CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.
Plant Improvement Committee Meeting
Minutes
Thursday February 15, 2024

A meeting of the Plant Improvement Committee of the Citrus Research and Development Foundation, Inc. was held on Thursday February 15, 2024, at the UF-IFAS-CREC, 700 Experiment Station Road, Ben Hill Griffin Jr. Citrus Hall, Room 103, Lake Alfred, FL 33850. The meeting was properly noticed and recorded. The meeting was called to order at 10:00 a.m. by Chair Joby Sherrod. Roll was called and a quorum was present. Committee members participating were Steve Callaham, Peter Chaires, Dave Crumbly, Chris Gunter, Aaron Himrod, Nate Jameson, Wes Johnson, Scott Lambeth, Brandon Page, Erin Rosskopf, Joby Sherrod, Jim Snively, Pete Spyke, Rosa Walsh, and Tamara Wood. Also participating were Ute Albrecht, Kim Bowman, Michael Burton, John Chater, Rick Dantzler, Bill Dawson, Gary England, Sean Frielich, Steve Futch, Fred Gmitter, Jim Graham, Jude Grosser, Deeley Hunt, Matt Joyner, Nick Kretchman, Matt Machata, Matt Mattia, Trevor Murphy, Audrey Nowicki, Sarah Spinosa, Jim Syvertsen, Barbara Thompson, LeAnne Vigne, and Janice Zale.

Mr. Dantzler mentioned that at a recent CRDF Board meeting Joby Sherrod was approved as the Chair of the Plant Improvement Committee and would therefore be conducting this and future meetings of the Plant Improvement Committee.

Mr. Sherrod noted that the minutes of the November 14, 2023, Plant Improvement Committee meeting were included with the meeting materials. Mr. Himrod made a motion to accept the minutes as presented. Mr. Snively seconded the motion and it passed unanimously.

Mr. Dantzler noted that Weston Johnson was going to give a presentation on their large-scale field trial. This project was previously approved and funded by the CRDF Board, so there was no action required by the PIC. Mr. Johnson discussed in detail the current large-scale field trial that he is developing on behalf of Coca-Cola. The trial is narrowing the list of about 500 accessions down to 50 that will be propagated at Brite Leaf Citrus Nursery. Once the trees reach the proper size, they will be planted at two trial locations of 16 acres each. It is assumed that one of the trial locations will be at the CREC in Lake Alfred.

Rootstocks selected for the trial will include Swingle, X639, US942, and/or US812. It is anticipated that the nursery liners will be budded in June 2024 and ready for planting in late spring of 2025. He is currently evaluating 880 samples from 233 accessions from the USDA, UF/CREC, UF Gainesville, or from grower trials. Factors evaluated were juice quality and fruit firmness, as well as other tree, fruit, and juice attributes. No yield data has been collected from any accessions due to the lack of sufficient volume of fruit. He noted that the Brix level seems to be running higher from the UF Gainesville selections than selections grown where HLB disease pressure is greater in Central and South Florida.

Drs. Chater and Mattia made an extensive presentation on their proposed 3-year grand plan for plant improvement, which is intended to move the next generation forward. The objective of the 3-year plan is to develop sweet orange and *C. reticulata* hybrids that are HLB tolerant, profitable, and produce high quality juice. To do so, they will need to generate a large data set to support decision making. Collected data will include both genotyping and phenotyping of many selections. The work will be a collaborative

partnership between UF, USDA, CRDF, and industry partners (Coca-Cola). The project will do extensive sequencing that is very expensive but necessary to have a full set of genetic information to aid in future crosses, CRISPR, or GMO work.

Their proposal for 3 years totaled $4.77 million for the full program. UF and USDA would each receive $1.71 million and an additional shared expense between both programs would add an additional $1.35 million. The combined annual cost for the program would be $1.59 million per year. Mr. Himrod made a motion to request a preproposal for the full 3-year proposal. It was seconded by Mr. Snively and passed unanimously.

Dr. Rosa Walsh provided an update on the FDOC expedited plant propagation program which they received from the state legislature over the last 2 years.

In the 2022-23 funding cycle, FDOC and FDACS have worked with citrus nurseries to increase propagation materials for Donaldson, Parson Brown, Carney 2, Carney 3, and Roble. These selections had plant material available from DPI that could be scaled-up to allow future nursery propagations.

In the 2022-23 cycle, FDOC had 26 agreements and distributed a total commitment of $979,800 in funding to citrus nurseries. Some delays to implementation were incurred due to hurricane damage to some nurseries. Thus far, over 4,000 increase trees of Donaldson along with greater than 500 each of Parson Brown, Carney 2, Carney 3, and Roble have been provided to citrus nurseries. Nurseries are ready to take orders and would be available for CRAFT Cycle 5 plantings.

In the 2023-24 funding cycle, FDOC received $2 million in non-recurring funding to support plant improvement and propagation projects. Funding is being provided to the UF Crop Transformation Center in Gainesville ($1,047,827), UF/IFAS/CREC CRISPR lab expansion ($650,000), UF HLB-tolerant transgenic lines ($214,084), and FCRF Juvenility Research Project ($59,970).

It was mentioned by Mr. Dantzler that Trevor Smith with FDACS DPI is working on mass production of four varieties that will be grown at the Trenton facility for distribution to citrus nurseries in the near future.

In Cycle 5, the CRAFT PET program has funded 11 projects totaling 640 acres which will be planted with 5 scions.

Dr. Graham discussed using Satsuma fruit grown in North Florida and South Georgia to use the juice to enhance juice quality when blended with orange juice. If sufficient fruit were available, it could be transported to processors in Central Florida for processing and help processors increase processing volume in the early part of the season. Satsumas are usually ready in early November-December period of the harvesting season.

Dr. Graham has worked with Florida’s Natural on the quality and possibility of utilizing Satsuma fruit for processing. In December 2023, a small sample of Satsuma fruit was juiced and pasteurized in a preliminary study and found to have positive attributes for processing and blending.

Mr. Spyke mentioned that larger Satsuma fruit were not being harvested in grower fields due to market preference in the fresh fruit markets for smaller fruit. Large fruit is typically not harvested, so if that fruit is combined with packinghouse eliminations, they could then be obtained at a reasonable price and may offer an option for both the growers and processors to utilize that fruit in a processing market.

It was suggested to look at developing a program to evaluate Satsuma fruit in the 2024-25 season.

Mr. Dantzler mentioned that CRDF has found it more difficult to get grower cooperators to participate in CRDF sponsored trials. One option that may need additional exploration could be for CRDF to lease land to conduct these types of trials.

Mr. Dantzler also noted that Drs. Heck and Scully at the USDA in Ft. Pierce need growers to participate in some of their injection trials. Materials injected are possible replacement products for OTC. CRDF currently offsets some grower costs for growers to participate in their studies.

There were no public comments and no new business, so the meeting was adjourned at 12:22 p.m.

Minutes submitted by Barbara Thompson.