GUIDE LINES FOR

# AUSTRALIA | Sauvignon Blanc

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

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

  The most important thiols, 4-mercapto-4-methylpentan-2- one (4MMP- boxwood), 3-mercaptohexan-1-ol (3MH grapefruit) and 3-mercaptohexyl acetate (3MHA passionfruit) are the most sought after. 4MMP and 3MH compounds are present in must as non-volatile cysteine 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.

  - ***Glutastar™ - to protect Sauvignon blanc aromas and thiols from oxidation and color preservation, right from the start.***
  - ***GoFerm™ Protect Evolution aids the entry of thiol precursors into the yeast cell.***
  - ***Lallemand has numerous wine yeast which are reliable fermenters at lower temperature 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 uptake and bioconversion of 4MMP and 3MH precursors.***
    ***Trials with Stimula Sauvignon Blanc™ have shown a 19% and 200% increase in 3MH and 4MMP, respectively, compared to no addition. The wines were described as having increase in thiol descriptors including pink grapefruit and passionfruit.***

- **Balancing the high acidity of Sauvignon Blanc wines**
  A common challenge for Sauvignon blanc winemaking is to manage the high acidity. This acidity can give rise to 'hard palate, 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 malo-ethanolic fermentation capacity.***
  - ***Lallemand specific inactivated yeast Glutastar™ can help balance palate structure.***

- **Maintaining freshness of varietal characters once in 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 them from oxidation.

  - ***The unique properties of Glutastar provide efficient protection against browning and aroma oxidation, better aromatic expression & freshness, and longer preservation of thiols and esters; added before AF.***
  - ***Pure-Lees Longevity™ a unique SIY with an unmatched ability to scavenge $O_2$ (up to 1 mg/L of DO) can also be used to maintain freshness and thiols (as well as reduce $SO_2$ usage) during storage, transport and bottling. Recent results in Sauvignon Blanc show that thiols, DO and $SO_2$ levels can be maintained over time when Pure-Lees™ Longevity is used during storage or transport.***

WINE YEASTS · WINE BACTERIA · NUTRIENTS /PROTECTORS · SPECIFIC INACTIVATED YEASTS · ENZYMES · CHITOSAN · VINEYARD SOLUTIONS

LALLEMAND

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*Original* ***by culture***

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NUTRIENTS PROTECTORS

## YEAST REHYDRATION – GOFERM® PROTECT EVOLUTION - 30 g/hL

GoFerm™ Protect Evolution is a new generation yeast rehydration product, that has very high levels of sterols to ensure good yeast vitality, improves yeast performance, fermentation kinetics and sensory outcomes.

## YEAST NUTRITION – 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 |
|---|---|---|---|---|---|
| Level² Solutions GAÏA™ | *Metschnikowia fructicola* | Low | Approx. below 15ºC (0-12ºC) | Low | Microbiological protection for Sauvignon Blanc juice, for example during stabulation. |
| Lalvin C™ | *Saccharomyces cerevisiae ex bayanus* | Low | Approx. 14ºC ** | Low | Reduces significant amount of malic acid during fermentation thereby reducing total acidity in wine. Robust and clean fermenter, some ester formation. |
| Lalvin QA23® | *Saccharomyces cerevisiae* | Low | Approx. 12ºC ** | Moderate | Clean and fresh wines. Thiol converter. Robust and reliable yeast. |
| IOC Revelation Thiols™ | *Saccharomyces cerevisiae* | Low | Approx. 15ºC ** | Moderate | Citrus and tropical characters. High levels of 3MH. Very popular yeast for New Zealand Winemakers. |
| IOC BE Thiols | *Saccharomyces cerevisiae* | Moderate | Approx. 14ºC ** | Very Low | Controlling sulfite content for wines rich in fruity thiols. Exhibits a special ability to avoid $SO_2$ negative sulphur compound production and low acetaldehyde. |
| NEW Lalvin Sauvy™ | *Saccharomyces cerevisiae* | Medium-High# | Approx. 14ºC | Low | High releaser of 4MMP. Wines show typical flavour profiles; boxwood, gooseberry, passionfruit, citrus and black currant with refreshing and crisp mouthfeel |
| Cross Evolution™ | *Natural hybrid (S. cerevisiae x S. cerevisiae)* | Low | Approx. 14ºC | Low | Mouthfeel, aromatic intensity. Some ester production. Distinctive fruity and floral notes. A high releaser and converter of thiols, resulting in wines with high 4MMP, 3MH and 3MHA. |

* determined under standard laboratory conditions | ** winery feedback has reported AF as low as 10°C | # recommend to use complex fermentation nutrition

SIY

## SPECIFIC INACTIVATED YEAST
## GLUTASTAR® - ADDED AFTER PRESSING – 30 g/hL

A new generation of high glutathione SIY, **Glutastar™** gives the best protection against browning and aroma oxidation in white and rosé wines, for better aromatic expression, freshness, and a longer preservation of thiols and esters.

## PURE LEES LONGEVITY™ – 20-40 g/hL

It is a specific inactivated yeast developed to help wine resist oxidation during storage, transportation and aging. It relies on a high dissolved oxygen consumption capacity

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