

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.

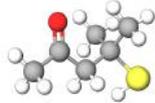
Here's a look at some compound classes that we know about and that we deem important.



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.

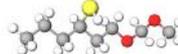
4MSP - described as box tree or passion fruit.



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

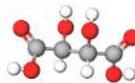


3SHA - described as passion fruit or grapefruit.



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.



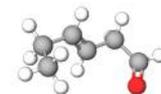
METHOXYPIRAZINES

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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