Sensory profiles of microvinificated Danish wines (ii): Effects of vinification method

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Abstract

The wine style is strongly determined by the vinification method and for each cultivar different methods may have to be selected to express its highest quality potential. Especially the initial steps may strongly impact the flavour by extracting flavour components from the grapes to different levels. In a small scale vinification experiment we focused on different maceration methods to explore the optimal treatment of some of the most important grape varieties in Denmark. The varieties for white wine `Solaris´, `Ortega´ and `Madeleine Angevine´ were either cold macerated for 6 hours at 10°C or combined with short skin fermentation at 19°C (40 hours) before pressing. The cultivars for red wine `Rondo´ and `Bolero´ where after destemming and crushing submitted to either a direct press or macerated for 4, 8 or 12 days at 25°C. The vines were sensory evaluated by a small expert panel at LWG in Germany. The white wines based on the cold maceration showed fruity, flowery and exotic flavours whereas the combined skin fermentation enhanced body but also higher astringency and green aromas. A reductive procedure with a short cold maceration showed to be advantageous for an aromatic fresh white wine. For both red cultivars the 12 day skin maceration was evaluated highest in ‘General Quality’ (combined score of smell, taste and harmony) and in color, fruitiness and positive tannins. Shorter maceration times resulted in more green and astringent notes and negative phenols. The rose-wine from the direct press showed also a high potential for a fruity aromatic fresh style dominated by berry and flowery flavours. More knowledge on the cultivar specific impact of fermentation methods are important to promote the growing of the newer disease tolerant interspecific grape varieties and to explore the quality potential in new emerging cool climate wine districts such as Denmark.