV-03		Safety, speed and various aromas

Second fermentation base wine

PRODUCT	DOSAGE (g/hL)	NOTES
SuperDAP	As needed	Inorganic nutrient. DAP and thiamine
wynTube Spuma	10 - 20	Complex nutrient in miniTubes™. Fast and safe kinetics. Presence of yeast derivative rich in glutathione and reducing peptides, for aromatic and chromatic longevity
Effervis	10 - 20	Organic nutrient. Regular kinetics, alcohol resistance and high aromatic expression, low volatile acidity and reduced compounds. Glutathione for aromatic and chromatic longevity
Infinity Yellow	0,5 - 2	Specific tannin for increased olfactory and gustatory freshness
Lifty (Fresh, Bloom)	5 - 10	AF enhancers: kinetics regulation, cleanliness and organoleptic characterisation according to dosage
Mosaico Protect	10	Fining agent in miniTubes™ for oxidative stabilisation and softness
Mosaico Hype	5 - 10	Fining agent for the elimination of bitterness and improvement of volume.

Finishing touches

PRODUCT	DOSAGE (g/hL)	NOTES
Harmony Refine	30 - 50	Liquid mannoprotein: volume, softness and perlage quality
Infinity Fruity White	1 - 4	Cleanliness, redox rebalancing, absorption of reduced molecules. Openness and enhancement of fruity notes
Redox Longevity	5 - 10	Antioxidant protection as prevention against light-struck taste (when using clear bottles)

TRADITIONAL METHOD PROTOCOL

Tirage (yeasts)

PRODUCT	DOSAGE (g/hL)	NOTES
Fervens SLB	5 - 10	Neutral and reliable fermenter. Moderate and regular kinetics. Cleanliness that respects the variety
BM-04		Elegance in the champenoise method

Tirage base wine

PRODUCT	DOSAGE (g/hL)	NOTES
Effervis	10	Organic nutrient with minimal insoluble fraction
SuperDAP	As needed	DAP and thiamine
Gelbentonite	2 - 3	As tirage coadjuvant
Harmony Vitality	5 - 10	Yeast derivative to increase longevity and freshness
Karmelosa L	As needed	In case tartrate stability still needs to be achieved

Liqueur d'expedition

PRODUCT	DOSAGE (g/hL)	NOTES
Harmony Refine	30 - 50	Liquid mannoprotein: volume, softness and perlage quality
Tannin	0,4 - 5	Doses and organoleptic objectives according to the tannin used (see indications below)
Redox Longevity	5 - 10	Antioxidant protection as prevention against light-struck taste (when using clear bottles)
Ascorbic Acid	As needed	For antioxidant protection

Summary of sensory characteristics

INFINITY YELLOW: Freshness and aromatic intensity, good gustatory and olfactory persistence — 0.5 ml/hL

INFINITY CLASS: Aromatic finesse, balance on the palate — 1 g/hL

INFINITY ROBLE: Spicy and balsamic aromas, savouriness and gustatory length — 5 ml/hL

INFINITY VERT: Freshness and aromatic verticality — 1 g/hL

INFINITY FRUITY WHITE: Finesse and harmony on the nose, sweet and round notes on the palate — 2 g/hL

INFINITY CREAMY: Aromatic sweetness, round and harmonious structure — 1 g/hL

TOP TAN CR: Structure and gustatory and olfactory length — 0.4 g/hL

TOP TAN SB: Structure and cleanliness — 0.5 g/hL

TOP TAN AR: Gustatory balance, complexity on the nose — 1 g/hL

TANNINO Q: Aromatic finesse, structure on the palate — 1 g/hL

Fining agents

Building stability and longevity

Prepare the musts for optimal fermentation, preserve the integrity of the colour and the fullness of the wines' aromas, lay the foundations to guarantee stable and long-lasting products.

BEST SELLER

Best Seller

Absolute Gold | KitoClear | Kolirex Go fresh | Phytokoll VIP

ABSOLUTE GOLD

Pure bentonite complying with the most stringent requirements of the food industry and pharmacopoeia. The high percentage of montmorillonite, the activation system and the micronised form considerably increase the deproteinising effectiveness while keeping the fining sediments low and compact. Helps the colloidal and colour stability of red wines.

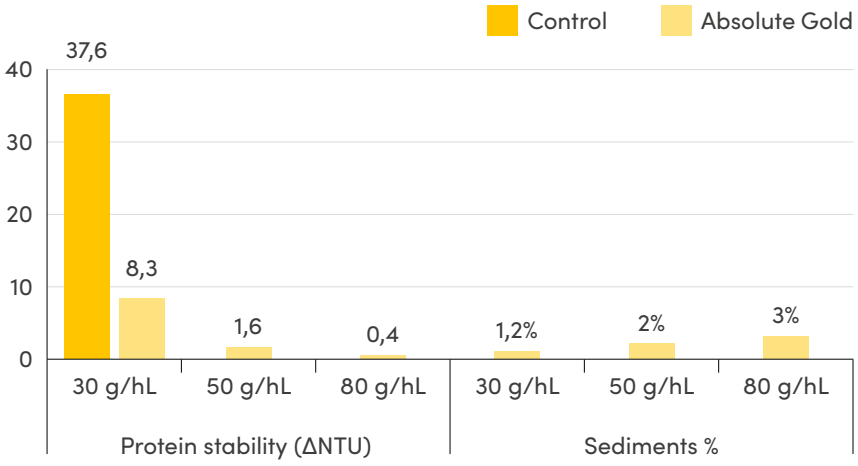
AF

KITOCLEAR

Liquid fining agent based on pre-activated chitosan for the rapid clarification and significant reduction of indigenous microflora in white and rosé musts. Particularly suitable for flotation.

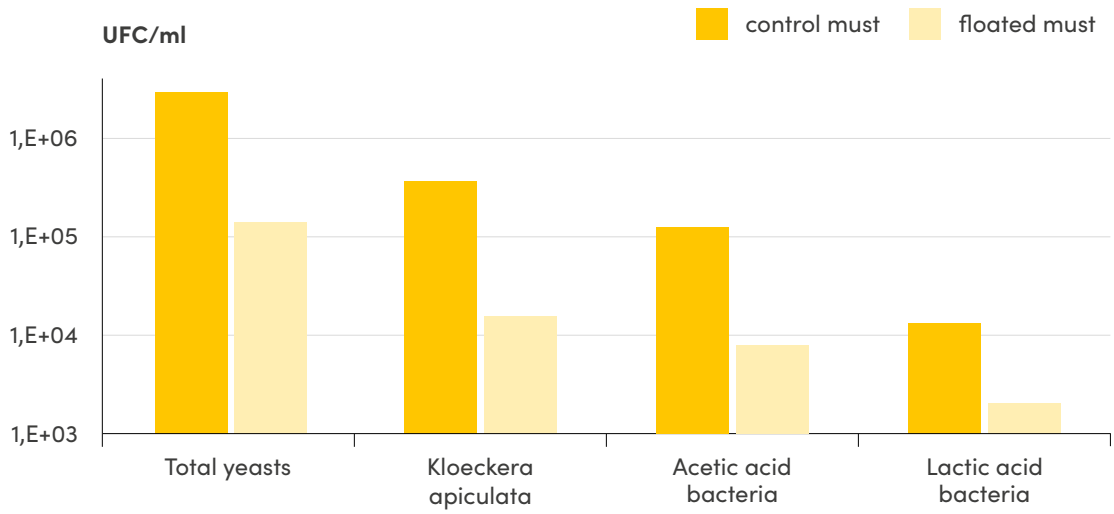
AF

Dosage:	Packaging:
5-50 g/hL or more in protein stability of white and rosé musts and wines. 10-50 g/hL for colloidal and colour stabilisation of red wines. Pour slowly while stirring in water (1:15), leave for at least 60 minutes, then mix vigorously until a homogeneous suspension is obtained.	2 kg and 10 kg bags.



Protein stabilisation (80°C for 30') and sediment volume after treatment with different doses of Absolute Gold in Ugni Blanc wine with high instability.

Dosage:	Packaging:
Clarification of easy and medium-difficulty musts: 30–150 g/hL. Clarification of difficult musts (with charcoal or colloids): 150–300 g/hL. Static clarification: 40–150 g/hL.	5 kg and 25 kg jerrycans, 175 kg drums, 1000 kg bigs.



Variation of microbiological load in Prosecco grape variety must floated with KitoClear (100 g/hL).

KOLIREX® GO FRESH

Specific fining agent for drastic reduction of riboflavin in wine. Useful also to correct the polyphenol content as well as stabilize colour over time. miniTubes™ technology.

Dosage:

To prevent light-struck: 2-30 g/hL according to the riboflavin content.
To adjust or stabilize the colour: 5-10 g/hL.

Packaging:

2 kg and 10 kg bags.

AF

PHYTOKOLL® VIP

Allergen-free plant protein. In white and rosé musts and wines, it avoids and tackles early oxidative phenomena, and maintains the freshness of aroma and taste even over time. Also available in liquid form.

Dosage:

Phytokoll VIP: 5-30 g/hL.
Phytokoll VIP-L: 20-250 g/hL.

Packaging:

Phytokoll VIP: 500 g and 15 kg bags.
Phytokoll VIP-L: 20 kg buckets and 300 kg IBC

AF *only the powder form*

Other products of the category:

BENTONITES

Absolute Flow

AF

Specific micronized bentonite for crossflow filter systems. It allows the good deproteinization of wines without causing abrasion of the filter membranes.

Dosage:	Packaging:
20-150 g/hL. Dissolve slowly in water (1:10) while stirring, wait 30'-60', mix vigorously and add to the mass to be treated.	15 kg bags.

Bentoflot

AF

Powder bentonite, specific for the flotation of musts in particular when the maximum containment of the lees volume is required alongside deproteinisation.

Dosage:	Packaging:
40-100 g/hL. Allow to swell in water (1:20) for at least 30'- 60', then stir vigorously to form a homogeneous suspension.	25 kg bags.

Bentowhite Gel

AF

Bentonite in filaments with high activity, for protein stability at low dosages.
Removes toxins and allergens.

Dosage:	Packaging:
5-30 g/hL. Pour in water (1:20) and wait at least 30'-60'.	10 kg bags.

Bento.Zero

AF

Used on the final wine, when a quick protein stability is needed. When used with very active bentonites (e.g. Bentowhite Gel), it helps to compact the fining lees reducing product losses.

Dosage:	Packaging:
For final fining of wines: from 5 to 30 g/hL. Protein removal in wines: up to 150 g/hL. Dissolve in water (1:5), wait 30' and add to the mass to be treated, keeping in pumping over for at least 2 hours.	15 kg bags.

Gelbentonite®

AF

Bentonite in filaments with high activity, for protein stability at low dosages.
For use in final fining of white and red wines.

Dosage:	Packaging:
5-30 g/hL. Pour in water (1:20) and wait at least 30'-60'.	2 kg and 10 kg bags.

Superbenton™

AF

Multipurpose powder bentonite with excellent deproteinising action. The best value for money.

Dosage:	Packaging:
40-100 g/hL. Dissolve slowly in water (1:10) while stirring, wait for a few hours, mix vigorously and add to the mass to be treated.	15 kg bags.

Topgran+

AF

A bentonite that satisfies quality winemaking needs of protein stability and fining without waste and without sacrificing the sensory profile sought. Topgran+ makes it possible to achieve protein stabilisation and brilliance, as well as to remove those molecules responsible for organoleptic defects.

Dosage:	Packaging:
30-150 g/hL. Pour slowly while stirring in water (1:10), leave for at least 30 minutes, then mix vigorously until a homogeneous suspension is obtained. Add to the must, stirring well.	1 kg and 25 kg bags.

Whitegran

AF

Granular bentonite characterised by medium-high deproteinising capacity, speed and ease of preparation and formation of sediments compatible with winemaking needs. Suitable both in must and wine.

Dosage:	Packaging:
50-150 g/hL. For musts and wines with high instability. 30-50 g/hL. For wines already clear and with medium-low instability. Pour slowly while stirring in water (1:15), leave for at least 60 minutes, then mix vigorously until a homogeneous suspension is obtained. Add to the must, stirring well.	15 kg bags.

Absolute Luxe

NEW

Activated bentonite for protein stabilisation in musts and wines. Thanks to its ready-to-use formulation, it is particularly suitable for use during the harvest, in clarification and during alcoholic fermentation.

Dosage:	Packaging:
50 - 300 g/hL	10 kg and 20 kg.

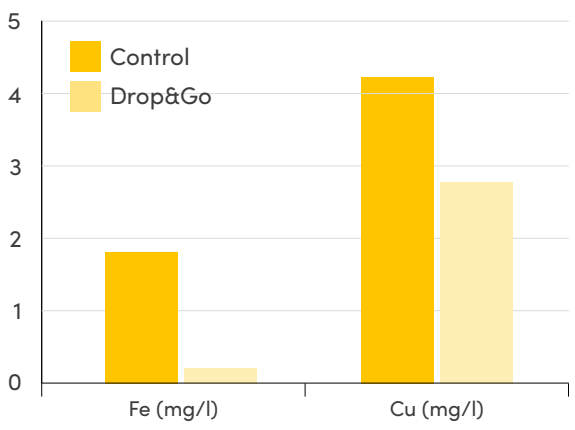
METALS

Drop&Go

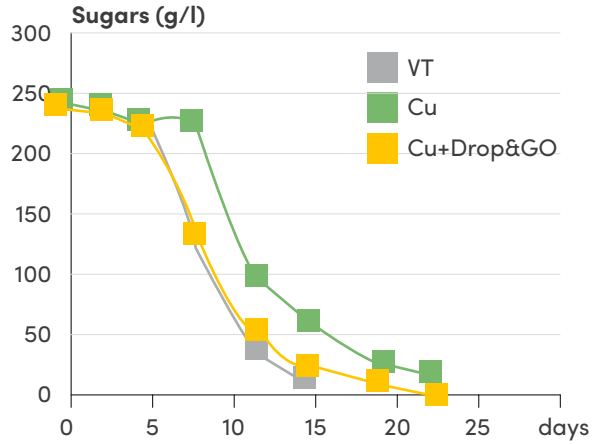
miniTubes AF

Thanks to the chelating power of the PVI/PVP co-polymer, when used in musts Drop&Go reduces the metal content, in particular iron and copper. Protects aromas, colour and stimulates alcoholic fermentation. miniTubes™ technology.

Dosage:	Packaging:
50-80 g/hL. Dissolve in water (1:10), wait 10 minutes and add to the must after removing the lees.	2 kg bags.



Removal of copper and iron from must treated with Drop&Go (50 g/hL) after 48 hours of contact.



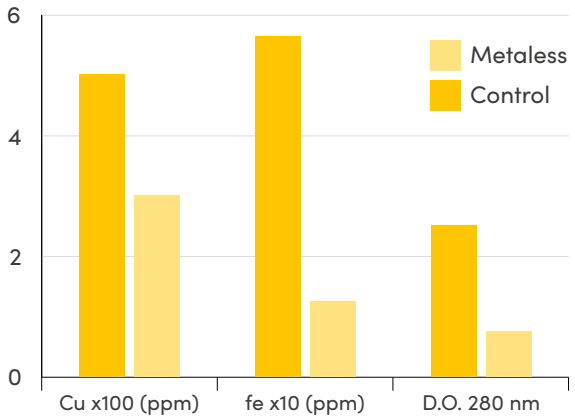
Influence of the addition of copper (8 mg/l) and Drop&Go (50 g/hL) on the fermentation kinetics.

Metaless

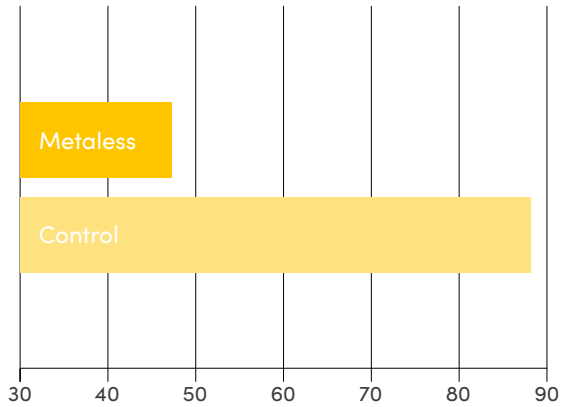
miniTubes AF

To increase wine shelf-life. Removes metals and catechins, hence protecting aromas (both varietal and fermentation ones) and preventing browning and pinking. miniTubes™ technology.

Dosage:	Packaging:
30-80 g/hL (maximum dosage).	2 kg bags



Reduction of copper, iron and total polyphenols (OD 280 nm) after treatment with Metaless (30 g/hL).



Pinking tendency (% increase in OD 540 nm after oxidation) after treatment with Metaless (30 g/hL).

CARBON

Carb-Off

miniTubes AF

Carbon to correct sensory off-flavours resulting from Botrytis or other contaminating microorganisms. Particularly suitable against volatile phenols, geosmin, and garlic scents.

Dosage:	Packaging:
Up to 100 g/hL (maximum dosage).	2 kg and 10 kg bags.

Grandecó

miniTubes AF

Decolourizing carbon with high absorbance capacity on wine colour. miniTubes™ technology has allowed for the production of a powder free carbon that has very good dissolution and hence a reduced preparation time.

Dosage:	Packaging:
Up to 100 g/hL (maximum dosage).	1 kg and 10 kg bags.

Carbodec DC

AF

High efficiency activated carbon, for colour removal.

Dosage:	Packaging:
Up to 100 g/hL (maximum dosage).	10 kg bags.

Carbodec Plus

AF

Very fine activated carbon that controls the hue in the finished wine.

Dosage:	Packaging:
Up to 100 g/hL (maximum dosage).	15 kg bags.

Clean-UP

AF

Activated carbon to correct sensory faults resulting from contaminating microorganisms. Particularly suitable against volatile phenols, geosmin, and garlic scents.

Dosage:	Packaging:
Up to 100 g/hL (maximum dosage).	20 kg bags.

PLANT-BASED FINING AGENTS

Phytokoll® App

AF *only the powder form*

The perfect mix of potato and pea protein. It lets you achieve clarification and the removal of the oxidised colour fractions. It is effective in the flotation of difficult musts, where the individual raw materials fail to form a sufficiently compact cap. In white and rosé wines, used with Topgran+, facilitates the filtration, improves the aroma cleanliness and stabilizes the colour. Also available in liquid form.

Dosage:	Packaging:
Phytokoll App: 10-30 g/hL. Phytokoll App-L: 50-150 g/hL.	Phytokoll App: 500 g and 15 kg bags. Phytokoll App-L: 20 kg buckets and 175 kg drums.

Phytokoll® K

AF

Pre-activated chitosan and plant protein based fining agent. When fining white and rosé musts, it aids the clarification and removal of colour. It is used both in static settling and in flotation. In the fining of white and rosé wines to clarify the mass, remove the colour and oxidizable polyphenolic fractions (catechins and leucoanthocians). In general, fining with Phytokoll K helps to improve the shelf-life of the treated products.

Dosage:	Packaging:
5-20 g/hL.	500 g and 15 kg bags.

Claracel Vip

AF

Fining agent with regulation activity of fermentation. It quickly breaks down colloids and polyphenolic load with the production of compact sediments. Polysaccharide fibres favour a good fermentation process.

Dosage:	Packaging:
40-100 g/hL.	15 kg bags.

Clarapol VIP

AF

PVPP and plant protein fining and stabilizing agent. For white and rosé wines it helps prevent oxidative phenomena that affect the colour and aromas.

Dosage:	Packaging:
10-50 g/hL.	15 kg bags.

Clarasi VIP

AF

Plant protein based fining and stabilizing agent for white wines; removes polyphenols, catechins, leucoanthocyanins and substances involved in the oxidative aging of white wines. Restores wines affected by premature aging by removing oxidized compounds.

Dosage:	Packaging:
20-100 g/hL.	500 and 15 kg bags.

COMPLEX FINING AGENTS

Kolirex™ Go Fresh G

miniTubes AF

Specific fining agent for drastic reduction of riboflavin in wine. Useful also to correct the polyphenol content as well as stabilize colour over time. Approved for organic use. miniTubes™ technology.

Dosage:	Packaging:
To prevent light-struck: 2-30 g/hL according to the riboflavin content. To adjust or stabilize the colour: 5-10 g/hL.	10 kg bags.

Mosaico Protect

miniTubes AF

In white and rose wines, for fining, stabilization and sensory refinement. The yeast derivatives smoothen out the acidity and balance the mouthfeel. The reactivity of chitosan with oxidized compounds, as well as with copper and iron, contrasts oxidative phenomena, giving back freshness and reducing bitter notes while restoring the right hue of wine.

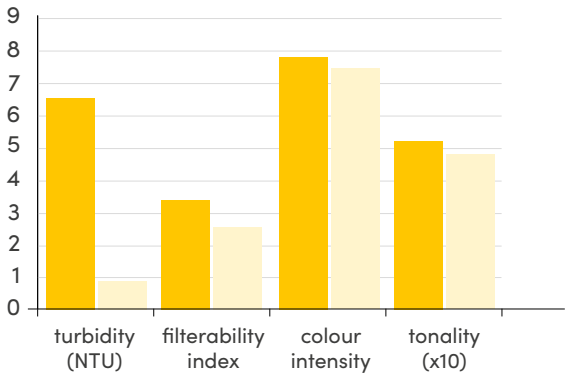
Dosage:	Packaging:
10-30 g/hL.	2 kg and 10 kg bags.

Mosaico Round

miniTubes AF VEGAN FRIENDLY

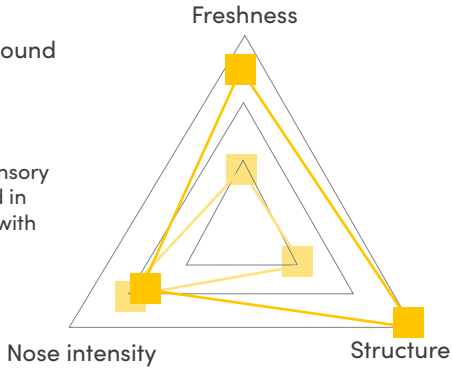
In red wines it corrects the oxidative defects of the colour, smooths the tannic asperity, gives body in the mouth and increases filterability. The yeast derivatives make the wine softer and more balanced. The chitin derivatives guarantee the elimination of fractions susceptible to oxidative degradation and at last the chitosan action reduces Brettanomyces contamination risks.

Dosage:	Packaging:
10-30 g/hL.	2 kg and 10 kg bags.



Mosaico Round
Control

Analytic and sensory profile obtained in a wine treated with Mosaico Round (30 g/hL).



Kolirex™ CP

miniTubes AF VEGAN FRIENDLY

During alcoholic fermentation it eliminates oxidised polyphenols and increases protein stability. PVPP helps to obtain aromatic cleanliness and freshness. The processed cellulose fibres regulate the fermentation kinetics.

Dosage:	Packaging:
30-50 g/hL.	10 kg bags.

Clarapol DC

PVPP and casein formula, absorbs oxidizable polyphenol compounds (flavanoid, catechins, astringent tannins and leucoanthocyanin), improves the clarity and reduces undesirable metal and protein content.

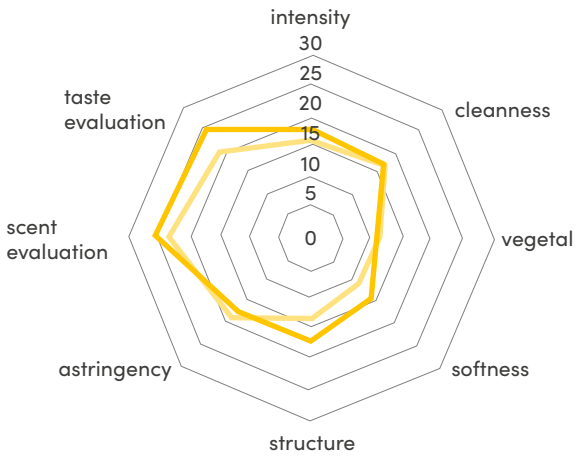
Dosage:	Packaging:
10-50 g/hL.	500 g and 10 kg bags.

Mosaico Hype

miniTubes

Fining agent based on yeast protein extract. Used in red wines to reduce astringency and vegetal characters, without significantly affecting colour. In white and rosé wines it reduces bitter notes and, in general, results in greater organoleptic cleanness.

Dosage:	Packaging:
Red wines: 5–30 g/hL (max. dose 60 g/hL). White and rosé wines: 3–10 g/hL (max. dose 30 g/hL).	500 g bags.



Mosaico Hype
Control

Organoleptic profile obtained in Merlot red wine treated with Mosaico Hype (20 g/hL).

Clarasi DC

K caseinate (> 65%), is recommended for products affected by oxidative casse or in order to avoid or reduce oxidative phenomena over time. Protects from metal casse, especially ferric phosphate casse.

Dosage:	Packaging:
20-100 g/hL.	1 kg and 25 kg bags.

Albakoll™ R

Fining and stabilizing agent for red wines; provides a rapid clarification action, consequently facilitating the next procedures, increasing the filterability and maintaining the wine structure over time. Based on gelatine and plant proteins.

Dosage:	Packaging:
40-80 g/hL.	1 kg and 25 kg bags.

ALBUMIN

Egg Albumin

For reds clarification. It removes astringent tannins from press wines. Softens bitterness in young wines, binds with unstable polyphenols hence improving the colour hue and stability.

Dosage:	Packaging:
2-10 g/hL.	500 g and 10 kg bags.

K CASEINATE

Proten-100

Potassium caseinate for the clarification of white and rosé musts and wines. It cures and prevents oxidation and aging phenomena.

Dosage:	Packaging:
20-50 g/hL.	1 kg and 20 kg bags.

GELATINES

Sologel

AF

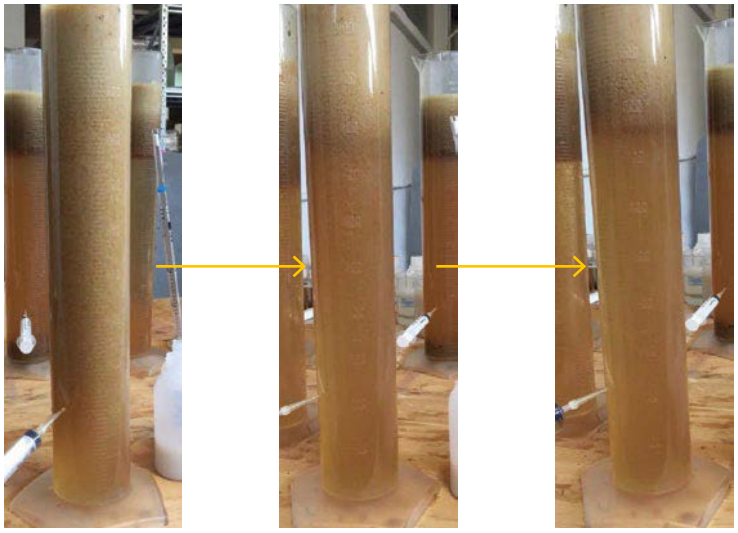
High hydrolysis degree gelatine in stabilised solution at high concentration (> 50%). Highly reactive with wine tannins. Ideal for must flotation and for young press wines.

Dosage:	Packaging:
Musts: 10-15 ml/hL for free-run juice or musts coming from light pressing. Up to 80-120 ml/hL in flotation. Wines: 5-40 ml/hL, depending on wine tannin content.	25 kg jerrycans and 1200 kg IBC.

Easygel

Gelatine with high bloom grade and high load density. For the clarification of musts in flotation.

Dosage:	Packaging:
In flotation: 5–50 g/hL.	1 kg and 25 kg bags.



Time 0 | 1 minute | 2 minutes

Speed of lees formation in flotation with Easyflot (10 g/hL) and Topgran+ (20 g/hL).

Gelatina 40

High hydrolysis degree gelatine in a stabilised solution at 40%. for young and press wines.

Dosage:	Packaging:
2,5-20 g/hL of dry matter or more, depending on wine tannin content.	1 kg bottles, 25 kg jerrycans and 1150 kg IBC.

Gelatina Nebulizzata

Very fine powder, soluble in cold water.

Dosage:	Packaging:
10–50 g/hL depending on application.	500 g and 25 kg bags.

Gelatina Oro Macinata

AF

Low hydrolysis degree gelatine, soluble in lukewarm water. It eliminates excess tannins in structured red wines.

Dosage:	Packaging:
0,5-3 g/hL	1 kg and 25 kg bags.

ISINGLASS

Ittiocolla S

Fish isinglass for the fining and clarification of white and rosé wines and for the finishing of high quality red wines. Easy to prepare.

Dosage:	Packaging:
0,5-3 g/hL.	500 g bags.

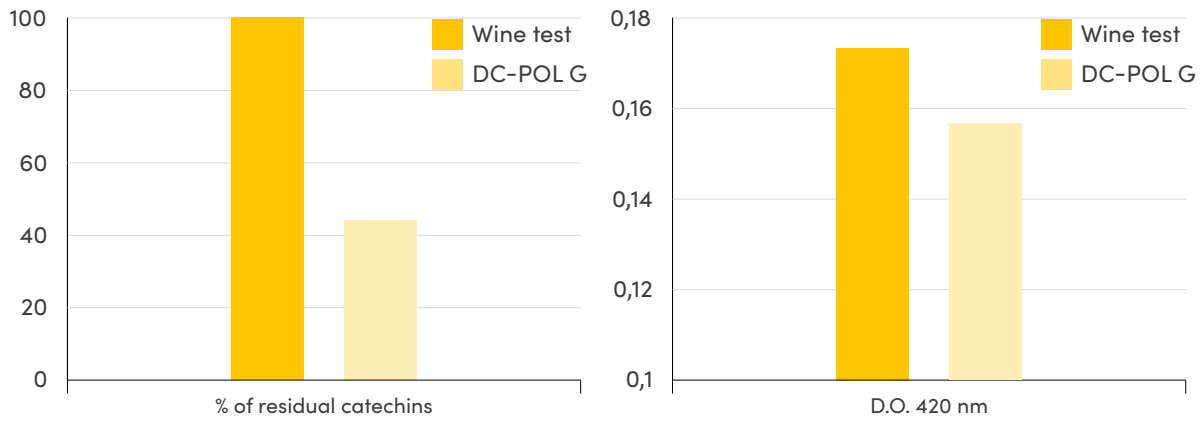
PVPP

DC-POL G

miniTubes AF

It eliminates oxidised and oxidisable polyphenols from white and rosé musts and wines. Prevents oxidative degradation and refreshes oxidized products, making them more fresh and clean. The absence of powder and immediate dissolution are the main advantages of the product.

Dosage:	Packaging:
Musts: 10-40 g/hL. Wines: 5-20 g/hL. Up to 80 g/hL (maximum dosage).	1 kg and 10 kg bags.



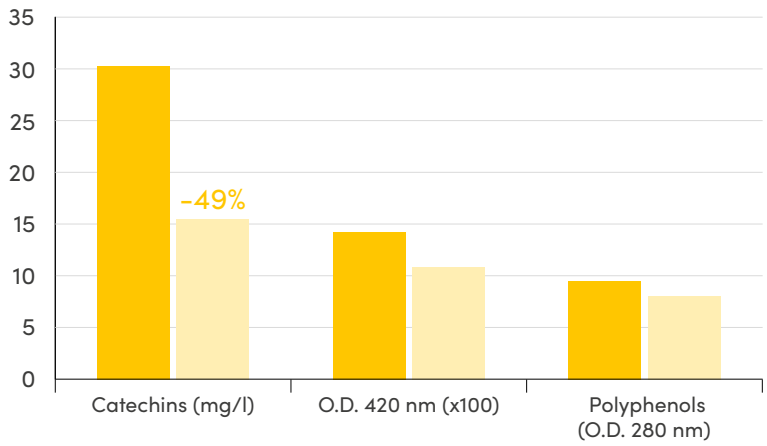
Reduction of colour and catechin content (Muscat must treated with 15 g/hL).

DC-POL Max

miniTubes

It eliminates catechin, oxidised and oxidisable polyphenols from white and rosé musts and wines. Prevents oxidative degradation and refreshes oxidized products, making them more fresh and clean. The action on catechins and ease of use are the strengths of the product.

Dosage:	Packaging:
Musts: 10-40 g/hL. Wines: 5-20 g/hL. Up to 80 g/hL (maximum dosage).	1 kg and 10 kg bags.



Reduction of the content in catechins, colour and total polyphenols with DC-POL Max (40 g/hL).
Catarratto wine (2021)

MISCELLANEOUS

Poliferm P

Fining agent specifically for second fermentations in autoclave. PVPP and cellulose allow for greater freshness and aromatic cleanliness and regulate fermentation kinetics, optimizing the performance of the selected yeast.

Dosage:	Packaging:
20-50 g/hL.	10 kg bags.

SIL-30

Stabilised alkaline solution of silica sol at 30%. Ideal for flotation and for wine fining together with gelatine.

Dosage:	Packaging:
50-100 g/hL.	25 kg jerrycans and 1200 kg IBC.

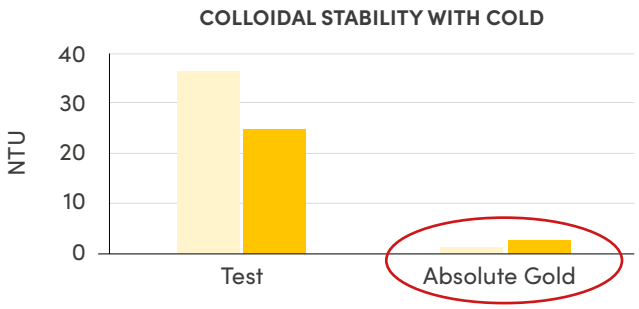
FOCUS ON

Fining Agents

BENTONITE AND COLLOIDAL STABILITY OF RED WINES

Wines are colloidal dispersions that can remain stable over time, remaining clear, or become unstable with the subsequent formation of turbidity or deposits. **In red wines, colloidal instability is one of the causes of the loss of colouring substance**.

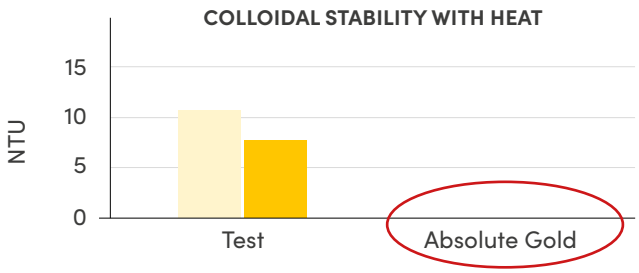
Graphs 1 and **2** show the values of the colloidal instability test carried out after 6 and 12 months of storage and the heat shock test after 6 months. The wine treated with **Absolute Gold** was always perfectly stable. (Barbera 2019 wine).



Graph 1. *Results of the cold test (storage of wines at 4°C for 48 hours) on clarified wine. The wine is stable for ΔNTU <2 (Δ before and after the test).*

6 months

12 months



Graph 2. *Results of the shock test (storage of wines at 40°C for 24 hours and 7 days) on clarified wine. The wine is stable for ΔNTU <2 (Δ before and after the test).*

6 months_24 h

6 months_7 days

FOCUS ON

Fining Agents

FLOTATION IN WHITE AND ROSÉ WINEMAKING

Despite being used in must clarification for many decades, flotation needs to be adapted every year to conditions of the must, the variety of grapes to be processed and the final product to be obtained.

CONDITIONS FOR GOOD FLOTATION:

complete depectinisation. Good flotation is not possible in the presence of undigested pectins. Aromatic varieties and unripe grapes can have more difficult pectins to hydrolyse. The temperature of the must is also important (pectolytic enzymes work faster at temperatures > 12 °C), as well as the time of contact with the enzyme and its concentration of activity.

suspended solids. The ideal content is between 5 and 10%. Too low levels do not guarantee the necessary support to the fine turbidity and the excess of solids prevents the optimal rise of the cap or causes a rapid fall.

adequate dosage of bentonite to facilitate the rise of the cap, lower the turbidity and guarantee an initial protein stabilisation.

THE FOLLOWING OBJECTIVES ARE FUNDAMENTAL:

certainty, of a good rise of the cap to achieve juice clarity.
efficacy, of the clarification not only in terms of turbidity but also of microflora and polyphenols.
speed, of clarification to prevent fermentation starting.
There are a number of products that can be used for **flotation**, the choice depends on the technical objective set but above all on the characteristics of the must, which changes from year to year.

	PRACTICA-LITY	SPEED OF ACTION	CLEANLINESS	CAP COMPACT-NESS	COLOUR REMOVAL	CATECHINS REMOVAL	M.O. REMOVAL	METAL REMOVAL	
KitoClear	****	****	****	*	**		***	*	
Phytokoll K		**	*	***	**	**	*		
Phytokoll App				****	**	**			
Phytokoll App-L	***			****	**	**			
Phytokoll VIP					****	***			
Phytokoll VIP-L	***				****	***			
Sologel	****	**	**						
Easygel		***	***	***		**			

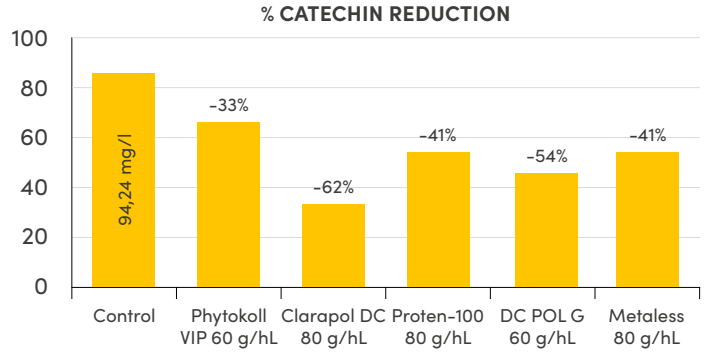
FOCUS ON

Fining agents

CATECHINS, METALS AND OXIDATION SENSITIVITY IN WHITE WINES

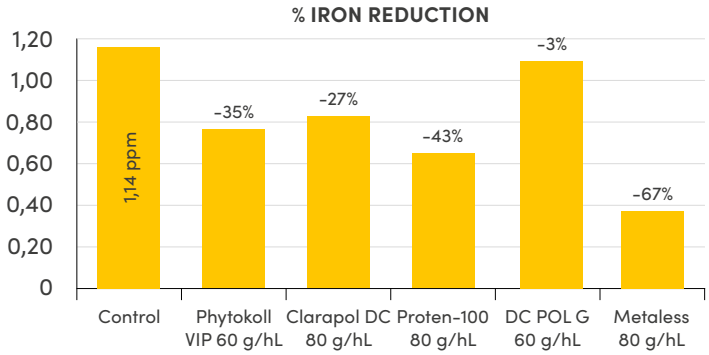
Catechins, or **flavanols**, are a group of compounds that belongs to the phenol family. Catechin oxidation causes alteration in wine colour, such as browning that can be controlled by reducing the factors that can lead to this problem, in particular:

- Catechins, oxidizing agent;
- Copper and Iron, reaction catalysts.



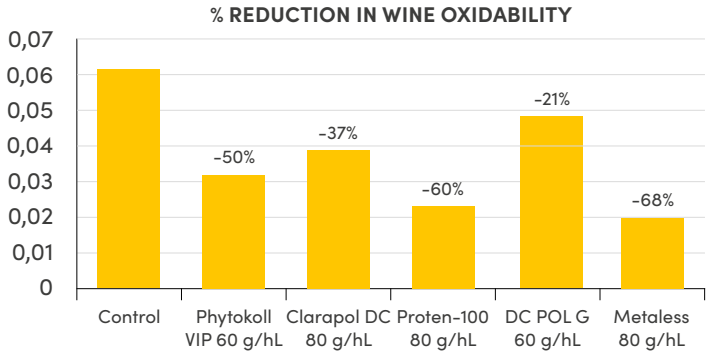
CATECHIN REDUCTION.

Clarapol DC and DC POL G (Graph 1) are the most suitable products in terms of catechin content reduction.



METAL REDUCTION.

Metaless and Proten-100 (Graph 2), as well as a good capacity to reduce catechins, they are very efficient in metals removal.



RESISTANCE TO OXIDATION.

By reducing catechins and metals (Graph 3), Metaless and Proten-100 guarantee the best results in terms of **browning resistance**. For Organic wines it is possible to treat with Phytokoll VIP, even at high dosages.

Stabilising agents

Protecting quality from harvesting until bottling

A set of proposals to obtain musts and wines free of unwanted compounds (pesticides, off-flavour phenols, H_2S etc.), being able to work by reducing the use of SO_2 and extending the shelf-life of products.

BEST SELLER

Best Seller

Fito-stop | Battkill XXL | Stabilya | Redox Longevity

Fito-Stop

Effectively removes a wide range of downy mildew fungicides, powdery mildew fungicides, botrytis fungicides, and insecticides. When used during fermentation facilitates the fermentation kinetics of *Saccharomyces cerevisiae*, avoiding increases in volatile acidity. miniTubes™ technology.

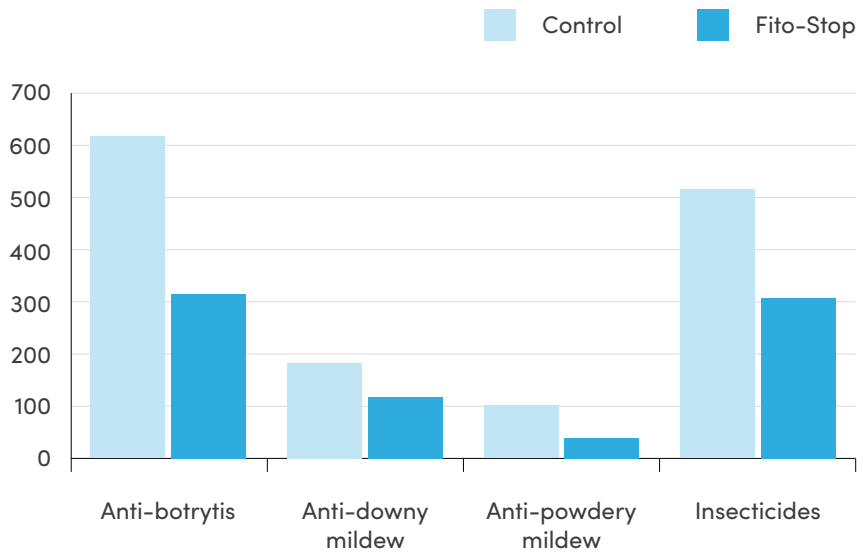
Dosage:

During fermentation: 2-5 g/hL.
Wines: 20-100 g/hL.

Packaging:

10 kg bags.

AF VEGAN FRIENDLY organic DAL CIN miniTubes



Removal of pesticides with Fito-Stop (5 g/hL) added at the beginning of alcoholic fermentation. Average results on 5 musts.

The following were added to the starting musts: 5 anti-botrytis, 2 anti-powdery mildew, 3 antidowny mildew, 5 insecticides.

Stabilya

Powder gum arabic obtained from Acacia senegal. It acts as a protective colloid for colouring matter and, more generally, for flavonols. In red wines rich in quercetin and exposed to the risk of aglycone precipitation, Stabilya provides continuous protection over time.

Dosage:

10–30 g/hL (maximum dose).

Packaging:

2 kg bags.

NEW AF VEGAN FRIENDLY organic DAL CIN

Wine test

Stabilya (30g/hL)

Colloidal and colour stability: after 2 months of storage, the untreated Sangiovese wine shows a layer of colouring matter. The same wine treated with Stabilya (30 g/hL) shows no colour deposit.

Battkill XXL

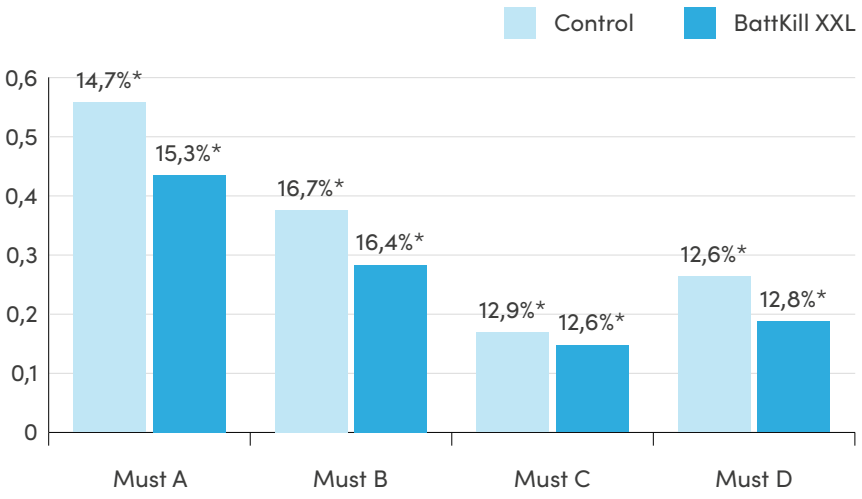
Liquid chitosan activated to inhibit the growth of lactic acid bacteria during alcoholic fermentation, in sparkling wine bases, during the second fermentation as in storage and aging phases. It forms part of an SO_2 reduction protocol.

Dosage:

160-350 g/hL.

Packaging:

5 kg and 25 kg jerrycans, 175 kg drums and 1000 kg IBC.



With the same yeast and nutrition, the use of BattKill XXL (230 ml/hL) during alcoholic fermentation resulted in wines with consistently lower volatile acidity compared to the control. The starting musts had an indigenous microflora count of around 500,000 cells/ml.

*The percentages refer to the alcohol content

Redox Longevity

Prevents aroma and colour alterations in bottled white wines. When added to the wine ready for bottling it protects against lightstruck with both a preventative and curative action.

Dosage:

5-20 g/hL. Add right before the final filtration process before bottling procedures. It's recommended to check the filterability index of the wine right after the addition.

Packaging:

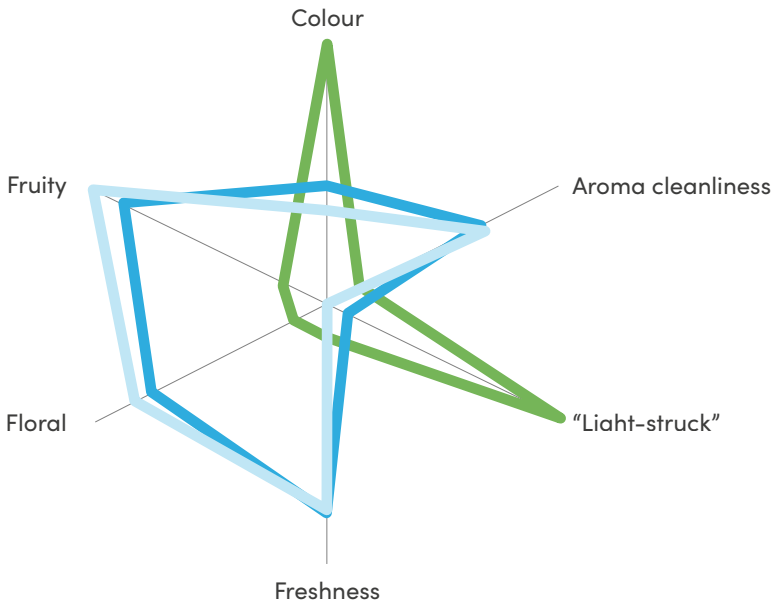
1 kg bags.

AF

Wine not exposed to light radiation

Wine exposed to light radiation

Wine + Redox Longevity (10 g/hL) exposed to light radiation



Other products of the category:

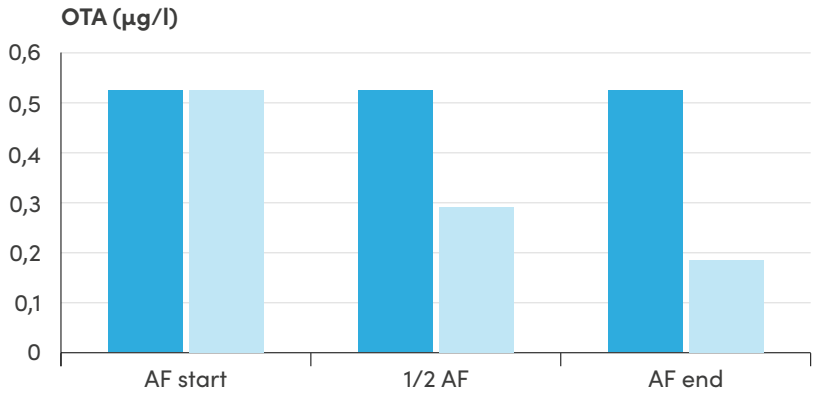
SPECIFIC TREATMENTS

Atoxil

AF

Thanks to the joint action of activated carbon and Polimersei fibres, it effectively adsorbs the mycotoxins, in particular Ochratoxin A, from musts and withe wines.

Dosage:	Packaging:
50-100 g/hL.	20 kg bags.



Reduction of Ochratoxin A (OTA) during alcoholic fermentation obtained with the addition of Atoxil (100 g/hL).

Copper DC

AF

Copper sulphate for removal of reduction odours.

Dosage:	Packaging:
10 g/hL is generally enough.	1 kg bottles, 5 kg and 25 kg jerrycans.

Mer-Capta

miniTubes AF

Copper citrate for the removal of reduction odours caused by H_2S and mercaptans.

Dosage:	Packaging:
5-20 g/hL (maximum dosage 50 g/hL).	2 kg bags.

MICROBIOLOGICAL STABILITY

Battkill

miniTubes AF

Chitosan based to inhibit lactic acid bacteria development and the malolactic fermentation in white, rosé, red and sparkling wines. Suitable for protocols with reduced SO_2 use.

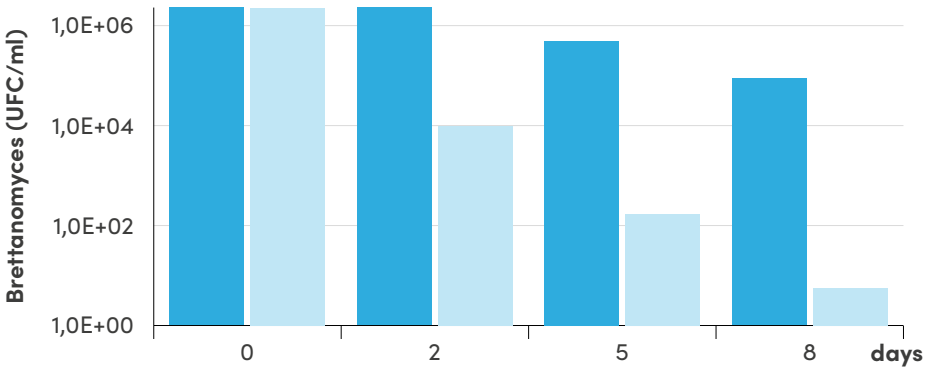
Dosage:	Packaging:
After alcoholic fermentation: 15–30 g/hL. Stabilization after MLF: 20–30 g/hL. Sparkling wine base: 10–20 g/hL.	500 g jars and 2 kg bags.

Brettkill

miniTubes AF

Chitosan based to inhibit Brettanomyces development and volatile phenol production. It can be used in all wines, in particular during red wine aging after the malolactic fermentation. Suitable for protocols with reduced SO_2 use.

Dosage:	Packaging:
5-15 g/hL. Higher dosages in case of cloudy wines.	500 g jars.



VT + BrettKill (10 g/hL)

Control

Inhibition of Brettanomyces bruxellensis development in red wine, with and without BrettKill addition.

Liquisol 15K

Aqueous solution of potassium bisulphite with a titre of 15% SO_2.

Dosage:	Packaging:
According to needs, considering that: 10 g/hL provides 15 mg/l of SO_2.	25 kg jerrycans.

Liquisol 63N

Aqueous solution of potassium bisulphite with a titre of 63% SO_2.

Dosage:	Packaging:
According to needs, considering that:10 g/hL provides 63 mg/l of SO_2 and 13,8 mg/l YAN.	25 kg jerrycans.

Fumaric H+

AF

Pure fumaric acid to inhibit the growth and development of lactic bacteria in wines.

Dosage:	Packaging:
After alcoholic fermentation to prevent MLF: 30-60 g/hL; for stabilizing after MLF: 30-50 g/hL; for sparkling wines bases: from 30 g/hL.	5 kg and 25 kg bags.

TARTRATE STABILITY

Super-40™

AF

Pure metatartaric acid, with high esterification index, perfectly soluble. Suitable for wines without colloidal or protein instability.

Dosage:	Packaging:
10 g/hL (maximum dosage).	1 kg bags.

Super-40™ Special

AF

A product particularly suitable for wines that tend to form haze at cold temperatures when metatartaric acid combines with colloids present in the wine. Super 40 Special avoids this phenomenon, while guaranteeing a stabilizing action, thanks to the high esterification index.

Dosage:	Packaging:
10 g/hL (maximum dosage).	1 kg bags.

Karmelosa L

Carboxymethylcellulose in aqueous solution for tartrate stabilization of white wines. The liquid formula facilitates the dissolution in the wine.

Dosage:	Packaging:
75-300 ml/hL (maximum dosage).	1 kg bottles, 5 kg and 25 kg jerrycans, 220 kg drums and 1000 kg big drums.

Cristall Ca

AF

Powerful nucleation agent to induce the precipitation of calcium ions in white, red, and rosé wines. Any excess of Cristall Ca is removed, avoiding troublesome precipitation sediment in the bottle.

Dosage:	Packaging:
20-50 g/hL.	5 kg and 25 kg bags.

Cristall Stop

AF

For the precipitation of excess K and Ca ions, it allows tartaric stabilization in a single step, thus preventing calcium precipitation sediment in the bottle.

Dosage:	Packaging:
40-100 g/hL.	5 kg and 15 kg bags.

Cristallgen

Very pure crystallization nuclei with homogenous granule size, perfect to encourage a rapid precipitation of potassium bitartrate crystals. Suitable for discontinuous or continuous systems.

Dosage:	Packaging:
20-40 g/hL.	1 kg and 25 kg bags.

Nuovo Cristallgen

Crystallization nuclei with combined action to reduce calcium ions as well as potassium bitartrate. Fast and safe action without risks of potential future precipitations in bottle.

Dosage:	Packaging:
20-40 g/hL.	1 kg and 25 kg bags.

GUM ARABIC

Délite

Gum Arabic with linear and minimally branched chain obtained from Acacia senegal exudations. Softens astringent and acid sensations and gives greater roundness. On the nose it reduces herbaceous notes giving way to fresh and fruity aromas. When used in sparkling and fizzy wines it reduces any bitter flavours present and improves the perlage. Improves the colour stability of red wines.

Dosage:	Packaging:
Maximum dose: 130 g/hL.	10 kg and 25 kg jerrycans, 220 kg drums and 1100 kg IBC.

Délite Green

Organic gum arabic produced using organic Acacia senegal exudations. It softens astringent and acid sensations and makes herbaceous notes less perceptible. In red wines it reduces tannin reactivity with saliva proteins. In white wines it tipically improves body and sweetness. In conclusion, it is possible to improve overall wine character by giving greater smoothness and balance in palate and by heightening fresh aromas. When used in sparkling wine it reduces potential bitter notes and improves the perlage appearance.

Dosage:	Packaging:
Maximum dose: 130 g/hL.	5 kg jerrycans.

For the instructions for use of Cristall Ca, Cristall Stop, Cristallgen and Nuovo Cristallgen, strictly follow the instructions on the respective labels and leaflets.

Gommarabica™ DC

Gum arabic obtained from Acacia seyal exudations, with a high molecular weight and compact structure for a minimal clogging effect. Reduces bitter sensations and gives volume and roundness with a good effect on the overall wine quality. Significantly supports the effect of metatartaric acid.

Dosage:	Packaging:
Maximum dose: 110 g/hL.	1 kg bottles, 10 kg and 25 kg jerrycans, 220 kg drums and 1100 kg IBC.

Liquirab 100

Gum arabic obtained from Acacia seyal exudations; it is the most filterable of the Dal Cin range, and therefore can be used even at high dosages without a negative effect on membrane filters or on wine clarity. Has a notable softening and refining effect while offering fuller structure and less bitterness. Supports the effect of metatartaric acid.

Dosage:	Packaging:
Maximum dose: 130 g/hL.	10 kg and 25 kg jerrycans, 220 kg drums and 1050 kg IBC.

Polvarabica DC

AF

Powder gum arabic, from Acacia, with instant dissolution. The branched structure and high molecular weight make it ideal for giving structure and softness while also aiding in the tartrate stability of the wine.

Dosage:	Packaging:
10–30 g/hL.	5 kg bags.

Easydry

AF

Powder gum arabic, from Acacia, with a good solubility in water and wine. Has a positive impact on tartrate stability, and at higher doses also gives a smoothing effect and reduces herbaceous notes.

Dosage:	Packaging:
10–30 g/hL.	10 kg bags.

Easyrab

Easyrab is a stabilized solution of arabic gum obtained from Acacia seyal exudations. It is used in wines to enhance mouthfeel smoothness and preserve aromas over time.

Dosage:	Packaging:
Maximum dose: 130 g/hL.	25 kg jerrycans, 220 kg drums and 1000 kg IBC.

REDOX BALANCE

Redox DC

Prevents colour alterations and reduces the oxidation-reduction potential. Can be added at any time, however it is best in filtered wines that are ready to be bottled. Indispensable for pasteurized wines in bottle or that are heated during filling.

Dosage:	Packaging:
10-40 g/hL.	1 kg bags.

Redox Arom

Added directly on grapes or must, Redox Arom creates an optimal oxidation-reduction environment, such as to allow the rapid stabilisation of the varietal aromas present and the phenolic components. This lets you avoid early oxidations or polymerisations, which compromise the subsequent proper evolution of the bouquet and colour.

Dosage:	Packaging:
10-20 g/hL.	1 kg bags.

Super Redox

Antioxidant agent characterised by an excellent reducing and stabilising power. It can be added at any time, starting from the harvest, to control microbiological alterations and to prevent oxidation (browning, casse, etc.). Gives freshness and longevity.

Dosage:	Packaging:
5-10 g/hL.	1 kg bags.

FOCUS ON

Stabilising agents

PREVENTION OR REMOVAL OF **REDUCTION FAULT** TO:

- avoid rotten egg, cooked cabbage, garlic odours
- restore wine fruitiness
- bottle confidently

PREVENTION

Avoid the formation of H_2S and mercaptans during aging:

- remove heavy lees
- avoid adding sulphites with active lees

REMOVAL

For the removal of H_2S and mercaptans:

→ **COPPER**: copper citrate to eliminate light sulphur compound defects.

→ **HARMONY CHERRY AND FLORAL:** derivative and tannin for clarification and complexity

→ **CHIPS:** alternative wood to bring structure and improve the sensory purity of wines.

→ **HARMONY FULL**: aging on lees to obtain all the benefits of yeast.

→ **INFINITY FRUITY:** removal of mercaptans and heavy sulphur compounds without interfering with the wine aroma and structure.

→ **TOP-TAN AR**: preventative and curative action against sulphur compounds. Gives the wine structure and complexity.

FOCUS ON

Stabilising agents

GUM ARABIC:

Origin, chemical characteristics and applications

Gum Arabic is a polysaccharide of high molecular weight formed by a protein skeleton from which the polysaccharide branches depart (arabinogalactans).

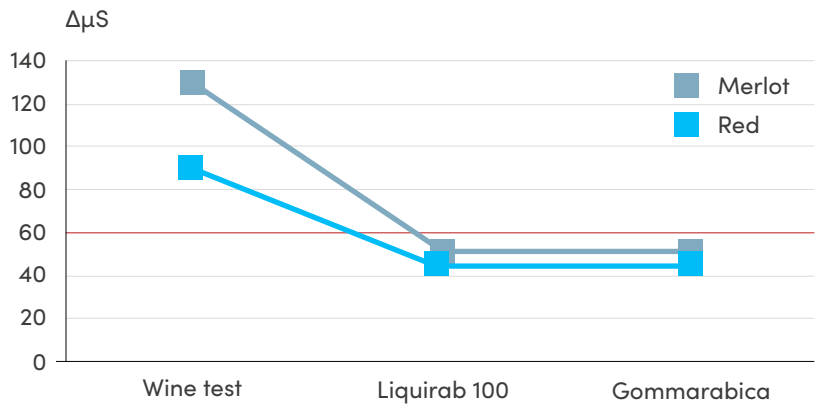
Gum Arabic is produced by several species of Acacia: **senegal** (levorotatory, Kordofan) and **seyal** (dextrorotatory). Both gums are used in oenology but the chemical differences between the two are reflected in their characteristics of use.

Both gums have in common the ability to confer **volume, body, softness**, attenuating astringent sensations. They also manage to **preserve the aromas** over time.

THE DIFFERENT BOTANICAL ORIGIN IS REFLECTED IN:

FILTERABILITY: gum Arabic can affect the filterability of wine by increasing its clogging effect, this increase depends not only on the dose used and the clogging effect already possessed by wine, but also on the origin of the gum used: Gommarabica and Liquirab 100 (seyal), with a compact structure, have little influence on the I.F. Délite (senegal), with a more "bulky" structure, can significantly decrease the filterability of wine.

TARTARIC STABILITY: Gommarabica and Liquirab 100 perform a good stabilising action against the precipitation of K bitartrate, making it possible to reduce or eliminate the use of cold temperatures. (graph 1)



Graph 1: *effect of the addition of Liquirab 100 and Gommarabica DC, both at 100 g/hL, on the tartaric stabilisation of two different red wines.*

COLLOIDAL STABILITY: Délite acts as a protective colloid against colloidal instabilities affecting polyphenols and colouring matter. Red wines with moderately unstable colour can be stabilised with the addition of this gum (graph 2).

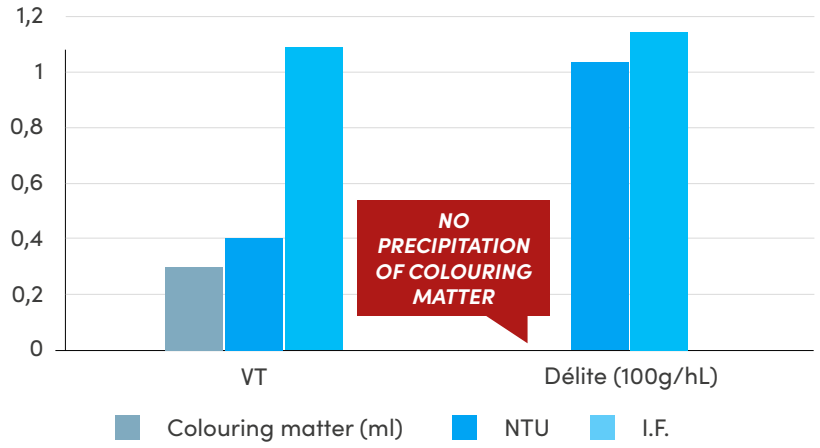


Grafico 2: *precipitated colouring matter (ml/10 ml), NTU and I.F. in red wine with slight colour instability, after storage at -4 °C for 6 days.*

FOCUS ON

Stabilising agents

RED WINES AND BRETTANOMYCES

Red wines, from the conclusion of the MLF, are exposed to the risk of contamination from Brettanomyces. This yeast, particularly subtle, resists high levels of free SO_2 has low nutritional requirements and favoured by high pH. It develops in wine producing off-flavour volatile phenols: 4-ethylphenol and 4-ethylguaiacol in addition to causing an increase in volatile acidity. The best tool to combat contamination from Brett is the strict hygiene of the cellar and in particular of the wooden containers. Below we propose a work protocol in case of overt contamination but we also provide specific prevention protocols.

SOLUTIONS AGAINST BRETT

(with perceptible volatile phenols)

CLEAR OR ALREADY CLARIFIED RED WINE - AFTER MLF

1. CLEANING AND SANITIZING OF VATS, PUMPS, PIPES

PHASE	PRODUCT	DURATION
Pre-wash	Running water.	20 minutes
Cleaning	**Sgrommatore L** at 3% in warm water, with recirculation.	30 minutes
Rinsing	Clean running water, if necessary dab with citric acid solution.	Up to neutrality of the water
Sanitisation	**VKS** at 1% in drinking water at room temperature, preferably micro-filtered. With recirculating water.	20-30 minutes
Rinsing	Running drinking water, preferably microfiltered.	10 minutes

2. ELIMINATION OF THE POLLUTING BACTERIAL LOAD

PRODUCT	DOSAGE	CONTACT
BrettKill	15 g/hL	At least 8-10 days, ensuring perfect homogenisation in the mass.

NOTE: racking removes BrettKill, exposing the wine to the risk of contamination.
It is essential to ensure the hygiene of all equipment (see p. 1).

3. REMOVAL OF VOLATILE PHENOLS

PRODUCT	DOSAGE	CONTACT
Carbo-Off + Polimersei	20 g/hL + 80 g/hL	24-48 hours in slow stirring and protected from oxygen.

NOTE: 20 g/hL Carb-Off is a standard dose. We recommend verifying the actual dose needed by laboratory tests. It is essential to guarantee the hygiene of all equipment (see point 1).

4. FINAL FINING

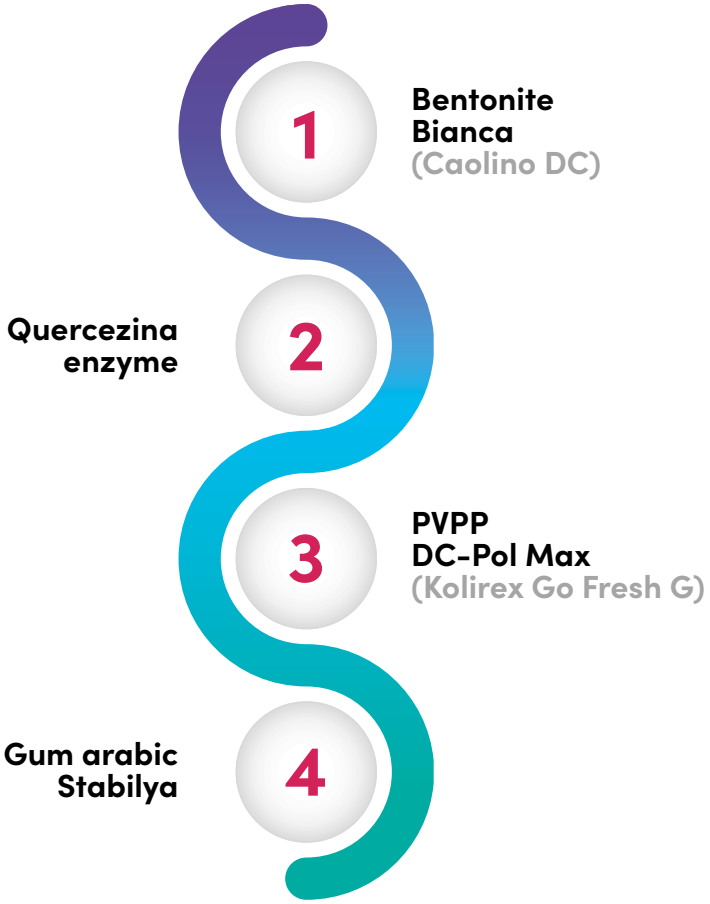
PRODUCT	DOSAGE	NOTES
Mosaico Round	20 g/hL	In addition to the clarification and tannin fining, a partial control of the microbiological population is also obtained thanks to the presence of chitosan in the formulation.

quercetina control

Dal Cin protocol
for stable wines

QUERCETIN: DAL CIN'S ANSWER IS AN **INTEGRATED APPROACH**

The **Dal Cin – Quercetin Control Protocol** comprises **four products**, each associated with a **specific function** and a **well-defined phase**.



Filtration

Present in every winery and at all stages of winemaking

From must to bottling, for each phase you can choose the best product for efficient, safe and cost-effective filtration.

PRE-COAT PRE-DISPERSED FILTERS

Fitofloc™ DC

AF

Pre-coat filter predisposed with long fibre cellulose for polishing filtration. Suitable for unstable colloid retention, they easily work up to 6-7 bar of overpressure.

Dosage:	Packaging:
0,5-2 kg/m².	5 kg bags. Use immediately after opening.

Fitomix Largo, DC and Super

AF

Pre-coat filters predisposed for coarse, polishing and fining filtration, respectively, cellulose and perlite based.

Dosage:	Packaging:
0,5-2 kg/m².	5 kg bags. Use immediately after opening.

Rhocell™ Largo, DC and Super

AF

Pre-coat filters predisposed with short chain cellulose for coarse, polishing and fining filtration, respectively. They can be used alone or together with perlite and/or diatomaceous earth.

Dosage:	Packaging:
1 kg/m².	5 kg bags. Use immediately after opening.

DRY PRE-COAT FILTERS

Alfatex™

AF

Dry pre-coat filter with short chain cellulose fibre, in association with perlites.

Dosage:	Packaging:
Alfatex Super V: 10 g/kg of Enoperlite (1/extra or 3/extra), for coarse must filtration. Alfatex 101: 500-1200 g/m² of surface, for coarse filtration. Alfatex 102: 700-1500 g/m² of surface, for polishing filtration. Alfatex 103: 800-1500 g/m² of surface, for fining filtration.	20 kg bags.

BODY FEED FILTRATION

Enorandall™

AF

Diatomaceous earth range for coarse to fine filtration before the final cartridge filters.

Dosage:	Packaging:
50-200 g/hL in body feed filtration.	20 or 25 kg bags depending on the type of diatomaceous earth.

Filtex 7

AF

Filtex 7 was designed to be used during body feed filtration as effective substitute for diatomaceous earths used for cake formation. Contrary to diatomaceous earths, Filtex 7 is not considered dangerous according to current legislation and therefore can be used without potential hazards for the user.

Dosage:	Packaging:
20–100 g/hL, depending on the sedimentation properties of the must or wine.	20 kg bags.

Enoperlite™

AF

For filtration on rotary vacuum drum filters and as an alternative to diatomaceous earth as a pre-coat filter for body feed filtration. From coarse filtration of musts to fine filtration of wines.

Dosage:	Packaging:
1000-1500 g/m^2 on rotary vacuum drum filters. 50-200 g/hL in body feed filtration.	14, 16, 18 or 25 kg bags depending on the type of perlite.

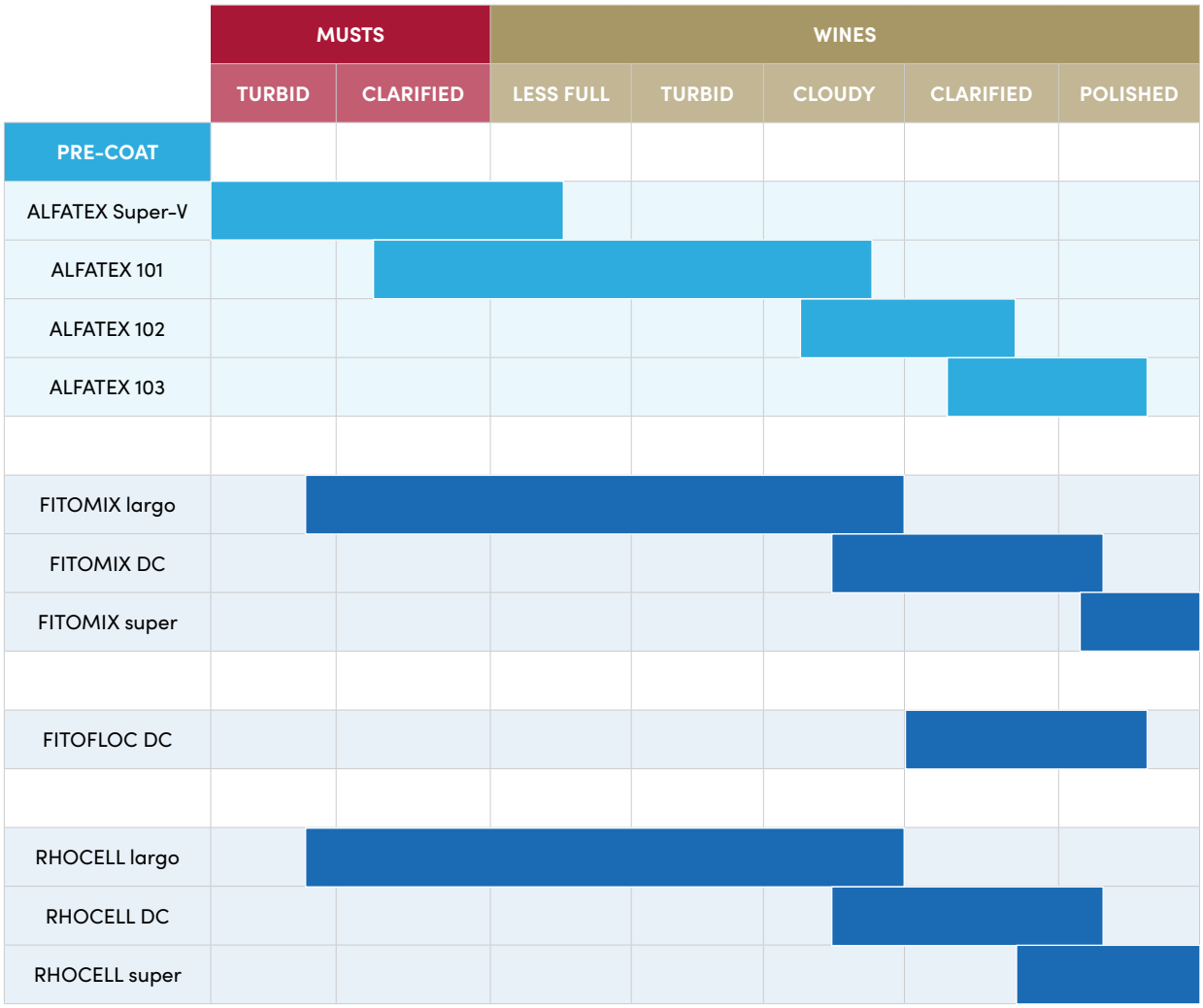
FILTRATION SHEETS

Strati ZP

AF

Product range with different porosity for treatments that range from the coarse filtration of turbid musts up to the sterile filtration of wines. ZP sheets have controlled porosity, perfect stability during filtration, no sensory effect on the treated must or wine and a high hourly flow rate.

Packaging:
Boxes containing 100 filter sheets (40x40 cm).


MUSTS
WINES
TURBID
CLARIFIED
LESS FULL
TURBID
CLOUDY
CLARIFIED
POLISHED
PRE-COAT
ALFATEX Super-V
ALFATEX 101
ALFATEX 102
ALFATEX 103
FITOMIX largo
FITOMIX DC
FITOMIX super
FITOFLOC DC
RHOCELL largo
RHOCELL DC
RHOCELL super

Dry pre-coat Pre-coat pre-dispersed Body feed Filter sheets

Agriculture

Dal Cin's agriculture product range is compatible with the most modern approaches to integrated and organic farming, in respect of the environment and the operator.

The Agrospecialties, free from synthetic additives and processing aids, guarantee residue-free formulations, applicable up to harvest and without interference in must fermentation processes.

BEST SELLER

Best Seller

Bentonite bianca

Bentonite bianca

"Rock powder" obtained from the mechanical milling of natural bentonite rich in montmorillonite. The product is micronised to a level of fineness that prevents any clogging, thus protecting pumps, filters and atomiser nozzles. Bentonite bianca acts as a coadjuvant/ adhesive for spring foliar treatments, controls moisture, preventing the proliferation of yeasts, bacteria and fungi, and limits the production of flavonols (quercetin).

Dosage:

GrapeVine: 1–2 kg/hL.
In mixture: 200–300 g/hL.

Packaging:

20 kg bags

Phosphite free *Dioxin free*

Respirable crystalline silica free

Other products of the category:

STRENGTHENERS

Biobenton

Phosphite free *Dioxin free* *Respirable crystalline silica free*

100% natural bentonite extracted from quarry using physical processes, typically rich in montmorillonite. Grape clusters treated with Biobenton dry very quickly, thus limiting the damage from berry splitting caused by unwanted agents and hail. The water-retaining capacity reduces excess moisture on the plant surface, counteracting the development of pathogenic fungi on grape clusters during the ripening phase.

Dosage:

Grapevine: 20–30 kg/Ha.
Vegetables: 2–3 kg/1,000 m^2.
In mixture: 10–15 kg/Ha.

Packaging:

25 kg bags

Zeolite DC

Phosphite free *Dioxin free* *Respirable crystalline silica free*

"Rock powder" obtained from the physico-mechanical milling of quarry-extracted zeolite, of high purity and high clinoptilolite content (≥ 90%). The product is micronised to a level of fineness that prevents any clogging, thus protecting filters and atomiser nozzles. Zeolite DC coats leaves and fruit with a thin surface layer, particularly resistant to wash-off, which acts as a physical barrier against insect spread.

Dosage:	Packaging:
Fruit, grapevine: 300–600 g/hL. Citrus, olive: 300–600 g/hL. Vegetables: 200–500 g/hL. In mixture with fertilisers and pesticides: 200–300 g/hL. In mixture alone or with micronised products: 10–25 kg/Ha.	5 kg and 15 kg bags.

Caolino DC

Phosphite free *Dioxin free* *Respirable crystalline silica free*

"Rock powder" obtained from the physico-mechanical milling of natural clays with a high kaolinite content (>90%). Caolino DC is a very fine, high-purity, non-calcined kaolin that forms a thin white film on leaves and fruit, resistant to wash-off and reflective of solar radiation. The high level of micronisation guarantees uniform distribution, with no residues in the tank or atomiser nozzles.

Dosage:	Packaging:
Olive: 2.5–5 kg/hL. Grapevine, fruit, vegetables: 2–3 kg/hL.	20 and 25 kg bags.

Tannino DC

Phosphite free *Dioxin free* *Respirable crystalline silica free*

Tannino DC is a liquid "whole chestnut extract" obtained exclusively through physical processes, which improves plant resistance to biotic and abiotic stress. Rich in polyphenols and organic acids, it provides an anti-laccase action on ripening grapes, mild acidification of soil pH with improvement of root activity, a disruptive action against nematodes, fungi, viruses and bacteria, and exerts an antioxidant activity and a regulator of cellular and phytohormonal metabolism.

Dosage:	Packaging:
Grapevine, fruit: 400–800 cc/hL. Vegetables: 2–3 L/1,000 m^2.	4 L

OENOLOGICAL SPECIALITIES

Solfobenton™

Phosphite free | *Dioxin free* | *Respirable crystalline silica free*

Solfobenton is a strongly hygroscopic mineral compound with a marked dehydrating action. On treated grapes it promotes rapid drying, limiting damage from hail wounds and berry splitting caused by mechanical harvesting. The release of sulphur dioxide enables the inactivation of oxidative enzymes and the control of the proliferation of yeasts, bacteria and fungi.

Dosage:	Packaging:
100–150 g/100 kg.	20 kg bags.

BASIC SUBSTANCES

Chitosano DC

Phosphite free | *Dioxin free* | *Allergens free*

Stabilised solution of chitosan hydrochloride, an organic polymer of plant origin derived from Aspergillus niger, a highly reactive polycationic matrix. It guarantees high foliar absorption and high biological activity. Of fungal origin, it does not contain the allergens typical of shrimp-derived chitosan. Chitosano DC triggers a series of biochemical defence reactions; the treatments stimulate plant tissues to counteract fungal colonisation.

Dosage:	Packaging:
Grapevine: 300–500 cc/hL. Fruit, vegetables – foliar treatments: 200–300 cc/hL. Fruit, vegetables – fertigation: 5–10 L/Ha. Floriculture – foliar treatments: 200–400 cc/hL. Floriculture – fertigation: 5–7 L/Ha.	5 L - 25 L.

GRAPEVINE	LEAF EXPANSION	BLOOM	FRUIT SET	PRE-BUNCH CLOSURE	VERAISON	RIPENING	POST-HARVEST
BIOBENTON							
B.BIANCA							
ZEOLITE DC							
CAOLINO DC							
TANNINO DC							
CHITOSANO DC							
SOLFOBENTON							

FOCUS EXTRA

Dealcoholised wines

REBALANCING DEALCOHOLISED WINES WITH DAL CIN

In the oenological world, dealcoholisation is a niche but rapidly expanding sector, with significant growth forecasts and excellent prospects for penetration among younger generations (Millennials and Gen Z — Source: IWSR), and among those who currently do not consume alcohol.

While awaiting greater specialisation in production, the current transitional phase sees an urgent need to provide effective and immediately applicable strategies to address the organoleptic consequences that the absence of alcohol brings to the final product, in terms of greater instability (redox and microbiological), reduced body and structure, increased bitter and acid sensations, as well as a significant alteration of the original aromatic profile (lower intensity and the appearance of honeyed notes).

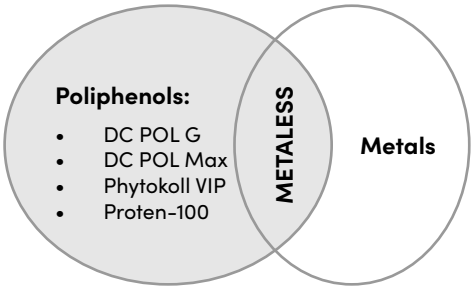
Avoiding these issues requires targeted work, both in the pre-dealcoholisation phases and in the subsequent finishing stages.

PRE-DEALCOHOLISATION TREATMENTS

OBJECTIVE: REDOX STABILITY

1. Reduction of oxidisable polyphenols and metals

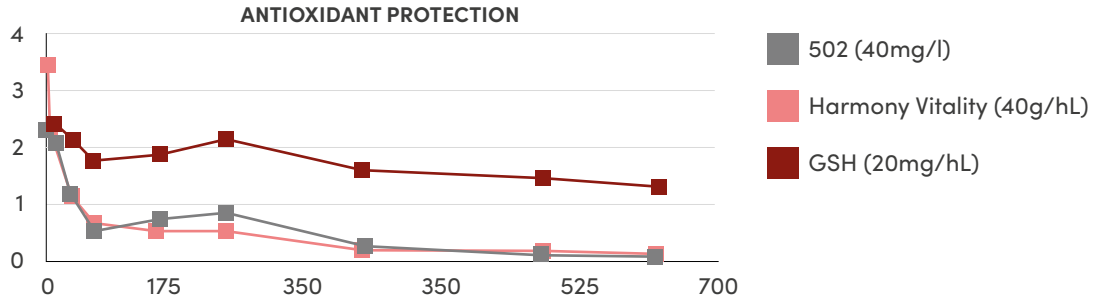
- DC POL G (PVPP) - miniTubes™
- DC POL MAX (PVPP with maximum activity) - miniTubes™
- Phytokoll VIP (pure pea protein)
- Proten-100 (pure potassium caseinate)
- Metaless (PVI/PVP + PVPP) - miniTubes™



2. Antioxidant protection

Harmony Vitality (yeast derivative rich in reducing peptides)

- Antioxidant capacity;
- Rapid O_2 consumption;
- Chromatic and aromatic longevity;
- Freshness and volume.



OBJECTIVE: REDUCTION OF ORGANOLEPTIC IMBALANCES

1. Ageing: the Harmony range contains a series of products designed to ensure targeted ageing aimed at greater roundness on the palate and an enhanced, well-defined aromatic profile, strengthening the base wine ahead of the subsequent alcohol removal treatment.

2. Fining: fining can contribute to wine stabilisation by creating favourable conditions for dealcoholisation without spoiling the product, while maintaining the prerequisites for a more balanced final result. The synergy between activated bentonite, specific yeast derivatives and chitin derivatives makes **Mosaico Protect** and **Mosaico Round** (miniTubes™) effective tools for this purpose, making it possible to achieve wine stability from multiple perspectives (protein, chromatic and microbiological) while avoiding the negative impact of standard fining on the organoleptic profile.

AGEING			
Harmony Full			
Harmony Floral			
Harmony Cherry			
Harmony Intense			
Harmony Pastry			
Harmony Moka			

FINING			
Mosaico Protect			
Mosaico Round			

Tab. 1-2: Ageing and fining treatments for dealcoholised base wines.

OBJECTIVE: MICROBIOLOGICAL STABILITY

Fungal-origin chitosan is an effective and modern tool for fining and microbiological protection of musts and wines, and aligns with the growing market attention towards the healthiness of food products; vegan, allergen-free and suitable for use in organic winemaking (according to EU rules), it makes it possible to reduce the use of sulphites.

R&D has developed two innovative products in liquid form, where the chitosan in solution is fully activated, combining ease of use with maximum speed and efficacy, superior to powder formulations.

KitoClear: specific for fining, highly reactive towards suspended solids and microbial cells, capable of forming voluminous flocs that facilitate clarification and ensure good microbiological control. Highly reactive with oxidised colour components, it improves the hue of white and rosé wines.

BattKill XXL: specific for microbiological control. Low molecular weight and maximum degree of deacetylation make the chitosan extremely reactive with microbial cells and reduce its sensitivity to turbidity, making it effective in every situation. Active against indigenous yeasts, lactic and acetic bacteria and Brett.

FOCUS EXTRA

Dealcoholised wines

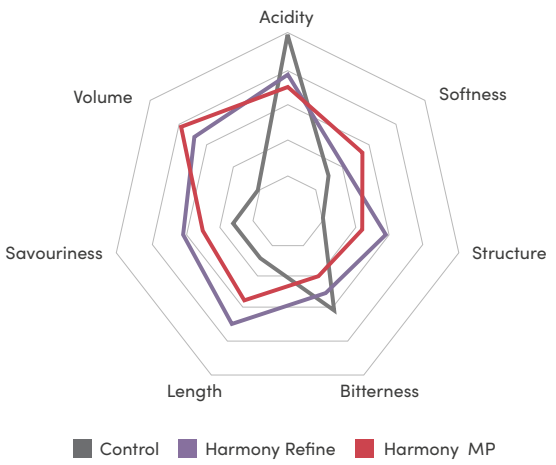
POST-DEALCOHOLISATION TREATMENTS

The absence of alcohol and the consequent marked perishability of the product make the post-dealcoholisation phase critical, imposing very tight timeframes for bottling. At this stage it is therefore essential to use exclusively finishing products such as **tannins**, **mannoproteins** and **gum arabic**, in addition to stabilising treatments (e.g. CMC and metatartaric acid), with the objective of consolidating the work done on the base wines and filling any remaining organoleptic and stability gaps, without affecting the clarity and filterability of the product.

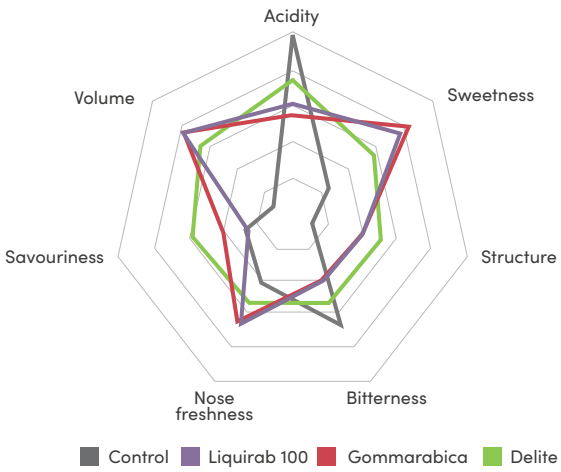
Various trials carried out on different dealcoholised wines (white, rosé and red), followed by tasting, have made it possible to identify, within the Dal Cin extensive range, a series of products that can effectively assist winemakers in refining the final product in the most balanced and harmonious way.

TANNINS		
	NOSE	PALATE
Infinity YELLOW	Citrus complexity	Freshness (if needed)
Infinity VERT	Cleanliness and freshness	Structure without astringency
TOP-TAN AR	Openness, masking of honeyed notes and fruity intensity	Savouriness, minerality, length and light structure
Infinity ROBLE	Openness, elegance, sweetness	Sweetness, balance, freshness and light structure
Infinity CLASS	Vanilla, sweetness, fruity	Great body, structure without dryness
Infinity CREAMY	Vanilla, pastry, spicy	Body and marked increase in structure

MANNOPROTEINS		
	NOSE	PALATE
Harmony REFINE	Reduction of vegetal notes	Volume, softness, reduction of acid and bitter sensations
Harmony MP	Freshness and minerality	Savouriness, structure and persistence



GUM ARABIC		
	NOSE	PALATE
Gommarabica DC and Liquirab 100	Cleanliness and freshness	Volume, sweetness, reduction of acid and bitter sensations
Délite	Cleanliness	Savouriness, light structure and persistence



FOCUS EXTRA

Rosé wines

COLOUR FOCUS

The rosé wine's calling card is undoubtedly its colour, a range of nuances ranging from onion peel to cherry. The trend in recent years has been to have soft colours while preserving the red-purple note on the yellow one. To guarantee the longevity of the nuance sought, Dal Cin offers targeted solutions, starting with the fining of the musts to reach pre-bottling.

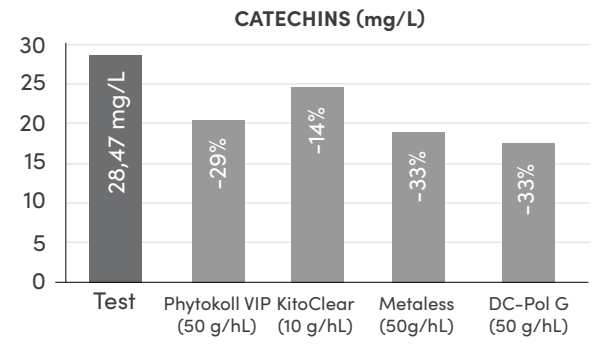
MUST AND WINE FINING

Phitokoll VIP: plant protein based for the fining of musts, even in flotation, and wines. It removes catechins and oxidized polyphenols. (see graph 1)

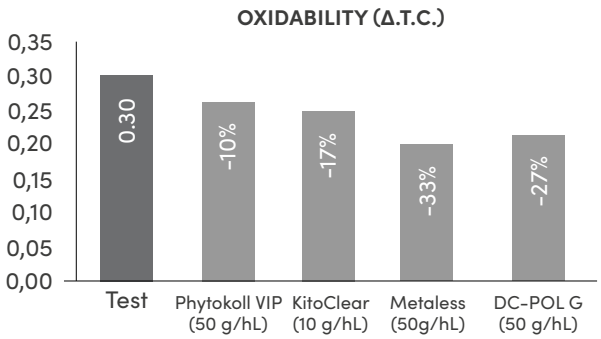
KitoClear: pre-activated chitosan to cleanse, remove oxidised fractions, float even difficult musts.

DC-POL G: PVPP miniTubes™ to ensure the best hue (red/yellow ratio); ideal for use in fermentation.

Metaless: PVI/PVP miniTubes™ for the removal of Fe and Cu, catalysts of oxidation affecting colour and aromas. (see graph 2)



Graph. 1 - *Variations in the content of catechins (DAC method) after clarifications on Pinot noir rosé juice.*



Graph. 2 - *Oxidability of musts (T.C. at 40°C x 96 h) after clarifications on Pinot noir rosé juice.*

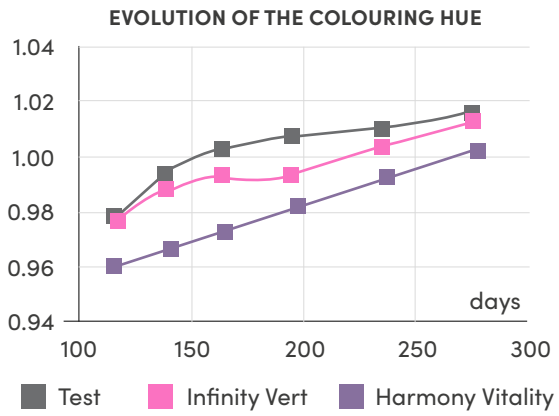
n.b.: *Metaless removed 65% of the iron present.*

STORAGE, AGEING AND PRE-BOTTLING

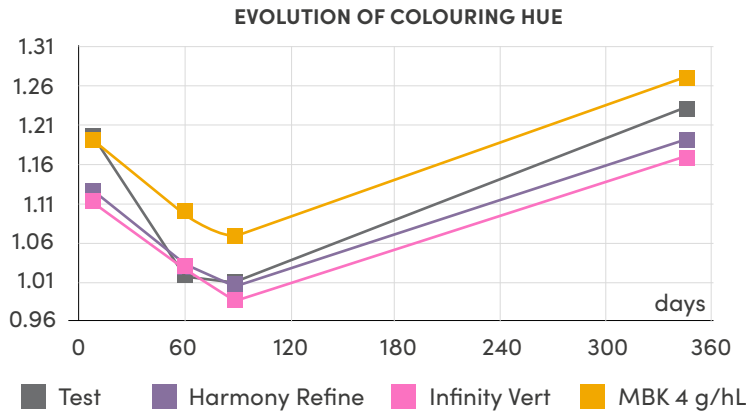
Harmony Vitality: derived from yeast rich in glutathione and reducing peptides. Preserves colour and aromas from oxidation during storage and ageing, allowing the use of SO_2 to be reduced. (see graph 3)

Harmony Refine: mannoproteins for organoleptic fining with secondary stabilising effect on colouring matter (see graph 4)

Infinity Vert: tannin extracted from green tea with antioxidant action; allows the use of SO_2 to be reduced when bottling. (see graph 4)



Graph. 3 - *Harmony Vitality (20 g/hL), used in the Elevagé of Pinot noir rosé wine, made it possible to obtain a better colouring tone after one year of ageing.*



Graph. 4 - *Infinity Vert (2 g/hL), Harmony Refine (25 g/hL) used in pre-bottling of Pinot noir rosé wine, allowed to obtain a better colouring tone after one year of ageing.*

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organic certified product
(Reg. UE 203/2012)

AF

allergen free
(Anexo II, Reg. UE 1169/2011)

no animal origin product

in compliance with EU Reg. 203/2012

1 hL = 100 liters

DAL CIN

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