Indian River ‘Marsh’ Grapefruit Rootstock Trial

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CREC Citrus Plant Improvement
Indian River ‘Marsh’ Grapefruit Rootstock Trial - Description

Citranges are an important group of rootstocks utilized worldwide. Trees on citrange rootstocks generally feature robust growth, good disease resistance, heavy production and good fruit quality. The purpose of this replicated trial, planted in 2007 west of Vero Beach, was to assess the performance of ‘Marsh’ grapefruit on a collection of 42 promising rootstocks candidates (mostly citranges from California and the CREC breeding program), under typical Indian River grapefruit conditions. Disease ratings and yield and fruit quality data from this trial were used in the decision to release citrange rootstocks UFR-7, 8, 9, 10, 11 & 12.
Indian River ‘Marsh’ Grapefruit Rootstock Trial

- Site: Vero Beach
- Scion - Rootstocks:
  - Red grapefruit (8 rootstocks)
  - White grapefruit (42 rootstocks)
- Date Planted: March/2007
- Design: RCBD – 3 replications
  - Plot size: 4 – 7 trees
  - Spacing: 15 x 25 ft.
- Data Collected for White Grapefruit Trial
  - 2010-11; 2011-12; 2015-16: Juice quality data
  - 2010-11; 2011-12; 2015-16: Yield/tree/year and Cumulative yield
  - 2014 & 2016 HLB Symptom ratings
Indian River ‘Marsh’ Grapefruit Rootstock Trial – Cumulative 3-year yield: 2010-11, 2011-12, 2015-16 [boxes/tree] and HLB rating 2017

HLB Rating
0-0.5 – No HLB symptom or few leaf symptom
1-1.5 – 10-20% HLB symptomatic canopy
2-2.5 – 25-50% HLB symptomatic canopy
3-3.5 - > 50% HLB symptomatic canopy
4 – decline to death

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Indian River ‘Marsh’ Grapefruit Rootstock Trial – Average PS per Box per Year: 2010-11, 2011-12, 2015-16 [boxes/tree]
Indian River ‘Marsh’ Grapefruit Rootstock Trial – Cumulative 3-year yield [boxes/tree] and PS/tree 2010-11, 2011-12, 2015-16

Data collected from 3, 4 and 8 year old trees

Heat Map Interpretation
Color coding is used to better visualize the rating for cumulative 3 year yield [box/tree] and cumulative 3 year Lbs. solids/tree for ‘Marsh’ Grapefruit on each of the rootstocks in this trial. A high 3-year cumulative yield and PS (Best) are in blue and low (Worst) yield and PS are in red. The other colors represent the values between high and low according to the color scale.

Better ones

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Indian River ‘Marsh’ Grapefruit Rootstock Trial – Brix for 2010-11, 2011-12 & 2015-16

Data collected from 3, 4 and 8 year old trees

Heat Map Interpretation
Color coding is used to better visualize the Brix values for ‘Marsh’ grapefruit on each of the rootstocks in this trial for 2010-11; 2011-12 and 2015-16 seasons. Higher Brix values (Best) are in blue and lower (Worst) Brix values are in red for each season and the other colors represent the values between high and low according to the color scale.