Abstract

Aims: The aim of this paper is to review examples, taken from New World and Old World vineyards, for which soil physical, chemical or biological properties have influenced a site's terroir, expressed through the personality of the wines.

Methods and results: Literature results are presented, together with the results of new research on the control of N uptake and soil N mineralization by Sauvignon Blanc vines at a high fertility site, by withholding irrigation and using different inter-row cover crops.

Conclusion: Withholding irrigation from pre-fruit set to veraison restricted N uptake by the vines, leading to better berry quality parameters without significantly affecting Baumé or yield.

Significance and impact of study: The results confirm the importance of a regulated supply of water and N at critical stages of vine phenology for achieving optimum fruit quality.
Wine terroir is complex but there is currently little evidence that vineyard geology is the overriding influence on taste, says professor Alex Maltman... How the vine roots are warmed by the soil plays a role, but a particularly popular claim is that the rock of some particular vineyard provides an advantage through being heated during the day and re-radiating warmth to the grapes at night. However, the scientific data show that this capacity varies little between differing rock types – all of them do it, provided the ground is bare – and that it’s not a very great effect anyway. How soils have their effect Soils differ in their chemical and physical properties. According to Victoria Carey, a lecturer in viticulture at Stellenbosch University who specializes in terroir, the latter are more important for terroir effects. 'The most convincing indications in the scientific literature are that the effect of soil type is through its physical properties, and more specifically, through the water supply to the grapevine,' she suggests. The best terroirs were the ones where the soils are free draining, with the water tables high enough to ensure a regular supply of water to the vine roots which then recedes on veraison (when the berries change colour) so that vegetative growth stops and the vine concentrates its energies on fruit ripening. Terroir (/tɛˈʁoːr/, French: [tɛʁwaʁ]; from terre, “land”) is a French term used to describe the environmental factors that affect a crop's phenotype, including unique environment contexts, farming practices and a crop’s specific growth habitat. Collectively, these