

RIVER RAMBLINGS



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JAN 2021

STILL TIME TO REGISTER

There is still time to register and join in on a fun event on January 23, 2021 at Vero Beach Clays and Shooting Sports. This one-day event will spot light the importance of agriculture grown locally here on the Treasure Coast region. Come out and enjoy a relaxing time and a great lunch catered by 14 Bones and sponsored by **Florida Coast Equipment**.

There will be a silent auction for a Beretta, 12-gauge, A300 shot gun that was generously sponsored by **Everglades Farm Equipment**. Along with this opportunity, there will also be other great items for our Chinese Raffle along with a green bird 50/50 cash pot and a Make-A-Break contest cash pot.

Vero Beach Clays is located at 5925 82nd Avenue in Vero Beach.

Please see the flyer in this issue for additional information and sponsorship opportunities.

A generous thank you to our event sponsors:



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RIVER RAMBLINGS · THE NEWSLETTER OF THE INDIAN RIVER CITRUS LEAGUE

Treasure Coast Grown Fun Shoot

January 23, 2021

Vero Beach Clay Shooting Sports

5925 82nd Ave. Vero Beach, FL



Presented by the
Indian River Citrus League

8:30 a.m. Check In 9:30 a.m. Start

Games, Lunch and live entertainment begins at 12 noon

Eye & ear protection available or bring your own - Ammo available for purchase or bring your own -Guns available for rent - NO reloaded ammo allowed

Sponsorship Opportunities

Title Sponsor: 1 Available \$5,000

Includes 2 teams with golf carts, shooter gift bags, lunch and Happy Hour Listed as tournament sponsor with company logo on all event signage and banners and promotional materials, listed at tournament sponsor on all social media, website with a link to your business, recognition at the event; encouraged to set up a tent in the front area and display company banners and pass out company information at the event

Orange Station Sponsor: 14 available \$2,000

Includes 1 team with golf cart, shooter gift bags, lunch and Happy Hour Listed as Orange Station sponsor with company logo on all event signage and banners and promotional materials, listed at Orange Station sponsor on all social media, website with a link to your business, recognition at the event; encouraged to set up a tent at the sponsored station and display company banners and pass out company information at the event

Honeybell Sponsor \$1,500

Includes 1 team with golf cart, shooter gift bags, lunch and Happy Hour; Listed as Honeybell Sponsor with company logo on Sponsor Boards and promotional materials, listed as Honeybell sponsor on all social media, website with a link to your business, recognition at the event

Cattle Sponsor \$1,000

Includes 1 team with golf cart, shooter bags, lunch and Happy Hour Listed as Cattle sponsor with company logo on Sponsor boards and promotional materials, listed as Cattle sponsor on all social media, website with a link to your business

4 Person Shooting Team \$800

Includes 1 team with golf cart, shooter bags, lunch and Happy Hour

Individual Shooter \$250

Includes 1 shooter with golf cart, shooter bag, lunch and Happy Hour

Happy Hour Sponsor \$2000

Cart Sponsor \$800 **SOLD**

Lunch Sponsor \$1500 **Sold**

Shot Gun Sponsor \$1500 **SOLD**

Beverage Sponsor \$800 **Sold**

*** Also accepting gifts for Silent Auction Items, Prize and Goody Bag donations ***

CRDF UPDATE

*Rick Dantzer
Chief Operating Officer
Citrus Research and Development Foundation*

ROOTSTOCK TRIALS

One way to make it functionally irrelevant is through the development of greening-tolerant citrus rootstock and scions. In fact, one of the most common questions growers ask in the HLB era is, "What should I plant."

Three CRDF rootstock trials have helped many growers answer that question. The results from these trials are on the CRDF website, which I commend to you if you have not already seen them. You would find the data quite educational.

Given the success of these trials, the CRDF board, with initial encouragement from our president David Howard, has decided to conduct more trials of the latest and most promising rootstocks. The goal is to include up to 20 rootstocks grown on three industry-standard scions - Valencia, Vernia and Hamlin. These three scions were the top three budded scions in 2019-2020. And with Hamlin, by being particularly susceptible to HLB it will give a quick indication of HLB tolerance in the rootstock.

I have visited many of the trial sites of our breeders and there are many rootstocks from which to choose. Robust trees with good fruit, few thorns, and very low titer counts lead me to believe we are close to having new and better orange cultivars that can be grown profitably even when growers aren't receiving premium prices for their fruit. In other words, trees that make HLB functionally irrelevant. **If there are rootstocks you would like us to consider for the trial, please let us know!**

These rootstock trials will require grower-cooperators. If you are interested in hosting one of these trials, please contact us. CRDF will pay for the trees, planting costs and tree wraps.

The details of the trials are being developed by the CRDF Select Committee on Plant Improvement, chaired by John Gose. Few growers have more practical knowledge of rootstocks and scions than John, and he will be working with a committee membership comprised of leaders from all facets of the industry.

Overseeing these trials will be CRDF's Brandon Page, a highly motivated and dedicated employee who understands the last stage of field trials as well as anybody. I am excited about these trials and the work that is to come from the Select Committee.

A thought that has surfaced is that a scion trial could be just as valuable as a rootstock trial. My sense is the Select Committee could very well turn its attention to scions after completing its review of rootstocks, so don't be surprised if CRDF embarks upon a scion trial in the relatively near future.

CRAFT

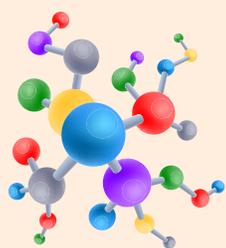
Of the \$8 million dollar appropriation CRDF received from the Legislature last session, we were directed to spend \$3 million of it on large-scale field trials. We promulgated and advertised a Request for Proposals and ultimately selected CRAFT as the recipient.

When the negative fiscal impact to the state caused by COVID-19 struck, all state agencies were required to hold back 8.5 percent of its spending of state funds, which amounted to \$680,000 for CRDF, \$255,000 of which would have been withheld from CRAFT if reductions had been taken across the board. However, the CRDF board understands the popularity of CRAFT and supports its



objective of getting 5,000 new acres planted in ways that will allow practical production data to result, so it made the decision to make up the \$255,000 elsewhere and give CRAFT the entire \$3 million so long as there are \$3 million dollars of qualified projects as identified by the CRAFT Technical Working Group (TWG) and board (in other words, if 3,000 acres of meritorious projects are approved since \$1,000/ program acre is paid by CRDF). Having listened in on deliberations of the TWG, I am impressed by the quality of projects and predict the program will be a smashing success.

PEPTIDES



Another focus for CRDF for the new year in the fight against HLB will be peptides. We all got excited when we read of Dr. Hailing Jin's work at the University of California Riverside with a peptide from finger lime that was showing early success against HLB. Since the announcement, I have had four conference calls with her, trying to determine if there is anything CRDF can do to get to the bottom line of her research as quickly as possible.

But Dr. Jin's peptide is not the only one showing promise. Several companies in Florida are working with peptides, so CRDF put together and grower organizations promoted a morning-long educational seminar on peptides. It had been had made it clear to me that finding out the state of the marketplace was one of the things growers wanted to learn, so our presenters were from industry as well as a presenter from the EPA so that we could learn where things stood in the process towards commercialization and the steps necessary to bring peptide products to market. I am convinced that peptides will be part of our solution.

BAYER PROJECT

As you have perhaps heard, we were successful in securing federal funding for the Bayer project, which will allow it to be brought in for its natural conclusion.

Jointly funded by CRDF, PepsiCo and Coca-Cola, the Bayer project is the most expensive in CRDF's history at \$12,610,000. However, it had gotten to where CRDF was simply not going to be able to continue putting money into it despite its promising results, so funding partners CRDF, PepsiCo, Coca-Cola and the California Citrus Research Board came together to provide bridge funding while pursuing a USDA NIFA grant in concert with research partners Bayer Crop Science, the University of Florida, Texas A&M, and the University of California Davis.

The strategy worked. We received the federal grant and funding began on September 1st.

The project has three objectives.

One, to construct a high-throughput screening cascade, which has been done, to test antibacterial microbes for their ability to kill liberibacter. This process involves Bayer, Texas A&M and UF/IFAS and is available to all credentialed researchers.

Two, to find an antibacterial microbe that kills liberibacter. Bayer has a library of 150,000 microbial strains. Early screening narrows the list considerably. From this narrowed list, approximately 500 are put through high throughput screening each quarter. Two-thousand five hundred (2,500) microbes have been tested so far, 49 of which showed enough promise to be sent to Texas A&M to be subjected to the hairy root assay, perhaps the world's best rapid testing mechanism for *in planta* screening. From these, four were promising enough to be shipped to Florida for real-world testing in UF/IFAS' citrus greenhouse assay and for three field trials set up for the Bayer project.

Three, to develop a plant defense modulator (PDM) to cause the plant's natural defenses to fight HLB. This work is done in France. Bayer has already screened 200,000 compounds (100,000/year). From these screenings there were 3,000 hits involving 72 clusters. Bayer is so confident of one

cluster that it is already developing analogs (specific variations for maximum efficacy against HLB) and engaging the company's regulatory persons for toxicology screening to make commercialization occur as quickly as possible.

A new element of the project has been added as part of the NIFA grant: metabolomics. Metabolomics is the science of metabolites. A metabolite is the end product of metabolism, and these end products have qualities that can be measured. For example, and I must confess I did not know this, plants have smells that are detectable. For our purpose, a healthy tree smells one way but its smell changes when it becomes affected by HLB. Who knew? Scientists can now detect these differences, a skill that has been added to the project because it allows us to determine earlier if a therapy is working.

The federal grant is for two years with a third following if success is achieved. I am confident that several new products, which will be identified by the end of the project, will result. The bad news is the regulatory process will almost certainly take several more years beyond that, but at least more arrows in the quiver will be on the way.

PARSON BROWN ORANGES

"There seems to be with orange growers a considerable interest manifested in the Parson Brown orange, and as I once owned the tree that produced this now famous orange, and was the first orange grower who brought this fine fruit to the notice of the Northern public, I will, with your permission, give your readers a short history of this tree," said Capt. J.L. Carney in a 1896 letter to Florida Farmer & Fruit Grower.

What follows in the letter is a history of the establishment of the Parson Brown orange and how the first buds were taken from a tree owned by Uncle Brown, a Methodist minister (hence the name). He was reputed to have the best tree of this genotype

Parson Brown oranges have good flavor and color and are an early season variety, but they fell into disfavor because they are seedy and have more peel oil than Hamlin, its primary competitor. Still, it hung on, and more than a few growers continued to grow it.

When HLB hit, it was noticed that Parson Browns seemed to be faring better than other genotypes. In fact, one grower claims to continue to pick upwards of 600 boxes per acre from his Parson Brown grove. This caught the attention of University of Florida Institute of Food and Agricultural Sciences emeritus Extension agent Gary England. He aims to document the true status of Parson Brown and determine which clones are best.

England is working with CRDF's Brandon Page and Manjul Dutt of UF/IFAS, who presented CRDF with a research proposal to determine why Parson Browns seem to stand up to HLB better than many cultivars. It is suspected that Parson Browns have higher levels of the PR1 and PR2 defense genes, which are the molecular markers of systemic acquired resistance, than Hamlin. The research project will determine if this is the case.

But what about the high peel oil and seed content that caused Parson Browns to fall into disfavor with processors? With an orange crop estimate of 56 million boxes in Florida, processors are in need



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of fruit - especially early season oranges not particularly affected by HLB from a quality standpoint - so such factors are of lesser concern. And plant breeders have indicated an ability to breed the less desirable characteristics out of the fruit over time.

Some of the earlier and perhaps best Parson Brown clones are few in number, so a priority is to preserve the gene sequence for those that are considered the best. That work, perhaps with the assistance of PepsiCo, may be considered, as well.

Wouldn't it be something if part of the solution to HLB has been with us all along, and the good ol' Parson Brown is part of the answer? We will find out.

Great things are going to happen in 2021. The year 2020 was a lost year in some ways, but it will soon be behind us. Within months most of us will have had the coronavirus vaccine and things will have begun returning to a sense of normalcy. And won't it be nice to be able to be together again?

At CRDF, we are going to provide you with answers. I feel it in my bones that we are getting closer to having this awful disease in the rearview mirror. There is simply no way that all the knowledge we have gained is going to result in HLB not being eradicated or made functionally irrelevant. You can mark my words.



MAC PROJECT UPDATE

*F Benjamin Rosson CPM
Chief, Bureau of Citrus Budwood Registration Florida
Department of Agricultural and Consumer Services*

Welcome to the new year, hopefully this year will present better opportunities than last year. With everything that has been going on, I am again thankful that we have had such a strong group of participants for this project. Over 85% of the grower sites have been inspected and checks sent out. We have delivered grower choice trees to an additional two growers so far with another couple expecting a delivery in the spring. So far, we have sent out over \$386,000 to growers enrolled in the project with more to come as trees get in the ground.

I am truly appreciative of the continued support of the League and participants and can't wait to see the information rolling in so that growers will have the best tools to continue the fight against HLB.

FLORIDA CITRUS SHOW

*By Frank Giles
Editor
Florida Grower Magazine*

We're excited to announce that the 2021 Florida Grower SM Citrus Show will be taking place as the first major in-person citrus event of the year. We appreciate the interest many of you have expressed in attending and learning about the latest developments in citrus research and production tactics being deployed in the grove.



As the coronavirus pandemic continues and we've seen a spike in numbers

recently, out of an abundance of caution we've made the decision to reschedule the show originally planned for Feb. 3-4 until later this spring. The show will provide all the great education, trade show, and networking opportunities that were planned for the original dates. Stay tuned for updates and more details at **CitrusShow.com**. A Florida Grower initiative

SJRWMD DISTRICTWIDE AGRICULTURAL COST SHARE

Suzanne Archer
Technical Program Coordinator – Agricultural Assistance
Bureau of Water Supply Planning
St. Johns River Water Management District

The St. Johns River Water Management District is now accepting applications for its Districtwide Agricultural Cost Share Program. Projects to be considered will be for existing production areas and would be expected to conserve water, make alternative water supplies available or result in reduced nutrient runoff. Awarded projects will be funded up to 75% with a cap of \$250,000. This is a competitive process and all applications will be ranked based on criteria listed in the process overview. Recommended applications are expected to be brought to the Governing Board for approval in April. Projects must be completed by September 30, 2021. The application deadline is January 29, 2021.

For water conservation projects, it will be helpful to have a Mobile Irrigation Lab audit completed within the past three years: [Mobile Irrigation Labs / Water / Home - Florida Department of Agriculture & Consumer Services \(fdacs.gov\)](#).

Please do not hesitate to contact me, if you have any questions at either of the following:

Office: 407-215-1450

Cell: 407-620-8133

Email: sarcher@sjrwmd.com

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LEGISLATIVE UPDATE

Matt Joyner
Director of Governmental Affairs
Florida Citrus Mutual

January 11 begins the first of several Interim Committee Weeks in Tallahassee in advance of the 2021 State Legislative Session which starts March 2nd. Given the budget constraints caused by the COVID-19 pandemic as well as continued social distancing protocols the upcoming session will no doubt be a difficult one.

While **research and marketing dollars will remain a top priority for the industry** there are many other issues of importance to the industry that will be advocated for in Tallahassee such as:

- Support for funding of Agriculture BMPs through FDACS Office of Agriculture Water Policy
- Supplemental General Revenue for the FDACS Citrus Inspection Trust Fund
- Continued funding for the New Varieties Program

Now more than ever it is critical that the Florida Citrus industry continue to demonstrate the value received by the State of Florida for their substantial investment into the industry. To that end the Indian River Citrus League and Florida Citrus Mutual will continue to work with Legislators and their staff to advocate and educate on behalf of growers.

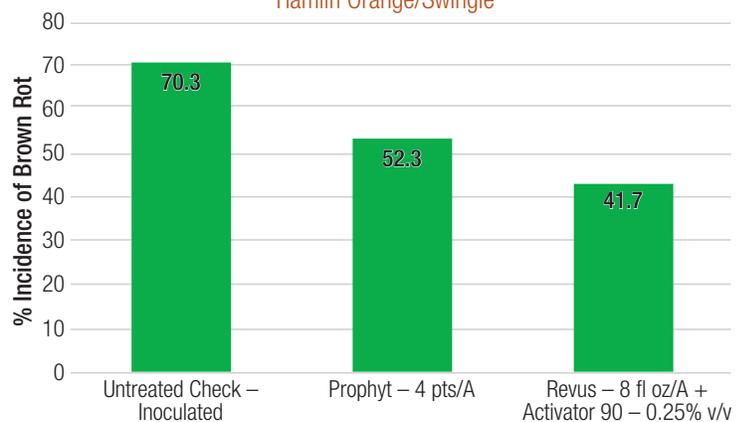
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Dr. Evan Johnson – University of Florida – Citrus Research & Education Center – Fall 2019
¹ Days after Treatment

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