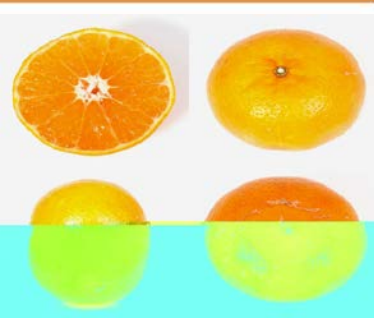


# **‘Marathon’ Mandarin**

**Formerly known as 1420**

Fred G. Gmitter Jr.  
University of Florida

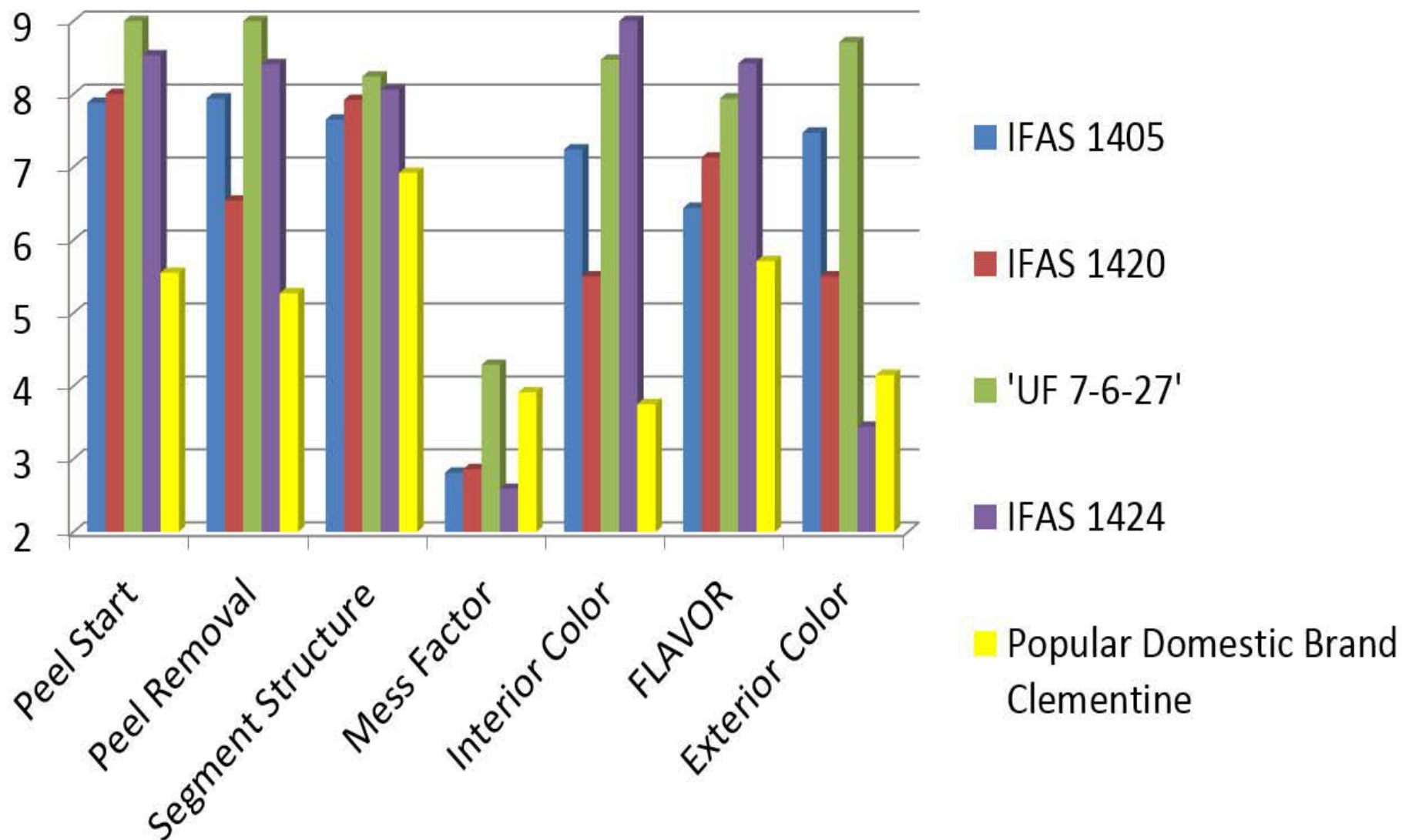
...on behalf of the Team!



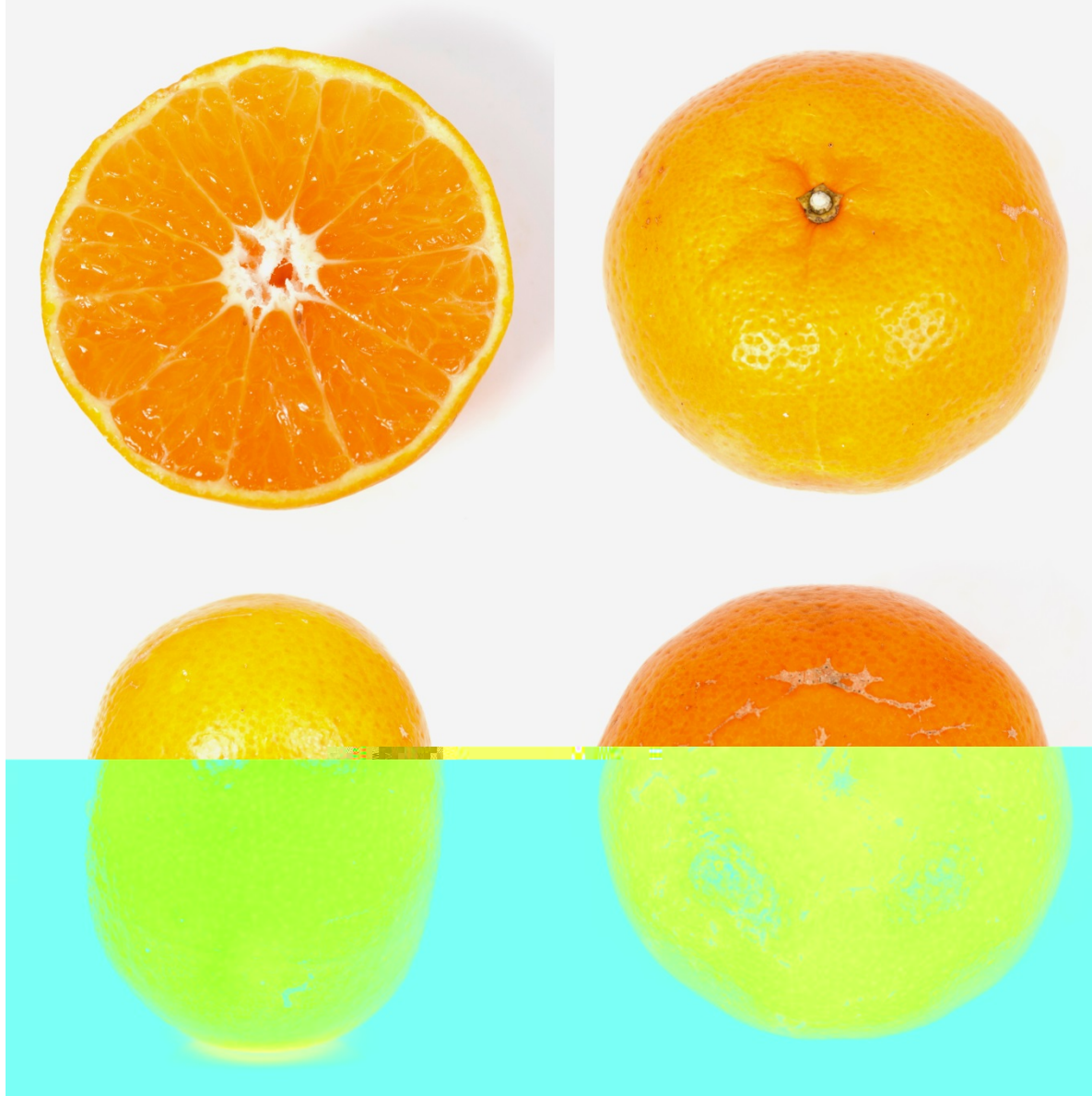
- **‘Daisy’ mandarin x ‘Mukaku Kishu’ parentage**
- **Seedless under all circumstances, and easy to peel**
- **Acceptable color, good flavor, and segment structure**
- **Very early maturity, with long on-tree storage capacity**
- **Firm fruit most likely can be harvested without clipping, saving labor costs at harvest**
- **Responds well to ethylene, and performs very well in long term cold storage**

## **Unique Characteristics**

# Typical Fruiting Habit and Foliage



# Fruit Display Day Results



# Marathon

- **Brix: 12.5 Acid: 0.89 Ratio: 14.04 19 August 2015**
- **Brix: 13.0 Acid: 0.59 Ratio: 22.03 25 September 2015**
- **Brix: 14.0 Acid: 0.69 Ratio: 20.28 29 October 2015**
- **Brix: 17.4 Acid: 0.62 Ratio: 28.06 17 December 2015**
- **Fruit remained in sound condition until early January**
- **No clipping required**

**Marathon: Long Maturity Window**

**Harvest: 30 Sept 2015**

**2 weeks post-degreening, top rows treated**

# Response to Ethylene

Selection	Degreening	6 weeks of storage	8 weeks of storage		
		Healthy Fruit (%)	Healthy Fruit (%)	Total Decay (%)	Total Peel Breakdown (%)
BB-4-8-20	yes	100.00	62.50	25.00	12.50
	No	100.00	75.00	12.50	12.50
Bingo	yes	100.00	92.30	7.70	0.00
	No	100.00	92.85	0.00	7.15
1420	Yes	100.00	100.00	0.00	0.00
	No	100.00	100.00	0.00	0.00
Fallglo	Yes	100.00	66.66	33.33	0.00
	No	100.00	83.33	16.66	0.00

## Post-Harvest Behavior



- **HLB susceptible, but not overly sensitive**
- **No other testing conducted**
- **No canker or Alternaria observed on leaves or fruit from test trees in Lake Alfred or Vero Beach; however, recent lab tests suggest it may be Alternaria sensitive**
- **No scab lesions found**
- **No obvious issues with mites**
- **Some dieback, similar to other Seedless Kishu hybrids**

# **Disease and Pest Issues**

- **Appears to be self-fertile under cages to exclude bees**
- **Not tested outside of Florida**
- **Presumed limits of adaptation not different from other citrus**
- **Plant patent protection to be sought in US, PBR elsewhere**
- **Fits an early maturity window gap in the current US market**
- **Global potential, because of very long season of maturity**
- **Initial budwood increase by CREC, now available to licensed nurseries**

## **Other Issues**

**Marathon Mother Tree 4-4-19**



**Marathon**

**2.5 year old**

**4-4-19**

# Marathon