

## Avocado Rootstocks

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### Characteristics of Avocado Rootstocks

Commercially Available to Growers in California

	Topa Topa	Lula	G-6	Duke 7	Thomas	G755A,B,C (Martin Grande)	Barr Duke	Toro Canyon	D9	Borchard
<b>Normal Propagation Method</b>	seed	seed	seed	clonal	clonal	clonal	clonal	clonal	clonal	clonal
<b>Horticultural race</b>	Mexican	Guat. X West Indian	Mexican	Mexican	Mexican	Hybrid- <i>P. americana</i> x <i>P. shiedeana</i>	Mexican	Mexican	Mexican	Mexican
<b>Parentage</b>			seedling	Duke	escape seedling	market collection	Selfed Duke 6 seedling		Irradiated Duke seedling	
<b>Geographic origin</b>	California	Antigua, Florida	Guatemala	UC Riverside	Escondido, CA	Guatemala	Fallbrook, CA	Saticoy, CA	UC Riverside	Camarillo, CA
<b>Productivity "clean" soil (a)</b>	3	?	3	4	2	1	3	3	2.5	4
<b>Productivity "root rot" soil (b)</b>	1	?	3.5	3	3	2	3	3.5	3	2
<b>Tree size "clean" soil (a)</b>	5	?	5	5	5	5	5	4	4	5
<b>Tree size "root rot" soil (b)</b>	0.5	0.5	1	2	4	1.5	1.5	3	2.5	0.5
<b>Tolerance to <i>P. cinnamomi</i> (c)</b>	0	?	2	3	4.5	5	3.5	2.5	3.5	0.5
<b>Tolerance to <i>P. citricola</i> (d)</b>	3	?	3	4	2	3	3	5	4	3
<b>Salt tolerance (e)</b>	2	?	2	3	1	2	2	3	3	3
<b>Frost tolerance (f)</b>	4.5	1	4.5	4	4.5	1	4.5	4.5	4.5	4.5
<b>Tolerance to <i>Dothierella</i> (g)</b>	5	?	2	5	2	?	5	5	5	5

**Legend: 0 = poor, 5 = best**

Ratings by J. Menge, G. Bender, and M.L. Arpaia, 2002

#### Footnotes:

- Yield and canopy volume expressed as percentage in comparison to Topa Topa, based on 7 years of data (6 years for Thomas) at South Coast Field Station (Arpaia et al 1993)
- Yield and canopy volume expressed as percentage in comparison to Thomas (consolidated data from J.A. Menge, 2002)
- Consolidation of performance of young replant trials, ratings by John Menge
- Results from greenhouse trials by A. Alizadah and J. Menge (unpublished)
- Rootstock trial in sand tanks treated with three levels of saline water (Oster and Arpaia, 1991)
- Observations by G. Bender and J. Menge after freezes in 1988-1991.
- Results from greenhouse trials by A. Alizadah and J. Menge (unpublished).

### Characteristics of New Avocado Rootstocks

New Rootstocks that may become Commercially Available to Growers in California  
 ('Dusa' has recently been released to nurseries, all ratings are considered preliminary)

	<b>Dusa (Merensky 2)</b>	<b>Latas (Merensky 1)</b>	<b>Zentmyer (PP4)</b>	<b>Uzi (PP15)</b>
<b>Normal Propagation Method</b>	clonal	clonal	clonal	clonal
<b>Productivity "clean" soil - a</b>	4	?	2	3.5
<b>Productivity "root rot" soil - a</b>	4	4	5	5
<b>Tree size "clean" soil - a</b>	5	5	5	5
<b>Tree size "root rot" soil - a</b>	4	4	4	5
<b>Tolerance to Phytophthora cinnamomi (root rot) - b</b>	5	4.5	5	5
<b>Tolerance to Phytophthora citricola (trunk canker) - c</b>	?	?	3	4
<b>Salinity tolerance - d</b>	4	5	1	4
<b>Frost tolerance - e</b>	4.5	4.5	5	?
<b>Tolerance to Dothierella stem canker - f</b>	5	5	4	3
<b>Horticultural Race</b>	Mex x Guat	Mex x Guat	Mexican	Mexican
<b>Parentage</b>	escape seedling	escape seedling	breeding plot	breeding plot
<b>Geographic Origin</b>	South Africa	South Africa	U. C. Riverside	U.C. Riverside

**Rating Scale 0 = worst, 5 = best**

#### Footnotes:

- a. All ratings are based on preliminary data in California, and observations from South Africa
- b. Ratings are considered preliminary, (consolidated data from J.A. Menge, 2003, unpublished)
- c. Ratings are considered preliminary, ratings by A. Alizadah and J. A. Menge (unpublished)
- d. Preliminary ratings based on a field trial using saline water, (D. Crowley, M.L. Arpaia and G. Bender)
- e. Ratings are very preliminary and may change
- f. Ratings based on greenhouse trials (A. Alizadah and J. A. Menge unpublished)