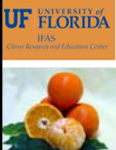



New Fresh Citrus Cultivars for Florida

Fred G. Gmitter Jr.
University of Florida-IFAS-CREC




- Fred Gmitter
- Jude Grosser
- Bill Castle
- Paul Ling
- Eric Whaley
- Margie Wendell
- Misty Holt
- Gary Barthe
- Mark Ritenour (IRREC)
- Cuifeng Hu (IRREC)
- ...and a host of others (researchers, growers, packers)!

UF-CREC Citrus Breeding





- Rootstocks
- Acid Fruit
- **Sweet Oranges**
- **Mandarins**
- **Grapefruit/pummelo**

UF-CREC Citrus Breeding



- **Commercialization** of new cultivars released for fresh citrus industry
- **Evaluation** of selections showing potential value
- **Selection** of superior candidates from within existing families
- **Creation** of new families using elite parents unique to the program
- **Development** of parents targeted to seedlessness and fruit quality
- **Understanding** the business, the marketplace, and the genetics of critical traits

Our Objectives

Valenfresh™ sweet orange, a seedless selection of Valencia for fresh market or processing, late maturing and holds quality into June!



Seedless Valencia T2-21 – for fresh or processing. Delicious, seedless Valencia selection, fruit holds well on the tree, 3 weeks earlier than Valenfresh



LB8-9; Sugar Belle™

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Summary Impressions of Tangerines

Base: Adults	Sample					
	488 (Dancy) (n=101) %	411 (n=34*) %	S Belle (n=101) %	392 (New) (n=101) %	254 (Minnesota) (n=101) %	199 (Clementine) (n=101) %
If this tangerine was available in your grocery store, how likely are you to buy it?						
Extremely likely	19	38	25	20	21	19
Very likely	31	29	31	29	21	22
Somewhat likely	26	18	28	28	33	33
Not very likely	14	6	9	9	18	13
Not at all likely	8	6	7	14	6	13
Don't know	3	3	1	1	2	1
Which one statement best describes how you might use this new variety of tangerine in your household?						
Would totally replace other orange varieties you buy	10	27	16	12	13	12
Would sometimes replace other orange varieties you buy	29	24	31	25	31	28
Would be used in addition to other orange varieties you buy	40	29	41	43	37	34
Be something that you would not buy at all	22	21	13	21	20	27

- **900**: September maturity; November quality
- **Seedless Snack**: Seedless mandarin, early season
- **950**: Seedless, easy to peel, excellent color/flavor; "Florida Clementine"
- **411**: AKA "Heather", large, easy to peel, attractive, excellent flavor


NEW UF-IFAS Mandarins

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UF 900

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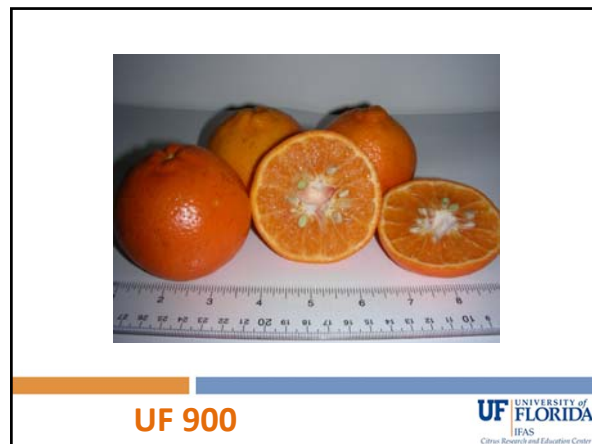
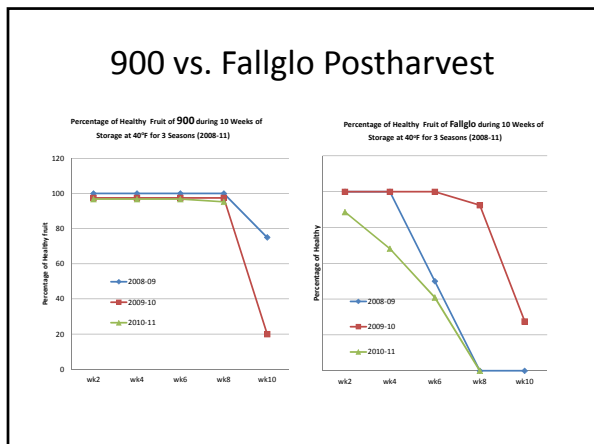


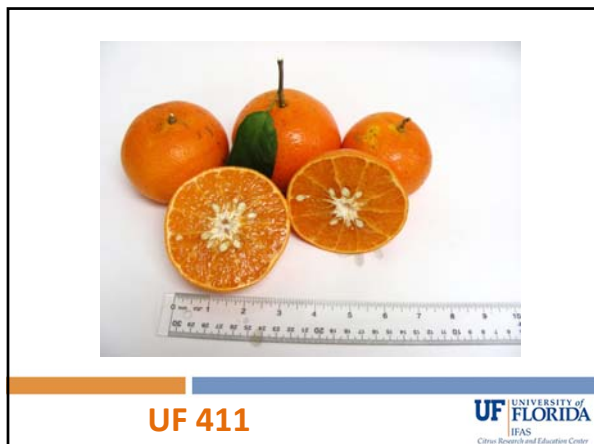
UF 900: October 13, 2010

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TRACKING SS/ACID=RATIO

UF 900	Fallglo
○ 9.56/0.81=11.8 (10-8-08)	○ 8.9/1.22=7.29 (10-8-08)
○ 11.5/0.8=14.4 (10-20-08)	○ 10.6/1.1=9.63 (10-20-08)
○ 7.2/1.4=5.14 (8-20-09)	○ 8.1/2+=<4 (8-20-09)
○ 9.2/0.82=11.21 (9-16-09)	○ 8.9/1.3=6.84 (9-16-09)
○ 9.4/0.7=13.43 (9-22-09)	○ 9.0/1.1=8.18 (9-22-09)
○ 9.0/0.6=15.0 (9-29-09)	○ 8.7/1.22=7.13 (9-29-09)
○ Rob (CREC), 9.2/1.05=8.76	
○ "FL Tan", 8.9/1.18=7.54	



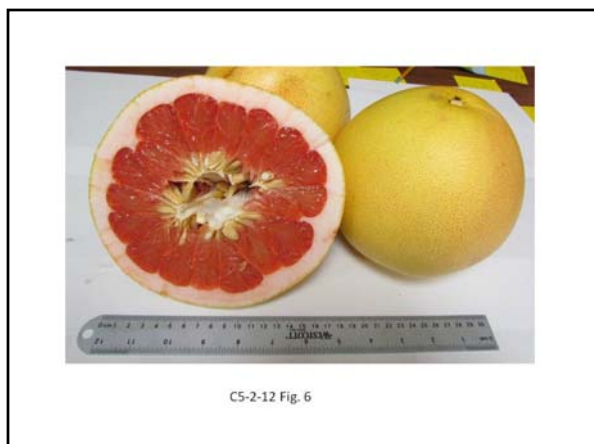
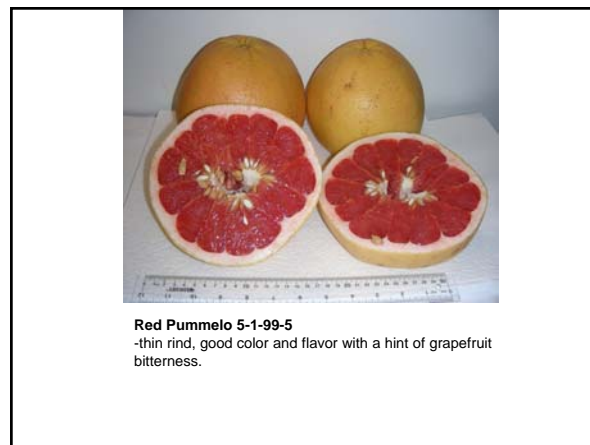


UF 411: High Brix!

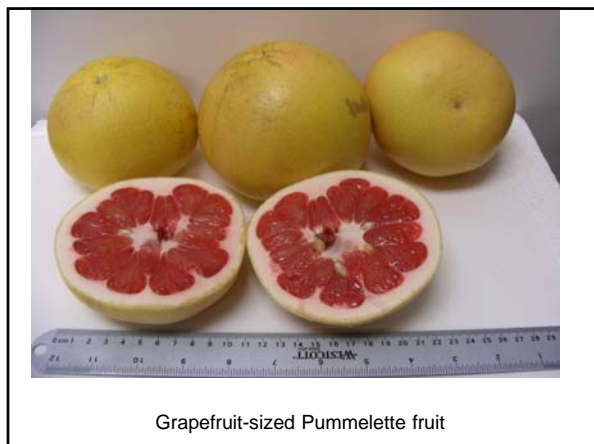
Selections	Date	Brix	TSS/TA
411	1/28/09	17.40	19.65
711		13.00	13.67
Super Dancy		13.60	13.77
411	3/10/11	16.90	11.83

Summary Impressions of Tangerines

Base: Adults	Sample					
	486 (Dancy) (n=103) %	411 (n=24) %	S Belle (n=101) %	332 (New) (n=101) %	254 (Minnesota) (n=101) %	109 (Clementine) (n=101) %
If this tangerine was available in your grocery store, how likely are you to buy it?						
Extremely likely	19	38	25	20	21	19
Very likely	31	29	31	29	21	22
Somewhat likely	28	18	28	28	33	33
Not very likely	14	6	9	9	18	13
Not at all likely	8	6	7	14	6	15
Don't know	3	3	1	1	2	1
Which one statement best describes how you might use this new variety of tangerine in your household?						
Would totally replace other orange varieties you buy	10	27	16	12	13	12
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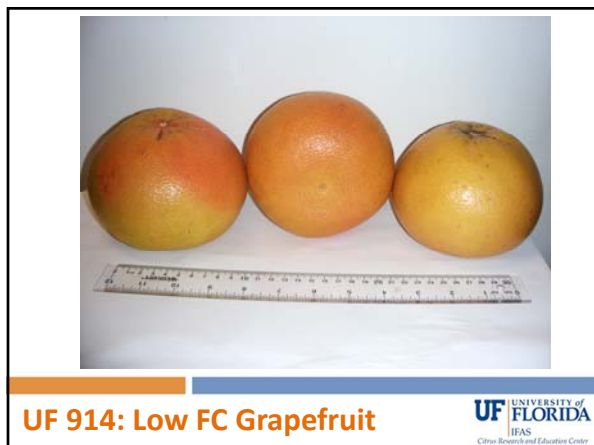
- ### Unique Characteristics of Red Pummelo C2-5-12
- Typical pummelo size, too large for packing house equipment
 - Early maturing, ready for Thanksgiving and Christmas market with a pleasant, sweet flavor due to it's high brix (11) and high sugar/acid ratio (12-13)
 - Comparable to grapefruit in furanocoumarins (an alternative to red pummelo 5-1-99-5 that has very high furanocoumarins)
 - Holds well on the tree, extending the period of harvest
 - Canker tolerance unknown at present



Grapefruit-sized Pummelette fruit

Unique Characteristics of Red Pummele 5-1-99-2

- Grapefruit-size, amenable to packing house equipment
- Unique non-bitter, sweet flavor due to its high brix (13) and high sugar/acid ratio (16-19 around Christmas)
- A favorite at NVDMC-sponsored fruit shows, potential for 'Whole Foods' type market
- Lower seed content than most pummelos (0-28)
- Lower than grapefruit in furanocoumarins
- Appears to be more canker tolerant than grapefruit
- Delicious juice that does not increase in bitterness during storage



UF 914: Low FC Grapefruit



UF 914: Low FC Grapefruit



- 914: Brix 9.9; acid 0.99; ratio 10.0 (2/12)
- Ruby Red: Brix 9.2; acid 1.21; ratio 7.6 (2/12)
- Paradisin C, R Red vs. 914: 8.6 mg/l vs. none detected
- 6,7-DHB, Ruby Red vs. 914: 18.5 vs. 1.5 mg/l
- Bergamottin, R Red vs. 914: 15.6 vs. 0.7 mg/l
- Seedless; attractive red blush and flesh color
- Large grapefruit size (500 to 1000g)
- Juicy, sweet and grapefruit like flavor and aroma!

UF 914: Low FC Grapefruit

Thanks to NVDMC for Their Support