



Citrus Research and
Development Foundation, Inc.

**NOTICE OF A MEETING
OF THE
CITRUS RESEARCH AND DEVELOPMENT FOUNDATION
SELECT COMMITTEE ON PLANT IMPROVEMENT
Wednesday, March 17, 2021 – 2:00 pm EDT**

TIME AND PLACE OF MEETING

A TELECONFERENCE meeting of the Select Committee on Plant Improvement of the Citrus Research and Development Foundation, Inc. will be held on **Wednesday, March 17, 2021 at 2:00 p.m. EDT.** This meeting is accessible via Zoom Video Conferencing. To join Zoom Meeting visit <https://ufl.zoom.us/j/93674024705> and enter the Meeting ID: 936 7402 4705 or by dialing 646-558-8656 and entering participant access code/Meeting ID 936 7402 4705 when prompted.

To avoid interruptions/distractions during the call, please be mindful of the following:

- When speaking, please say your name so that the minutes can be properly captured.
- Please mute your line whenever you are not speaking to prevent background noise from disrupting the meeting and ensure the best sound quality during the call.
- If you have any problems during your call, please text Audrey Nowicki at 412-554-5143 or Deidra Whatley at 863-412-1071, to try to help resolve the problem immediately.


Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting is asked to advise the Foundation at least 72 hours in advance by contacting Deidra Whatley by phone at (863) 956-8817 or by email at d.whatley@citrusrdf.org.

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SELECT COMMITTEE ON PLANT IMPROVEMENT
Wednesday, March 17, 2021 – 2:00 pm EDT

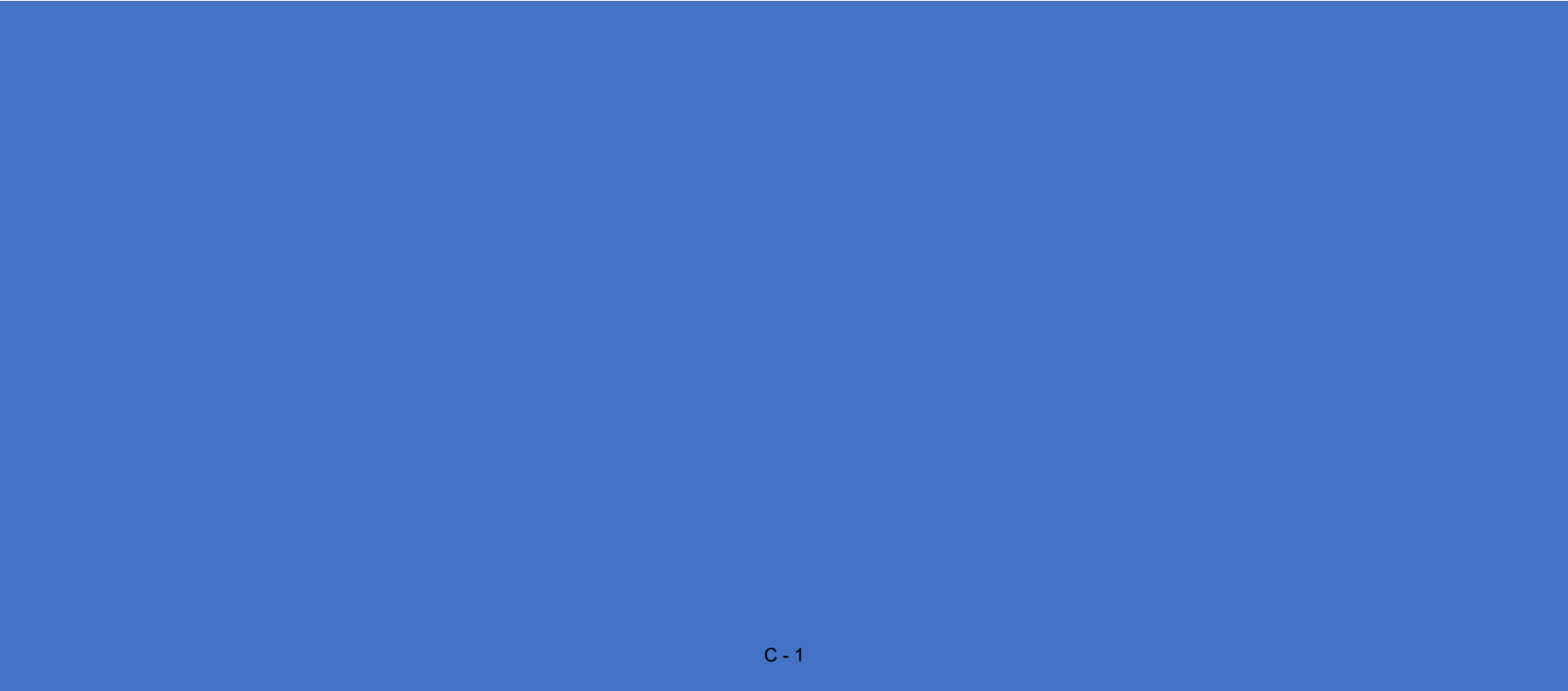
AGENDA

- A. Call to Order
- B. Roll Call/Determination of Quorum
- C. Scion Nominations and Staff Recommendations *
- D. Breeding & Selection Outline *
- E. Update on interest from grower cooperators for CRDF Rootstock trial
- F. Other Business
- G. Public Comments
- H. Adjournment

* Materials



SCION NOMINATIONS AND STAFF RECOMMENDATIONS
ROWS 1-20 RECOMMENDED, ROWS 21-22 RECOMMENDED
BUT NON-CERTIFIED, ROWS 23-36 NOT RECOMMENDED



Line #	Submitter	Selection	Maturity season	Budwood availability	Strengths	Weaknesses/other information
Recommended Scions – line # 1-20						
1	Grosser, 5	R26-T14	Dec	Non-certified Just entered the PTP	Av brix = 10.47 Av ratio = 15.34 Av lb. sol = 5.14	Data only from 1 tree Own rooted tree No yield per tree
2	Grosser, 6	R26-T10	Dec	Non-certified Just entered the PTP	Av brix = 10.04 Av ratio = 15.68 Av lb. sol = 4.84	Data only from 1 tree Own rooted tree No yield per tree
3	Grosser	N 13-32	Dec-Jan	Certified	Juice color score >36 in Dec Av brix = 11.01 Av ratio = 18.35, Av lb. sol = 5.43	Data from clone release document
4	Grosser, 7	OLL 13W-4-13	Jan	Non-certified Just entered the PTP	Av brix = 11.49 Av ratio = 16.44 Av lb. sol = 6.03 Planted on White 3 rootstock	Data only from 1 tree No yield per tree
5	Grosser, 8	OLL 13W-9-33	Jan	Non-certified Just entered the PTP	Av brix = 12.41 Av ratio = 17.0 Av lb. sol = 7.83 Planted on White 3 rootstock	Data only from 1 tree No yield per tree
6	Grosser, 9	OLL 13W-1-12	Jan	Non-certified Just entered the PTP	Av brix = 13.99 Av ratio = 13.2 Av lb. sol = 7.76 Planted on UFR-6 rootstock	Data only from 1 tree No yield per tree
7	Gmitter, 14	1859	Dec-Jan	Certified, limited budwood available	Good HLB tolerance	Data from 1 tree No Brix, acid or ratio data presented. No yield per tree
8	Gmitter, 17	SF 11-1-24	Dec-Feb	Certified	Highest yield at Conserv II Observations from 18 trees	No Brix, acid or ratio data presented. No yield data
9	Gmitter, 16	Valencia UF 6-2-55	Dec-Mar	Certified	Good HLB tolerance	Data from 1 tree No Brix, acid or ratio data presented. No yield data
10		Parson Brown F 56-2	Early maturing	Certified	Av lb. sol = 5.8 on Rusk citrange, 5.9 on Rangpur x Troyer, 5.1 on x639, 5.0 on Swingle Data from FSHS 123:2010	

11		Carney Orange 2	Early maturing	Certified	Av brix = 12.08 Av ratio = 20.1 Av lb. sol = 6.15 FSHS paper data 129:2016	Suspected to be direct lineage to the original Parson Brown tree selected by Captain J.L. Carney
12		Carney Orange 3	Early maturing	Certified	Av brix = 12.91 Av ratio = 17.1 Av lb. sol = 5.73 FSHS paper data 129:2016	Suspected to be direct lineage to the original Parson Brown tree selected by Captain J.L. Carney
13	Grosser, 11	C4-7-29	Mid	Certified, limited budwood available	Av brix = 15.19 Av ratio = 26.7 (early Dec) Av lb. sol = 5.99 Planted on UFR-4 rootstock Av. Boxes per tree = 2.4	Data from 1 tree No yield per tree
14	Stover, 1	US SunDragon	Nov-Jan	Certified	Yield per tree = 72.5 kg tree (1.77 bx tree) Data from 3 trees	No Brix, acid or ratio data presented
15	Stover, 2	FF-1-89-11	Oct-Jan	Conditional release	Av brix = 13.5 Av ratio = 18.7 Parents are the two most HLB- tolerant USDA selections	Data from single tree
16	Stover, 3	FF-5-6-36	Nov-Dec	Conditional release	Av brix = 13.8 Av ratio = 16.5 Parents are the two most HLB- tolerant USDA selections	Data from single tree Easy peel and separation of flesh from peel may be disruptive to juicing
17	Chaparro	UFGNV0187	Oct-Nov	Certified	Brix av 11.6 over 6 seasons Mean fruit weight 102.9 over 6 seasons. Average ratio 14.71	Deciduous Graft incompatibility with US-897 and US- 942, thorny, canker susceptible, seedy

					Trial # 20 – SW FL Scion and Rootstock Trial was used to obtain yield data for the 3 standards scions (Rootstocks included C35, C22 and Willits)	
18	Standard	Hamlin 1-4-1	Nov-Jan	Certified	Av bx tree per yr for 5 yrs = .65 bx	#2 propagated scion of top 15, Citrus Budwood Annual Report 2019-20
19	Standard	Vernia UF 35-15	Several weeks earlier than Valencia	Certified	Av bx tree per yr for 5 yrs = .48 bx	#3 propagated scion of top 15, Citrus Budwood Annual Report 2019-20
20	Standard	Valquarius LTUF SF 14W-62	4-8 weeks earlier than Valencia	Certified	Av bx tree per yr for 5 yrs = .42 bx	#14 propagated scion of top 15 Citrus Budwood Annual Report 2019-20
Recommended but non-certified, line # 21-22						
21	Grosser, 1	R25-T2 Vernia	Dec	Non-certified	Av ratio = 17.82 Av lb sol = 4.61	Data only from one tree Own rooted tree No yield per tree
22	Grosser, 2	R25-T12 Vernia	Dec	Non-certified	Av brix = 9.31 Av ratio = 15.53 Av lb sol = 4.51	Data only from one tree Own rooted tree No yield per tree
Not recommended, line # 23-36						
23	Grosser, 12	C4-8-25	Very early	Conditional release	Av brix = 11.75 Av ratio = 17.26 Av lb sol = 7.89	No yield per tree
24	Grosser, 13	KE-6-4	Very early	Conditional release	Av brix = 10.1 Av ratio = 21.04 (early Dec.) Av lb sol = 6.16	No yield per tree
25		IAPAR	Early	Certified	Yield 1.1 bx tree 2-5 tree plots with 1-3 reps Lb sol in 2020-21 = 3.1 lb sol when averaged for two rootstocks	Updated trial information to be posted soon. Data from https://crec.ifas.ufl.edu/citrus-research/rootstock-trials/teaching-block-scion-and-rootstock-trial/

						Did not include due to low lb solids, may be better to work on improving data collection from current trial before adding to new trial
26	Grosser, 3	T25-T5	Dec	Non-certified	Av brix = 9.92 Av ratio = 16.48 Av lb sol = 4.92	Data only from 1 tree Own rooted tree No yield data Did not include due to no certified plant material being currently available
27	Grosser, 4	T26-T4	Dec	Non-certified	Av brix = 10 Av ratio = 15.12 Av lb sol = 4.96	Data only from 1 tree Own rooted tree No yield per tree Did not include due to no certified plant material being currently available
28		N 14-10				Did not include due to lack of data
29		Salustiana	Mid	Certified	Av brix = 10.5 Av ratio = 23 Av lb sol = 5.13 Planted on C22 & Willits 2-5 tree plots replicated 1-3 times Updated lb sol for 2020-21 = about 4.1	Scion being trialed on 8 rootstocks as a part of a unique CRAFT Cycle 2 project, thus did not include in this trial. Updated trial information to be posted soon. Data from https://crec.ifas.ufl.edu/citrus-research/rootstock-trials/teaching-block-scion-and-rootstock-trial/
30		N 40-16-7-11	Valencia time			Did not include due to being a late season maturity cultivar.
31		Berna	Valencia time	Certified	Av brix = 10.4 Av ration = 18 Av lb sol = 5.3 Planted on C22 & Willits 2-5 tree plots replicated 1-3 times Updated lb sol for 2020-21 about 4.3	Updated trial information to be posted soon. Data from https://crec.ifas.ufl.edu/citrus-research/rootstock-trials/teaching-block-scion-and-rootstock-trial/ . Did not include due to being a late season maturity cultivar.
32	Gmitter, 15	Valencia UF RBA-22-29	Valencia time	Certified	Yield per tree – standard Av box tree – standard Data presented from 6 trees Strong HLB tolerance	Did not include due to being a late season maturity cultivar.

33	Grosser, 10	OLL-5	late	Non-certified	Av brix = 11.62 Av ratio = 14.9 Av lb. sol = 6.54 Av boxes per tree = 2.4, data from 36 trees, planted on UFR-6 rootstock	Did not include due to being a late season maturity cultivar and non-certified plant material.
34	Chaparro	UFGNV0010	Jan-Feb	Conditional release		Data only from 1 tree Did not include due to being non-certified plant material.
35	Chaparro	UFGNV0044	Oct-Nov	Conditional release		Did not include due to being non-certified plant material.
36	Chaparro	UFGNV0056	Oct-Nov	certified		200 ratio Did not include due to excessively high ratio

Breeding and Selection Program Outline

DATA EVALUATION:

- Critical data (advancement data)
- Supporting data (nice to have)
- Researcher data (publication data)

TRIAL DESIGN:

Stage 1 trials:

- Location: Researchers/Institution/Private Cooperator
- Number of trials: 1
- Trial Duration: 4-8, for advancement, may continue longer to continue to get data
- Frequency of establishment: 1 per year
- Number of genotypes: 50-60
- Plot size: 1 tree
- Plot (statistical) design: RCB, CRD
- Replications: 4-12 (TBD)
- Who is in control: Institution
- Who takes critical data: Researcher
- Advancement data: fruit or boxes/tree, lbs/solids, canopy habit (measurement), % survival
- Supporting data: % HLB infection, disease comments
- Who makes advancement decision: Researcher
- Standards: 4 standards (Sw, SO, Cleo, Ridge-USDA), (Sw, SO, US942, UFR4-UF)

Stage 2 trials

- Location: Institution/Private Cooperator
- Number of trials: 1-3
- Trial Duration: 6-8 years, may continue longer to continue to get data
- Frequency of establishment: every 2-3
- Number of genotypes: 10-20
- Plot size: 2-4 trees
- Plot (statistical) design: RCB
- Replications: 6-8
- Who is in control: Institution
- Who takes critical data: Researcher
- Advancement data: fruit or boxes/tree, lbs/solids, canopy habit (measurement), % survival
- Supporting data: canopy size, % HLB infection, disease comments
- Who makes advancement decision: Committee (industry/researcher)
- Standards: 4 or more

Stage 3 trials (here the two programs would merge into one trial)

- Location: Private Cooperators (recommended by select committee and approved by board)
- Number of trial sites: 3-5
- Number of scions: 2 scions
- Trial Duration: 6-8, may continue longer to continue to get data
- Frequency of establishment: 2-3 years
- Number of genotypes: up to 10 plus standards
- Plot size: minimum 20 trees
- Plot (statistical) design: RCB
- Replications: 5 reps
- Who is in control: Third party
- Who takes critical data: CRDF
- Recommendations: Committee (breeders/industry), “approved” and planting density
- Standards: Common standards and local standard