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His main teaching topics are: General Viticulture, Advances in Viticultural Science – Cultural Techniques, Mountain Viticulture.

His main Research topics are: grapevine physiology, grapevine propagation, table grape cultivation, table grape plastic covering

Physiological aspects of growing wine grapes in higher elevation sites
Abstract

The high elevation viticulture in Europe is considered '*Heroic viticulture*' because of the many social and economic problems it has to deal with. And this is why the mountain vineyard surfaces are drastically reducing in the last years. Some technical solutions, such as mechanization of the cultural practices and increasing of farm vineyard surface may help to maintain and improve the high elevation viticulture, in order to protect soil hydrologically, and landscape. Quality of 'mountain wines' is very high, in terms of sustainability (drier air, less biotic diseases, less sprays), nutrition (more UV light, more polyphenols), taste (more equilibrate composition among sugar, alcohol and acidity; more aromas). In Alpine zones (300-700 m a.s.l.), veraison may be delayed by 2-3 days per each hundred meters of increasing elevation. Earlier veraison stimulates the final berry development and the reaching of its technological maturity. Phenolic maturity is improved by thermal conditions driving veraison and metabolite synthesis at mid-velocity and avoiding phenol degradation and/or biosynthetic arrest. In the presence of low vine productivity, high phenolic maturity occurs either at low or high elevation sites having a low irradiance, which helps to avoid thermal stress and reduces the length of the phenological phases.