NEW

CATALOGUE

Yeasts & Malolactic Bacteria
Nutrients
Enzymes
Fermentation enhancers
Tannins
Yeast Derivatives
Sparkling
Fining agents
Stabilising agents
Filtration
Winery hygiene

2021 2022

DAL CIN

WINE GIVES COURAGE AND MAKES MEN MORE APT FOR PASSION
(Ovidio)

1949...
... His own passion for the science led Gildo Dal Cin to found his lab in Milan.

His own passion for the wine guided him to visit wineries and talk with enologists.

Today we continue his masterwork, listening and answering to a world which never stops: the enology.

organic certified product (EU Reg. 203/2012)

AF allergen free (Annex II, EU Reg. 1169/2011)

VEGAN FRIENDLY no animal origin product

in compliance with EU Reg. 203/2012

1 hl = 100 liters

INDEX

MUST FLOTATION

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.

PHYTOKOLL K. Pre-activated chitosan and plant proteins for the fining of musts and white and rosé wines. In flotation fining the ascent speed rate of the cap is appreciable.

PHYTOKOLL APP-L. Plant-based liquid fining agent. It is practical and effective for flotation of musts especially to obtain a compact cap.

PHYTOKOLL VIP-L. Pea protein-based liquid fining agent. In static settling or in flotation, it eliminates potentially oxidisable unstable fractions from the musts.

THE THIOLIC EXPRESSION

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

WYNTUBE REVELATHIOL. A pure organic nutrient characterised by the excellent supply of glutathione. In the fermentation of musts with varietal thiol potential, the presence of only organic nitrogen favours the entry of aromatic precursors into the yeast cell and their transformation into their aromatic form. miniTubes™ technology.

ULTRASI PASSION. 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.

REDUCING SO_2 USE

ANTIOXIDANT PROTECTION

INFINITY BLU. Antioxidant protection for white, rosé and red musts. It can be used right from the unloading of the grapes into the hopper and then from the crushing onwards, to prevent oxidative and oxidasic reactions of anthocyanins, catechins, polyphenols and aromatic substances.

INFINITY VERT. Condensed tannin obtained from green tea, suitable for use in musts and white, rosé and red wines. It helps protecting the aromas and colour from oxidation reactions and reduces molecules responsible for reductive notes.

INFINITY REDOX. It is used at the end of alcoholic fermentation to protect white and rosé wines from oxidative phenomena, both during tank storage and racking.

INFINITY DÉCUVAGE. Used at racking off it allows an initial anthocyanin polymerization to improve colour stability. Thanks to the good antioxidant capacity, when used during racking it protects colour and aromas from oxidative phenomena.

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.

MICROBIOLOGICAL PROTECTION

BATTKILL XXL. Liquid activated chitosan to prevent the development of lactic bacteria in musts, wines, sparkling wine bases and during the second fermentation. It forms part of an SO_2 reduction protocol.

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

BRETTKILL. Based on chitosan. Protects wines from *Brettanomyces sp*. after the MLF and throughout the aging, reducing or eliminating the need for SO_2. Suitable also against lactic acid bacteria.

WINE LONGEVITY

FITO-STOP, FOR REMOVING PESTICIDE RESIDUES. Removes a wide range of powdery mildew fungicides, downy mildew fungicides, botrytis fungicides, and insecticides. When used during alcoholic fermentation, it facilitates the fermentation kinetics of *S. cerevisiae*, avoiding increases in volatile acidity. miniTubes™ technology.

DROP&GO, FOR REMOVING METALS. 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.

KOLIREX GO FRESH, FOR REMOVING RIBOFLAVIN. Specific fining agent for removing riboflavin content, considerably reducing the possibility of the "light struck" taste. Also effective when you need to correct polyphenolic content and achieve colour stabilisation over time. miniTubes™ technology.

METALESS, FOR REMOVING METALS. For use in white and rosé wines for metals and phenolic compounds removal (ex. catechins and cinnamic derivatives). Prevents browning, pinking and protects aromas from oxidative phenomena. miniTubes™ technology.

RED WINES: ÉLEVAGE AND FINISHING TOUCHES

ÉLEVAGE

HARMONY FULL. The "sur lies" ageing to be carried out in steel, concrete or wood. It allows the evolution of wines that are still sharp by correcting tannic roughness. It gives roundness and fullness to the palate and contributes to the improvement of aromas with complex and persistent notes.

TOP TAN CR. Based on grape seed tannin to stabilise the colour, increase the structure and improve the evolution of the wine. In the medium term it contributes to the polymerisation reactions responsible for the softness and structure of the aged wine.

HARMONY CHERRY. 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.

FINISHING TOUCHES

DÉLITE. Gum arabic with a linear and slightly ramified chain obtained from *Acacia senegal*. It attenuates the vegetal notes, astringent and acidic sensations and gives greater softness. It has a positive effect on colour stability.

INFINITY FRUITY RED. Revitalise before bottling, eliminate slight defects and unpleasant scents, reveal the aromas of the wine, achieve balance in the mouth.

HARMONY REFINE. Mannoproteins for the final touches of wines. At low dosages it preserves wine aroma and attenuates the vegetal notes. In the mouth, it gives fullness, persistence and "sweetness". It is extremely effective in reducing or eliminating acid and dryness sensations.

ROAD TO...
whites & rosé

BEFORE WINEMAKING

VKS

PREPARE THE MUST

DROP&GO

LONGEVITY OF COLOUR AND AROMAS

FERVENS FRAGRANCE

ENHANCE THIOLS

WYNTUBE REVELATHIOL

PLEASANTNESS EXPLOSION

ACETALDEHYDE:
MANAGING OF FERMENTATION TO REDUCE ITS ACCUMULATION

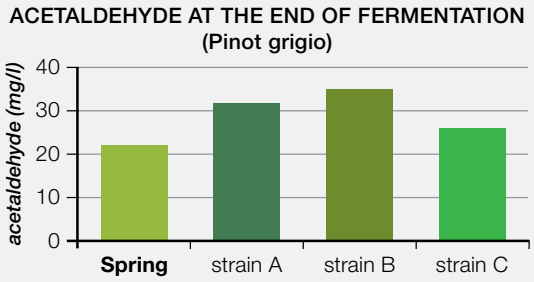
Acetaldehyde in wine can originate biologically (it is involved in countless metabolic processes, including alcoholic fermentation) or chemically (by oxidation of ethanol in the presence of oxygen). In AF it accumulates in the must during the yeast multiplication phase (early stages of fermentation)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

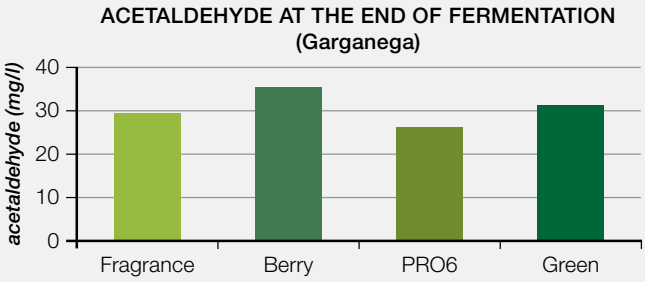
THE FACTORS TO FOCUS ON TO ACHIEVE THIS ARE:

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.

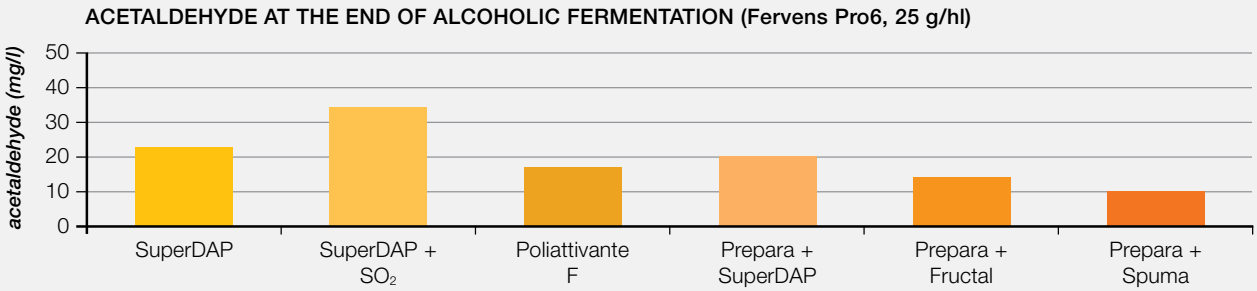




CHOOSING SUITABLE NUTRITION

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).



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.

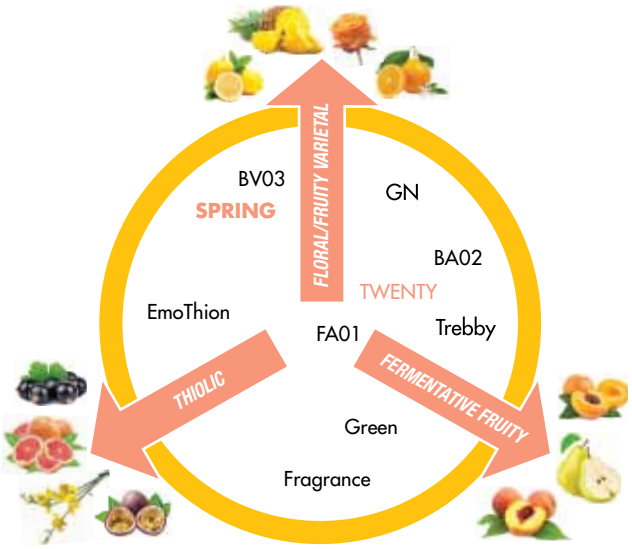
Recommendations: Alert, BattKill XXL, Battkill.

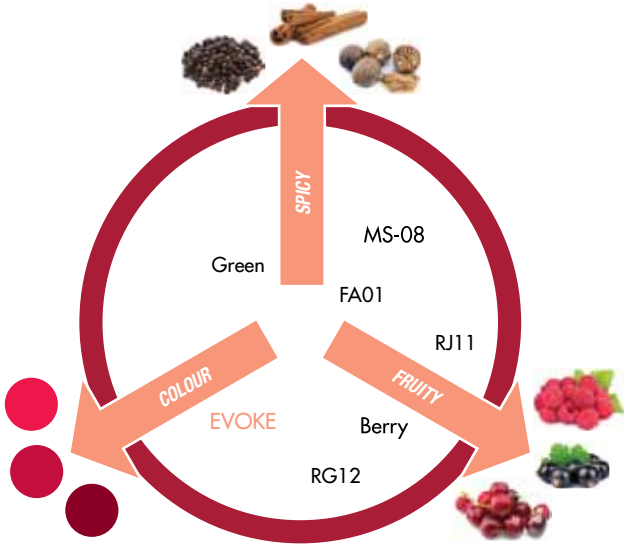
1

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.



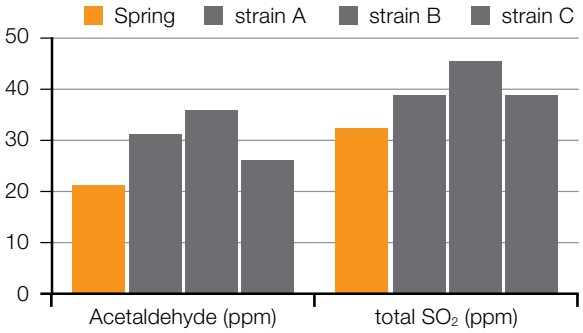


WHITE WINES

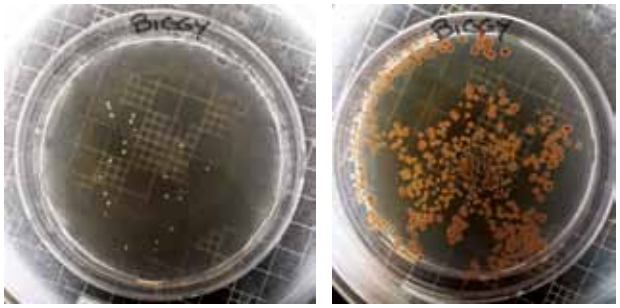
Spring

AF

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.



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

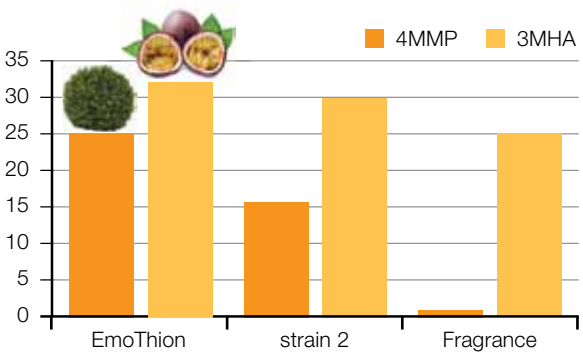


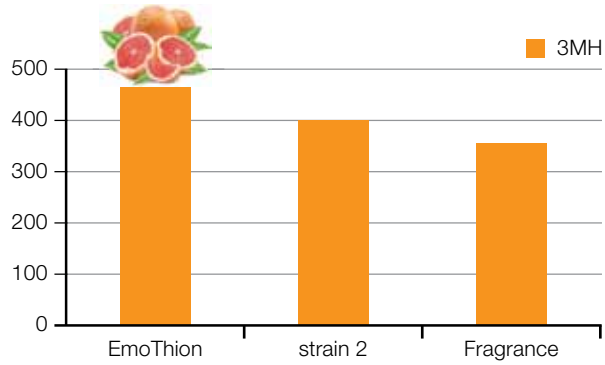
White (Spring) and dark (strain 1) yeast colony on Biggy Agar: Spring doesn't produce H_2S.

EmoThion

AF

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.



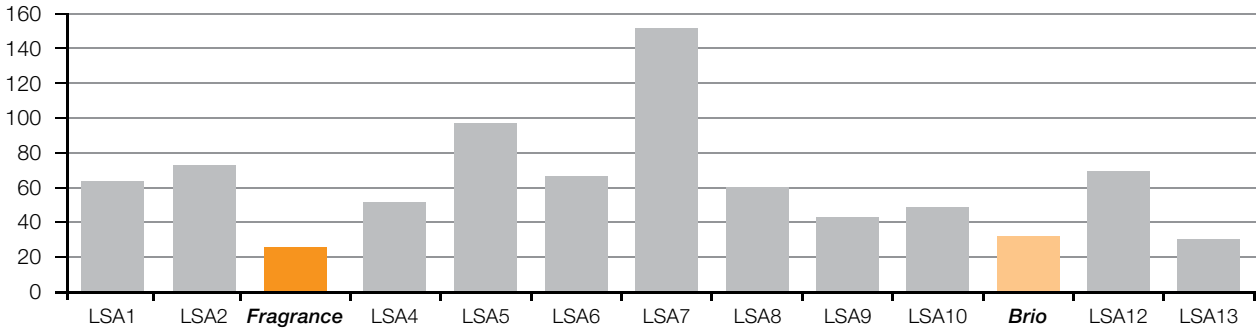


Aromatic production (ng/l) in Sauvignon Blanc must (South Tyrol). Fermentation temperature: 17 °C.

Fragrance

AF

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.



Riboflavin production (in ppb), during alcoholic fermentation, by different yeasts.
Fervens Fragrance stands out for its low production.

Trebby

AF

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

AF

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

AF

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

AF

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

S. 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

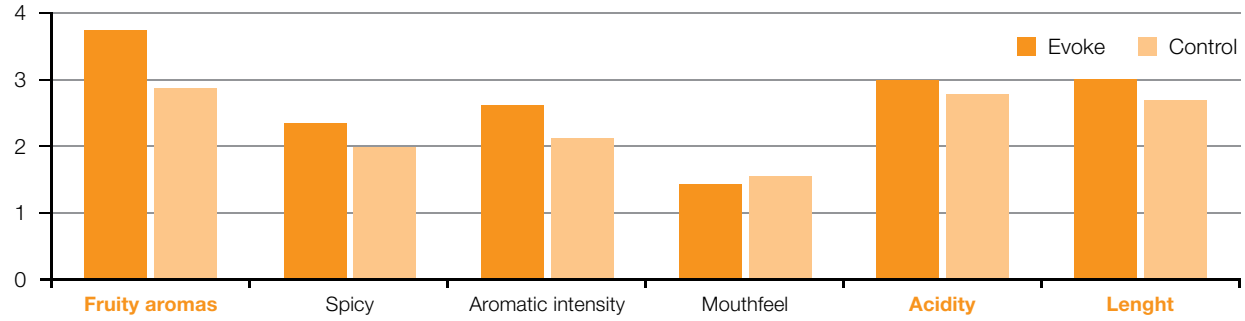
AF

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.

Evoke

AF

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 Shiraz wine (south of France) fermented with Fervens Evoke.

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 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.

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.

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.

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.

TD3 *(non Saccharomyces)*

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*.

FOCUS ON

THIOL ENHANCEMENT

GRAPE RECEIVAL

- **REDOX AROM** (15 g/100kg)
- **TANNEX** (5 g/hl)

SKIN MACERATION

- **ULTRASI 4SKIN** (2 g/q)

Fining:
as per winery procedure

ALCOHOLIC FERMENTATION

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

- **FERVENS EMOTHION** (25 g/hl) + **wynTube PREPARA** (15 g/hl)

AT INOCULATION
- **wynTube REVELATHIOL** (40 g/hl)

AT INOCULATION
- **ULTRASI PASSION** (5 g/hl)

1/3 OF THE AF
- **VITALYEAST** (20 g/hl)

- **KOLIREX CP** (30 g/hl) — FINING and COLOUR STABILISATION
- **LISEM GLU** (15 g/hl) — ANTIOXIDANT PROTECTION

STOP AND RACKING

AVOID MLF
- **BATTKILL XXL** (160-350 g/hl)

PROTECT AGAINST OXIDATION
- **H. VITALITY** (10-20 g/hl)
- **INFINITY REDOX** (1-2 g/hl)

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

	Fermentation T°	Interaction with MLF	Sensitivity to copper	Production of				
				Glycerol	H_2S	SO_2	Volatile acidity	Acetaldehyde
	>14°C		medium	medium	low	medium	low	medium/low
	>14°C		medium	medium	low	low	low	medium/low
	>12°C	-	low	medium	low	low	low	low
	>13°C			medium	very low	very low	low	very low
	>14°C		medium/low	medium	low	low	low	low
	>14°C	-	low	medium	low	medium	low	medium/low
	>14°C		medium/low	medium	low	low	low	medium/low
	>14°C	+	medium	medium	low	low	low	medium/low
	>15-30°C	+		high	low	low	low	medium
	>14°C	+	medium	high	low	low	low	medium
	>15°C	+	low	medium	very low	low	low	medium/low
	>12°C	-		medium/low	low	medium	low	medium/low
	>15°C	+		medium	low	low	low	medium/low
	>15°C	-		medium	low	low	low	medium/low
	15-35°C	+		high	low	low	low	medium/low

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.

ENODOC ML-Fast

AF

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.

MALOLACTIC FERMENTATION CONTROL

BattKill XXL

AF

Liquid activated chitosan to prevent the development of lactic bacteria in musts, wines, sparkling wine bases and during the second fermentation. It forms part of an SO_2 reduction protocol

Dosage	**Packaging**
160-350 gl/hl.	5 kg and 25 kg jerrycans.

Lisozina DC

The organic way to control lactic acid bacteria, to tackle the problems of stuck fermentation and to contain increases in volatile acidity. It lets you reduce or delay the use of $S0_2$.

Dosage	**Packaging**
max. 50 g/hl.	500 g jars.

LATTIvante

AF

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:

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.

YEAST NUTRITION

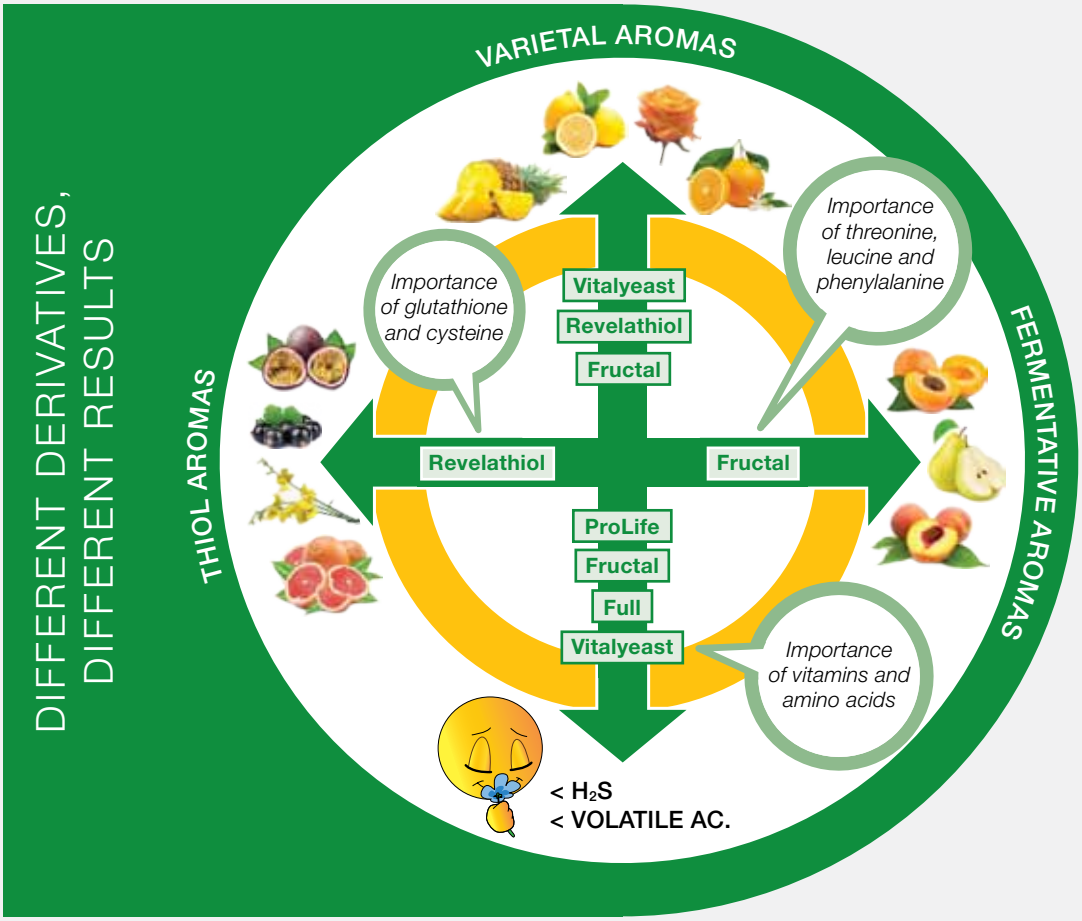
CHOOSE THE RIGHT NUTRITION, REMEMBERING THAT:

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).



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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-flavours and hello to aromas, freshness, complexity, softness...

REHYDRATION

wynTube Prepara

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
10-30 g/hl.

Packaging
2 kg and 10 kg bags.

COMPLETE NUTRITION

wynTube Full

It is used in every phase of fermentation starting from inoculation. It provides complex 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
20-60 g/hl.

Packaging
2 kg and 10 kg bags.

Bio S-Free

It is used in every phase of fermentation starting from inoculation. It provides complex nitrogen and DAP, B vitamins, including biotin which promotes the formation of esters and pantothenic acid which prevents the formation of hydrogen sulphide.

Dosage
20-60 g/hl.

Packaging
25 kg bags.

Bioattivante

It is used in every phase of fermentation starting from inoculation. It provides complex nitrogen and ammonia, B vitamins, including biotin which promotes the formation of esters and pantothenic acid which prevents the formation of hydrogen sulphide.

Dosage
20-60 g/hl.

Packaging
1 kg and 25 kg bags.

MICROFLORA CONTROL

wynTube Alert

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 *S. cerevisiae*.

Dosage
20-50 g/hl.

Packaging
2 kg and 10 kg bags.

AROMAS

Vitalyeast

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
10-30 g/hl.

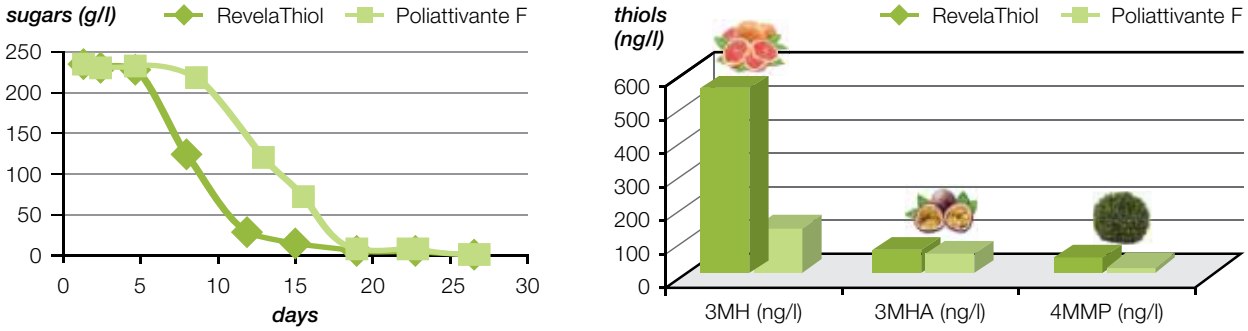
Packaging
500 g and 10 kg bags.

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
20-60 g/hl.

Packaging
2 kg and 10 kg bags.



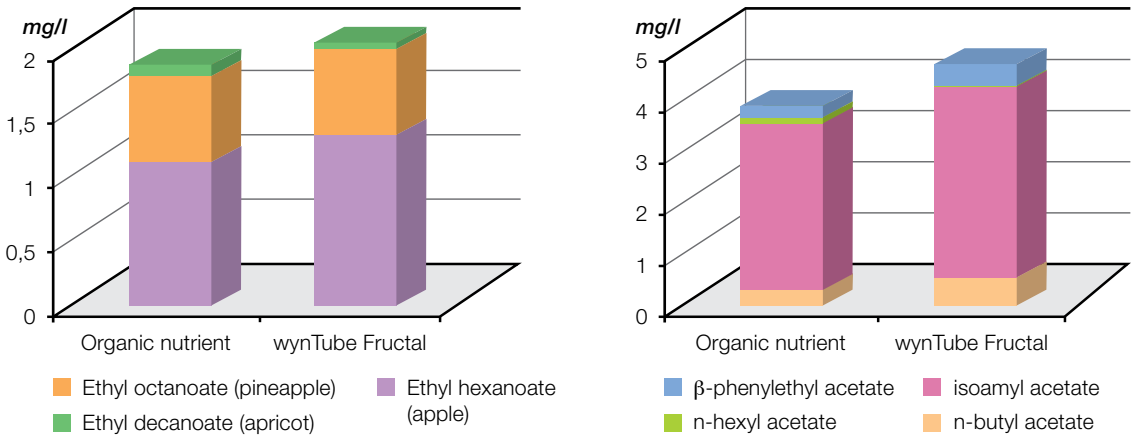
Influence of nutrition on fermentation kinetics and on the release of thiol aromas, with the same YAN addition (12 mg/l). Sauvignon Blanc must, Trentino Alto Adige, with initial YAN of 182 mg/l.

wynTube Fructal

100% organic nutrient. The supply of amino acids 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.

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
In fermentation: 30-80 g/hl in white and 50-100 g/hl in red wines. Stuck fermentation treatment: 80-100 g/hl keeping the volume stirred moderately for 18-24 hours.

Packaging
5 kg bags.

wynTube Prolife

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 the refermentation, it detoxifies the wine before the new inoculation.

Dosage
15-25 g/hl.

Packaging
2 kg and 10 kg bags.

ORGANIC WINEMAKING

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
In rehydration:10-20 g/hl. In fermentation:15-25 g/hl.

Packaging
500 g bags.

Nutrigreen

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
20-60 g/hl.

Packaging
1 kg bags.

INORGANIC NITROGEN

Poliattivante F

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
20-60 g/hl.

Packaging
1 kg and 25 kg bags.

SuperDAP - Superattivante

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
Up to 60 g/hl.

Packaging
1 kg and 25 kg bags.

MALOLACTIC FERMENTATION

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
20-40 g/hl.

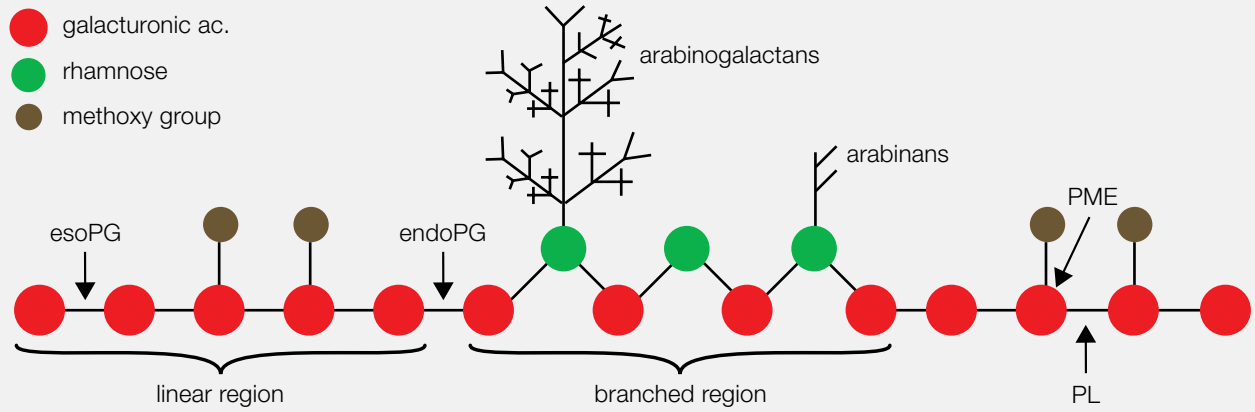
Packaging
500 g bags.

	OENOLOGICAL CONDITIONS	PRODUCT	ADVANTAGES
REHYDRAT.	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.	**SUPER DAP 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)	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 FERMENTATION	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**	Provides complex nutrition. wynTube Full and Bio S-Free are sulphate-free.
	Refermentation.	**wynTube SPUMA** (Assimilable nitrogen = 11 mg/l)	Ensures good kinetics, aromatic development and longevity of colour and aromas.

Assimilable nitrogen: *mg/l supplied by 10 g/hl of nutrient.*

ENZYMATIC ACTIVITIES

STRUCTURE OF PECTIN



Polygalacturonases (PG). In pectins they split the bond between two unmethylated galacturonic acid units. The esoPGs act on the terminal units of the chain; the endoPGs act within the chain causing a rapid decrease in the viscosity of the medium.

Pectin lyases (PL). They act between two units of methylated galacturonic acid and allow the rapid decrease of the viscosity of the medium.

Pectin methylesterases (PME). They hydrolyse the methoxy groups making available a new substrate for the action of polygalacturonases.

Cellulases and Hemicellulases. They are present as collateral activities in Pectolytic preparations, of which they increase the effectiveness especially during maceration on reds and cold soaking on whites. By acting on the cellular structure of the grapes, they favour the release of aromas and colouring matter.

β-glucanases. They act on the polysaccharide chain of the β-glucans splitting the bonds between the glucose molecules. Their action requires temperatures > 15 °C and generally longer times than pectolytic enzymes (from a few days to a few weeks).

β-glycosidases. They are present as collateral activities in Pectolytic preparations. They help the release of terpenes and norisoprenoids present in a glycosylated and therefore odourless form.

β-liases. Secondary activities of pectolytic preparations. They cut the bond between cysteine or glutathione and varietal thiol molecules, allowing them to pass to the odorous form.

Cinnamyl esterases and Anthocyanases. Cinnamyl-esterases release the cinnamic acids precursors of the off-flavour volatile phenols; the anthocyanases act on the anthocyanins freeing them from the carbohydrate portion and consequently making them highly unstable. In Dal Cin enzymes, thanks to specific production methods, both of these harmful activities are absent.

OPERATING CONDITIONS

Temperature. Our enzymes are active between 10 and 45 °C approx. Therefore normal operating temperatures in the winery (15-25 °C) are suitable for their action. When operating conditions require low temperatures (e.g. skin maceration), the effectiveness of the enzyme can be maintained by increasing the dosage or the period of contact with the substrate.

pH. Enzymes produced for winemaking, unlike those developed for other food sectors, are active at the pH of the must and wine, with an optimum of around 4. Between pH 3.0 and pH 4.0 they express about 80% of their activity.

SO_2. Sulphur dioxide concentrations up to 70-100 mg/l do not affect the enzymatic activity.

3

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.

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
1-4 g/hl.

Packaging
100 g jars and 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
1-4 g/hl.

Packaging
5 kg jerrycans.

ULTRasi Select

Specific enzyme for difficult conditions: unripe grapes, low pH, varieties such as Moscato, 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
0,5-2 g/hl.

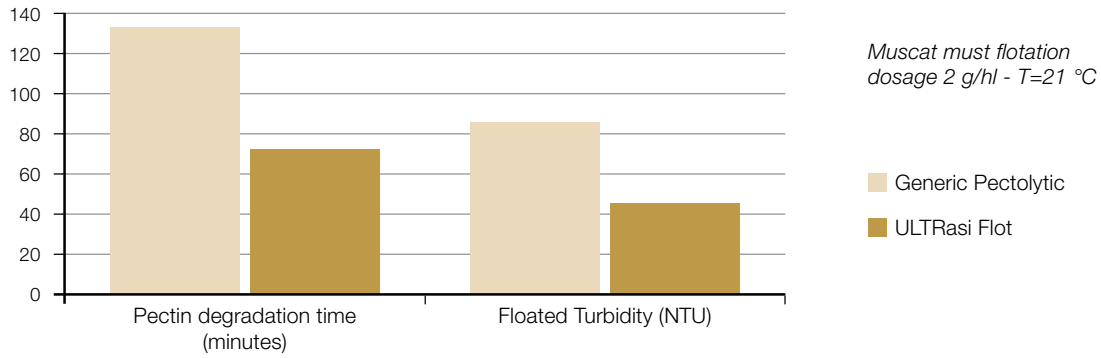
Packaging
50 g jars and 500 g bags.

ULTRasi Flot

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
1-4 g/hl.

Packaging
1 kg bottles and 25 kg jerrycans.



ULTRasi 4Skin

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
1-4 g/q. Dissolve in water or must (1:10) and add to the mass.

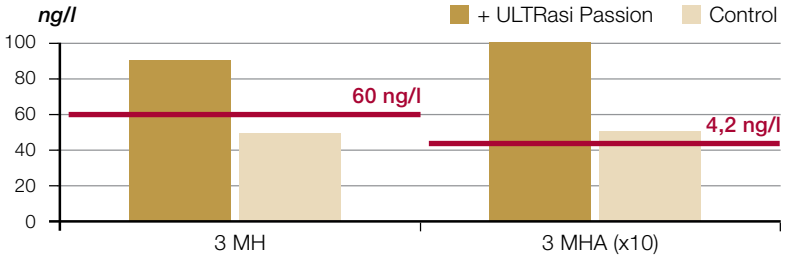
Packaging
1 kg bottles and 25 kg jerrycans.

ULTRasi Passion

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
4-6 g/hl. Dissolve in must or wine (1:10) and add to the mass.

Packaging
250 g and 1 kg bottles.



Aroma production (ng/l) in Trebbiano 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

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
1-4 g/q. Dissolve in water or must (1:10) and add to the mass.

Packaging
1 kg bottles.

ULTRasi Darkberry

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
2-4 g/q. Dissolve in water or must (1:10) and add to the mass.

Packaging
100 g jars and 500 g bags.

	ULTRasi					
	G and L	Flot	Select	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	**	**	****	***	***	***

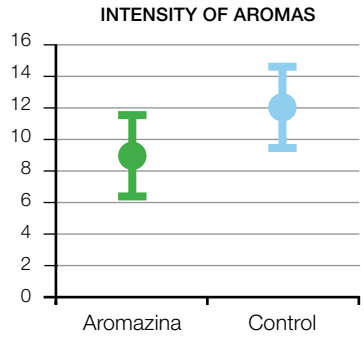
AGING

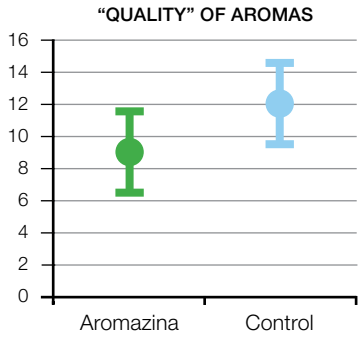
Aromazina

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

Dosage
4-6 g/hl. Minimum temperature of 15 °C.

Packaging
100 g jars.





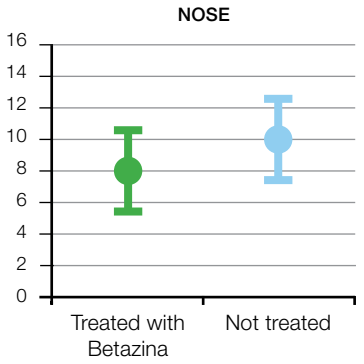
Classification test (Friedman Test)
This test defines a preference scale: the wine with the least points is the one which is preferred. In the areas of intensity and "quality" of aromas, a net preference for wines treated with Aromazina was observed.

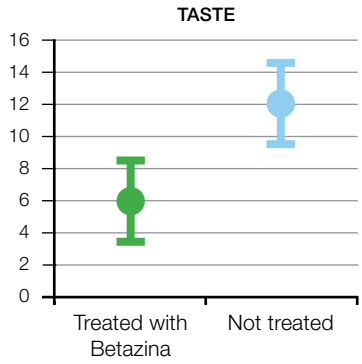
Betazina

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
3-5 g/hl. Minimum temperature of 15 °C.

Packaging
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.

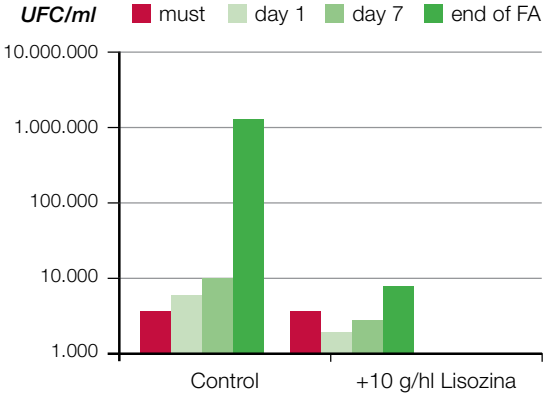
MICROBIOLOGICAL STABILITY

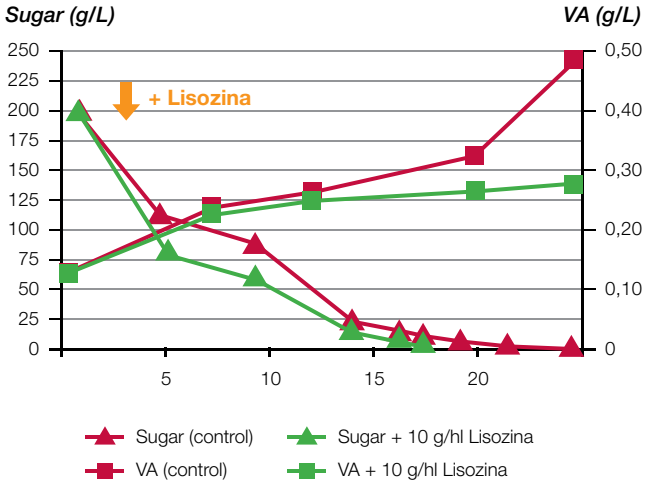
Lisozina DC

The organic way to control lactic acid bacteria, to face problems of stuck fermentations and control increases in volatile acidity. Allows for a reduced or delayed use of SO_2.

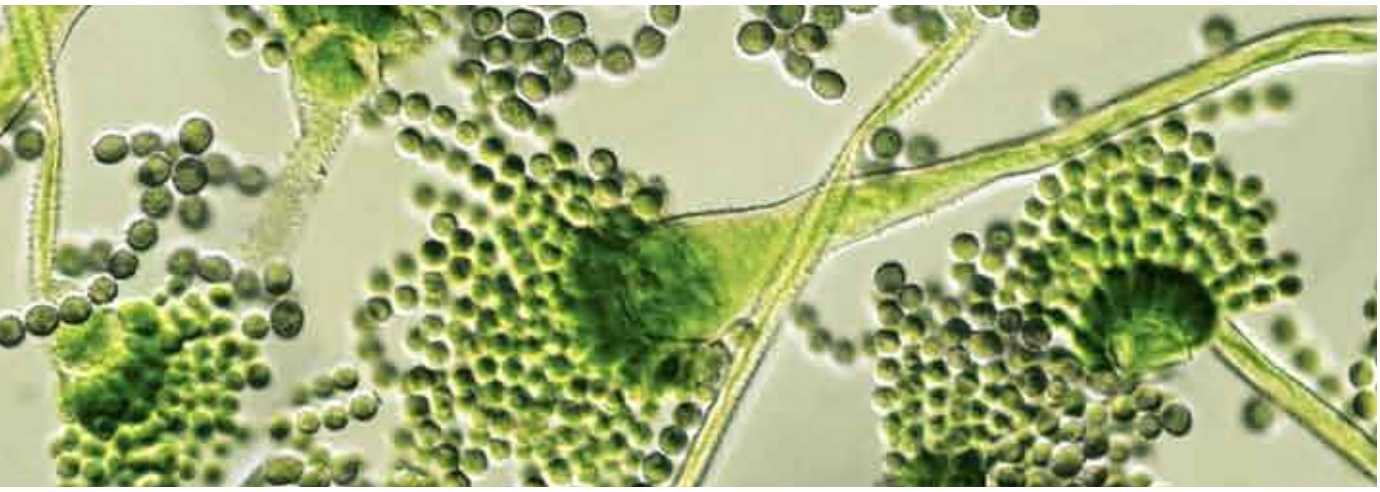
Dosage
50 g/hL (maximum dosage).

Packaging
500 g jars.





Influence of Lisozina DC on the population of lactic acid bacteria, progress of the alcoholic fermentation and volatile acidity during the alcoholic fermentation.



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.

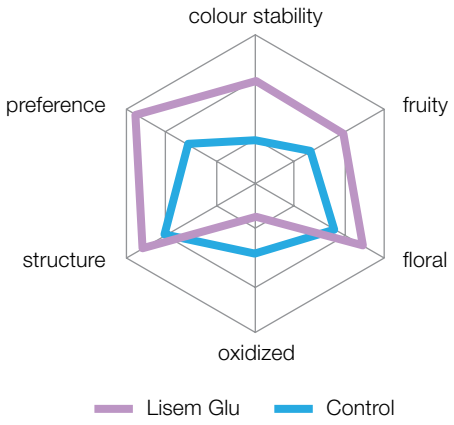
In any case, regular alcoholic fermentation is guaranteed, with quick starts and very fast finishes; yeast metabolism is optimised and this helps to reduce the synthesis of unwanted by-products, such as volatile acidity.

4

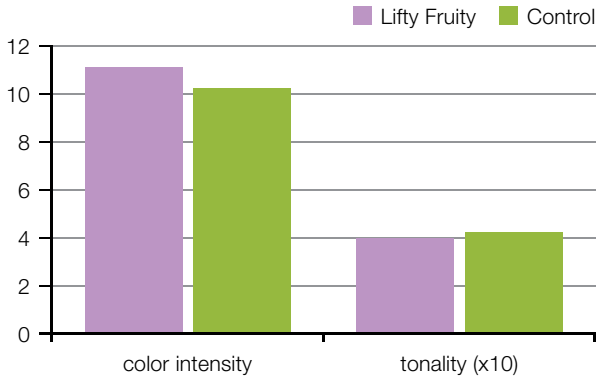
FERMENTATION ENHANCERS

THE MANY FORMS OF YEAST DERIVATIVES

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



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.



Effect of Lifty Fruity (100 g/hl) on the colour at the end of alcoholic fermentation (Merlot).

Lisem Glu

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
10-30 g/hl.

Packaging
500 g and 10 kg bags.

Lifty Bloom

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
White, Rosé and sparkling winemaking:
10-20 g/hl to give freshness.
30-80 g/hl to give complexity.

Packaging
2 kg and 10 kg bags.

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.

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.

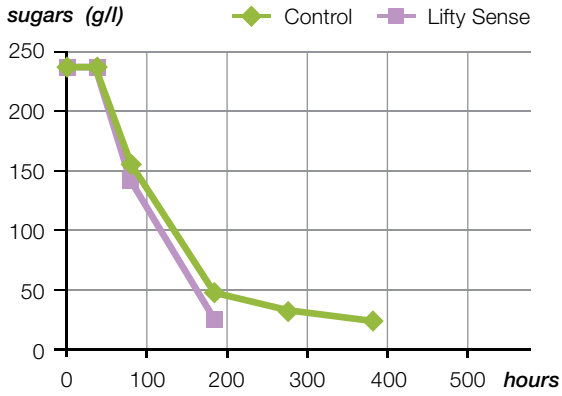
Packaging
2 kg and 10 kg bags.

Lifty Sense

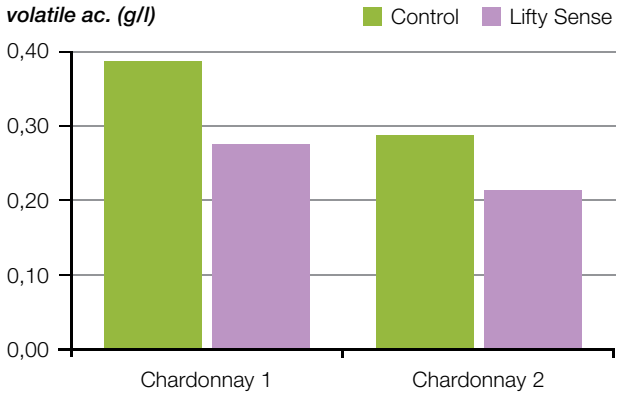
Used right since the beginning of alcoholic fermentation, it optimises the fermentation environment and releases antioxidant and characterising compounds. Wines fermented with Lifty Sense stand out for their taste, full-body, structure and flavour. On the nose, depending on the dosage used, the results 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).



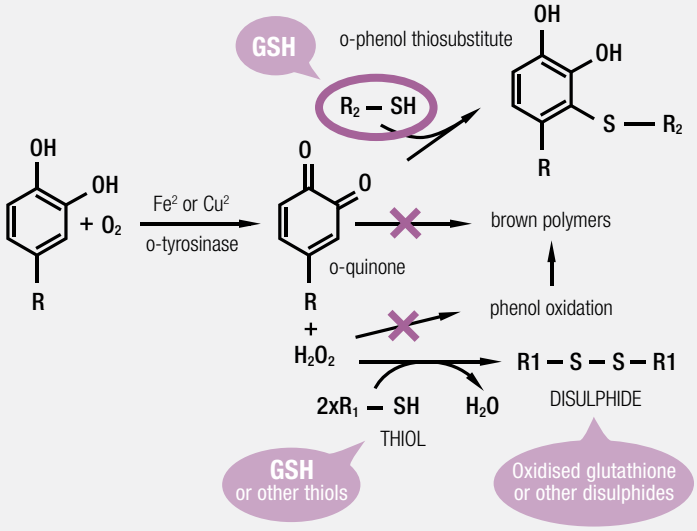
Production of volatile ac. in fermented musts with and without Lifty Sense (Chardonnay 1, 100 g/hl; Chardonnay 2, 30 g/hl).

FOCUS ON

YEAST DERIVATIVES TO PREVENT BROWNING

Specific inactive yeasts, such as Lisem GLU, obtained with production techniques that respect their functional integrity, play a fundamental role during alcoholic fermentation to prevent oxidative reactions on the colour and aromas.

Their reduced glutathione (**GSH**) and cysteine peptides content, thanks to the functional group -SH, limits the development of oxidative phenomena in the must phenols, and therefore the formation of quinones and subsequent **browning and maderisation** phenomena.



All the thiol groups present in the must react in a similar way towards these oxidative phenomena. The presence of GSH, in addition to limiting the appearance of brown polymers, prevents thiol molecules such as 4-MMP and 3-MH from entering the process, and the subsequent degradation and loss of the distinct aromas.

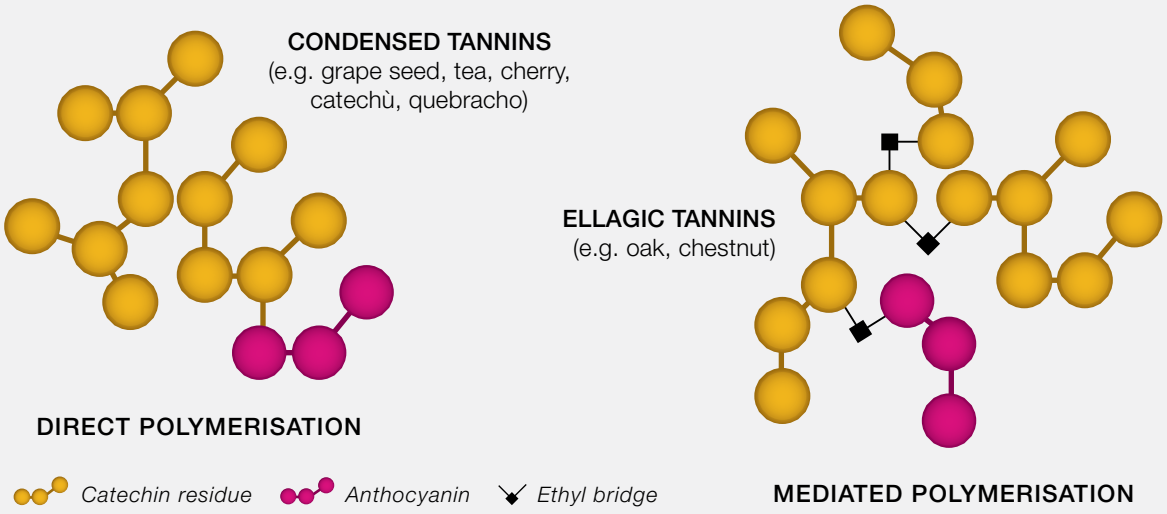
(Modified by Tirelli, VQ 5-2010)

TANNINS: A HETEROGENEOUS FAMILY INVOLVED IN MANY REACTIONS

STABILISING ACTION

- **oxidase and oxidative phenomena:** tannins inhibit oxidase, tyrosinase and laccase enzymes, both by inactivating them through aggregation (tannin-protein reaction), and by capturing oxygen (antioxidant power) making it unavailable for oxidases. Polyphenols in general and tannins in particular are the first oxygen acceptors in must and wine. Thanks to this, in musts, both red and white, they help to protect against oxidation, assisting the action of SO_2.

- **colour:** condensed tannins and hydrolyzable tannins are involved in the stabilisation of the colour of red wines through two different mechanisms.
  Condensation (copigmentation): weak reaction between anthocyanins and **condensed tannins**.
  These complexes are unstable in an alcoholic environment.
  Mediated polymerisation: through the formation of acetaldehyde bridges (ethyl), between anthocyanins and **tannins**.



CLARIFYING ACTION

- **protein removal:** gallic tannins are highly reactive with proteins; this feature is used in white wines to lower the dosage of bentonite necessary to achieve protein stability and to avoid overfining when using gelatine or other protein-based fining agents.

- **removal of sulphur compounds:** tannins complex and eliminate from the must or wine the molecules responsible for the off-odour problems, mercaptans and H_2S, bringing out the aromas of the wine and reducing or avoiding the use of copper.

- **metal chelation:** hydrolysable tannins, in particular gallic tannins, are capable of binding metals (e.g. iron and copper); the tannin-metal complex precipitates reducing the concentration of the latter in the wine.

The tannins used in the early stages of winemaking will not be found in wine after fermentation as they react with oxygen and other molecules (proteins, phenols, etc.) to form large complexes that are insoluble in wine.

5

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.

OXYGEN PROTECTION

White and rosé winemaking

Infinity Redox

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
In racking 1-2 g/hl.
During storage: 2-5 g/hl.

Packaging
500 g and 12,5 kg bags.

Tanniferm Blanc

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
For rot affected grapes: up to 20 g/100 kg.
When filling the tank and during fermentation: 3-10 g/hl.

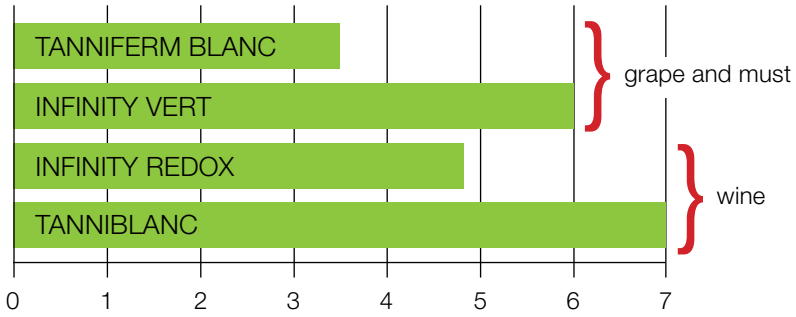
Packaging
500 g and 12,5 kg bags.

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 after the first racking.

Packaging
500 g and 12,5 kg bags.



Antioxidant power measured with TEAC method.

Red winemaking

Infinity Décuvage

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
At devatting for colour stabilisation: 5-10 g/hl.
During racking for antioxidant protection: 3-5 g/hl.

Packaging
500 g and 12,5 kg bags.

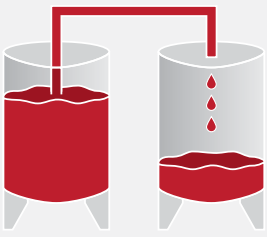
IN WINEMAKING AND DURING RACKING TO PROTECT AND STABILISE

Protect the organoleptic properties in a timely manner during harvesting, transport and arrival in the winery against oxidative phenomena.

Protect the must from oxidative phenomena affecting aromas and polyphenols. Promote the condensation of anthocyanins.

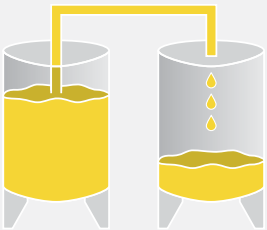
In fermentation and maceration to protect and promote the stabilisation of anthocyanins (direct condensation). Improve the structure of the future wine.

During fermentation to protect the aromas and colour. Promote the expression of terpenic aromas and improve the structure.



During devatting and racking, the wine is protected from oxygen, the polymerisation of the anthocyanins is favoured and the use of SO_2 is reduced.

Protect wine from oxygen during storage and racking by reducing the use of SO_2.



Tanniferm Flash

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
For rot affected grapes: 20-60 g/100 kg.
During maceration and fermentation: from 20 g/hl.

Packaging
500 g and 12,5 kg bags.

White, rosé and red winemaking

Ecotan

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
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.

Packaging
2 kg and 25 kg bags.

Infinity Blu

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. As it is liquid, it is practical and quick to use.

Dosage
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.

Packaging
5 kg and 25 kg jerrycans, 250 kg drums.

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.

Infinity Vert's contribution to the sensory profile of wines

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

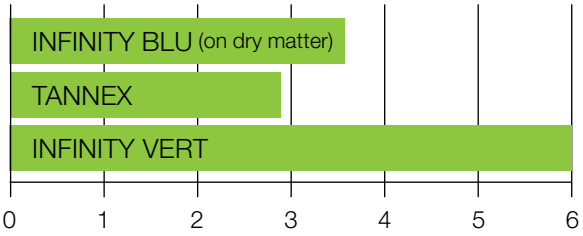
PHASE	OBJECTIVE	PRODUCT	WHY CHOOSE IT
HARVESTING TRANSPORT UNLOADING PRESSING	**Substitute for SO_2** Protection against O_2 Laccase inactivation	**INFINITY BLU**	Practicality of the liquid form in entry level wines
		TANNEX	High antioxidant capacity and respect for the sensory profile in premium wines
		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
In red wine fermentation from 10 to 20 g/hl.
In white and rosé wine fermentation from 3 to 10 g/hl.

Packaging
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
During maceration: 5-20 g/hl, also with subsequent additions. Wines: Up to 15 g/hl.

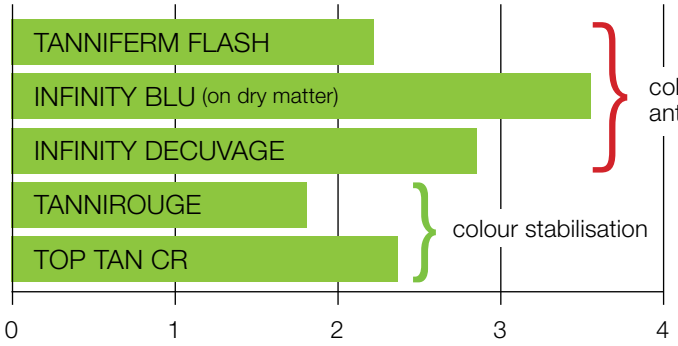
Packaging
500 g and 12,5 kg bags.

Top Tan CR

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
During maceration: 5-10 g/hl, also with subsequent additions. During aging: 2-8 g/hl.

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

Packaging
1 kg bottles.

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.

Packaging
250 g jars.

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
2-8 g/hl.

Packaging
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
5-15 g/hL.
Sparkling wines: 0,5-2 g/hl.

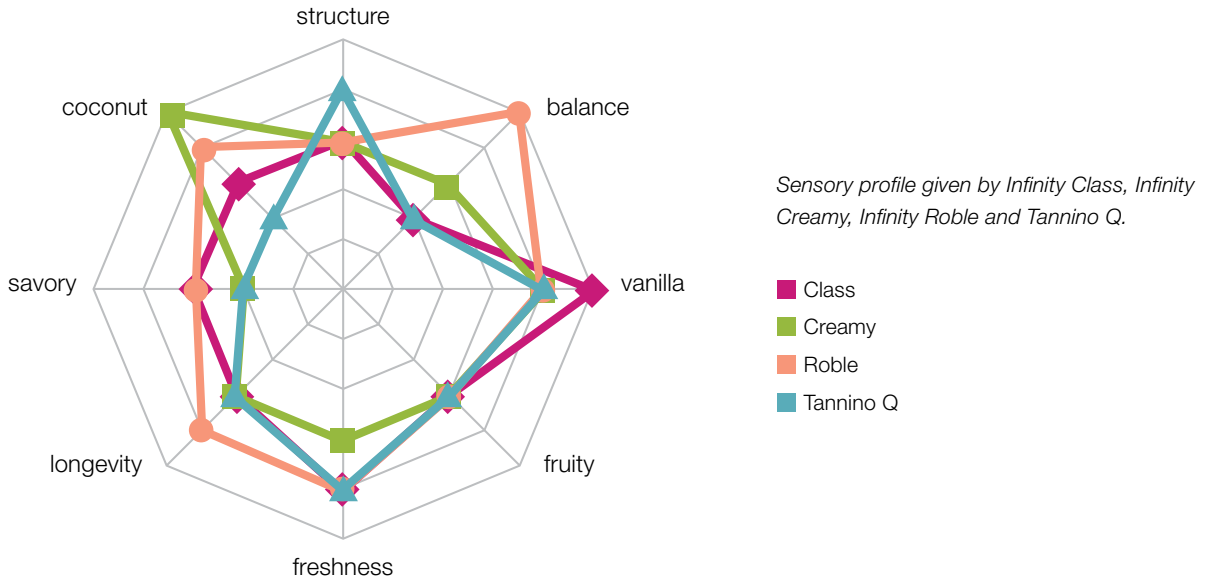
Packaging
1 kg bottles.

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
White wines: 1-5 g/hl.
Red wines: 5-15 g/hl.

Packaging
500 g jars.



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

STRUCTURE AND COMPLEXITY

Top-Tan AR

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
White wines: 2-8 g/hl.
Red wines: 2-10 g/hl.

Packaging
500 g jars.

Top-Tan SB

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
2-10 g/hl.

Packaging
500 g jars.

Top-Tan SR

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
2-15 g/hl.

Packaging
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
2-8 g/hl.

Packaging
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
2-8 g/hl.

Packaging
500 g jars.

TANNINS: FROM TANK TO BOTTLE

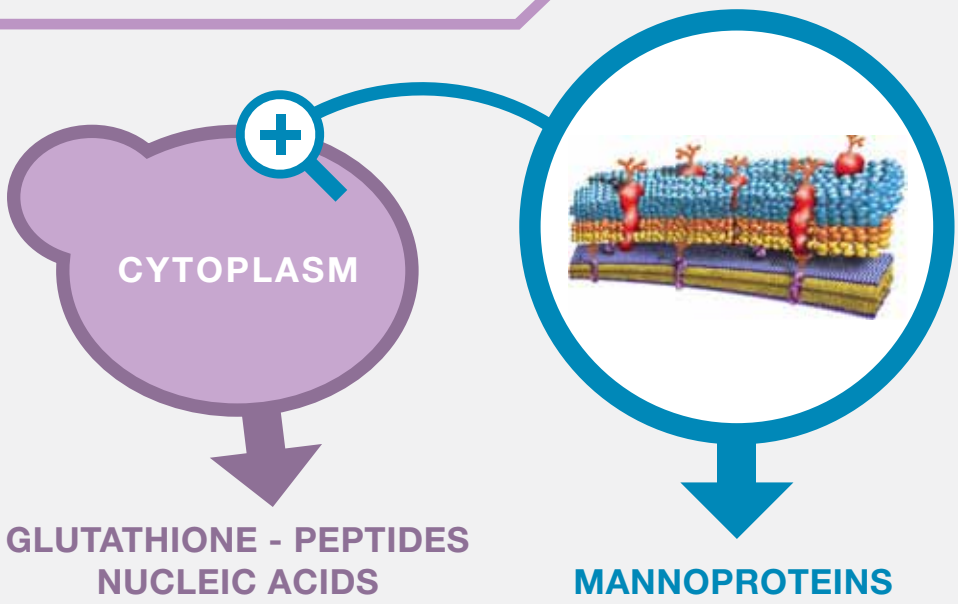
TARGET	PHASE	PRODUCT	WINES
Protection From O_2 Substitute for SO_2	Racking Storage	**TANNIBLANC**	
		INFINITY REDOX	
		INFINITY DÉCUVAGE	
	Aging Storage Finishing Touches	**INFINITY VERT**	
Colour Stabilization	Aging	**INFINITY BLU**	
		TANNIROUGE	
		TOP TAN CR	
Aromatic Complexity Structure Purity	Aging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

AGING ON FINE LEES

ADVANTAGES
- Complexity
- Softness
- Structure
- Stability

RISKS
- Reduction defects
- Undesidered MLF
- Volatile phenols
- Herbaceous notes

SOLUTION:
INACTIVE YEAST AND DERIVATIVES!

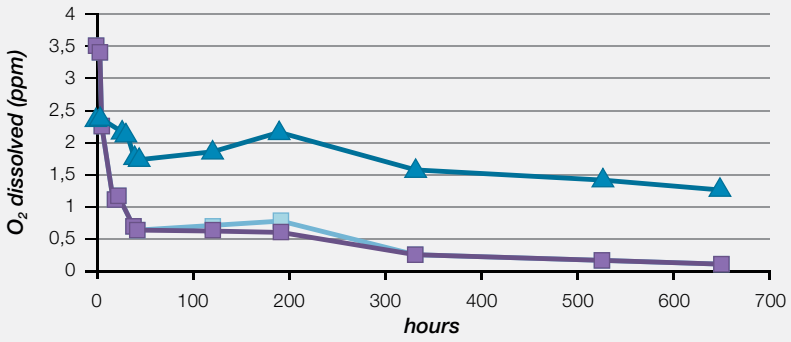


GLUTATHIONE - PEPTIDES NUCLEIC ACIDS

MANNOPROTEINS

DERIVATIVE OF YEAST AND LONGEVITY OF WINES

Harmony Vitality, rich in reducing peptides, protects wines from ageing phenomena; consuming the dissolved O_2, it avoids the triggering of oxidation reactions affecting colour and aromas. Glutathione present in Harmony Vitality expresses maximum effectiveness thanks to the redox system guaranteed by the yeast derivative.



Speed of consumption of O_2 dissolved in white wine. The consumption speed of Harmony Vitality is comparable to that of SO_2.

- Harmony Vitality (40 g/hl)
- SO_2 (40 mg/l)
- GSH purified (20 mg/l)

6

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.

COMPLEXITY

Harmony Cherry

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
20-80 g/hl. Keep in contact at least two weeks with periodic bâtonnage.

Packaging
2 kg bags.

Harmony Enne

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
2-10 g/hl. Keep in contact at least two weeks with periodic bâtonnage.

Packaging
500 g bags.

Harmony Floral

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
10-50 g/hl. Keep in contact at least two weeks with periodic bâtonnage.

Packaging
2 kg bags.

Harmony Full

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
20-40 g/hl. Keep in contact for a few weeks with periodic bâtonnage.

Packaging
500 g bags.

Harmony Intense

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
White and rosé wines: 10-50 g/hl.
Red wines: 20-80 g/hl. Keep in contact at least two weeks with periodic bâtonnage.

Packaging
2 kg bags.

Harmony Moka

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
White and rosé wines: 5-30 g/hl.
Red wines: 10-50 g/hl. Keep in contact at least two weeks with periodic bâtonnage.

Packaging
2 kg bags.

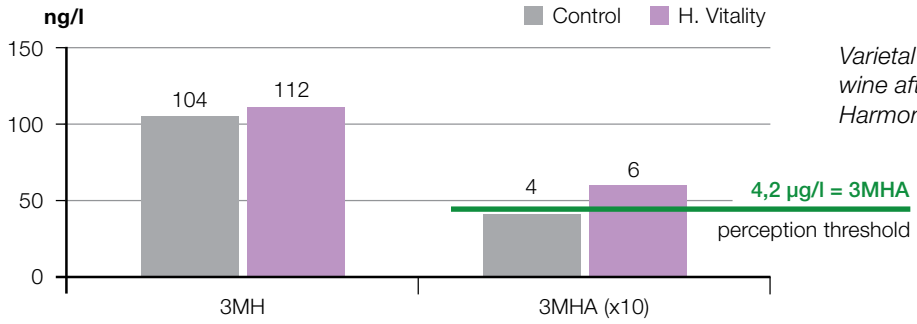
LONGEVITY

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
10-40 g/hl. Keep in contact for a few weeks with periodic bâtonnage.

Packaging
500 g and 10 kg bags.



Varietal thiol content in Grechetto wine after 2 months of ageing with Harmony Vitality (30 g/hl).

FINISHING TOUCHES

Harmony MP

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
1-8 g/hl.

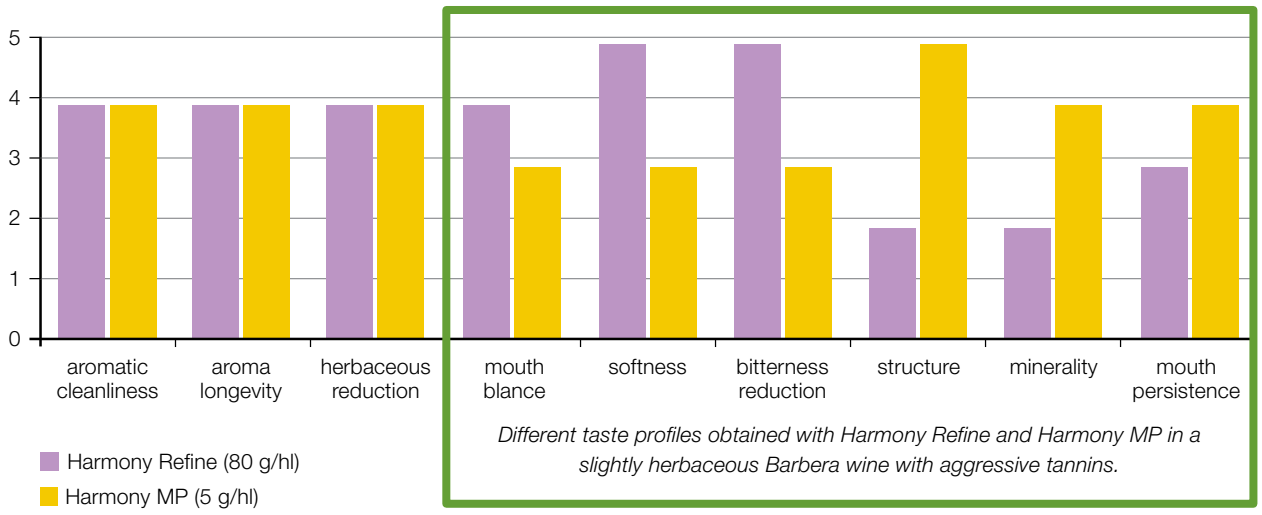
Packaging
500 g jars.

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.

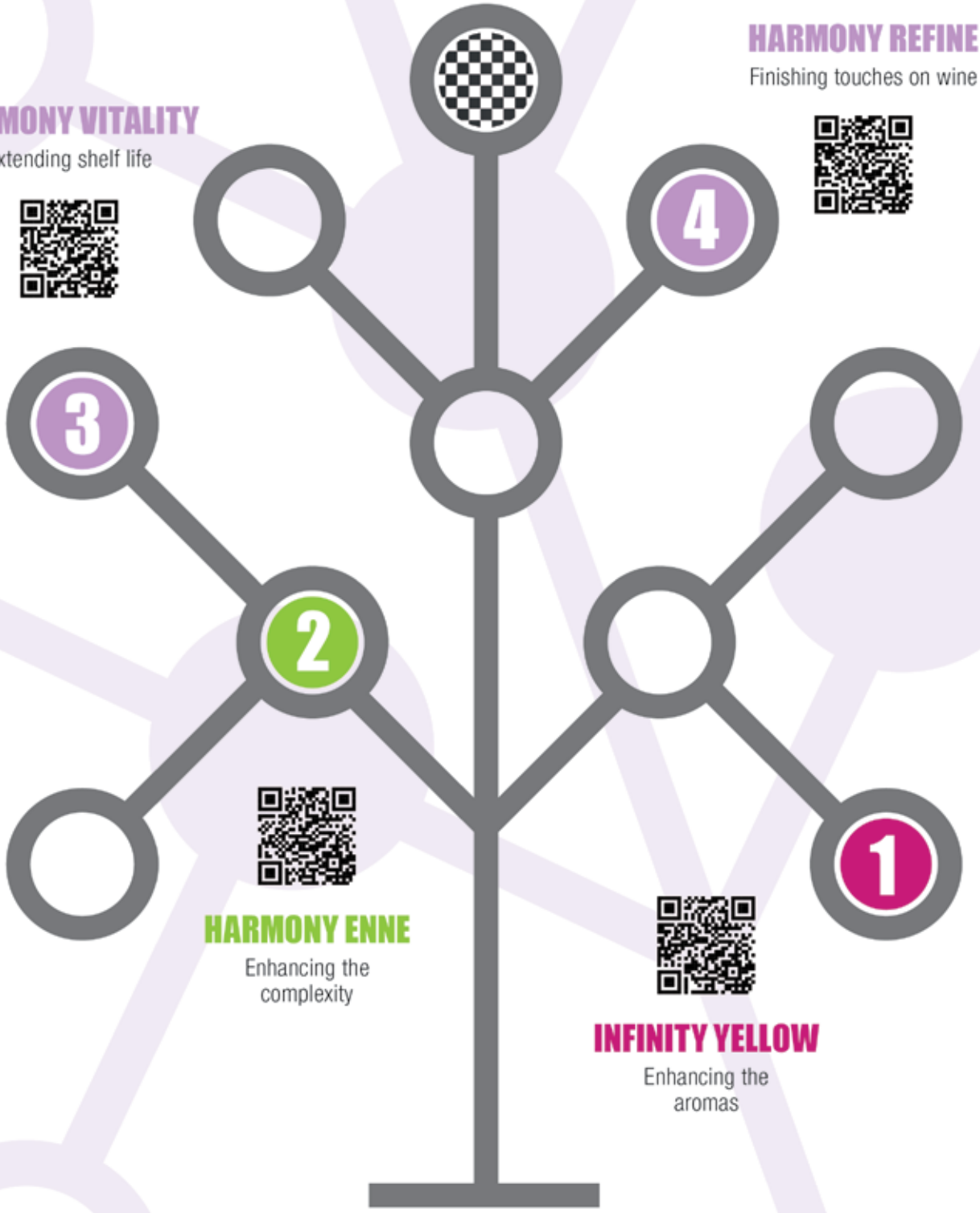
Packaging
1 kg bottles.



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

	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 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

ROAD TO ÉLEVAGE



HARMONY REFINE
Finishing touches on wine

HARMONY VITALITY
Extending shelf life

HARMONY ENNE
Enhancing the complexity

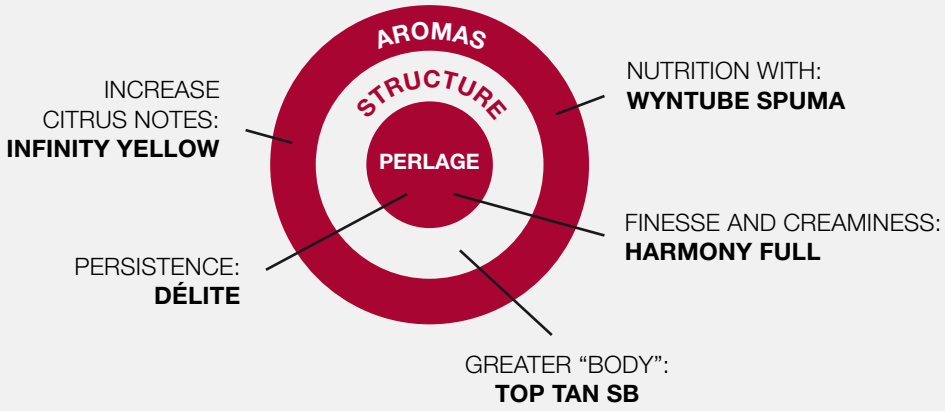
INFINITY YELLOW
Enhancing the aromas

PLAN THE ÉLEVAGE

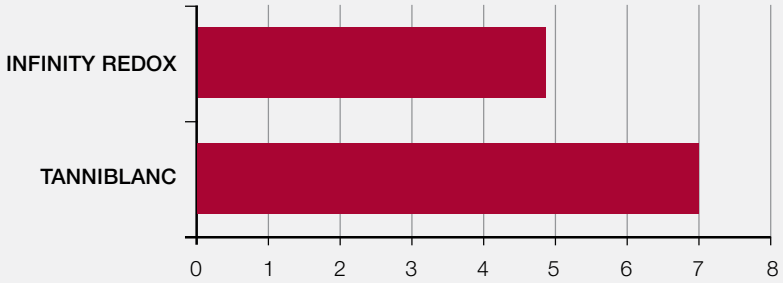
TO DESIGN YOUR WINE

MANAGING THE SECOND FERMENTATION

AROMAS, STRUCTURE AND PERLAGE



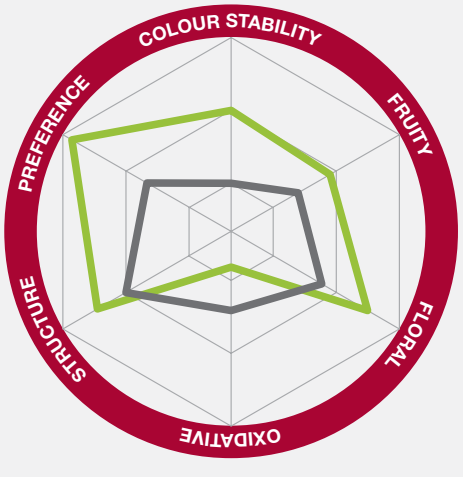
PROTECT FROM OXIDATION AND REDUCE SO_2



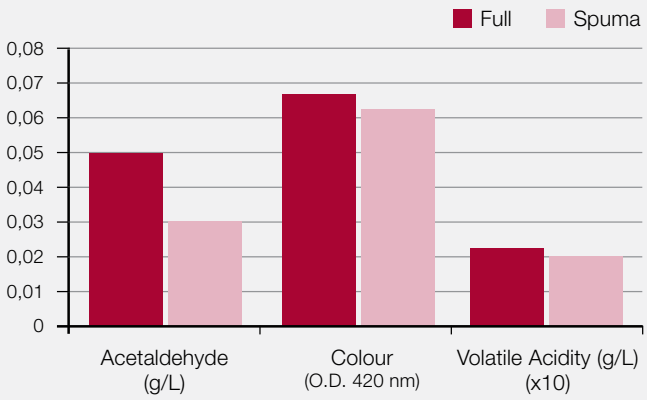
Antioxidant power of Infinity Redox and Tanniblanc (TEAC method)

Infinity Redox and Tanniblanc have a reduced sensory impact, offer a clean nose and light structure in mouth. Tanniblanc can be used even at bottling.

INCREASING LONGEVITY OF AROMA AND COLOUR



The effect of using 15 g/hl of Lisem GLU on the sensory profile of a white wine, tasted 6 months after the end of the alcoholic fermentation.



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

7

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.

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.

Brio

For pleasant easy to drink sparkling wines. Fervens Brio guarantees longevity, intensity and elegance in the wines. In autoclave pressure tanks it produces fruity and floral aromas, The bubbles produced are persistent in the glass and characterized by a creamy mouth sensation. Aging on the lees, even if short, also improves the complexity and aromatic finesse.

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 re-fermentation for sparkling wines.

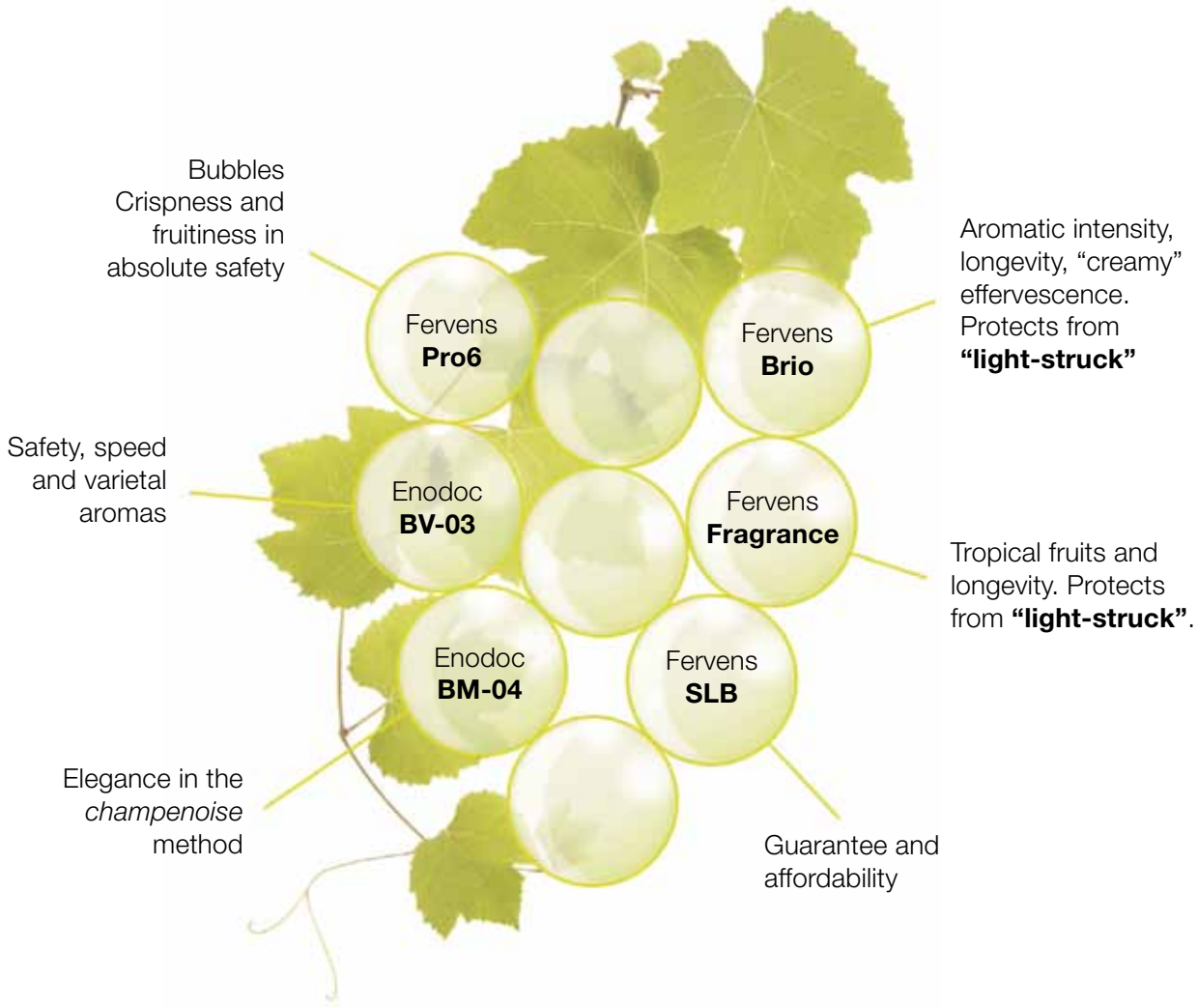
BM-04

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.

	Applications	Killer character	Alcohol content	Fermentation kinetics	Nutritional requirements	
Pro6	Secondary fermentation (tank) Stuck AF	K+	<15% V/V	fast	low	
Brio	Secondary fermentation (tank and bottle)	K+	<16% V/V	regular	medium/low	
SLB	Secondary fermentation (tank) Stuck AF	neutral	<14% V/V	regular	low	
BM-04	Secondary fermentation (tank and bottle)	K+	<16% V/V	fast	low	
BV-03	Secondary fermentation (tank) Stuck AF	neutral	<16% V/V	fast	low	



	Fermentation T°	Interaction with MLF	Sensitivity to copper	Production of				
				Glycerol	H_2S	SO_2	Volatile acidity	Acetaldehyde
	>10°C		low	medium	low	low	low	low
	>8°C	-	low	medium	low	low	low	low
	>14°C		medium/low	low	low	low	low	medium/low
	>12°C	-		medium/low	low	medium	low	medium/low
	>10°C	-		low	low	low	low	medium/low

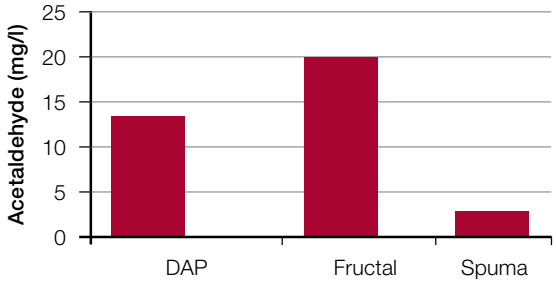
NUTRIENTS

wynTube Spuma

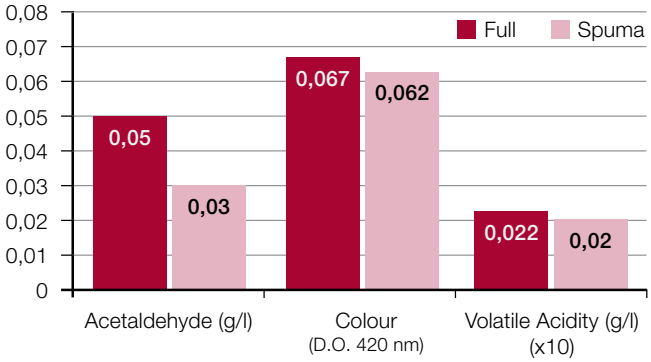
Specific nutrient for second fermentation; supplies all the necessary nutrients for fast and safe fermentation kinetics and to limit the production of stress related metabolites: sulphur compounds, acetaldehyde, pyruvic acid. Thanks to yeast derivatives rich in reduced glutathione and reductive peptides,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

Dosage
10-40 g/hl.

Packaging
2 kg and 10 kg bags.



Acetaldehyde production with DAP, wynTube Fructal and wynTube Spuma (30 g/hL) in Glera 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).

FINING

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
20-50 g/hl.

Packaging
10 kg bags.

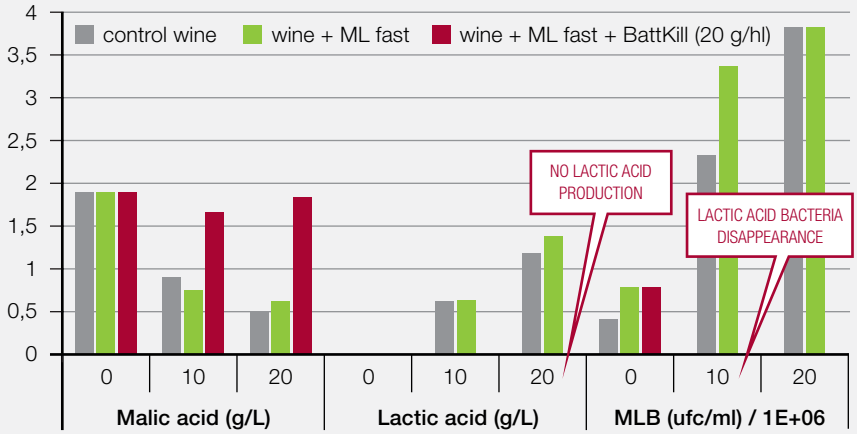
PRE-BOTTLING

AVOID MALOLACTIC FERMENTATION

BATTKILL AF

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

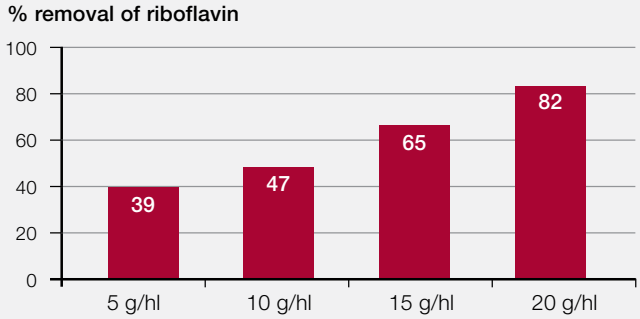
Degradation of malic acid, production of lactic acid and development of lactic acid bacteria in a wine inoculated with ML-Fast (1g/hL) and followed over 20 days.



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.

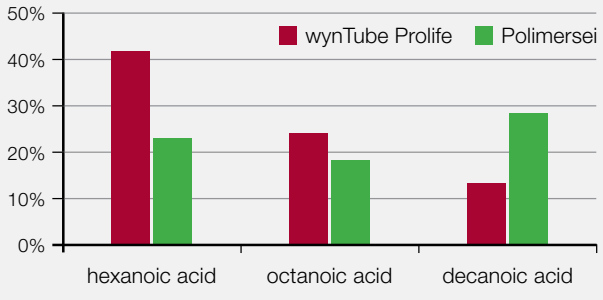
ppb Riboflavin	Indicative doses for riboflavin < 40-50 ppb
0 - 50	0 - 5 g/hl
50 - 100	5 - 15 g/hl
100 - 150	15 - 20 g/hl
150 - 200	20 - 25 g/hl
> 200	25 - 30 g/hl

DETOXIFY BASE WINE

wynTube ProLife, Polimersei and Fito-Stop:

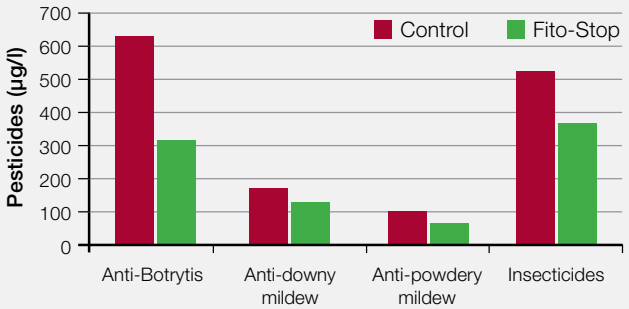
Create a better environment for the second fermentation by eliminating medium chain fatty acids that remain from the first fermentation and residues of phytosanitary treatments.

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.

ROAD TO BUBBLES

HARMONY REFINE
BASE WINE DETOX

WYNTUBE SPUMA
FERMENTATION'S HANDLING

FERVENS BRIO
PIED DE CUVE START

WYNTUBE PROLIFE
RIGHT BEFORE THE BOTTLING

FRESH BUBBLES
TOP AROMAS AND ELEGANT PERLAGE!

YEAST ADAPTATION PROCEDURE TO FACILITATE THE SECOND FERMENTATION (100 HL OF WINE WITH ALCOHOL 9.5-11.5%)

wynTube Prepara
Protects the yeast from alcohol and from pressure.

1 YEAST REHYDRATION

2,5 kg of yeast + 1,5 kg **wynTube Prepara** in 50 L of water

Or wynTube Alert
to fight the lactic bacteria growing.

2 ALCOHOL ACCLIMATATION

50 L (rehydrated yeast) + 50 L (wine) + 50 L (H_2O) + 10.5 kg (sugar) + 50 g **wynTube Spuma** (30 g/hL)

Keep the mass at 25 °C for 6-8 hours, stirring and aerating occasionally

150 L (acclimatized mix) + 150 L (wine) + 100 L (H_2O) + 11.5 kg (sugar) + 120 g wynTube Spuma (30 g/hL)

Keep the mass at 20-22 °C for 12-15 hours, or until the start of the fermentation is evident

400 L (acclimatized mix) + 400 L (wine) + 250 g wynTube Spuma (30 g/hL)

Keep the mass at 20-22 °C for 24 hours, or until the start of the fermentation is evident

Use wynTube Fructal as nutrient to boost fruity aroma, or wynTube Alert to fight the lactic bacteria growing.

3 SECOND FERMENTATION

800 L (acclimatized mix) + **base wine** + **wynTube Spuma** (30 g/hL) + **Lisem Glu** (20 g/hL)

T= 20 – 22 °C.

Detoxify the base wine before the inoculation: keep Polimersei (100 g/100 L) in suspension for at least 24h without air contact.

Lisem Glu
preserves both aromatic freshness and colour in time.

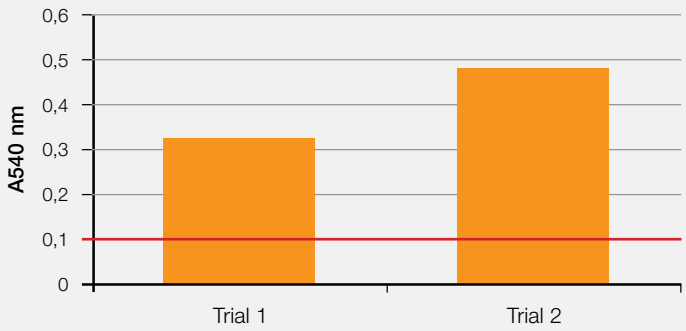
Respect the adaptation time instructions in every stage

BENTONITE USED ON MUST = STABILITY + AROMAS

Treatment with bentonite on must instead of wine proves to be the most suitable way to obtain stable wines and at the same time wines with intense and elegant aromas.

Below are the results obtained in micro-vinification tests on must and wine deriving from the aromatic Moscato di Chambave cultivar. In trial 1 the must was clarified with 100 g/hl of Topgran+. In trial 2 it did not undergo any clarification. Colloidal stability is given by the absorbance a 540 nm after heating at 80 °C for 30 minutes (the must is stable for A540 nm<0.100).

MUST COLLOIDAL STABILITY



The trials not treated with bentonite reach instability values on average 30% higher than those of the trials treated.

WINE COLLOIDAL STABILITY

After fermentation, the trials were analysed to evaluate the dosage of bentonite necessary to obtain colloidal stability. The wine is stable for A540 nm<0,03.

	TRIAL 1 (treated on must)	TRIAL 2 (not treated on must)
Not treated wine	0,0405	0,0802
+ 20 g/hl (Topgran+)	0,0267	0,0572
+ 50 g/hl (Topgran+)	0,0109	0,0362
+ 100 g/hl (Topgran+)	0,0078	0,0104

A540 nm after heating at 80 °C for 30 minutes

To achieve colloidal stability, the wine from the tests already treated musts requires a dose of bentonite equal to approx. 1/5 compared to that required for the wine from untreated musts.

IMPACT ON AROMAS (µg/l)

	LINALOOL	ALPHA-TERPINEOL	CITRONELLOL	NEROL	GERANIOL
No treatment (unstable wine)	160	114	36	25	14
Trial 1 (100 g/hl on must +20 g/hl on wine)	128	101	14	19	14
Trial 2 (100 g/hl on wine)	89	50	18	22	8

Lambri, Dordoni, Silva, De Faveri, Manara. 2009.VQ.6:31-35

8

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.

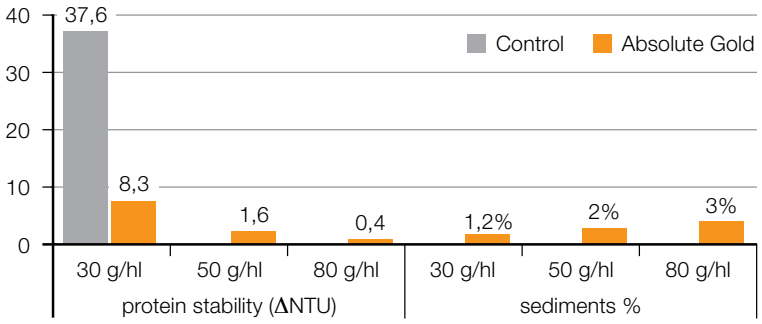
BENTONITES

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.

Dosage
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.

Packaging
2 kg and 10 kg bags.



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

Absolute Flow

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

Dosage
20-150 g/hl. Dissolve slowly in water (1:5) while stirring, wait 30'-60', mix vigorously and add to the mass to be treated.

Packaging
25 kg bags.

Bentoflot

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

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

Packaging
25 kg bags.

Bentowhite Gel

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

Dosage
10-30 g/hl. Pour in water 1:20 and wait at least 30'-60'.

Packaging
10 kg bags.

Bento.Zero

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
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.

Packaging
1 kg and 15 kg bags.

Gelbentonite™

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

Dosage
10-30 g/hl. Pour in water 1:20 and wait at least 30'-60'.

Packaging
2 kg and 10 kg bags.

Superbenton

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

Dosage
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.

Packaging
1 kg bags and 15 kg bag.

Topgran+

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
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.

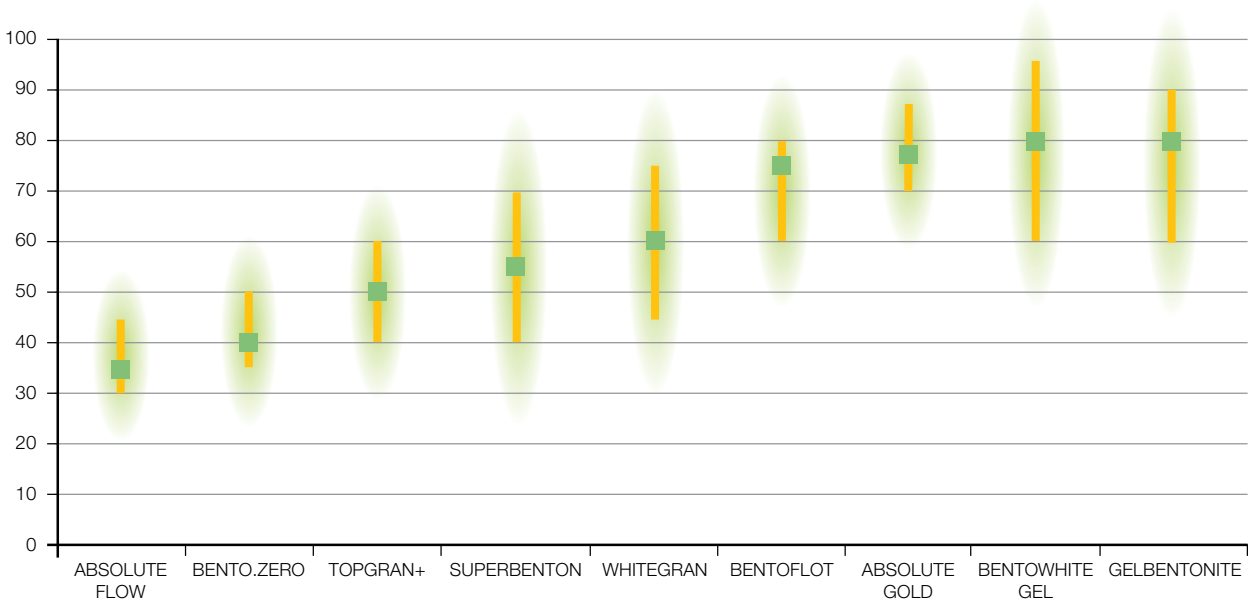
Packaging
1 kg and 25 kg bags.

Whitegran

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
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.

Packaging
15 kg bags.



De-proteinising power of Dal Cin bentonites (arbitrary scale).

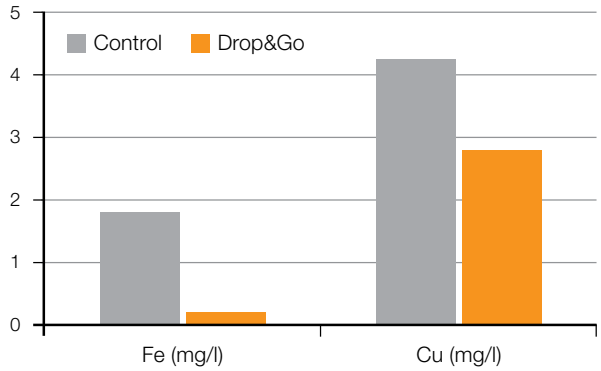
SPECIFIC TREATMENTS

Drop&Go

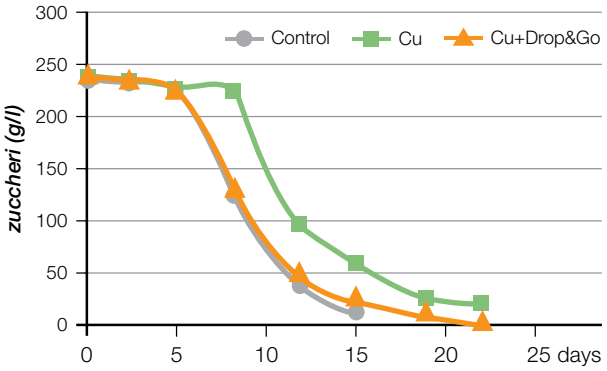
Thanks to the chelating power of the PVI/PVP co-polymer, when used in musts Drop&Go reduces the metal content, in particular iron and copper. Protects aromas, colour and stimulates alcoholic fermentation. miniTubes™ technology.

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

Packaging
2 kg and 10 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.

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.

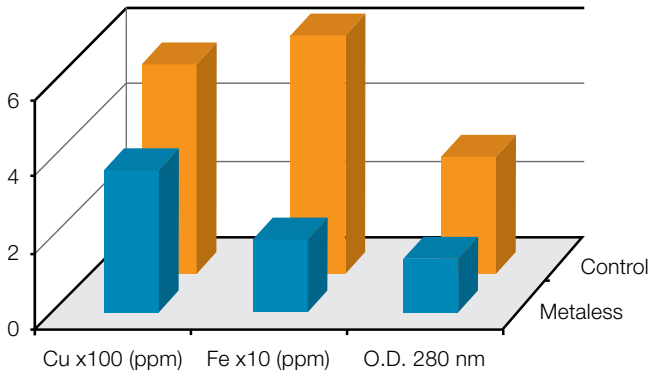
Packaging
2 kg and 10 kg bags.

Metaless

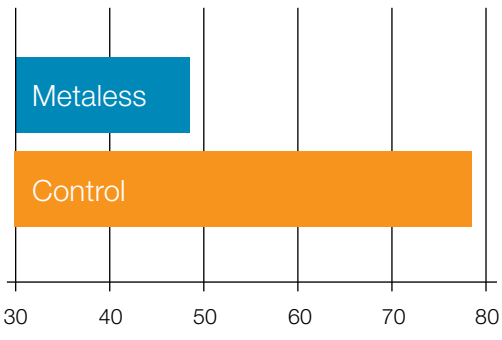
To increase wine shelf-life. Removes metals and catechins, hence protecting aromas (both varietal and fermentation ones) and preventing browning and pinking. miniTubes™ technology.

Dosage
30-80 g/hl (maximum dosage).

Packaging
2 kg and 10 kg bags.



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



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

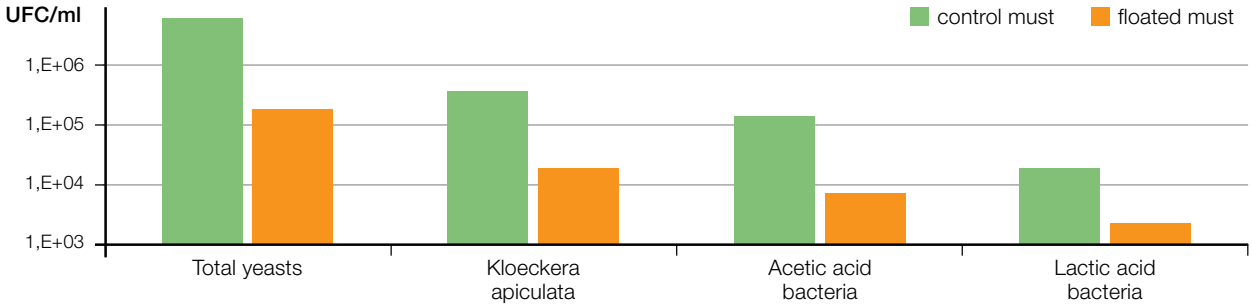
PLANT-BASED FINING AGENTS

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.

Dosage
40-300 g/hl.

Packaging
5 kg and 25 kg jerrycans, 175 kg drums.



Variation of microbiological load in Glera must floated with KitoClear (100 g/hl).

Phytokoll™ K

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
5-20 g/hl.

Packaging
500 g and 15 kg bags.

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
Phytokoll App: 10-30 g/hl.
Phytokoll App-L: 50-150 g/hl.

Packaging
Phytokoll App: 500 g and 15 kg bags.
Phytokoll App-L: 20 kg buckets and 175 kg drums.

Phytokoll™ Vip

AF *only the powder form*

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: 25-150 g/hl.

Packaging
Phytokoll Vip: 500 g and 20 kg bags.
Phytokoll Vip-L: 20 kg buckets and 175 kg drums.

Claracel Vip

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
40-100 g/hl.

Packaging
15 kg bags.

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.

	PRACTICALITY	SPEED OF ACTION	CLEANLINESS	CAP COMPACTNESS	COLOUR REMOVAL	CATECHINS REMOVAL	M.O. REMOVAL	METAL REMOVAL	
KitoClear	****	****	****	*	**		***	*	
Phytokoll K		**	*	***	**	**	*		
Phytokoll App				****	**	**			
Phytokoll App-L	***			****	**	**			
Phytokoll Vip					****	***			
Phytokoll Vip-L	***				****	***			
Sologel	****	**	**						
Easyflot		***	***	***		**			

Clarapol VIP

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
10-50 g/hl.

Packaging
15 kg bags.

Clarasi VIP

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
20-100 g/hl.

Packaging
500 and 15 kg bags.

MINITUBES™ TECHNOLOGY

Carb-Off

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

Dosage
Up to 100 g/hl (maximum dosage).

Packaging
2 kg and 10 kg bags.

DC-POL G

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
Musts: 10-40 g/hl.
Wines: 5-20 g/hl. Up to 80 g/hl (maximum dosage).

Packaging
1 kg and 10 kg bags.

Grandecó

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
Up to 100 g/hl (maximum dosage).

Packaging
2 kg and 10 kg bags.

Kolirex™ C

Bentonite and carbon formula, for white wines that require protein and polyphenol colloids stabilization.

Dosage
Final touches before bottling: 15-30 g/hl.
In case of strong oxidation: 60-70 g/hl.

Packaging
15 kg bags.

Kolirex™ CP

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
30-50 g/hl.

Packaging
10 kg bags.

Kolirex™ P

Bentonite and PVPP formula. Suitable for all wines, to prevent protein and polyphenol instability.

Dosage
10-60 g/hl.

Packaging
10 kg bags.

Mosaico Protect

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
10-30 g/hl.

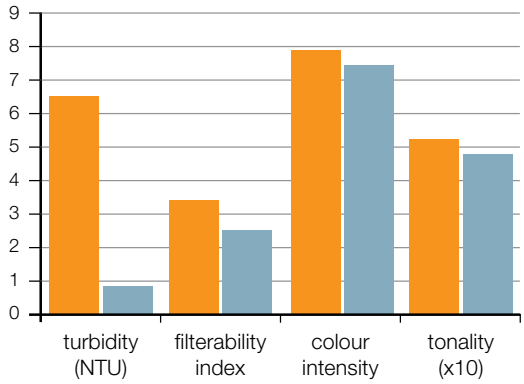
Packaging
2 kg and 10 kg bags.

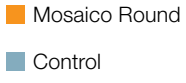
Mosaico Round

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.

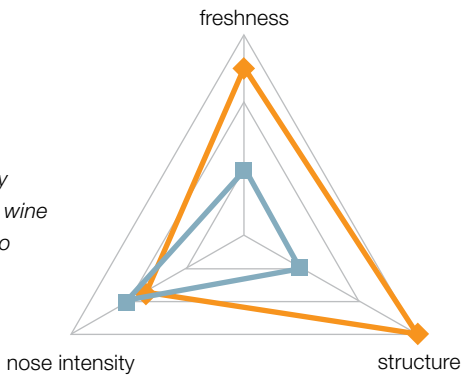
Dosage
10-30 g/hl.

Packaging
2 kg and 10 kg bags.





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



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
2-10 g/hl.

Packaging
500 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
20-50 g/hl.

Packaging
1 kg and 20 kg bags.

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 alterations 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.

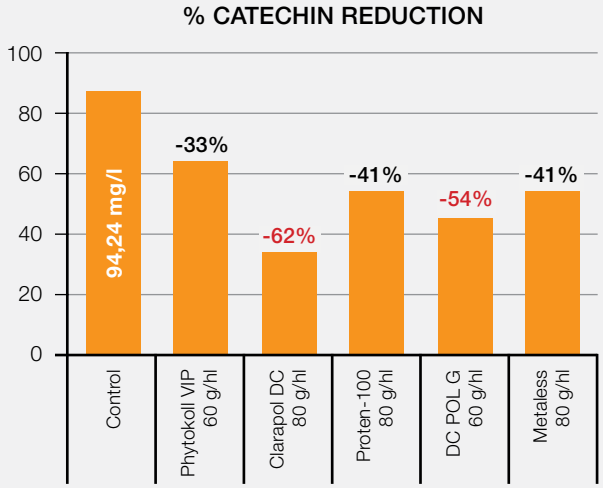
Clarapol DC and DC POL G (Graph 1) are the most suitable products in terms of catechin content reduction.

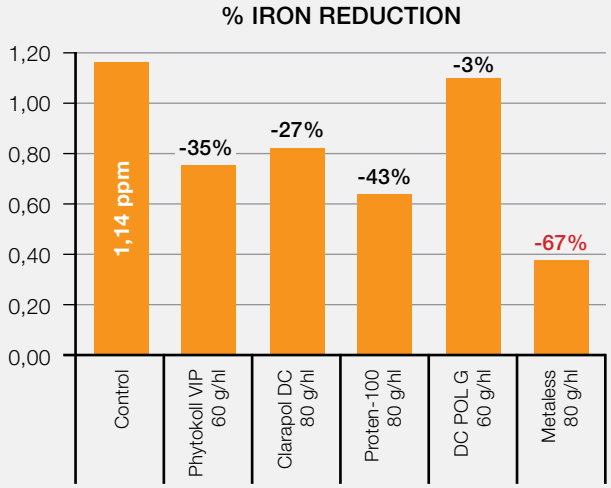
METAL REDUCTION.

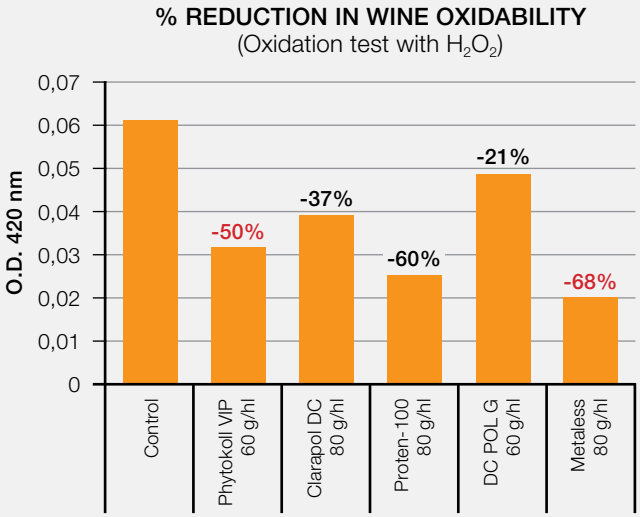
Metaless and Proten-100 (Graph 2), as well as a good capacity to reduce catechins, they are very efficient in metals removal.

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.







Colour browning in control wine and in treated wine. Oxidation test with H_2O_2

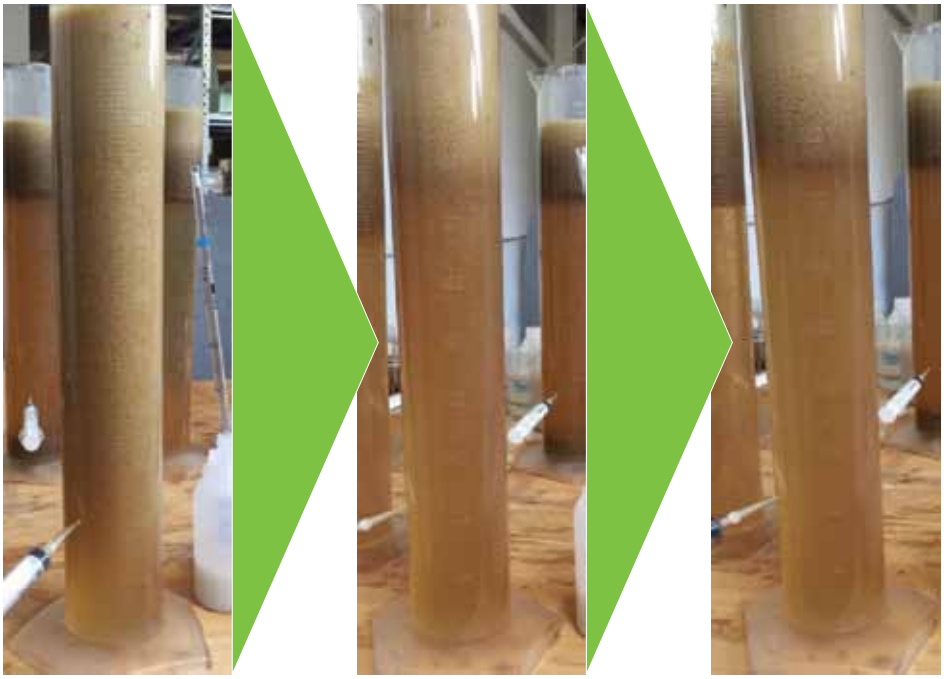
GELATINES

Easyflot

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

Dosage
10-40 g/hl. Dissolve in water at 1% and add to the must.

Packaging
1 kg and 25 kg bags.



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

Gelagreen

Animal origin organic gelatin soluble at hot temperatures. It can be used both for static settling and flotation. Impressive complete flocculation and rapid clarification of the treated volume. In red wines, it removes excess of tannins and softens their astringency. It's suitable for already aged wines.

Dosage
Musts: 5-20 g/hl for the static settling. Up to 60 g/hl or more in flotation. Wines: 1-20 g/hl depending on wine tannin content.

Packaging
500 g bags.

Gelatina 25 and Gelatina 40

High hydrolysis degree gelatine in a stabilised solution at 25% or 40%. For young and press wines.

Dosage
2,5-20 g/hl of dry matter or more, depending on wine tannin content.

Packaging
1 kg bottles, 25 kg jerrycans and 1100 kg IBC.

Gelatina Nebulizzata

Very fine powder, soluble in cold water.

Dosage
10-50 g/hl.

Packaging
500 g and 25 kg bags.

Gelatina Oro Fogli

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

Dosage
Musts: 5-20 g/hl for static settling; 40-60 g/hl or more in flotation. Wines: 1-20 g/hl depending on wine tannin content.

Packaging
1 kg boxes.

Gelatina Oro Macinata

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

Dosage
Musts: 5-20 g/hl for static settling; 40-60 g/hl or more in flotation. Wines: 1-20 g/hl depending on wine tannin content.

Packaging
1 kg and 25 kg bags.

Sologel

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
Musts: 10-15 ml/h 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.

Packaging
25 kg jerrycans and 1200 kg IBC.

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
0,5-3 g/hl.

Packaging
500 g and 5 kg bags.

Ittiogreen

Organic Isinglass. It is used for clarification to focus on, in addition to brightness, the removal of colloids and part of the polyphenols responsible for bitter notes.

Dosage
1-5 g/hl. Dissolve 1-2% in hot water, then gradually add to the volume.

Packaging
500 g bags.

COMPLEX FINING AGENTS

Claracel DC

Caseinate-based fining agent containing particular plant fibres for improved and more regular must fermentation.

Dosage
40-100 g/hl.

Packaging
25 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
10-50 g/hl.

Packaging
500 g and 10 kg bags.

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
20-100 g/hl.

Packaging
1 kg and 25 kg bags.

Albakoll™ B

AF

Fining and stabilizing agent for commercial white and rose wines, where a fining action together with stabilization against casse or oxidation is needed. Based on plant proteins and bentonite.

Dosage
40-80 g/hl.

Packaging
25 kg bags.

Albakoll™ R

AF

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
40-80 g/hl.

Packaging
1 kg and 25 kg bags.

Albakoll™ T

AF

Fining and stabilizing agent for vinegar and “difficult” white wines. Suitable for the stabilization of polyphenol or protein colloids. Based on gelatin, isinglass, carbon and bentonite.

Dosage
50-150 g/hl.

Packaging
25 kg bags.

PVPP

DC-POL P

AF

Powder PVPP, removes oxidized and oxidizable polyphenols. Prevents oxidative degradation and restores freshness to oxidized products.

Dosage
Up to 80 g/hl (maximum dosage).

Packaging
1 kg and 20 kg bags.

DC-POL T

AF

For the treatment of wines that need to be improved in terms of aromatic and chromatic characteristics.

Dosage
Up to 80 g/hl (maximum dosage).

Packaging
1 kg and 20 kg bags.

CARBON

Carbodec Plus

AF

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

Dosage
Up to 100 g/hl (maximum dosage).

Packaging
15 kg bags.

Carbodec DC

High efficiency activated carbon, for colour removal.

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

Clean-UP

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.

MISCELLANEOUS

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.

REMOVAL OF PESTICIDE RESIDUES DURING FERMENTATION

Even though there has been a general reduction of pesticide residues in wines compared to the past, for food safety reasons there is still considerable interest in minimising them even more. The use of specific oenological products in fermentation can help achieve this objective.

Research conducted with the Edmund Mach Foundation led to the creation of a specific adjuvant, called **Fito-Stop**, which is particularly effective against both fungicides and insecticides.

Using **Fito-Stop** during alcoholic fermentation allows you to make the most of the contact with the must, optimising the removal of pesticide residues even with very low dosages (2-5 g/hl).

Working with must has a number of advantages:

- maximising removal with low dosages of Fito-Stop;
- eliminating yeast inhibitors by facilitating alcoholic fermentation and improving the sensory profile results;
- avoiding invasive treatments on the wine, with the risk of lowering the aromatic quality of the product.

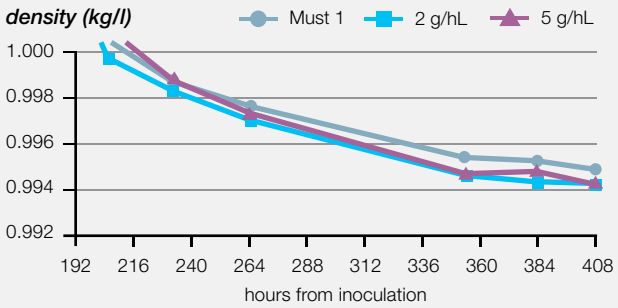
REMOVAL OF PESTICIDE RESIDUES:

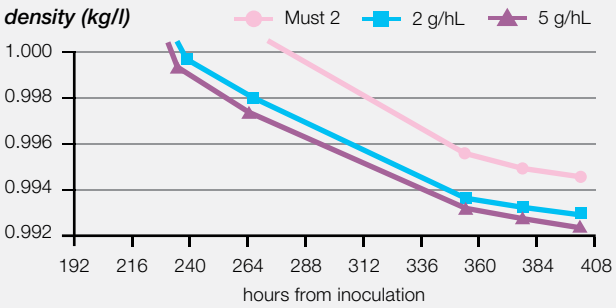
average results obtained on 5 musts with different active ingredients added and treated with Fito-Stop.

	ANTI-BOTRYTIS			ANTI-DOWNY MILDEW			ANTI-POWDERY MILDEW		
	Active ingredient (µg/l)	% residual	Quantity eliminated (µg/l)	Active ingredient (µg/l)	% residual	Quantity eliminated (µg/l)	Active ingredient (µg/l)	% residual	Quantity eliminated (µg/l)
Control	606	100	0	181	100	0	98	100	0
Fito-Stop (5 g/hl)	315	52	291	124	69	56	47	48	51

FERMENTATION KINETICS:

results obtained in two musts with different active ingredients added and treated with two doses of Fito-Stop.





AROMATIC IMPACT:

average results obtained on 5 musts with different active ingredients added and treated with two doses of Fito-Stop.

	Control	Fito-Stop (2 g/hl)	Fito-Stop (5 g/hl)
Volatile ac. (g/l)	0,52	0,48	0,47
Acetaldehyde (mg/l)	37,2	35,0	33,4
Isoamyl acetate (µg/l)	2707	3470	3673
ß-phenylethyl acetate (µg/l)	296	396	388
Ethyl octanoate (µg/l)	1529	1886	1860
Ethyl decanoate (µg/l)	753	898	866

9

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.

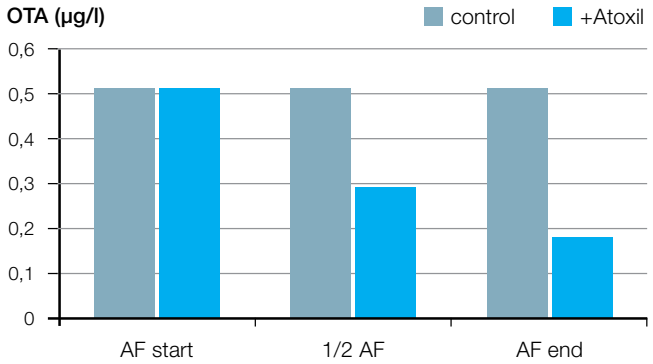
SPECIFIC TREATMENTS

Atoxil

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
50-100 g/hl.

Packaging
20 kg bags.



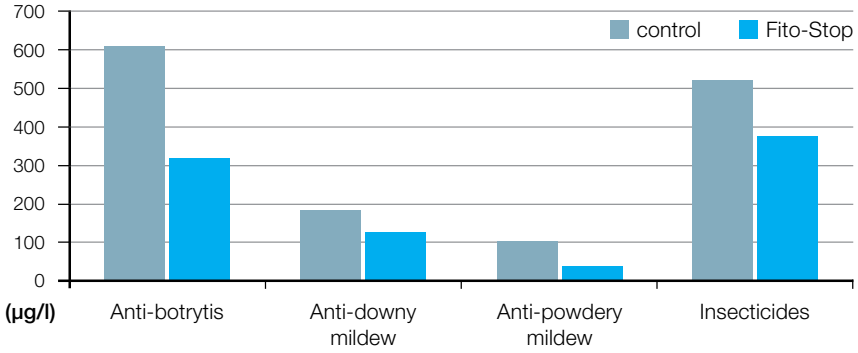
Reduction of Ochratoxin A (OTA) during alcoholic fermentation obtained with the addition of Atoxil (100 g/hl).

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 *S. cerevisiae*, avoiding increases in volatile acidity. miniTubes™ technology.

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

Packaging
1 kg and 10 kg bags.



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 anti-downy mildew, 5 insecticides.

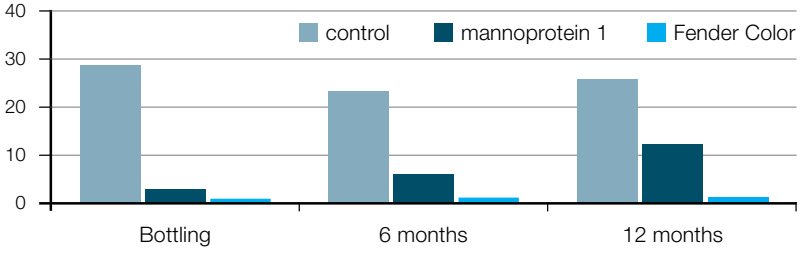
Fender Color

Mannoproteins obtained from *S. cerevisiae* specific to assist the colloidal stability of red wines and in particular of the colouring matter. It also lowers effectively tartaric instability and lets you reduce the use of cold stabilisation.

Dosage
Up to 20 g/hl depending on wine instability.

Packaging
500 g bags.

Colloidal stability (ΔNTU 4°C for 48h)



Using Fender Color (20 g/hl) in Barbera wine made it possible to achieve colloidal and colour stability and to maintain it over time.

Copper DC

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

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.

STABILISING AGENTS

FOCUS ON

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

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

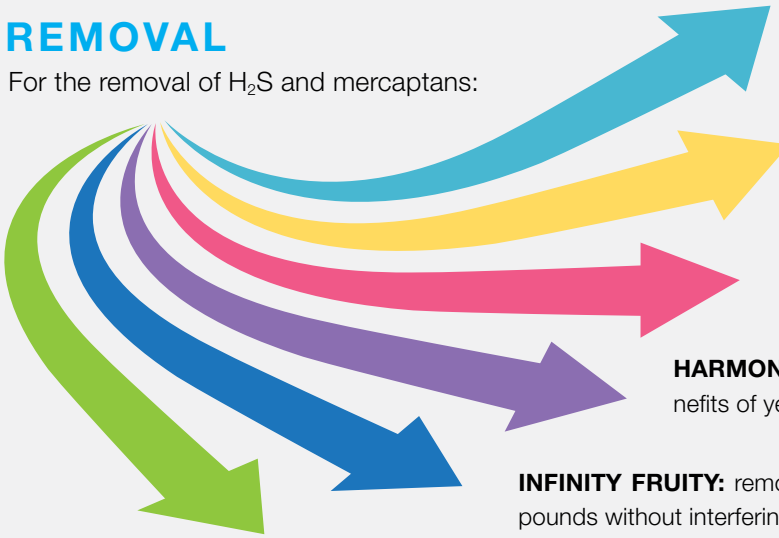
PREVENTION

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:



MER-CAPTA: copper citrate to eliminate light sulphur compound defects.

COPPER: copper sulphate to eliminate light sulphur compound defects.

CHIPS and TABLET: 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.

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
10-40 g/hl.

Packaging
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
10-20 g/hl.

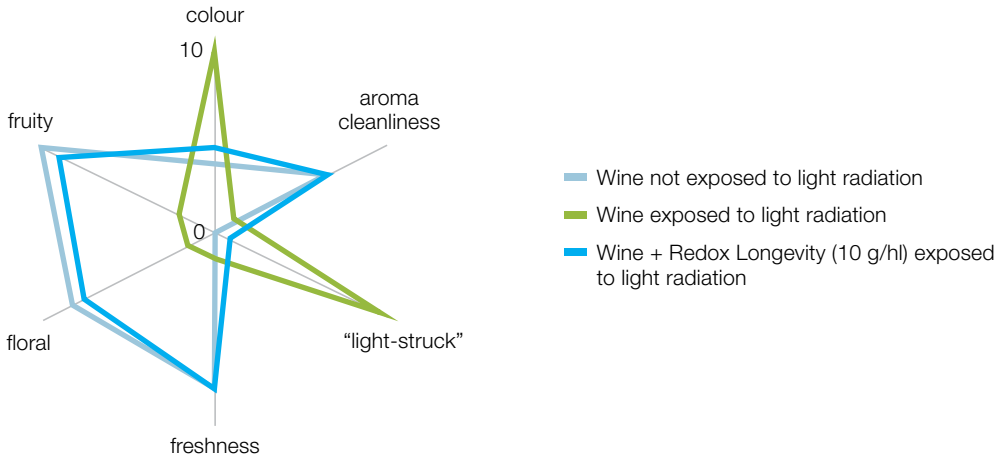
Packaging
1 kg bags.

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.



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
5-10 g/hl.

Packaging
1 kg bags.

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
Carb-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.

NOTE: *clarification can be done at the end of the treatment with Carb-Off and Polimersei (eliminating a racking).*

MICROBIOLOGICAL STABILITY

Battkill

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
10-25 g/hl.

Packaging
500 g jars and 2 kg bags.

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.

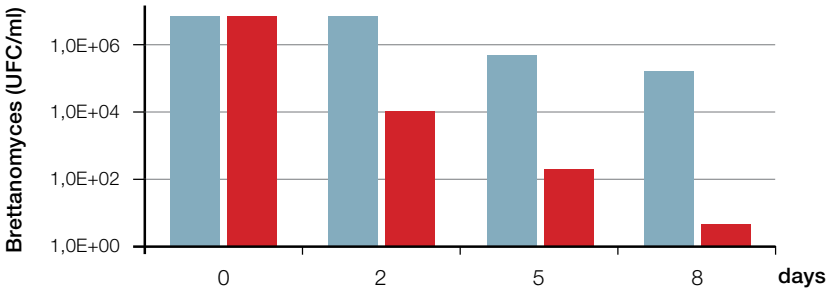
Packaging
5 kg and 25 kg jerrycans.

Brettkill

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
5-15 g/hl. Higher dosages in case of cloudy wines.

Packaging
100 g and 500 g jars.



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
According to needs, considering that: 10 g/hl provides 15 mg/l of SO_2.

Packaging
1 kg bottles and 25 kg jerrycans.

Liquisol 63N

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

Dosage
According to needs, considering that:10 g/hl provides 63 mg/l of SO_2 and 13,8 mg/l YAN.

Packaging
25 kg jerrycans.

TARTRATE STABILITY

Super-40™

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

Dosage
10 g/hl (maximum dosage).

Packaging
1 kg bags.

Super-40™ Special

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
10 g/hl (maximum dosage).

Packaging
1 kg bags.

Fender 200B

For tartrate stabilization in white, sparkling and fizzy wines. Its effect is guaranteed by the formula that contains Seyal gum Arabic, with a high colloid protection capacity and a specific CMC, which stabilizes very well without a clogging effect and with easy mixing in the wine.

Dosage
60-200 g/hl (maximum dosage). On stable wines (protein), that are limpid and ready for final filtration.

Packaging
10 kg and 25 kg jerrycans.

Fender 200R

For tartrate stabilization of wines thanks to the synergy of metatartaric acid and a specific Seyal gum Arabic. Fender 200R has an anti-crystallization action over a short time for wines with high tartrate instability (Δ µs > 200) and over a long time in wines with low tartrate instability (Δ µs < 100).

Dosage
20-40 g/hl (maximum dosage).

Packaging
5 kg bags.

	INSTABILITY DEGREE (Δ µs)	MAIN APPLICATION	SECONDARY APPLICATION
Super-40™ Super-40™ Special	All	colour stable	
FENDER 200B	All (even > 200)		
FENDER 200R	All	colour stable	
FENDER Feel	Medium-Low (< 150)		
GOMMARABICA LIQUIRAB 100	Low (< 100)	colour stable	
KARMELOSA L	All		

Fender Feel

For tartrate stabilization of white sparkling wines with medium-low tartrate instability. The anti-crystallization action of CMC is aided by yeast polysaccharides. These contribute to an increase in complexity and smoothness in the mouth as well as soften any herbaceous or bitter notes.

Dosage
50-150 g/hl. On stable wines (protein), that are limpid and ready for final filtration. The higher dosages are for very unstable wines or to have a notable sensory effect.

Packaging
5 kg jerrycans. Store the product sealed in its original pack, at a temperature not higher than 20 °C. Once opened, store it in the fridge and use within a few days.

Karmelosa L

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

Dosage
75-150 g/hl (maximum dosage). On stable wines (protein), that are limpid and ready for final filtration.

Packaging
5 kg and 25 kg jerrycans, 220 kg drums and 1000 kg IBC.

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
20-40 g/hl. Dissolve Cristallgen in water, while mixing, and add to the wine when it's at several degrees below 0 °C. Mix and wait 3-5 days for complete precipitation.

Packaging
1 kg, 5 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
20-40 g/hl. The suggested doses allow 20-30 mg/l of Ca to precipitate, when the wine calcium content is greater than 80-100 mg/l. Dissolve Nuovo Cristallgen in water, while mixing, and add to the wine at a temperature around 5 °C. Mix and wait at least 7 days for calcium precipitation.

Packaging
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
Up to 200 g/hl.

Packaging
10 kg and 25 kg jerrycans, 220 kg drums and 1100 kg IBC.

Polvarabica DC

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
Up to 100 g/hl.

Packaging
5 kg bags.

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
30-200 g/hl.

Packaging
5 kg jerrycans.

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
Up to 200 g/hl.

Packaging
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
Up to 200 g/hl.

Packaging
10 kg and 25 kg jerrycans, 220 kg drums and 1050 kg IBC.

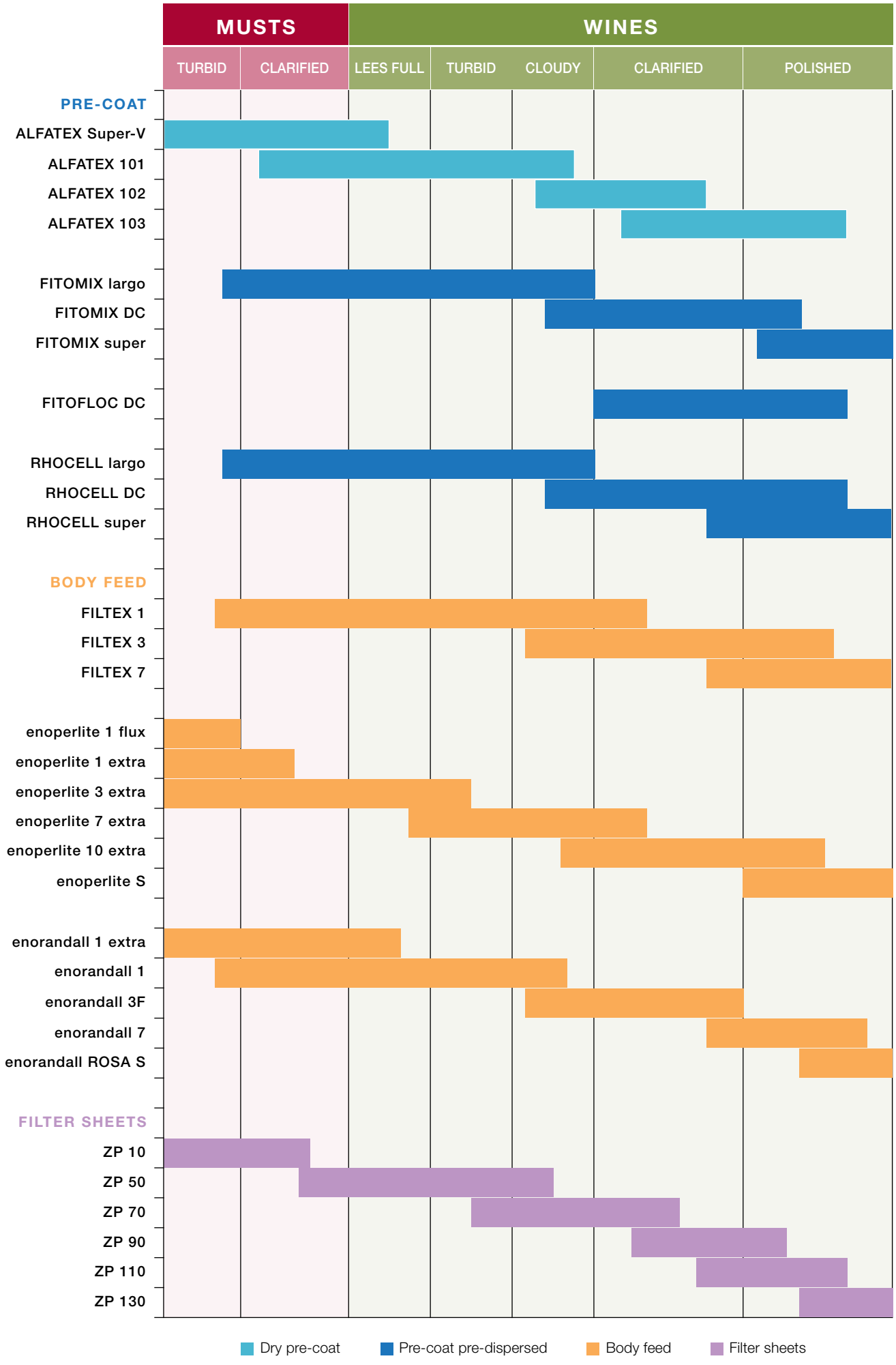
Easydry

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
Up to 100 g/hl.

Packaging
10 kg bags.

	SMOOTHNESS FOR YOUNG WINES	SMOOTHNESS FOR STRUCTURED WINES	COLLOIDAL STABILIZATION	AROMAS	PERLAGE
GOMMARABICA top for concentration and quality	●●	●●●	●●●	●●●	●
LIQUIRAB 100 the most easily filterable gum Arabic	●●●	●●	●●	●●	●
DÉLITE Kordofan for the greatest aromatic potential	●	●●●●	●●	●●●	●●●
DÉLITE GREEN Organic gum Arabic for the greatest aromatic potential	●	●●●●	●●	●●●	●●●
POLVARABICA instant dissolution and good filterability	●●	●●●	●●●	●●	●●
EASYDRY economic and practical	●	●	●●	●	●●


MUSTS
WINES
TURBID
CLARIFIED
LEES 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
BODY FEED
FILTEX 1
FILTEX 3
FILTEX 7
enoperlite 1 flux
enoperlite 1 extra
enoperlite 3 extra
enoperlite 7 extra
enoperlite 10 extra
enoperlite S
enorandall 1 extra
enorandall 1
enorandall 3F
enorandall 7
enorandall ROSA S
FILTER SHEETS
ZP 10
ZP 50
ZP 70
ZP 90
ZP 110
ZP 130
Dry pre-coat
Pre-coat pre-dispersed
Body feed
Filter sheets

10

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

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
0,5 kg-2 kg/m^2.

Packaging
5 kg bags.
Use immediately after opening.

Fitomix Largo, DC and Super

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

Dosage
0,5 kg-2 kg/m^2.

Packaging
5 kg bags.
Use immediately after opening.

Rhocell™ Largo, DC and Super

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
1 kg/m^2 is generally sufficient for good filtration.

Packaging
5 kg bags.
Use immediately after opening.

DRY PRE-COAT FILTERS

Alfatex

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

Dosage
Alfatex Super V: 10 g/kg of Enoperlite (1/extra or 3/extra), for coarse must filtration.
Alfatex 101: 500-1200 g/m^2 of surface, for coarse filtration.
Alfatex 102: 700-1500 g/m^2 of surface, for polishing filtration.
Alfatex 103: 800-1500 g/m2 of surface, for fining filtration.

Packaging
20 kg bags.

BODY FEED FILTRATION

Filtex 1, 3 and 7

Cellulose based body feed filtration aid for the formation of homogeneous coating with constant porosity to be utilised throughout the thickness for optimal deep filtration. From coarse to fine filtering.

Dosage
20-100 g/hl.

Packaging
20 kg bags.

Enorandall

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

Dosage
50-200 g/hl in body feed filtration.

Packaging
18, 20 or 25 kg bags depending on the type of diatomaceous earth.

Enoperlite

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
1000-1500 g/m2 on rotary vacuum drum filters.
50-200 g/hl in body feed filtration.

Packaging
14, 16, 18 or 25 kg bags depending on the type of perlite.

FILTRATION SHEETS

Strati ZP

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).

WHEN THE WINERY IS "CLEAN":

SO_2 plays only an antioxidant role	reduction or elimination of sulphites
Selected yeasts and bacteria are dominant	intensity and immediacy of aromas
Recontaminations are negligible	wines without organoleptic defects
Safety in spontaneous fermentations	organic or biodynamic winemaking
Corrective actions are less frequent and invasive	great sustainability
The use of products and equipment is more effective	savings in terms of time and money

CORRECT HYGIENE PRACTICES

To make cleaning operations more effective, it is recommended to:

- Always start by removing coarse dirt with potable water
- After cleansing, rinse thoroughly with potable water
- Sanitise only after cleansing
- After sanitisation, rinse thoroughly, preferably with microfiltered water
- After the final rinse, check that the water is neutral
- Respect the recommended dosages, contact times and temperatures

SURFACTANTS AND CONDITIONERS

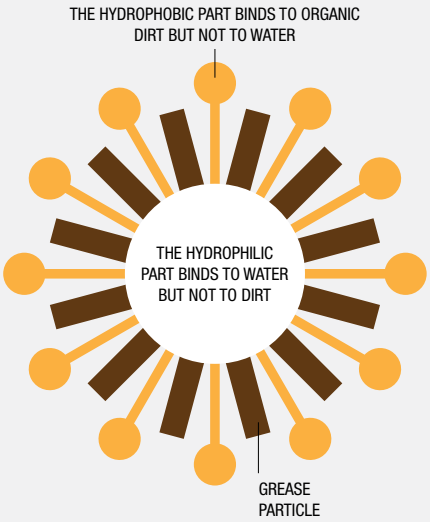
A simple alkaline aqueous solution is not a good detergent.To be effective, the disintegrating action of soda must be supported by other active ingredients.

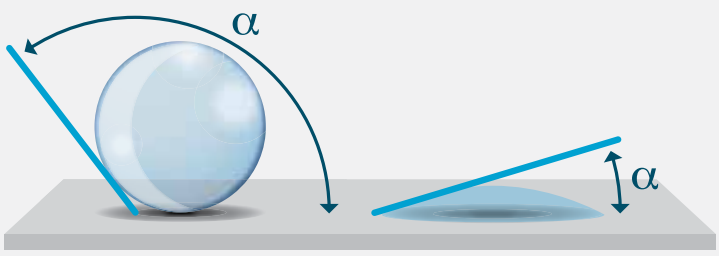
Surfactants are substances which, in detergents, play different roles. The most important is **to reduce the surface tension** of the washing solution, **improve its wettability** and, therefore, facilitate surface/detergent contact.

These surfactants allow the **dirt/water emulsion** preventing the dirt from re-depositing on the surface and assisting its removal through rinsing.

Other surfactants are used to avoid **foaming** (e.g. for products to be used in CIP) or, on the other hand, to create persistent and clinging foam (foaming products).

The conditioners are indispensable for binding Ca and Mg ions and to avoid the formation of limescale deposits, especially when using hard water, high temperatures and alkaline products. Conditioners are indispensable in products for washing bottles and kegs and in formulations of lubricants for belts.





Lowering of surface tension and increasing wettability.

11

WINERY HYGIENE

A CLEAN WINERY DOES 50% OF THE WORK!

We reduce the use of SO_2 and avoid recontamination, we respect the aromas of wine, we limit subtractive treatments and improve the production sustainability.

		REMOVAL OF COARSE DEPOSITS	REMOVAL OF DIRT, COLOUR AND MICROFLORA	MICROFLORA REMOVAL
	**CARTS, CARGO BEDS, CLOTHS, BOXES** Plant residues, juice, microflora	*Daily:* *WATER* **SKIUNÒ SAN**	*Every other day:* **DICISAN SPECIAL**	*Before and after the harvest:* **VKS**
	**GRAPE RECEIVING** Plant residues, juice, microflora, colour	*Daily:* *WATER* **SKIUNÒ SAN**	*Every 3 days:* **SPUMASAN** or **DICISAN SPECIAL**	*Before and after the harvest:* **VKS**
	**PRESSES, DESTEMMERS** Plant residues, juice, microflora, colour	*Daily:* *WATER* **SKIUNÒ SAN**	*Every other day:* **DICISAN SPECIAL**	*Weekly:* **VKS**
	**PUMPS AND HOSES** Plant residues, must, wine, lees, microflora, colour	*Daily:* hot H_2O flux (not reusable)	*Every other day:* **DICISAN SPECIAL**	*Weekly:* **VKS**
	**ROTARY DRUM FILTERS** Perlite residues, diatomaceous earth, plant residues, microflora	*Daily:* hot H_2O with low pressure washer	*Every 3 days:* **DICISAN SPECIAL** or **SPUMASAN**	*When needed:* **BIOXAN**
	**STEEL TANKS** Tartrates, colour, yeasts, bacteria	*At every racking and to remove tartrates:* **SGROMMATORE** or **SGROMMATORE Liquido**	*At filling:* *(after long period)* **DICISAN SPECIAL**	*When needed:* **VKS**
	**CONCRETE AND FIBREGLASS TANKS** Tartrates, colour, yeasts, bacteria	*At every racking and to remove tartrates:* **SGROMMATORE** or **SGROMMATORE Liquido**	**DICISAN SPECIAL** or **SPUMASAN**	*When needed:* **VKS**
	**WOOD TANKS** Tartrates, colour, yeast, bacteria	**SGROMMATORE** or **SGROMMATORE Liquido**		**DC/QUATTRO** or **VKS**
	**PLATE FILTERS** Dirt, colour, odours		*In recirculation:* **DICISAN SPECIAL** *External Cleaning:* **SPUMASAN**	**BIOXAN**

		REMOVAL OF COARSE DEPOSITS	REMOVAL OF DIRT, COLOUR AND MICROFLORA	MICROFLORA REMOVAL
	**EXCHANGERS** Calcareous deposits, organic deposits, colour	**SGROMMATORE** or **SGROMMATORE Liquido**	**FOSFACID**	**VKS**
	**KEGS** Organc deposits, colour	*At every use:* **DETERKEG**	**DICISAN SPECIAL**	
	**BOTTLE WASHING** Dirt, label removal	*Detersion:* **DETERGLASS** *Neutralization:* **FOSFACID**		
	**CONVEYOR BELTS** Lubrication, removal of wine residues and sludge	*During operation:* **SCIOLIN** *Equipment cleaning:* **SPUMASAN**	**VELOSAN**	
	**FILLER** Wine residues and microflora from previous bottlings	*Every day and for each different product:* **SGROMMATORE Liquido**	**DICISAN SPECIAL**	*Every day and for each different product:* **BIOXAN** or **VKS**
	**FILTRATION LINE** Organic clogging residues and microflora	**SGROMMATORE** *For filter cartridges refer to the indications provided by the supplier*		**BIOXAN** or **VKS** *For filter cartridges refer to the indications provided by the supplier*
	**REMOVABLE FITTINGS AND ACCESSORIES** (IN CONTACT WITH THE WINE) Organic residues, tartrate film, colour	**SGROMMATORE** or **SGROMMATORE Liquido**	**DICISAN SPECIAL** or **FOSFACID** *(if you need to descale)*	**DC/QUATTRO** or **VKS**
	**FLOORING** Dirt, colour, forklift lines	*Daily:* **CLEANFLOOR**		*Weekly:* **DC/QUATTRO**
	**WALLS** Tiles, synthetic resin, concrete, stone		*When needed:* **SPUMASAN** or **SPUMACID** *(if you need to descale)*	**DC/QUATTRO**

ALKALINE DETERGENTS

Sgrommatore DC

Alkaline detergent in flakes, surfactant, buffered and with conditioners. For the removal of tartrates from tanks, barrels, systems, filter cloths.

Dosage
1-10% in water preferably at 30-40 °C.

Packaging
1 kg, 10 kg and 25 kg bags.

Sgrommatore Liquido

Alkaline liquid detergent, surfactant and with conditioners. For the removal of tartrates from tanks, barrels, systems, filter cloths.

Dosage
3-9% in water preferably at 30-40 °C.
Up to 12-15% for stubborn dirt.

Packaging
15 kg and 24 kg jerrycans, 220 kg drums and 1300 kg IBC.

Skiunó San

Liquid detergent consisting of surfactants and complexing agents. Useful during harvesting as a substitute for soda, for frequent use on all equipment, including press cloths.

Dosage
3% in water at 18-20 °C. Leave on for at least 10'.

Packaging
5 kg jerrycans.

Deterglass

Descaling detergent in surfactant, buffered flakes with sequestrant agents specific for washing bottles.

Dosage
0,5-3% in water at 40-60 °C.

Packaging
25 kg bags.

Deterkeg

Alkaline detergent for internal cleaning of small metal containers (kegs) for wine and beer.

Dosage
0,5-3% in water at 40-60 °C.

Packaging
25 kg jerrycans.

Cleanfloor

Liquid alkaline detergent for cleaning floors and surfaces that do not come into direct contact with the processing product.

Dosage
0,3-0,6% in water for moderately dirty floors.

Packaging
5 kg jerrycans.

CHLORINE-ACTIVE DETERGENTS

Dicisan Special

Liquid chlorine-alkaline detergent. Removes organic residues, colour and microflora from systems, tanks and equipment.

Dosage
0,5-4% in water.

Packaging
1 kg bottles, 10 kg and 25 kg jerrycans, 250 kg drums.

Spumasan

Foaming chlorine-alkaline detergent, with conditioners. Suitable for cleaning and removing microflora from vertical surfaces.

Dosage
3-5% in water and spray with a special cleaning hose.

Packaging
25 kg jerrycans.

ACID DETERGENTS

Fosfacid

Liquid detergent with descaling action based on phosphoric acid, for the removal of calcium residues.

Dosage	Packaging
2-5% for periodic descaling.	24 kg jerrycans.

Spumacid

Foaming detergent, based on phosphoric acid for the removal of calcium residues from vertical surfaces.

Dosage	Packaging
3-5% in water and spray with a special cleaning hose.	24 kg jerrycans.

NON-CHLORINATED DETERGENTS

Bioxan

Peracetic acid-based solution with effective microflora removal action. For fermentation vessels, filtration sheet systems and rotary drum filters.

Dosage	Packaging
0,2-1% in water at room T or < 40 °C.	10 kg jerrycans.

DC/quattro

Quaternary ammonium salts. It cleanses and removes microbiological contamination from floors, rooms and equipment.

Dosage	Packaging
0,1-0,5%.	1 lt. bottles, 20 lt. jerrycans.

VKS

Oxidising detergent with broad spectrum action for removing microflora. Suitable for hoppers, pumps, tanks, autoclaves, PVC and steel pipes, equipment.

Dosage	Packaging
0,1%-2% depending on the contact time.	500 g jars and 5 kg drums.

CONVEYOR BELTS

Sciolin

Conveyor belt lubricant.

Dosage	Packaging
By immersion: 0,3% in water. Drip, spray or centralised systems: 1-3% in water.	20 kg jerrycans, 200 kg drums, 950 kg IBC.

Velosan

Conveyor belt lubricant with microbiological contamination removal action.

Dosage	Packaging
By immersion: 0,3% in water. Drip, spray or centralised systems: 1-3% in water.	20 kg jerrycans.

		MATERIAL COMPATIBILITY								
		STAINLESS STEEL	PLASTIC MATERIAL	EPOXY RESINS	ALUMINIUM	IRON	PHENOLIC RESINS	RUBBER	NITRO VARNISH	GALVANIZED MATERIALS
ALKALINE DETERGENTS	**SGROMMATORE**	■	■	■				■		
	SGROMMATORE L.	■	■	■				■		
	DETERKEG	■	■	■				■		
	DETERGLASS	■	■	■				■		
	SKIUNÒ SAN	■	■	■	■	■	■	■	■	■
	CLEANFLOOR	Compatible with the most common floor coverings of wineries and food industries								
CHLORINE-DETERGENTS	**DICISAN SPECIAL**	■	■	■				■		◢
	SPUMASAN	■	■	■				■		◢
ACID DETERGENTS	**FOSFACID**	■	■	■			■		■	◢
	SPUMACID	■	■	■			■		■	◢
NON-CHLORINATED DETERGENTS	**BIOXAN**	■	■	■						
	DC/QUATTRO	■	■	■	■			■		■
	VKS	■	■	■	■	■	■	■	■	■
CONVEYOR BELTS	**SCIOLIN**	Compatible with all conveyor belts present in wineries and food industries								
	VELOSAN	Compatible with all conveyor belts present in wineries and food industries								

NOTES

WINE GIVES COURAGE AND MAKES MEN MORE APT FOR PASSION
(Ovidio)

1949...
... His own passion for the science led Gildo Dal Cin to found his lab in Milan.

His own passion for the wine guided him to visit wineries and talk with enologists.

Today we continue his masterwork, listening and answering to a world which never stops: the enology.

organic certified product (EU Reg. 203/2012)

AF allergen free (Annex II, EU Reg. 1169/2011)

VEGAN FRIENDLY no animal origin product

in compliance with EU Reg. 203/2012

1 hl = 100 liters

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