

USDA Picos Bearss Lemon Rootstock Trial

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Purpose:

- Evaluate influence of rootstock on performance of Bearss lemon, and identify which rootstock was most suitable for commercial use under these conditions.

Bowman Trial ID: Picos 2018 BL

Scion: Bearss lemon

Planted: Nov 2018

Location: USDA Picos Farm, St. Lucie Co., Florida

Cooperator: Dr. Greg McCollum (USDA, ARS)

Other: Plan is to remove every other tree in years 2-4.

Number rootstocks: 10

Experimental design: RCB, 6 reps \times 2 trees/rootstock

Spacing: 7 ft. \times 22 ft.

Yield data: 16 Nov 2020

Fruit Quality samples: 17 Nov 2020





2020 Summary from USDA Picos Bearss Lemon Rootstock Trial – 24 months after planting

St. Lucie County, planted Nov 2018, 6 reps x 2 trees/rootstock, spacing 7 ft x 22 ft

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Rootstock	Survival (%)	2020 Weight per fruit (kg)	2020 % Juice	2020 Fruit yield/tree (kg)	2020 Juice yield/tree (kg)	2020 Fruit yield/acre (kg)	2020 Juice yield/acre (kg)
US-896	100	0.225	38.9	7.6	3.0	2153	841
US-897	100	0.193	41.3	6.4	2.6	1810	738
Volkamer	100	0.228	36.7	6.4	2.3	1818	662
US-942	100	0.210	40.7	4.7	1.9	1342	538
US-812	100	0.215	41.4	3.0	1.2	841	347
US-1516	100	0.169	40.2	3.0	1.2	850	340
Sour orange	100	0.162	40.9	2.6	1.1	746	303
Swingle	92	0.156	39.2	2.2	0.9	615	251
Cleopatra	100	0.156	39.0	1.8	0.7	523	209
US-802	100	0.163	38.1	0.8	0.3	214	84
Mean	99	0.188	39.6	3.9	1.5	1091	431
p>F		<0.0001	0.21	<0.0001	<0.0001	<0.0001	<0.0001

2020 Harvest of Bearss lemon was in November 2020, exactly 24 months after the trees were planted in the field.

Table is sorted by juice yield per acre (at actual density).