

# The chemistry of Sauvignon Blanc

MAY 2020

Easy drinking, aromatic and without pretension - there are so many ways to describe New Zealand Sauvignon Blanc. It's the top-growing varietal in New Zealand by area (63% in 2020), and the top Sauvignon Blanc in markets around the world. With flavour and aroma profiles ranging from grassy and capsicum to stone fruit and tropical passionfruit, this varietal demonstrates a wide range of regional and sub-regional styles influenced by climate, soil type, and even microbes.

Here's a look at some compound classes that we know about and that we deem important.



## VARIETAL THIOLS

4MSP (4-sulfanyl-4-methylpentan-2-one), 3SHA (3-sulfanyl hexyl acetate) and 3SH (3-sulfanyl hexanol) are found in high concentrations in New Zealand Sauvignon Blanc and play a key role in its distinctiveness. Together, they comprise the bouquet of tropical, grapefruit, and sweet sweaty passionfruit characteristics we call varietal thiols.

**4MSP** - described as box tree or passion fruit.



**3SH** - described as grapefruit, passion fruit, gooseberry or guava.

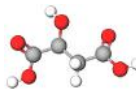
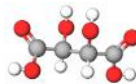


**3SHA** - described as passion fruit or grapefruit.



## ACIDS

New Zealand's cool, maritime climate allows for Sauvignon Blanc grapes to ripen slowly, developing a natural acid balance. Acidity represents crispness and freshness, due to the high content of tartaric, malic and citric acids in the grapes.



## METHOXYPIRAZINES

IBMP (Isobutylmethoxypyrazine) is the main aroma compound from this family found in New Zealand Sauvignon Blanc. Its aroma is described as green pepper or capsicum.



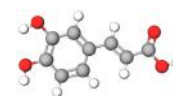
## C6-ALDEHYDES

The freshly cut grass aromas come primarily from hexenal, trans-2-hexenal and cis-3-hexenal, which during fermentation get converted to the corresponding alcohols. cis-3-Hexenal has been described as almost sweet grassy or green apple.



## POLYPHENOLIC COMPOUNDS

Phenolic compounds, such as catechin, caffeic acid and quercetin, are commonly found in Sauvignon Blanc wine, where they are seen to either specifically suppress - or accentuate - certain aromas. The presence of 3SH, for example, is accentuated with higher levels of caffeic acid.



## LEGEND

Compounds are expressed in different stages of the winemaking process:



PREPARATION



FERMENTATION

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