



→ Quality of 'Isabel Precoce' grapes in the fourth productive cycle on 'IAC-572' and 'IAC-766' rootstocks at tropical conditions

Thalita Passos Ribeiro¹, Maria Auxiliadora Coêlho de Lima², Sormani Roberto Rosatti³, Rita Mércia Estigarribia Borges²

¹UFERSA, Crop Science Department, BR 110, Km 47, Mossoró, Rio Grande do Norte State, Brazil.

²Embrapa Tropical Semi-Arid, BR 428, Km 152, PO Box 23, ZIP Code 56302-970, Petrolina, Pernambuco State, Brazil.

³Scholarship, FACEPE, Recife, Pernambuco State, Brazil

The study aimed to evaluate the quality of Isabel Precoce grape cultivar on the fourth productive cycle growing on 'IAC 572' and 'IAC 766' rootstocks, at São Francisco Valley, Brazil. The vines were cultivated in pergola system, spaced 4 m x 2 m and irrigated with micro sprinkler. The production pruning was accomplished in January 2011. Bunches were collected from the beginning of maturation to harvest, at 50, 57, 64, 71, 75 and 80 days after fruit set. The variables analyzed were: bunch weight, skin color (L, a * e b *), titratable acidity, soluble solids and total extractable polyphenols content. The study was carried out as a randomized blocks, in a factorial arrangement 2 x 6 (rootstocks x days after fruit set), with four replicates consisting of five bunches. There was no statistical difference for bunch weight. For the peel color parameters a* and b*, besides the influence of the days after fruit set, the berries of 'Isabel Precoce' grapes grown on 'IAC 766' rootstock showed a yellow-green color during longer time on maturation. The grapes were more opaque at harvest, probably due to higher production of wax at that time. Due the normal physiological processes in the fruit, the soluble solids content increased and the titratable acidity decreased with the maturation, which was not affected by the rootstocks. The use of 'IAC 572' rootstock promoted the highest total extractable polyphenols content at 75 days after fruit set (320.66 mg 100 g⁻¹), decreasing at harvest (280.86 mg 100g⁻¹). However, even with this decrease, the total extractable polyphenols content were higher than those observed after ripening in bunches collected from plants cultivated on 'IAC 766' rootstock (223.09 mg 100g⁻¹). In conclusion, plants growing on 'IAC 572' rootstock differed of others for a typical red coloration and a higher total extractable polyphenols content.