



## Fruit quality of 'Chenin Blanc' grape influenced by different rootstocks during a production cycle in the second half

João Paulo Dias Costa<sup>1</sup>, Lígia Tuani da Silva Santos<sup>1</sup>, Renata Leal Cipriano<sup>2</sup>, Débora Tamara Félix<sup>3</sup>, Maria Auxiliadora Coêlho de Lima<sup>4</sup>

<sup>1</sup>Universidade Federal do Vale do São Francisco, Petrolina, Brazil, <sup>2</sup>CNPq Scholarship, Universidade de Pernambuco, Petrolina, Brazil

<sup>3</sup>FACEPE Scholarship/Embrapa Semiárido, Petrolina, Brazil

<sup>4</sup>Embrapa Semiárido, Petrolina, Brazil

E-mail: costa.paulod@gmail.com

Physical and chemical characteristics of the berries are essential for determining the wine quality. Those components of quality, which are directly related to cultivar, management adopted in the vineyard and the wine-growing ecosystem, guarantee the distinctive character of the product (Silva et al., 2015). Regarding to management, the use of rootstocks provides improvement in plant vigor, yield and on some characteristics of the fruit, such as pH, acidity and soluble solids. This study aimed to evaluate the influence of different rootstocks on physico-chemical characteristics of the fruits of 'Chenin Blanc' grapes produced in the second half of the year. The study was accomplished in the Experimental Field of Embrapa Semi-arid (09°09'S, 40°22'W, and altitude: 365.5 m). Vines were trained on a vertical shoot position and spur pruned in a bilateral cordon, in 3.0 x 1.0 m spacing and using a drip irrigation system. The vines were grafted on rootstocks IAC 313, IAC 572, IAC 766, SO4 and Paulsen 1103. In the production cycle of the second half of 2015, whose harvest was held in October, the following variables were evaluated: bunch weight, berry mass, resistance to compression force, skin color (measuring luminosity, chroma and Hue angle), soluble solids content, titratable acidity, soluble sugars content and yellow flavonoids in the peel. The experimental design was a randomized blocks with four replicates. Data were submitted to analysis of variance and means were compared by Tukey's test ( $p < 0.05$ ). Treatments did not influence cluster weight, berry weight, skin color and yellow flavonoids. Grapes harvested from vines on the rootstock IAC 572 showed greater resistance to compression force. The highest soluble solids and soluble sugars content were observed in grapes harvested from plants grafted on Paulsen 1103 and SO4, respectively. Vines growing on IAC 313 produced berries with lower soluble solids and soluble sugars content. That response can be justified by the high vigor conferred by this rootstock to 'Chenin Blanc' grape. In the production cycle studied, rootstocks influenced some physical and chemical components of fruit quality, and the most vigorous rootstocks reduced soluble solids and soluble sugars content in berries of 'Chenin Blanc' grapes. This response may determine the quality of the wines.

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### References

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