

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.

Research Management Committee Meeting

Minutes

Wednesday, January 22, 2025

A meeting of the Research Management Committee of the Citrus Research and Development Foundation, Inc. was held on Wednesday, January 22, 2025, at 10:00 AM, at the Hampton Inn & Suites Conference Room, 22900 Highway 27, Lake Wales, FL 33859. The meeting was properly noticed and recorded. The meeting was called to order at 10:20 AM by Rick Dantzler. Roll was called and a quorum was present. Committee members participating were Scott Adkins, Bobby Barben, Holly Chamberlain, Steve Farr, Ned Hancock, Deeley Hunt, Matt Machata, Bo Meador, Morgan Porter, Brian Scully, and Wayne Simmons.

Mr. Dantzler noted that Aaron Himrod had to step down, so a new Chair would be named. Since Matt Machata is the Vice-Chair, the Board should vote next week for him stepping up and becoming Chair. We have a need for two additional committee members, one from the East Coast and one from Central Florida. Charlie McKee is with us today. He was suggested as an excellent RMC committee member, so we invited him to be with us. The board will also be voting on him next week. With that said, he turned the meeting over to Matt Machata to chair the meeting.

Mr. Machata noted the minutes of the November 14, 2024, Research Management Committee meeting were included with the meeting materials. Mr. Hunt made a motion to accept the minutes as presented. The motion was seconded by Ms. Porter and passed unanimously.

Projects for Consideration:

First up was Stelinski/Dutt – Development of Bt-transformed citrus varieties for simultaneous control of psyllids and root weevils. Dr. Dawson gave a brief summary. He stated that most Bts do not work on psyllid sucking insects, but they can be modified to work on those insects. They are proposing to transform citrus with a modified Bt toxin that has been shown to kill both psyllids and Diaprepes. It does not kill psyllid adults. It inhibits production of progeny. All work to date has been in the greenhouse or laboratory. . The oldest trees are about 3 years old. Mr. Dantzler has contacted Dr. Angle regarding the need to move forward quickly. This led to a meeting of a number of researchers who would be involved. Dr. Scully moved to approve. The motion was seconded by Mr. Hunt and passed unanimously.

Next was Batuman – Determining the effect of oxytetracycline and streptomycin injections on phytotoxicity and CLas reduction in mature citrus trees. This proposal is \$58,000 over 2 years. It will explore the synergistic effects of the combination of these products and try to determine optimal dosage rates and any other toxic effects that might exist on plants. There was not an SAB review because this was viewed as a continuation of existing research. It was posed that he tries higher rates of strep to make sure to get the right rate and Dr. Batuman was glad to accommodate. It was also mentioned the need for residue testing. Dr. Batuman had not budgeted for that because of the cost. CRDF has a contract with the USDA lab in North Carolina, so this could be done as part of that contract. Dr. Batuman will add residue testing on the flowers and pollen to the proposal. Ms. Porter made a motion to approve. The motion was seconded by Mr. Meador and passed unanimously.

Turgeon, Cornell – 22-020 Y3 continuation – Protecting citrus trees from citrus greening with anchored, single-chain antibodies. The budget is about \$165,000. Dr. Turgeon has created 16 transformed trees that are growing in Dr. Amit Levy's lab at UF-CREC. They have a few more transformations they would like to do, but this project is primarily used for evaluation. Dr. Turgeon stated that the preliminary data was very positive. Dr. Scully made a motion to approve. The motion was seconded by Ms. Porter and passed unanimously.

Chaparro – Generation & evaluation of citrus hybrids for processing. Dr. Futch gave a brief summary. Mr. Meador suggested striking Objective 3 that deals with the Desert Lime. Dr. Scully was in favor of purchasing a PCR but thought that UF should provide the hood and other lab equipment needed. He also suggested that this project go before the Plant Improvement Committee to get their view on the project. Mr. Meador made a motion to defer this project and send it to the PIC for further review. It was seconded by Ms. Porter and passed unanimously.

At this point, the committee was asked to skip to the presentation by T. Balaji Aglave on Curry leaf extract. She is a sophomore attending Strawberry Crest High School in Dover. She has been doing work with guava comparing it to the efficacy of oxytetracycline.

She focused on her research that was part of her 2023-24 Science Fair project. This was on a comprehensive eco-friendly approach for the management of the citrus greening disease using trunk injection of curry leaf extract and its validation through precision agriculture tools. She contacted the University of South Florida regarding the use of their lab to do 3D printing of her prototypes. She developed a linear regression model which could actually predict the disease severity in relation to various physiological processes occurring within the plant. This included various parameters, including chlorophyll, content, plant vigor, and stomatal conductance used for evaluation. The cost of the curry extract was around \$380 per acre. The committee was very impressed with her presentation.

W. Johnson, The Coca-Cola Company – Off-cycle – Trial of 30: The Next Stage 2 Citrus Trials to Combat Citrus Greening Disease. There was discussion on where the trees would be planted and since Drs. Mattia and Chater would be in charge of collecting the data, could they incorporate this into their Grand Plan. Dr. Scully moved that this project be deferred to go to the Plant Improvement Committee and come back with a more thorough plan on what happens after they propagate the trees. Mr. Meador seconded the motion and it passed unanimously.

There was a plan made to convene the PIC on Monday morning to review these two projects, so they could go before the Board on Tuesday.

Mr. Dantzler presented on an issue which has arisen with Silvec Biologics. CRDF funded them for 1 year to allow them to continue their research while they applied for a federal grant, which they did not receive. They then went to HLB MAC and received funding. However, Silvec has found out about the language in Chapter 601 that gives the Florida Department of Citrus certain rights to germplasm and technology created with the assistance of State funding. So, Silvec has asked if they could repay the money to CRDF. Silvec has been asked to provide a written explanation of this matter to CRDF.

Presentations:

Dr. Lauren Diepenbrock made a presentation on #22-013 – “Getting to the root of the problem: Managing Diaprepes root weevil on trees with HLB” – sharing her progress to date and requesting Year-3 funding.

This project includes Dr. L. Stelinski and Dr. L. Duncan. She has \$68,000 remaining on the project with one more quarter to go. She is requesting \$115,000, but the \$68,000 would be deducted from that amount. She noted that there are reports of growers fogging at night. She does not have the equipment for fogging but would pursue this if she could borrow the equipment. There are still more chemistries to be tested in year 3. She will continue working on what is going on belowground. Mr. Barben moved to approve the project with the addition of fogging. The motion was seconded by Mr. Hunt and passed. However, three members had left the meeting so there was not a quorum.

The next presentation was L. Diepenbrock #20-002C – “Developing near and long-term management strategies for Lebeck mealybug (*Nipaecoccus viridis*) in Florida citrus” – request for continuation (Yr 5). She is requesting \$394,000, which includes \$42,000 in indirect costs from UF. The biggest challenge right now is with CUPS, so it was suggested that she come back with a new project geared towards CUPS with a lower budget. She requested a 6-month no-cost extension. Mr. Dantzler agreed to give her that extension.

Mr. Dantzler outlined the CRDF research strategy and asked if everyone was still comfortable with it.

Dr. Graham discussed the Fundecitrus biotechnology project that would be underway in March.

The committee discussed a replacement for muriatic acid that stays in solution longer.

Dr. Dawson pitched the idea of a Grove Committee working on getting the resistance gene into the grove.

With no further business, the meeting was adjourned at 1:49 PM.

Minutes submitted by Barbara Thompson.