

SHELL-FISH OR FRUITY TASTE: THE MINERALITY OF WINES IS SOLVED

Nowadays, the term "minerality" is fashionable to describe wines. This term has been popularized by critics, winemakers and consumers, but paradoxically, the origin of minerality remains unclear. In fact, it is often thought that the minerality of a wine comes from the minerals of the "terroir".

To challenge this hypothesis, researchers of the CSGA selected Chablis wines, this vineyard being reputed for the mineral character of its wines. This winery has the peculiarity of being planted along both banks of the Serein river, with differences in sun exposure between the two banks. Thirty-two wine producers from the Chablis area to rate the minerality of eight wines (four from each river bank) and to describe their sensory characteristics. Rating was done under blind conditions (the participants did not know the origins of the wines) and was based on orthonasal olfaction (by smelling the samples) as well as on global tasting. In parallel, the researchers carried out a chemical characterization of each wine.



The results showed that higher notes of minerality could be attributed to the wines from the left bank than to those from the right bank, but only when the wines were evaluated by smell. In contrast to preconceived ideas, mineral ions present in the wines did not allow minerality notes to be explained. However, judgements of minerality correlated with the concentration of a volatile component, methanethiol, which has an odour that is characteristic of fresh shell-fish. This correlated inversely with the presence of copper that neutralizes the methanethiol and fruity components. In other terms, the marine and shell-fish notes are an important dimension of wine minerality, whereas the fruity notes are somewhat absent from the wines labelled as being mineral.

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To know more

Rodrigues H, Sáenz-Navajas MP, Franco-Luesma E, Valentin D, Fernández-Zurbano P, Ferreira V, Ballester J (2017) Sensory and chemical drivers of wine minerality aroma: An application to Chablis wines. *Food Chemistry*, 230, 553-562.

Key words

Minerality; Chardonnay; wine; olfaction; perception; minerals; chemical analysis; sensory analysis; expert