

"A great wine begins in the vineyard" Environmental and genetical influences on grape quality

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Many fruit crops are grown with an emphasis on appearance and yield. In contrast, premium wine grapes are one of the few crops that are still grown primarily for their taste and flavor. Over the last years, there has been an emphasis by the wine industry to improve quality through reducing yield. However, grape composition and quality is the result of many complex interactions that occur in the field throughout the growing season and yield is only one part of the equation. Hereby, various environmental and genetical factors, which can be influenced by a whole

range of viticultural practices determine grape quality and composition. This talk will give an overview on the compounds determining the taste, aroma and quality of grapes and the genetic diversity of grapevine cultivars leading to different wine styles. Further, the influences of environmental factors like light, temperature, water availability and nutrition on biosynthesis of important grape metabolites including sugars, acids, aromatic compounds and polyphenols will be highlighted and their influence on grape and wine quality discussed.