Area of concentration: Plant Breeding

INFLUENCE OF ROOTSTOCKS ON VIGOR AND BUD FERTILITY OF AN ADVANCED TABLE GRAPE PROGENIES IN SÃO FRANCISCO VALLEY

SILVA; Francismary Barros[1], OLIVEIRA; Carlos Roberto Silva de[1], FELINTO FILHO; Ezildo Francisco[1], PONTES; Glácia Maria de Alencar[2], LEÃO; Patrícia Coelho de Souza[3]

[1]UFRPE - Universidade Federal Rural de Pernambuco - Bolsista CAPES/Facepe, carlos.robertooliveira@ufrpe.br, francismarybarrosdasilva@gmail.com, ezildoff@gmail.com
[2]UNIVASF- Universidade Federal do Vale do São Francisco - gciaalencar@gmail.com
[3]Embrapa Semiárido, patricia.leao@embrapa.br

The development of seedless grape cultivars with high natural bud fertility adapted to the semi-arid tropical climate of Brazil is the goal of national and international grapevine breeding programs. Then, the objective of this research was to evaluate the vegetative vigor and the fertility index of buds of 'Progeny 53', an advanced progeny of Embrapa's genetic breeding program, which is in the final validation step on different rootstocks in the São Francisco Valley. The experiment was carried on during two production cycles (July/2021 and January/2022). The scions were trained in a horizontal trellis system, with spacing 3.5 m x 2.5 m and drip irrigation. The treatments were represented by eight rootstocks: 101-14 Mgt, IAC 313, IAC 572, IAC 766, Paulsen 1103, Ramsey, SO4 e Teleki 5C. The experimental design was in randomized blocks, in split plots in time, with four replications. The variables evaluated were: fresh mass (FM) of branches eliminated after pruning in kg plant^{-1}, stem diameter (SD) in mm, number of lateral branches after pruning (NB), and bud fertility index (FI). The data obtained were submitted to analysis of variance. In all variables, treatments showed independent behavior between rootstocks and production cycles. The effect for cycles was significant for the variables FM, SD and FI, being the second cycle superior. The fertility index (FI) presented an average value of 0.75 bunches bud^{-1}, which represents a satisfactory bud fertility. There was no influence of rootstock on FM, NB and FI of vines 'Progeny 53' in the second production cycle. Ramsey rootstock increased the stem diameter of the vines compared to the 'IAC 572', however the other rootstocks did not show significant differences.

KEYWORDS: Table grape; Grape breeding; Tropical viticulture.