

NEW VARIETY OPTIONS FOR THE FRESH MARKET



A Critical Component of Florida's Future Success

PROGRAMS DEDICATED TO CITRUS IMPROVEMENT

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OVERALL GOALS AND OBJECTIVES

Technical and Oversight Committees: "Managing" New Varieties Program

Evaluation of Prospective New Cultivars Currently in Breeding or Germplasm Programs

Evaluation of New Varieties in Other Parts of World with Growing Conditions Similar to Florida

Review Regulatory and Budget Issues

Improve Coordination of Introduction, Evaluation and Release of New Fresh Fruit Varieties

Link Florida Citrus Improvement Programs with Industry Expertise and Needs



PROPOSED ORGANIZATION OF CHARACTERISTICS

FRUIT QUALITY CHARACTERISTICS

- Fruit Shape
- Fruit Size
- Seediness
- Peel Adhesion
- Peel Color On-Tree Marketable Fruit
- Flesh Color
- Segment Adhesion
- Brix/Acid Ratio

FRUIT PERFORMANCE CHARACTERISTICS

- Packability
 - Packing Operation
 - Travel Well
 - Holding Power on the Shelf

SCION PERFORMANCE CHARACTERISTICS

- Disease Susceptibility
- Yield Potential – Consistent Productivity
- Yield Stability – Alternate or Irregular Bearing
- Other Horticultural Limitations (e.g., dieback, etc.)

Key Questions

How Can These Characteristics Be Objectively Evaluated?

Which Characteristics are Most Important?

FRUIT QUALITY CHARACTERISTICS

- Fruit Shape
- Fruit Size
- Seediness
- Peel Color (on-tree)
- Peel Color (Marketable Fruit)
- Flesh Color
- Peel Adhesion
- Segment Adhesion
- Brix/Acid Ratio

FRESH FRUIT CHARACTERISTICS AND METHODS TO CHARACTERIZE AND RANK THEM

FRUIT QUALITY CHARACTERISTICS	Comments
Fruit Shape	Undesirable shape?
Fruit Size	> 1 size target? size class and rating value
Seediness	seedless? How many seed are tolerable?
Peel Color (on-tree)	Degreening required? Timing, consistency of color break
Peel Color (Marketable Fruit)	deep rich color. Quantitative color score possible?
Flesh Color	"not pale" Threshold value?
Peel Adhesion	Easy peel - Is there threshold? Comparison to known
Segment Adhesion	Comparison to known
Brix/Acid Ratio	Scale could be established to rate B/A ratio values Could also use sugar and acid levels, other measures

FRUIT PERFORMANCE CHARACTERISTICS

Packability - Packing House Performance

Packability – Stores and Travels Well

Packability - Holding Power on Shelf

Seasonality

FRUIT PERFORMANCE CHARACTERISTICS

FRUIT PERFORMANCE CHARACTERISTICS	
Packability - Packing House Performance	% loss in packing, breakdown Qual. Test?
Packability - Travels Well	% loss in transit; response to conditions
Packability - Holding Power on Shelf	shelf life in constant conditions, comparison to known
Seasonality	Periodicity of maturity on tree, how stable

SCION PERFORMANCE CHARACTERISTICS

Disease Susceptibility

Yield Potential - Consistent Productivity

Yield Stability – Alternate or Irregular Bearing

Other Horticultural Limitations (e.g., dieback, etc.)

SCION PERFORMANCE CHARACTERISTICS	
Disease Susceptibility	Vulnerability to fruit diseases,
Yield Potential - Consistent Productivity	boxes per tree, cumulative yields over years
Yield Stability - Alternate or Irregular Bearing	comparison of high/low
Other Horticultural Limitations (e.g., dieback, etc.)	twig dieback, scion/root incompatibility

We Need Assistance From You on These Questions!

Industry Standard Comparisons

Dancy	Orlando
Murcott	Minneola
Ambersweet	Sunburst
Robinson	Temple

What Are Positive and Negative Characteristics of Each?

Candidate Scions

Spanish Clementine
 Israeli a
 Israeli b
 LB8-9

A more complete list of candidate scions will be developed and evaluated using a common methodology

Concentrate on List of Most Likely Candidates

From Florida Citrus Improvement Programs

From Other Parts of World

Apply Evaluation Criteria for Important Characteristics to Identify **BEST CANDIDATES**

Scion	Fruit Size	Fruit Shape	Seediness	Peel Color (on-tree)	peel color (marketable)	Flesh Color	Peelability	Segment Separation	Brix/Acid Ratio
Standard Comparisons									
Dancy Tangerine									
Orlando Tangelo									
Murcott									
Minneola									
Ambersweet									
Sunburst									
Robinson									
Temple									
Candidates									
Spanish Clementine									
Israeli a									
Israeli b									



OUTLINE OF PLAN

Identify Characteristics of New Scion Candidates

Establish Methods for Measuring or Scoring Values for Characteristics.

Develop Weighting Factors for Comparing Characteristics

Verify Characteristics, Scoring Values and Weighting Factors with Packers and Buyers

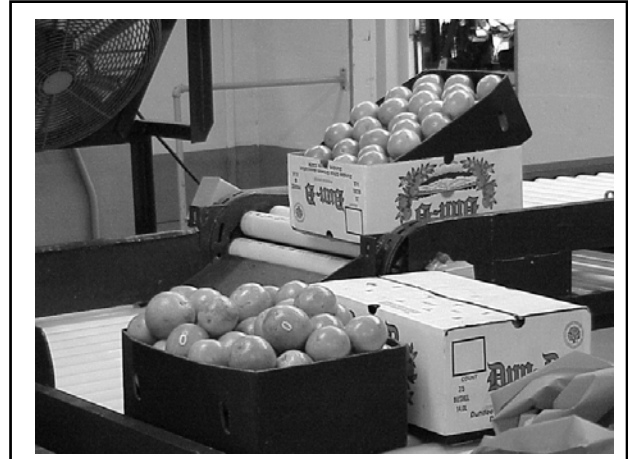
Obtain List of Candidate scions for Development/Introduction

Develop Matrix for Evaluation of Scion Candidates

Complete Evaluation of Characteristics as far as possible for Candidates

Summarize Results and Evaluation for Highest Priorities for Scion Development or Introduction, Selection and Ultimately Release for Commercial Use in Florida

Deliver results to Group planning Exploration, Introduction and Development of New Scions



THANK YOU!