

IAC JULIANA - Table grape cultivar

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ABSTRACT

IAC Juliana is a white table grape cultivar developed by the Agronomic Institute of Campinas (IAC), recommended for cultivation throughout São Paulo State, mainly in the Campinas-Jundiaí region. It is a second-generation hybrid, showing high yield potential. It can be cultivated in the same way as 'Niagara Rosada', which is currently the main table grape cultivar in São Paulo, but differs in berry color and in flavor, having a characteristically Muscat taste.

KEY WORDS: *Vitis* spp, viticulture, yield potential.

INTRODUCTION

The table grape culture remains strong in São Paulo, being one of the few segments of agrobusiness with constant and significant area increase over the last ten years. The region of Campinas and Jundiaí continues to be one of the largest production centers for viticulture in São Paulo due to its almost 6.000 hectares planted with table grapes. However, the region's climate does not allow many alternatives for the producers as far as crop scheduling, because the season ends are concentrated between the middle of December and the middle of February, which causes low prices for the duration of that period. On the other hand, another important factor which contributes to reduced revenue is the exclusive use of a single variety, namely Niagara Rosada. The Agronomic Institute of Campinas - IAC, through its continuing program of grape improvement founded in 1942, intends to create and to select grape cultivars that can be viable and interesting alternatives for viticulturists. Pursuant to this end, IAC has developed the cultivar Juliana, which is now presented to growers.

ORIGIN

IAC Juliana resulted from a crossing accomplished in 1983, being one of about 2000 seedlings from several crossings conducted at the end of 1970's and the beginning of the 1980's (Ferri and Pommer, 1995; Pommer, 2000; Pommer et al., 2000). PqC Dr. Ivan José Antunes Ribeiro, then Head of the Viticulture Section of IAC made the crossing which led to the new cultivar. The seedlings were planted at the Experimental Center of Campinas. PqC Dr. Celso

Valdevino Pommer, in 1988/89 selected IAC Juliana. The genotype was tested in the Experimental Agronomy Stations of Mococa and Tietê for vegetative propagation, and as compared to other selected hybrid clones, it performed well. In 1997, it was introduced at a small observation field in the Experimental Agronomy Station of Jundiaí, in an experimental design, with the cultivar grafted on three common rootstocks, IAC 766, Riparia of Traviú and IAC 572. The name of the cultivar was given in honor to Miss Juliana Perecin Antunes Ribeiro, daughter of PqC Dr. Ivan José Antunes Ribeiro.

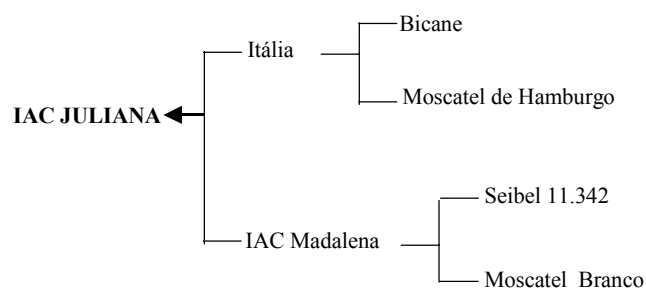


Figure 1. Genealogy of IAC Juliana.

CHARACTERISTICS

Bunch of medium size (200 to 300g), cylindrical-conical, not very winged, medium compact. Medium size, spherical white berries. The flavor is characteristically Muscat, quite pleasant especially close to the peel and the texture of the pulp is fleshy. The summary of its characteristics is the following: a) bunch: length: 16 to 20 cm; width: 10 to 14 cm;

weight: 230 to 300 g; b) berries: average number per bunch: 60 to 75; total berry weight: 200 to 280 g; average weight: 3.3 to 3.5 g; length: 18.6 to 27.0 mm; width: 17.1 to 17.7 mm. The total soluble solids content ranges from 14.5 to 17.5° Brix

'IAC Juliana' presents cycle duration similar to 'Niagara Rosada'. Bud break and flowering phases happen between 13 and 15 days and 45 and 50 days after pruning, respectively. Harvest is made, usually 135 to 140 days after pruning, 'Juliana' showed a tendency to precocity (about 5 days) in relation to 'Niagara Rosada'. The necessary thermal sum to complete the period pruning-crop is of 1585 degree-days for both cultivars, considering temperature base of 10°C.

CULTURAL CHARACTERISTICS

IAC Juliana presents good vegetative vigor. Shoots are characteristically upright, should be tied to the wires, in the same way as Niagara Rosada. Bud fertility is excellent, with a mean fertility of 1.4 bunches/branch. A second crop is common, originating bunches production. It supports long or short pruning, could be run easily in a three-wire system. The cultivar is a little more susceptible than 'Niagara Rosada' to fungal diseases, mainly downy mildew and anthracnose, demanding preventive spraying treatments in the same way as other cultivated varieties. Three-year mean productivity, in Jundiaí (SP), was 2.6kg/plant, but some plants reached values of 4.3kg, in favorable years for their development. Development is normal and equivalent on the rootstocks Ripária of Traviú, IAC 572 and IAC 766, and has not yet been tested in others. The vines row spacing can be the same as the average Jundiaí spacing (2m x 1m), but it should give better results,

as in the case of Niagara Rosada, with the narrower spacing used in Indaiatuba.

RECOMMENDATION OF USE AND DISTRIBUTION OF FOUNDATION MATERIAL

'IAC Juliana' is recommended as an alternative to 'Niagara Rosada' and should be chosen for cultivation as a gradual substitute, beginning with, at the most, 1/3 of the total area, so the growers can get accustomed to its characteristics. 'IAC Juliana' tends to be more precocious than 'Niagara Rosada' in drier years, a fact that has been repeated every year in the region of Indaiatuba. The cultivar's propagation material is available in small initial amounts at the IAC Experimental Agronomy Station- Jundiaí, telephone +55.11.4582.7284.

REFERENCES

- Ferri, C.P. and Pommer, C.V. 1995. Quarenta e oito anos de melhoramento genético da videira em São Paulo. *Scientia Agricola*. 52:107-122.
- Pommer, C.V. 2000. Relatórios anuais individuais ao Instituto Agrônômico: 1991 a 2000. IAPAR, Londrina.
- Pommer, C.V.; Ribeiro, I.J.A.; Passos, I.R.S.; Terra, M.M.; Pires, E.J.P.; Martins, F.P. and Frutuoso, L.N. 2000. Effectiveness of biparental crosses on breeding table grapes in Brazil. *Acta Horticulturae*. 528:677-684.

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