

Effect of partial grape drying on the physicochemical composition of Cabernet Sauvignon must

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The objective of this work was to determine the effect of partial grape drying on the composition of Cabernet Sauvignon must. The experiment was carried out in 2006 in a vineyard established in 1993. It consisted of six treatments and four replicates, ten plants/plot. The experiment was in a complete block design. When grapes were ripened, bearing cluster shoots were separated from plants and left on the trellis. This was done on the 1st, 2nd, 5th, 7th, 9th, and 12th days after grape maturity. Variables analyzed were density, °Brix, titratable acidity, °Brix/titratable acidity ratio, pH, sugar, and potential alcohol. Data were submitted to the analysis of variance and to the polynomial regression analysis. Results show that partial grape drying had significant effect on all variables studied and polynomial regression analysis show that density, °Brix, pH, sugar, and potential alcohol were better adjusted to a first degree equation while titratable acidity and °Brix/titratable acidity ratio to a second degree. The minimum, maximum, and per day increase values for each variable were: density (1.0887; 1.1095; 0.0017 g mL⁻¹), °Brix (21.51; 25.57; 0.34), pH (3.31; 3.46; 0.004), sugar (206.1; 261.7; 4.6 g L⁻¹), and alcohol (12.11; 15.39; 0.27% v/v). However, titratable acidity increased just to the 7th day and then decreased: estimated values – meq L⁻¹ – were 73 in the 1st, 94 in the 7th, and 72 in the 12th day. But °Brix/titratable acidity ratio decreased just to the 5th day and then increased: values were 39.4 in the 1st, 33.7 in the 5th, and 45.6 in the 12th day. These data show that partial grape drying could be used by grape growers to produce grapes with more sugar and wine with higher alcohol content. Nevertheless, it is necessary to emphasize that wine characteristics and quality should be carefully evaluated.

Palavras-chave: *Vitis vinifera*, grapevine, raisining, passerillage, grape must