

## NVDMC Update

Sept 2008

## Quick History

- Not-for-Profit Corp. formed late 2005
- Awarded a 3-year contract from FL Citrus Commission
- 12 member Board, representative of industry
- Established to identify, acquire, evaluate, sub-license and protect new citrus varieties
- Early necessity to focus on systems and support of home breeding programs

## Relationship with IFAS & CREC

- Substantial support of Plant Improvement Team's work (Castle, Gmitter, Grosser, Moore, Ling)
- Coordinated Global Exploration
- Variety Evaluation Days
- Integrate Expertise
- Purchase Lab Equipment, build structures, Doc Prep
- Fund Post Harvest Research
- Fund Variety Development & Rapid Evaluation
- Fund sensory evaluation, consumer acceptance
- Seek better models for introduction

## Highlight Recent NVDMC Funded IFAS Achievements I

- 5 mandarin selections moved forward (EEO)
  - 3 seedless, two seeded but exceptional quality
- Irradiation of seeded selections
  - 6 mandarin, 1 dark red pummelo
- LB 8-9 seedless trials, group of 10
- Data gathered on LS Murcott lines
- Research to ID aromatic compounds associated with flavor
- Research to correlate chemical data with human taste (collaboration with USDA and FDOC)

## Highlight Recent NVDMC Funded IFAS Achievements II

- Planted several thousand triploid hybrids
- Top worked several hundred triploid hybrids
- Made several thousand new hybrids, using new sources of seedlessness genes
- Bred Canker tolerant seedless Grapefruit-like hybrids
- Development of new breeding parents
- Cybridization: Remove seed from successful varieties, without otherwise altering integrity

## Status of IFAS Full-Release

- Minneola Hybrid
  - Earlier in many cases than Minneola, has favorable traits.
  - Not seedless, but does well in isolation
  - Patent application process near completion
  - Trials, market tests, consumer panels point to success.
  - ITN, .... It WILL be out this year.

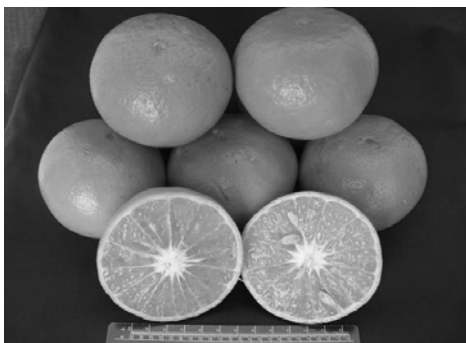
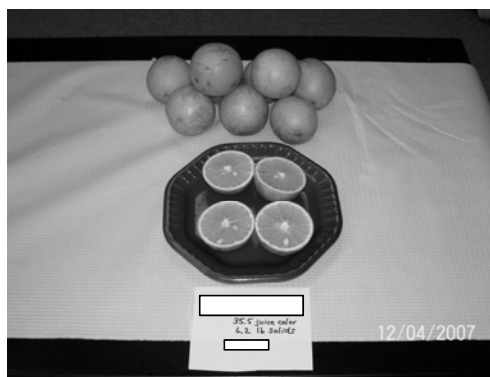


### Status of IFAS EEO

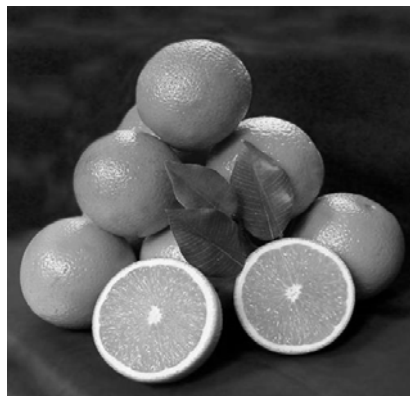
- April 8<sup>th</sup> 2008, NVDMC recommended 12 varieties to move into EEO
- Next steps
  - Prep of release request documentation
  - Prep of patent applications
  - Budwood availability (now – Sept 09)
- Source of delays in delivering these varieties
  - Requirement for 2<sup>nd</sup> generation veg prop
  - Availability of budwood from outdoor source trees
    - DPI working on these selections as high priority
    - NVDMC proposed an expedited system of delivery, but deemed too risky

### IFAS EEO Candidates

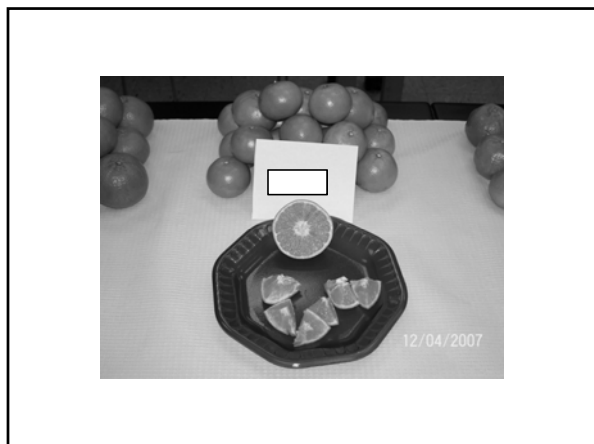
- Easy Peelers
  - A. (Lrg, EP, Jan) (8/08)
  - B. (med, EP, Feb) (9/9)
  - C. (Lg, EP, D-J) (9/9)
  - D. (Oct, SL, good color) (05/09)
  - E. (SL, EP, Nov-D) (2/09)
  - F. J(SL, EP, H-qual, Jan) (N/A)
  - G. (SL, EP, H- qual, Feb) (9/09)
  - H. (LS Murcott. Inconsistent)
- Oranges
  - Early Orange(color, solids, low seeded) (11/8)
  - Mid Orange (color, solids, LS, Jan-F) (N/A)
  - January Orange (6-8 wk) (8/8)
  - Seedless Late – slightly later (11/08)



Dec-January Easy Peel



Late Seedless Orange



### Relationship with USDA-ARS

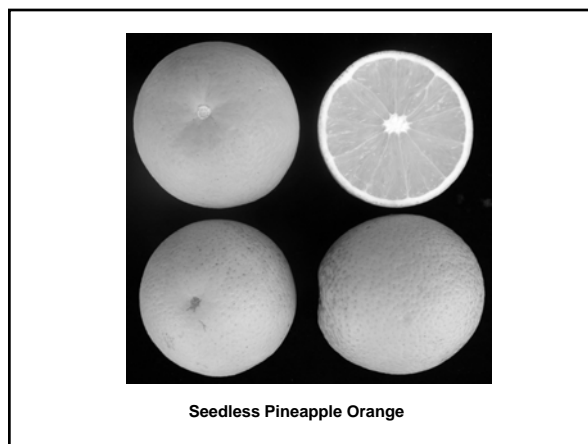
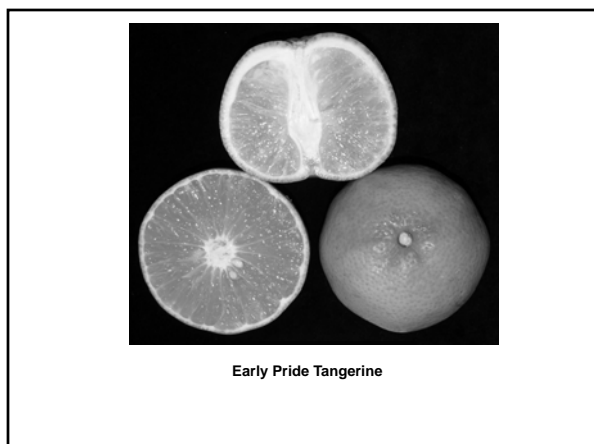
- Support plant breeding & research team (McCollum, Stover, Bowman, Niedz)
- Variety evaluation opportunities, and grove walk-through
- Integrate expertise
- Purchased equipment to facilitate evaluations
- Built structures to speed evaluation process
- Fund plant breeding, professional evaluations

### Highlight Recent NVDMC Funded ARS Accomplishments

- Fruit quality data collected on 15 advanced selections in replicated trials
- 4,000 seedlings of new hybrids established from 5 primary crosses
- Maintaining original seedlings in compliant greenhouse (eliminate future cleanup)
- Identified thin peeled seedless Foster GF
- Entered three varieties into NVDMC early release evaluation

### Status of USDA ARS Release

- Media: Announcement of available varieties 8/14
  - Oct 17 & Dec 18: Farm Visits
  - Nov 14 Deadline for acreage Req. – Tang & GF Hyb
  - Feb 11<sup>th</sup> – Deadline for acreage Reg. – Orange
- Early Pride Tangerine (Oct-Dec), low seeded
- Seedless Pineapple Orange (Dec-Feb)
- Seedless Surprise: Grapefruit-Tangelo Seedless Hybrid





Seedless Surprise

### Other Varieties

- Spain, late season selections, not yet available
- Japan, negotiating, mid-season seedless easy peel high quality mandarin
- Australia, awaiting budwood for mid-season seedless easy peel mandarin
- Italy: three mandarin varieties, one orange in CGIP
- California:
  - Tango (evaluation signed, commercialization proposed)
  - Gold Nugget (Evaluation/commercialization proposed)
  - Low Seeded Daisy, Fairchild, Encore, Kinnow – Evaluation Contract - October
  - LS Fremont (Early discussions ongoing)

### Other Varieties

- Transgenic Selections
  - NVDMC Participating in the amebic regulatory approval process
  - Establishment of roadmap for regulatory roadmap, involves multi-state and 4 federal agencies.
  - Work will entail layers of permits, field/lab trials, data collection and complex web of investors, cooperators and IP.
  - NVDMC will seek, when and how appropriate, access for Florida growers, should material prove viable and available.
- Israeli
  - Time expiring on availability, grower club under discussion

### Volunteers Needed

- Between IFAS and ARS, variety evaluations scattered throughout season (Sept – April)
- Need growers, packers, marketers, processors
- Commitment generally 1 ½ hours + travel
- Complete feedback forms
- All interested parties, please contact:  
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pchaire@flcitruspackers.org

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