



Minutes of the Board of Directors Meeting Tuesday, February 28, 2023

A meeting of the Board of Directors of the Citrus Research and Development Foundation, Inc. was held on Tuesday, February 28, 2023, at the Southwest Florida Research and Education Center, 2685 State Rd. 29 N, Immokalee, FL 34142. The meeting was properly noticed and recorded. President Morgan Porter called the meeting to order at 10:00 a.m. Roll was called and a quorum was present. Board members present were Rob Atchley, Chris Gunter, George Hamner, Aaron Himrod, David Howard, Deeley Hunt, Ron Mahan, Jeanna Mastrodicasa, Morgan Porter, Eric Rohrig, Joby Sherrod, Matt Story, and John Updike.

Mr. Mahan made a motion to accept the minutes as written. The motion was seconded by Mr. Atchley and passed unanimously.

Ms. Porter and Mr. Dantzler thanked Dr. Burton, SWFREC Center Director, and Allison and Kevin from his staff, for their assistance. Dr. Burton welcomed the Board to Immokalee and assured growers their researchers continue to actively pursue solutions for the citrus industry.

Public Comments: None

Mr. Gerrard, Invaio described the injector they have designed and their OTC product, as well as financing options they intend to make available to growers.

Ms. Porter invited Dr. Albrecht to give her presentation on the progress to date on project #22-001, Evaluation of different trunk injection devices and OTC formulations for efficacy against HLB, phytotoxicity and feasibility. Dr. Albrecht reported on the five trial locations in this project and results achieved to date. Mr. Atchley moved to approve second-year funding on project #22-001 in the amount of \$88,013. The motion was seconded by Mr. Mahan and passed unanimously.

Discussion followed on the need to treat older trees to help growers survive until the younger trees come into production. Mr. Mahan noted the need to treat older Hamlins immediately. Mr. Dantzler added that #8 of the OTC Project Bids would include the study on older trees. Mr. Howard suggested using Dr. Albrecht's template in Mr. Yonce's studies to have continuity.

Executive Committee: Did not meet.

Finance and Audit Committee: Mr. Mahan presented the January 31, 2023, financial statement, and moved to accept the financial statements as presented. Mr. Updike seconded the motion and it passed unanimously.

Mr. Mahan then added that a new funding request was received from AgNet Media. Mr. Dantzler reported that AgNet Media had requested CRDF to contribute as a sponsor to the Florida Grower Citrus Show in the amount of \$3,500 for recognition at registration and in their publications or \$5,000 to sponsor the educational seminar. The new ask was due to AgNet Media's recent acquisition of Florida Grower. Mr. Mahan made a motion to award \$5,000 for the Educational Seminars. It was seconded by Mr. Howard and passed unanimously. During the discussion Mr. Atchley and Dr. Mastrodicasa said they would like to see a better venue for the August show currently held in Lee County. If improvements can't be made, perhaps the sponsors should consider changing the venue to the Indian River area.

Governance Committee: Did not meet.

Research Management Committee: Mr. Updike presented the following three gamechanger pre-proposals that the committee is recommending to invite full proposals:

- Jawwad Qureshi is proposing two field trials to test OTC in combination with imidacloprid, gibberellic acid, and zinc. Mr. Updike made a motion to invite a full proposal, with the understanding that older trees be included. The motion was seconded by Mr. Atchley and passed unanimously.
- Zhanao Deng-1, Evaluating novel gene-edited Duncan grapefruit mutants for resistance to HLB. Mr. Updike made a motion to request a full proposal, and asked that Dr. Deng elaborate on why he sees a correlation between canker and HLB resistance. It was seconded by Mr. Atchley and approved unanimously.
- Nian Wang: Currently, CRISPR uses protoplast technology to create CRISPR edits. This project proposes to utilize two different methodologies for the edits. It was recommended that Dr. Wang address ways to cut out juvenility, as well as explain why this would be a better use of his time than using the protoplast technology. Mr. Updike made a motion to ask for a full proposal. It was seconded by Mr. Atchley and passed unanimously.

Mr. Updike reported that the remaining fourteen pre-proposals were not recommended by the RMC to advance to full proposals. Having read the pre-proposals and Staff Summaries for them, he asked if there were any that the Board would like to bring forward at this time to discuss:

Mr. Atchley questioned Dr. Grosser's pre-proposal to evaluate rootstocks and scions for ability to transmit HLB tolerance to grafted scions. He asked if there is merit to planting these trees at this time to obtain data in the event they are not included in a CRAFT project. The Board agreed with RMC's recommendation to table action until after the discussions with CRAFT and the inventory presentations by Dr. Chater and Dr. Mattia in March.

No additional action was taken by the Board on the other thirteen pre-proposals.

It was again noted that CRDF should have discussions with CRAFT regarding their model, which may require CRAFT changing their guidelines that currently allow proven rootstocks in their trials.

It was clarified that since the remaining pre-proposals failed due to the lack of a motion to advance after discussion of each by the RMC, there was not an RMC vote on them.

Mr. Howard asked for the details of the discussion of Dr. Vashisth's pre-proposal and whether there was support for it. Mr. Dantzler noted that with the amount of work that was going on with PGR that this might not be timely. Dr. Graham said that this project was trying to derive a best treatment from two rates and the SAB did not see how that would translate. Other factors were that, while nutrients were included in the objectives, there was no specific protocol to address them, and that the budget was considered to be excessive for basically spray trials.

Mr. Updike continued with Dr. Turgeon's Full Proposal #22-020, which proposes to use phloem-anchored antibodies to protect citrus trees from HLB. The SAB recommended this project it thought it first needed additional work on proof of concept in citrus, and recommended funding for a year to 18 months. There was a suggestion to begin making Hamlin and Valencia transformation in the mature tissue laboratory concurrent with the other research. Mr. Howard moved to fund one year at a cost of \$151,976, with modifications to send constructs to the mature transformation facility for other varieties. A separate proposal would be submitted for continuation funding. The motion was seconded by Mr. Atchley and passed unanimously.

Mr. Updike continued with the discussion of the quotes received in response to the eight topics of OTC Directed Research that were due January 31st:

1. Use of CRDF Rootstock Trial Locations for Testing Bactericides Inserted into Trees through Systemic Delivery Devices – Ute Albrecht, UF, \$384,700. The RMC recommended to accept this proposal for testing to be conducted at the three CRDF rootstock trial locations in Polk, Highlands, and Hendry Counties, and evaluated for 3 years. Mr. Updike made a motion to approve funding. The motion was seconded by Mr. Atchley and passed unanimously.

2. Use of Bactericide in Combination with GA and 2,4-D – quotes were received from Henry Yonce (\$25,000), and John Curtis (\$16,100). RMC recommended this study be funded and conducted by Dr. Curtis since he is currently conducting CRDF research on PGRs. Mr. Updike made a motion to accept RMC's recommendation. The motion was seconded by Mr. Howard and passed unanimously.
3. Impact of Bactericides Inserted through Systemic Delivery on Improving Tree Health and Root Density over time – John Curtis (\$5,000/site). RMC recommended accepting Dr. Curtis' bid and funding two sites, in the flatwoods and on the Ridge. Mr. Updike made a motion to accept Dr. Curtis' bid and fund the two sites. The motion was seconded by Mr. Atchley and passed with one opposing vote.

Discussion continued on the methods and collection of similar data on studies by Syngenta with different sampling. Mr. Dantzler has invited Syngenta to present on this to either the RMC or Board to share their methods for reporting data. Mr. Himrod noted the benefit of the dataset in addition to validation of the methods in conjunction with project 3.

4. Impact of Hedging on Movement of Bactericides – Henry Yonce (\$18,000), John Curtis (\$5,000/site). RMC did not advance this project due to lack of a second on the motion for approval by Ms. Chamberlain. A discussion ensued about the benefits and timing of hedging. No action was taken.
5. Alternative Insertion Sites for Bactericides – Henry Yonce (\$185,000), John Curtis (\$6,000). RMC recommended accepting Dr. Curtis' bid. Mr. Updike made a motion to approve funding Dr. Curtis. The motion was seconded by Mr. Atchley. Ms. Porter voiced a concern about Mr. Curtis' workload with his current CRDF projects and these new projects being awarded to him. Mr. Dantzler will discuss these concerns with Mr. Curtis to be sure that he has the time and personnel to do the work. Mr. Howard suggested that, if he needed extra staff, an additional stipend could be considered as this work is time sensitive. A vote was taken on the motion and passed unanimously.
6. Bactericide Combined with VismaxTM – Henry Yonce (\$25,000), John Curtis (\$15,200). The RMC recommended that funding be approved for this project and the work be conducted by Mr. Yonce, with the award contingent on Vismax receiving its label as expected in May. Mr. Howard made a motion to accept RMC's recommendation. The motion was seconded by Mr. Atchley and passed unanimously.
7. Bactericide Insertion Timing Study – Henry Yonce (\$30,000), John Curtis (\$5,000/site). The RMC took no action on this project to recommend funding since the important part is to get it

in the tree, not worry about the timing. The board did not take action on #7, accepting the RMC's recommendation.

8. Yield Comparison Between Bactericide and Non-treated Control Blocks on Yield and Tree Health – Henry Yonce (\$13,000). Mr. Updike reported that the RMC did not take action to fund this project since it could be a CRAFT trial. The discussion centered on how this work on older trees is vital, noting the project should be modified to treat older trees. Mr. Howard moved to approve the project for trees 20+ years of age. The motion was seconded by Mr. Atchley and passed unanimously, requesting a second trial if Mr. Yonce has a site for it.

Mr. Updike discussed the potential RFP to assist companies getting products to the marketplace at prices growers could afford. It was decided that Mr. Dantzler would make a Statement of Policy and bring it back to the Board.

Mr. Dantzler said CRDF had previously decided that, in order to attract growers to do scion trials, they would need to be compensated for the care of these trees, at a rate \$1,750-\$2,200/acre. Dr. Mastrodicasa made a motion for funding at \$2,000 per acre. The motion was seconded by Mr. Atchley and passed unanimously after an opinion was expressed that \$2,000 was fair and that there were likely growers who would do it for that price.

COO Report: Mr. Dantzler noted that after the rootstock trial planted by Mr. Laurent was upended by the hurricane and he was released from the trial, CRDF advertised that salvageable trees were available to any growers willing to uproot and replant. Mr. John Paul accepted the offer and replanted those that were available. Two other cooperators have agreed to take the trees that remain in the nursery and complete the rootstock trials.

CRDF is accepting proposals on the Antimicrobial RFP through March 13th.

Partnership Updates:

Florida Citrus Mutual: Ms. Wood reported on Matt Joyner's behalf that things were going well in Tallahassee and things were looking favorable for receiving continued research funding this year, as well as the potential for increased support for existing tree therapies through MAC. They will be rolling out the existing tree therapy program shortly, which could be expanded with the State dollars, additional MAC dollars, and the additional CRDF proposal that they submitted recently if it is funded. Mr. Joyner continues to work with the Legislature and USDA on disaster recovery. Mr. Howard asked if projects with re-sets that were not funded under Cycle IV would transition to new CRAFT cycles. Ms. Wood said that they would not automatically transition to the new cycle of projects since that will be a different application process. Additional funds are

being applied for from MAC for projects not covered in cycle 4, so that, if your application did not get approved, it could potentially get rolled into the cycle 5 application window from those funds.

IFAS: Dr. Mastrodicasa noted they are interviewing possible Center Directors for Mid Florida REC. In addition, they were holding Faculty Evaluations at this time.

Old Business: Mr. Atchley asked about the funding to Solcea. Mr. Dantzler and Yanni Lagos think they have the contract language resolved. CRDF had included a clause for repayment of its award from future Soilcea revenues when trees were sold. Soilcea is trying to leverage CRDF funding to receive funding from another grant from the National Science Foundation. That agency is balking at that repayment language. Mr. Dantzler noted that with Bayer CRDF will get back all of their funding plus interest. There is a 70/30 split on contracts funded to UF.

New Business: Mr. Howard said he had spoken with Mr. Joyner and thought it would be a good idea to have a session with the growers at the Annual Conference in June to allow them to ask questions of CRDF and let us know if we are on the right path. Ms. Porter agreed that it was a good idea. Dr. Mastrodicasa suggested there is an online way for growers to vote or express themselves during the conference.

Mr. Dantzler brought up that with the inventory report coming from Dr. Chater and Dr. Mattia in March, that the following month would be a good time to convene a meeting of the committees in April to discuss next steps.

Public Comments: None

Next Board Meeting: March 28, 2023, 10:00 a.m., at UF/IFAS CREC, Lake Alfred.

With no further business, the meeting adjourned at 12:45 p.m.

Minutes submitted by John Updike, Secretary.