INFLUENCE OF 'PINOTAGE' DEFOLIATION ON FRUIT AND WINE QUALITY

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Contex and purpose of this study - Among the different management techniques in Viticulture, which have been developed with the purpose of optimizing the interception of sunlight, the photosynthetic capacity of the plant and the microclimate of the clusters, especially in varieties that show excess vigor, the management of defoliation presents great importance. The defoliation consists of the removal of leaves that cover or that are in direct contact with the curls, which can cause physical damages in the berries, and aims to balance the relation between part area and number of fruits, providing the aeration and insolation in the interior of the vineyard, as well as reduce the incidence of rot in order to achieve greater efficiency in phytosanitary treatments and quality musts. The objective of this work was to evaluate the effect of defoliation on the physical-chemical parameters of grapes, musts and wine from the 'Pinotage' cultivated in Dom Pedrito, Region of "Campanha", "RS", Brazil, in a commercial vineyard planted in the East-West direction .

Material and methods - The study was carried out by the Nucleus of Study, Research and Extension in Enology (NEPE²), of the Bachelor's Degree in Oenology of UNIPAMPA. The work was carried out in the 2017/18 harvest, with the grapes coming from a commercial vineyard cultivated in a simple vineyard, with a height of 1.0m of the first wire to the ground, 0.5m height of the leaf area, spacing of 1.3m between plants and 3.0m between rows, adding 84 plants. Defoliation was carried out in the color change of the berries, being divided into four treatments, each treatment with 21 plants, where T1 Control (no defoliation of the vine); Defoliation to the North; T3 Defoliation to the South and; T4 Defoil South and North. Microvinifications were done with temperature control and five days of maceration. It was evaluated in the must: total soluble solids, density (g L^{-1}), pH, reducing sugars (g L^{-1}), Gluconic Acid (g L^{-1}) and Potassium Content (mg L^{-1}); in the wine the following variables were evaluated: Alcohol (% v/v), Total Acidity (meq L^{-1}), Density at 20ºC, pH, Volatile Acidity (meq L^{-1}), Glycerol (g L^{-1}), Tartaric Acid (g L^{-1}), Malic Acid (g L^{-1}), Color Intensity and Tint. The data were submitted to the Tukey averages comparison test at 5% probability.

Results – According to the results we can verify that the treatments with defoliation did not influence the quality of the grape must, but the defoliation in the North direction, did decrease the glycerol content of the wine.

Key words: *Vitis vinifera* L.,Carbohydrates, Photosynthesis, Viticulture.

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