



Influence of rootstocks on agronomic performance of the seedless table grape 'BRS Melodia' under Brazilian tropical Semi-arid

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Introduction



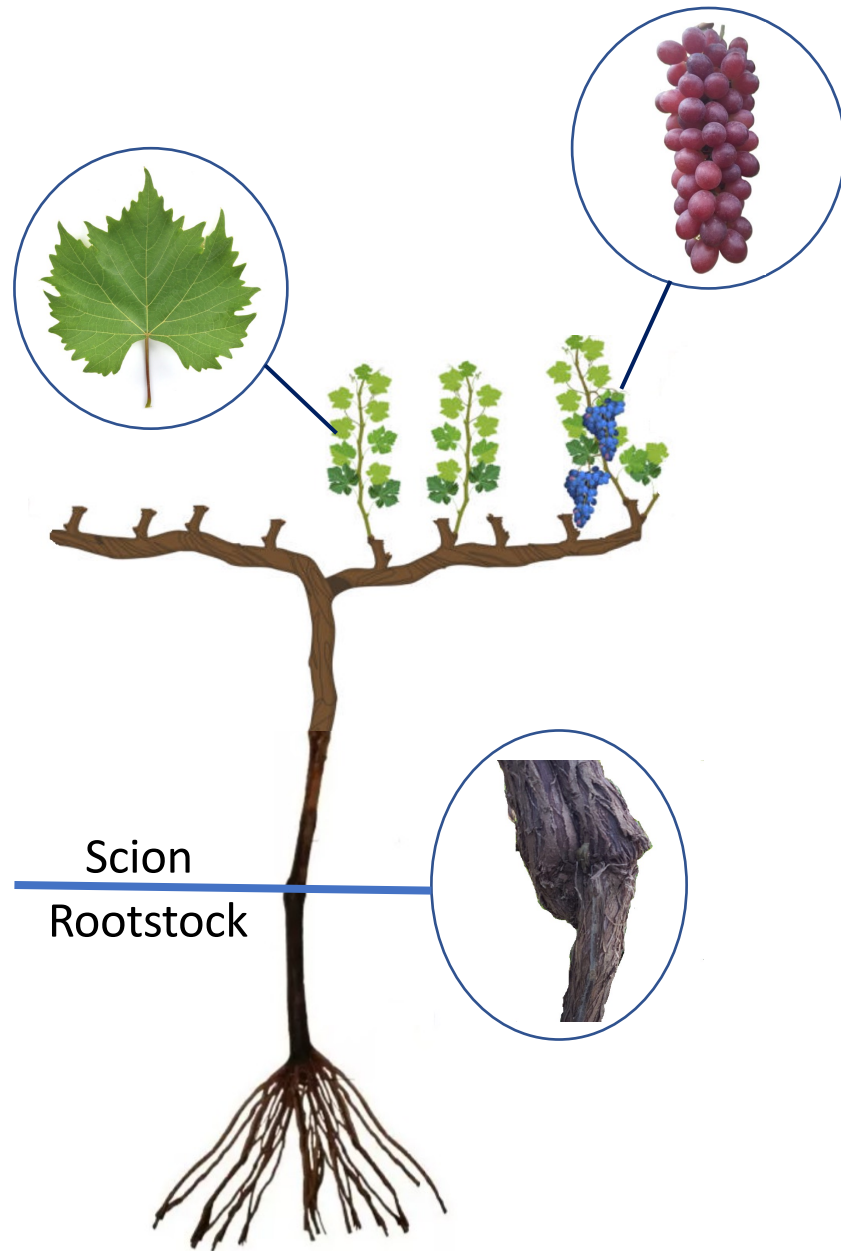
The São Francisco Valley
2022 – 397.7k ton
US\$ ± 400 million



Tropical semi-arid climate
Temperature 26.6 °C
Rainfall ± 500 mm



BRS Melodia
'Tutti frutti' flavor
Pink color
Yield of 50 ton/ha/year



Objective

Evaluating the effect of rootstocks on the yield, production components, and physicochemical characteristics of the 'BRS Melodia' grape.



Material and methods

Experimental design

Rootstocks

1 – Ramsey ‘Salt Creek’

2 – Teleki 5C

3 – Paulsen 1103

4 – SO4

5 – 101-14 MGT

6 – IAC 313

7 – IAC 572

8 – IAC 766

Vines two years old during two consecutive growing seasons from May/21 to January/22, in Casa Nova, BA, Brazil.



Variables

- Yield, in ton/ha;
- Number of bunches;
- Bunche: mass (g), width (cm), and length (cm);
- Berry: mass (g), length (mm), and diameter (mm);
- Soluble solids content (°Brix);
- Titratable acidity, g of tartaric acid/100 mL;
- Sugar/acid ratio

A randomized block experimental design with four replications

Results

Table 1: Mean values for yield, number of bunches per plant and bunch weight of ‘BRS Melodia’ grapes on different rootstocks over two consecutive growing seasons.

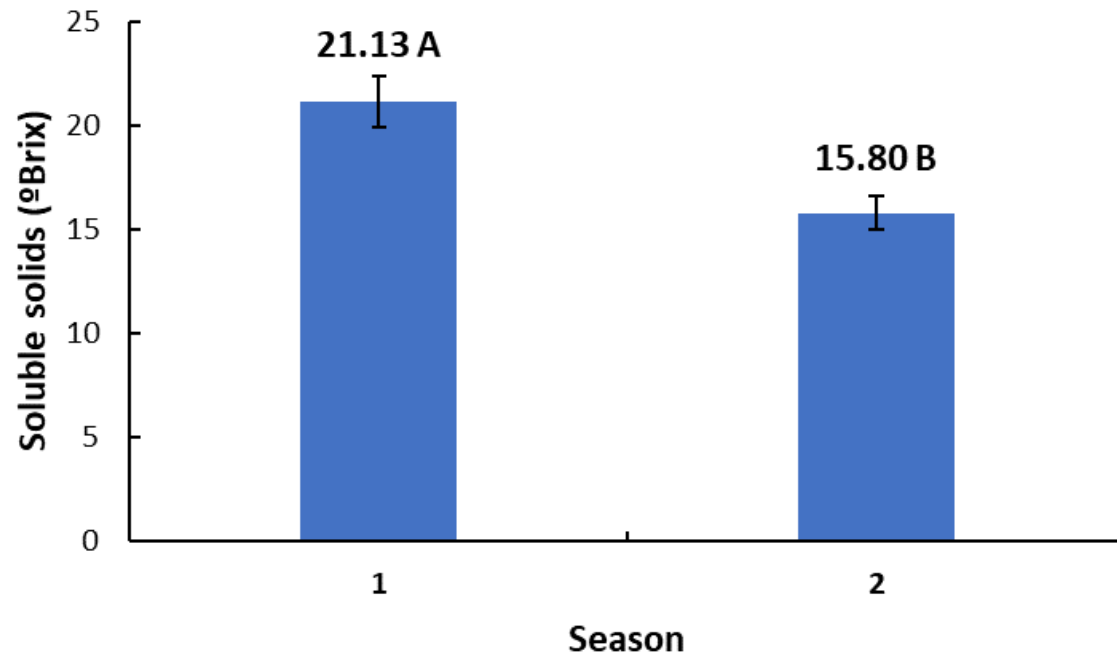
Rootstocks	Yield (ton/ha)		Bunches per plant		Bunch weight (g)	
	Season I	Season II	Season I	Season II	Season I	Season II
101-14 MgT	7.45 A bc	7.98 A a	46.0 A c	72.0 A ab	167.8 A b	165.0 A
IAC 313	11.77 A b	10.64 A a	61.0 AB bc	89.0 A ab	200.0 A ab	157.6 B
IAC 572	22.84 A a	9.46 B a	101.0 A a	84.0 A ab	245.4 A a	183.1 B
IAC 766	23.96 A a	14.31 B a	95.0 A ab	108.0 A a	247.3 A a	154.2 B
Paulsen 1103	2.97 B c	12.08 A a	24.0 C c	85.0 A ab	155.6 A b	159.1 A
Ramsey	5.14 A bc	8.05 A a	32.0 B c	66.0 A b	186.4 A ab	160.0 A
SO4	5.83 A bc	10.84 A a	35.0 B c	75.0 A ab	186.5 A ab	166.1 A
Teleki 5C	7.79 A bc	8.88 A a	47.0 B c	85.0 A ab	202.7 A ab	144.7 B
Mean	10.97 A	10.28 A	54.97 B	82.88 A	200.21 A	161.19 B

Results

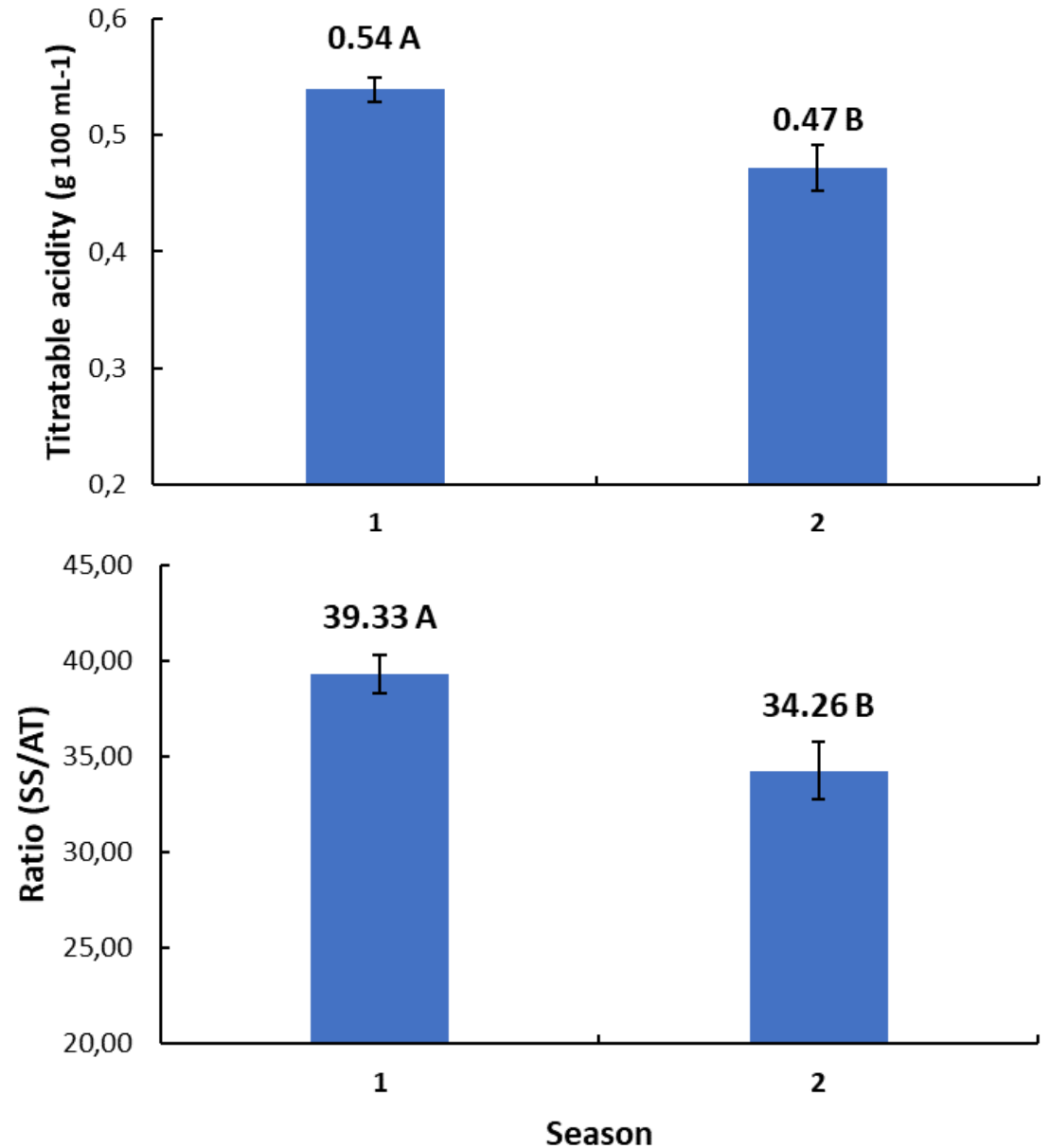
Table 2: Mean values for bunch length (BuL), bunch width (BuW), berry weight (BW), berry length (BL), and berry diameter (BD) of BRS Melodia on different rootstocks over two growing seasons.

Rootstocks	BuL (cm)	BuW (cm)	BW (g)	BL (mm)	BD (mm)
101-14 MgT	15.32 ab	7.50 ab	3.34 b	19.91 b	16.53 ab
IAC 313	16.25 ab	7.49 ab	3.56 ab	20.63 ab	16.91 ab
IAC 572	17.94 a	8.63 a	3.76 a	20.95 a	17.09 a
IAC 766	17.29 ab	8.31 ab	3.48 ab	20.06 ab	16.71 ab
Paulsen 1103	15.02 b	7.48 ab	3.29 b	19.85 b	16.30 b
Ramsey	15.17 ab	7.48 ab	3.39 b	20.16 ab	16.48 ab
SO4	16.24 ab	7.26 b	3.42 b	20.07 ab	16.67 ab
Teleki 5C	16.48 ab	7.62 ab	3.49 ab	20.20 ab	16.64 ab
Mean	16.21	7.72	3.46	20.22	16.67

Results



There were not significant differences between rootstocks



Acknowledgment



Thank you!

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