



Minutes of the Board of Directors Meeting Tuesday, January 23, 2024

A meeting of the Board of Directors of the Citrus Research and Development Foundation, Inc. was held on Tuesday, January 23, 2024, at the Hampton Inn & Suites Conference Room, 22900 Highway 27, Lake Wales, FL 33859. The meeting was properly noticed and recorded. President Morgan Porter called the meeting to order at 9:59 a.m. Roll was called, and a quorum was present. Board members present were George Hamner, Aaron Himrod, Matt Machata, Jeanna Mastrodicasa, Trevor Murphy, Morgan Porter, Joby Sherrod, and Sarah Spinosa.

Also participating were Kim Bowman, Dave Crumbly, Rick Dantzler, Bill Dawson, Gary England, Steve Futch, Jim Graham, David Howard, Matt Joyner, Matt Mattia, Erin Rosskopf, Jim Syvertsen, Barbara Thompson, Kevin Thomas, John Updike, LeAnne Vigne, and Rosa Walsh.

President Morgan Porter noted the minutes from the December 12, 2023, Board meeting were available in their packets for review and approval. Mr. Hamner made a motion to accept the minutes as written. The motion was seconded by Mr. Sherrod and passed unanimously.

Mr. Dantzler noted that CRDF had previously agreed to contribute a certain amount of sponsorship funds for the International HLB Conference in California. With that sponsorship came six registrations. We would like to make sure that the Board is agreeable to covering the plane fare and hotel for Rick Dantzler, Brandon Page, and Board members to attend the Conference. Mr. Hamner made a motion to that effect. It was seconded by Ms. Spinosa and passed unanimously.

Public Comments: None

Executive Committee: Mr. Dantzler gave an update on the Executive Committee meeting that was held on December 22, 2023. He had spoken with Tamara Wood and CRAFT has survey data that could be available to CRDF. Dr. Mastrodicasa made a motion to approve the Executive Committee minutes from the December 22, 2023, meeting. The motion was seconded by Mr. Sherrod and passed unanimously.

Finance and Audit Committee: Mr. Dantzler presented the Finance & Audit Committee December 31, 2023, Financial Summary. Uncommitted funds show \$361,000 remaining of the \$1.5 million allocated for Research. However, practically speaking, there is approximately \$1 million remaining because of how late projects start, etc.

The Box Tax is down 93% overall and 30% down from last year. The rest of the budget is unremarkable. Mr. Sherrod made a motion to approve the Financial Summary as presented. The motion was seconded by Dr. Mastrodicasa and passed unanimously. Mr. Dantzler noted that UF was transitioning from Wells Fargo to JP Chase Morgan, and this was reiterated by Dr. Mastrodicasa.

Governance Committee: The Governance Committee had not met since the last Board Meeting.

Research Management Committee: Mr. Himrod, Chair of the Research Management Committee, presented their first item for consideration – Y. Duan, revised proposal 23-028 ‘Exploring the HLB control potential of a new citrus-infecting virus, NMV-M/CFL, and its expression system.’ This full proposal was recommended for approval with the addition of an experiment that grafts infected budwood onto mature trees. Mr. Dantzler noted that he had met with Dr. Scott Adkins and Dr. Yongping Duan and suggested funding Objectives 1 and 2 to cover him until he could apply for a NIFA grant next year. The trees in the greenhouse looked great. Mr. Sherrod made a motion to approve the proposal with the noted contingencies. The motion was seconded by Mr. Hamner and passed unanimously.

Mr. Dantzler gave a summary of the preproposal from B. Bonning – ‘Optimal combination of Bt toxins and gene silencing RNAs for management of citrus root weevil.’ Additional discussion was provided to see if Dr. N. Killiny could be included in the proposal since he had previously submitted a Bt toxin proposal. Mr. Himrod made a motion to invite a full proposal. The motion was seconded by Mr. Sherrod and passed unanimously.

Mr. Himrod presented the preproposal from L. Duncan – ‘Breaking the Diaprepes Life Cycle with Physical Barriers’ and made a motion to invite a full proposal with the addition of a calculation of water savings of using ground cloth to potentially allow for future cost-sharing of the installation of the cloth by the Water Management Districts. The motion was seconded by Mr. Sherrod and passed unanimously.

Mr. Himrod presented the preproposal for the off-cycle project from Z. Pang, Silvec Biologics – ‘A combined approach to reduce CLAs and reverse symptoms in orchard trees.’ Silvec Biologics acquired the CTV vectoring system from Southern Gardens. IR4 has taken the responsibility for the regulatory process. Silvec believes they can increase the amount of spinach defensin in the plant by 100-fold and will cure or make the tree perform better and possibly provide immunotherapy. Dr. Dawson questioned whether it is a 100-fold increase in altered peptides. Dr. Dawson indicated Silvec Biologics has not disclosed how the peptide works. Hopefully, these questions will be answered in a full proposal. Mr. Himrod made a motion to invite a full proposal. The motion was seconded by Mr. Hamner and passed unanimously.

Next was the consideration of year 2 funding for the M. Dutt project 22-019 – ‘Understanding the HLB tolerance and reduced fruit drop in Parson Brown and evaluation of other early season sweet oranges.’ Mr. Himrod made a motion to approve year 2 funding. The motion was seconded by Mr. Sherrod and passed unanimously.

Mr. Dantzler gave an update on the status of the Coca Cola Company Stage II Trials and Molecule Testing. Out of 500 accessions, Coca Cola is going to identify 50 selections for Stage II large-scale field trials by the summer of 2024 at which time propagation will begin. CRDF has previously approved the proposal and currently has a contract with Brite Leaf Citrus Nursery to grow these trees for the Stage II trial.

Brian Scully is still working on molecule testing to find compounds that will work as well as, if not better than, OTC. It may be that those products can be combined to get more efficacy out of OTC. This project hopefully will have something available for injecting during the third year when OTC cannot be administered. CRDF has already approved funding to compensate grower cooperators who assist with this project. The subject has now arisen as to whether CRDF would want to pay for injections. We received a bill for \$2,000 from a grower cooperator on the East coast for the cost of the injections of these molecules. This was considered a reasonable cost for which CRDF should pay, so it was agreed to include such a provision in future agreements.

Dr. Scully, working with Drs. Michelle Heck and Randy Niedz, have identified 17 molecules that appear to be performing better than OTC, and they need to obtain more grower cooperators in other parts of the state to continue testing. Mr. Updike questioned whether they might use a grove with 25-year-old trees. Mr. Dantzler thought they might but right now they are working with fruit-bearing trees of 5 to 10 years old. Mr. Machata suggested a pricing scale for injection reimbursement since there is wide disparity in the industry, with a possible cap imposed on these costs.

The next item is a potential RFP Topic: Turning a Mandarin into a Juice Orange. Dr. Graham reached out to other researchers, and they came up with the idea of getting aggressive with Satsuma production in North Florida as an option. RMC had considered this question 2 years ago. Sean McCoy from Tropicana had earlier calculated how much volume they needed from North Florida in order to justify transportation costs to get more fruit to Tropicana. One of the public policy questions that was discussed in the RMC was the fact that North Florida growers pay no citrus tax and are not a part of the Florida Citrus Commission. They thought it was fine to fund something in North Florida, but only if it could benefit the rest of the State. The approval is being viewed as a strategy for keeping processors open, so this might accrue benefit to growers in the other three primary citrus growing regions of the state.

Dr. Graham noted that Satsuma mandarins have been grown in North Florida since the 1800's and are well-adapted to North Florida and South Georgia, and the quality is very high. The climatic zone in North Florida is ideal not only for mandarins but citrus culture in general, as noted by the USDA's recent change in climatic zones. The idea is to have something of the highest quality that can be a replacement for Sugar Belle which has limitations. He had brought the idea of a proposal

to Dave Crumbly to evaluate the quality of the juice and the pasteurization during and after processing.

Mr. Hamner noted that there was discussion in DOC about changing “What constitutes orange juice” from 10% to 15%, but it was still 10% at this time. A consideration is juice pricing compared to fresh packing. Mr. Futch questioned if the harvesting would be next November or had already been done this season. Dr. Graham stated that they had harvested in December and the Brix was extremely high. Dr. Mastrodicasa had sampled some Satsuma fruit this season and they were very good. There are 2,600 acres in North Florida and South Georgia which is giving them an excess supply. They have more than what the fresh fruit market will adequately handle; so, if the extra could be used for juice, they would certainly be interested. It was decided that Dr. Graham would work with Mr. Crumbly to get a quantity of Satsumas and have them tested.

COO Report: Brian Scully, Randy Niedz, and Michelle Heck are working with the molecule testing, and they are requesting that CRDF pay for the residue testing on those that are showing potential. CRDF has a contract with National Science Laboratory which is part of the USDA in North Carolina. There was discussion on the whole fruit and peel that was being processed in the North Carolina facility. Right now, there is an unknown protocol that needs to be validated by EPA. Mr. Joyner noted that you can have a label without tolerance being established. On February 14, 2024, Michelle Heck and Brian Scully will be making a presentation to the FCM board. It is recommended that CRDF Board members tune in. Mr. Dantzler noted that CRDF had already approved \$10,000 for Dr. Scully’s project and that was spent on the first batch of molecules. Discussion indicated that more information is needed before moving forward with this concept of whole fruit testing costs.

Dr. Scully is continuing to identify additional molecules to add to his current list of possible materials to inject for HLB control. A motion was made by Mr. Himrod and seconded by Dr. Mastrodicasa to approve an additional \$10,000 to be paid to Dr. Scully to continue his project to identify more compounds for testing. The motion passed unanimously.

Daniel Scott had grapefruit trees on the east coast with some survivor and escape trees that were doing well, so CRDF took budwood off of those trees and created a trial. We have been monitoring it now for 3 years. Unfortunately, the HLB tolerance has not been as good as hoped, but there seems to be something unique about the flavor that was good. Dr. Yu Wang requested CRDF to fund a \$3,000 request to conduct a taste panel and analysis of the Daniel Scott grapefruit trial’s top four performers compared to Ruby Red. Mr. Dantzler asked to ratify the \$3,000 reimbursement for the taste panel since it happened sooner than expected. Mr. Hamner made a motion to approve the funding. It was seconded by Dr. Mastrodicasa and passed unanimously.

CRDF has already agreed to test the Elemental Enzymes peptide in combination with OTC, pending Federal approval. It received its Section 3 about 2 or 3 months ago. The Board confirmed its willingness to conduct the trial.

The RMC proposed to invite a preproposal from Dr. Yu Wang on predicting fruit quality from leaf analysis. The development of this predictive tool could be a way to identify poor performance in breeding programs quicker and make that work more efficient. This is not nutrition related. Mr. Sherrod made a motion to invite the preproposal. The motion was seconded by Mr. Machata and passed unanimously.

Endorsed Research Topics from the RMC Meeting:

1. Possible RFP on injection devices for small trees. Dr. Mastrodicasa suggested that this issue be brought to the attention of the Engineering Department at UF in Gainesville. Silvec Biologics is working with MIT on an injection device.
2. Ways to mitigate reinfection in groves that have become relatively isolated.
3. Pursue canker control in light of the decision of the Ninth Circuit; spread the word about Actigard from Syngenta. Dr. Mastrodicasa noted that, because Syngenta is a Chinese company, there are limitations on how much CRDF and Syngenta would be able to do together.
4. Continue pursuing the comparison of ReMedium and Rectify.
5. Use processors to identify the most productive groves in the state and find out what they are doing, as well as if the bacterium has morphed to become more harmful in other areas.
6. Mix nutrition in with the OTC injection formula.

Mr. Sherrod made a motion to move forward with all of the Research Topics. The motion was seconded by Mr. Hamner and passed unanimously.

It was noted that we still need grower cooperators for Symbiont work with Michelle Heck.

Mr. Dantzler noted that he had spoken with Ms. Morgan, and they were considering inviting all of the CRDF Committee members and the President and Executive Directors from all of the Citrus organizations to the Board Retreat and Research Summit on February 27, 2024. It will be held at Seven Raceway Hotel in Sebring.

Mr. Dantzler suggested that former Board members Rob Atchley, David Howard, and John Updike are eligible for Emeritus status, which allows them to participate in everything related to CRDF except voting. Mr. Updike has already indicated he wishes to serve as an Emeritus member. Mr. Dantzler has asked Mr. Howard and Mr. Atchley about it but has not heard back from them.

Also, we are required to have four Board Members on the RMC and we only have three at this time. We will need to schedule a Governance meeting before February 27, 2024.

Paul Meador mentioned at the Commission meeting that Blackspot still needed to be addressed. Following this request, Mr. Dantzler asked Dr. Syvertsen to speak with Dr. Dewdney about what else needed to be done. She indicated to him the need for more work on 1) a skirting system and 2) sterilizing grove equipment when moving from one grove site to another.

Mr. Dantzler raised the issue that funding projects one year at a time was causing administrative problems. Dr. Mastrodicasa noted that it slows down the process when a researcher needs to hire staff for the 3-year project and never knows when the additional funding is coming. CRDF used to fund the full project unless something negative came up. Then they had a 90-day period to terminate. Mr. Hamner noted that funding the full project would tie up the money, and those funds would not be available for funding other projects. Researchers need total funding and then get their information to the Board according to the timeline. Mr. Machata agreed with the need for benchmark goals. The Board wanted to find out more about the problems to see if there was a way to work around the problems without giving up on incremental funding.

Partnership Updates:

Matt Joyner, Florida Citrus Mutual – State Legislation is in a good spot. However, the governor's vision is cutting \$4.6 billion out of the State budget, so we cannot take funds for granted. The \$8 million for research should be safe. The citrus industry should get the \$30 million again that we got last year for Applied Research for CRAFT. There is a proposal for a no- to low-interest loan program for growers who put new trees in the ground.

With OTC and other compounds coming online, we could start to shift toward using funds for tree planting and then the rest would go to CRAFT. DOC funding for marketing is included in the ask, as well as \$4 million for CHRP. Then with the expedited propagation of the five trees, the Donaldson, Roble, Parson Brown, and a couple of Carneys, we are looking at getting another \$2 million dollars or so put into that program through DOC for what might be the next generation of trees for mass propagation. There is a lot of work going on with the escape trees that might be out there as well. Additionally, we are looking at getting funding in the budget to purchase the Trenton citrus nursery facility that FDACS has been leasing through Southern Gardens Nursery.

Commissioner Simpson and Senator Albritton had a meeting with representatives from a company that was successful in altering mosquitoes in the Keys to reduce Dengue fever. The company claims to be able to do the same thing with the psyllid. So, there will likely be \$2 million in the budget for this work.

Mr. Dantzler noted that the CRDF Plant Improvement Committee (PIC) would be good to help with the five new varieties for the PEP program. Rosa Walsh noted that they had lists of 30 to 50 that PIC could help narrow down.

Scott Adkins, USDA – Dr. Rosskoph and Dr. Adkins reported that they had their three lines of management visiting with them – the headquarters folks from Washington, the National program people from Beltsville, Maryland, and the area people from Stoneville, Mississippi. They were there in association with the project looking at molecules and looking at Symbiont technology. He also noted continued work on Dr. Rosskopf's mandarin project that is being developed in conjunction with the Coca Cola project that is being funded through CRDF. Dr. Adkins announced that USDA in Ft. Pierce has recently hired a Citrus Pathologist, Dr. Clive Bock, who previously worked in Ft. Pierce 17 years ago as a postdoc. He is filling the position of Tim Gottwald that has been vacant for some time.

UF-IFAS-CREC – Dr. Mastrodicasa reported that they were doing interviews for the IRREC Center Director. Dr. Scott Angle was made permanent in the provost's office for the 18 months left on his 5-year contract. Dr. Rob Gilbert would be the Interim SVP for that same 18 months. Dr. Angle has moved out their suite in IFAS and Dr. Gilbert would be moving in.

New Business: None

Public Comments: None

Future Meeting: The next Board of Directors meeting will be held on February 27, 2024, at the Seven Raceway Hotel, 150 Midway Drive, Sebring, Florida 33870.

With no further business, the meeting adjourned at 11:53 a.m.

Minutes submitted by George Hamner, Secretary.