

NEW ZEALAND | Sauvignon blanc



The making of Sauvignon Blanc requires careful attention to aroma development, whilst maintaining acid balance and aromatic longevity. The use of specific quality driven winemaking products contributes to the making of Premium Sauvignon Blanc.

The most common requests Lallemand receives from New Zealand winemakers on Sauvignon Blanc are the following:

- **Expression of the varietal characters of the Sauvignon Blanc grape**

It is well understood that the sought after varietal character of these wines are the volatile thiols, the most important being 4-mercapto-4-methylpentan-2-one (4MMP-boxwood), 3-mercaptohexan-1-ol (3MH tropical passionfruit) and 3-mercaptohexyl acetate (3MHA passionfruit). 4MMP and 3MH compounds are present in must as non-volatile cystein conjugates. 3MHA is enzymatically converted from 3MH. Yeast are responsible for releasing and converting these conjugates into a volatile form and have variable abilities to release these sulfide based aromas. Not only is it important that these precursors enter the yeast cells for bio-transformation but equally, the yeast must have the metabolic capacity to convert and release these thiols.

- **Lallemand rehydration product GoFerm™ Protect Evolution aids the entry of thiol precursors into the yeast cell.**
- **Lallemand has numerous yeast choices for the winemaker to fine-tune wine aromatic and/or palate structure.**
- **Stimula Sauvignon blanc is a nutrient (100% yeast autolysate), rich in vitamins and minerals, specific for the efficient and uptake and bioconversion of 4MMP and 3MH precursors.**

In a trial using New Zealand Sauvignon blanc (2017) wines made with Stimula Sauvignon blanc showed a 19% and 150% increase in 3MH and 4MMP, respectively, compared to no addition. These wines were described as having increase in thiol descriptors including pink grapefruit and passionfruit.



- **A product to balance the high acidity of Sauvignon Blanc wines**

A common concern amongst New Zealand winemakers is the high acidity of their wines. This acidity can give rise to 'hard palates', astringency and lack of palate weight. Some yeast undergo malo-ethanolic fermentation which helps to reduce malic acid during fermentation, thereby resulting in a significant reduction in total acidity.

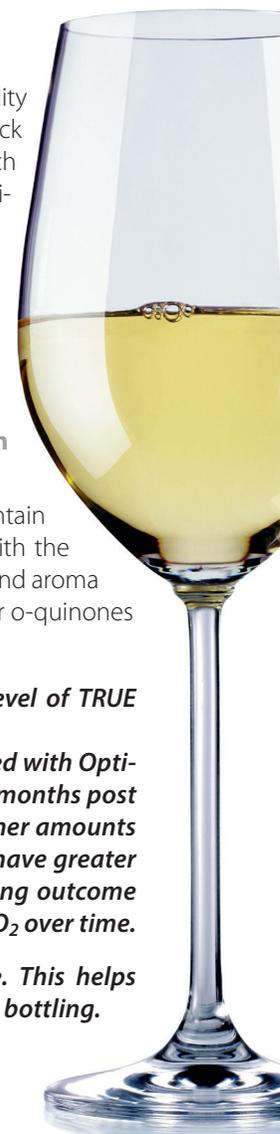
- **Lalvin C™ is a robust yeast with good maloethanolic fermentation capacity.**
- **Lallemand Specific inactivated yeast product OptiMUM White® can help balance palate structure.**

- **A product to help maintain freshness of varietal character once in a bottle.**

Once aromas are formed during fermentation, the challenge is to maintain them over time in bottle. Glutathione, a tri-peptide, is an antioxidant with the ability to scavenge ortho-quinones, the main culprit of colour browning and aroma loss. In fact, glutathione competes with thiols (4MMP, 3MH and 3MHA) for o-quinones thus protecting these wine aromas from oxidation.

- **OptiMUM White®, a specific inactivated yeast with the highest level of TRUE glutathione on the market, is added during fermentation.**
- **In a trial using New Zealand Sauvignon Blanc (2013), wines treated with OptiMUM White® were compared to a control (no Optimum White®) 7 months post bottling. The OptiMUM® White treated wine had significantly higher amounts of 3MH and 4MMP. The OptiMUM White® wines were deemed to have greater intensity of fruit on the nose and generally 'fresher'. An interesting outcome was that the OptiMUM White® treated wine 'held' free and total SO₂ over time.**

Another important factor is to maintain freshness of the wine. This helps to reduce SO₂ requirements thereby resulting in lower SO₂ total at bottling. OptiMUM White® reduces the rate of bottle aging.





NUTRIENTS
PROTECTORS

YEAST REHYDRATION PRODUCT - GOFERM® PROTECT EVOLUTION - 30g/hL

GoFerm™ Protect Evolution is a new generation yeast rehydration product, that has very high levels of sterols. The quantity and quality of these sterols are unmatched in competitor products. These sterols protect the yeast from fermentation stress. GoFerm™ Protect Evolution not only ensures good yeast vitality but improves yeast performance, fermentation kinetics and sensory outcomes.

YEAST NUTRITION PRODUCT - STIMULA SAUVIGNON BLANC - 40 g/hL

Stimula Sauvignon blanc is 100% yeast autolysate rich in vitamins and minerals that optimise the yeast's uptake ability of the cysteine precursors and enzymatic conversion to release the volatile thiols. Resultant wines have higher thiol content and sensory expression.



YEAST

	Species	Relative Nitrogen demand*	Minimum Fermentation Temperature	SO ₂ Production	Oenological Significance
Lalvin C™	<i>Saccharomyces cerevisiae ex bayanus</i>	Low	Approx. 12-14°C **	Low	Reduces significant amount of malic acid during fermentation thereby reducing total acidity in wine. Robust and clean fermenter, some ester formation.
Lalvin QA23®	<i>Saccharomyces cerevisiae</i>	Low	Approx. 12°C **	Moderate	Clean and fresh wines. Thiol converter. Robust and reliable yeast.
Uvaferm Exence™	<i>Saccharomyces cerevisiae</i>	Low	Approx. 14°C **	Low	High levels of 3MHA, passionfruit type aromatics. Very fruity expression with esters.
IOC Revelation Thiols™	<i>Saccharomyces cerevisiae</i>	Low	Approx. 15°C **	Moderate	Citrus and tropical characters. High levels of 3MH. Very popular yeast for New Zealand Winemakers.
IOC BE Thiols	<i>Saccharomyces cerevisiae</i>	Moderate	Approx. 14°C **	Very Low	Controlling sulfite content for wines rich in fruity thiols. Exhibits a special ability to avoid SO ₂ negative sulphur compound production. Low H ₂ S, low SO ₂ and low acetaldehyde production.
Cross Evolution™	<i>Natural hybrid (S. cerevisiae x S. cerevisiae)</i>	Low	Approx. 14°C	Low	Mouthfeel, aromatic intensity. Some ester production. Distinctive fruity and floral notes. Cross Evolution™ is a high releaser and converter of thiols, resulting in wines with high 4MMP, 3MH and 3MHA.
Level 2 Solutions FLAVIA™	<i>Metschnikowia pulcherrima</i>	OMRI Listed	Approx. 15°C	Low	High intensity aromatics. Often described as giving freshness with mouthfeel. Used in sequential inoculation with Lalvin QA23®. Sensitive to Sulphur Dioxide SO ₂ <0.20mg/L.

* determined under standard laboratory conditions | ** winery feedback has reported AF as low as 10°C

SPECIFIC INACTIVATED YEAST - OptiMUM White® - Added after yeast inoculation early in ferment - 30g/hL

OptiMUM White® a specific inactivated yeast with the highest level of TRUE glutathione available on the market. OptiMUM White® protects wine aromas from oxidation. Resultant wines have more intensity of fruit expression. The wines remain fresher and retain these aromatics in bottle longer. In fact the rate of bottle aging is reduced in wines that have had OptiMUM White® added during fermentation.



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