



CITRUS RESEARCH & DEVELOPMENT FOUNDATION GROWER RESEARCH REPORT

Volume 5, Issue 5

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Putnam Declares Crisis Allowing Growers to Use Bactericides

Florida Commissioner of Agriculture Adam Putnam in early March declared a citrus crisis which allows growers to use three bactericides in foliar applications to enhance the overall tree health of HLB infected trees in Florida groves.

Putnam exercised this authority under the Emergency Exemptions provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The bactericides are Streptomycin Sulfate (FireWall™ 50WP, AgroSource Inc), Oxytetracycline Hydrochloride (FireLine™ 17WP, AgroSource Inc.), and Oxytetracycline Calcium Complex (Mycoshield®, Nufarm Americas Inc.)

Florida citrus growers can now use any of the products until the Environmental Protection Agency completes its review of the Section 18 petition submitted by FDACS. The EPA has not given a time frame to complete the review.

For maximum efficacy the products need to be applied during maximum flush of young leaves at the appropriate use rate and finished spray volume to ensure coverage of the young foliage. Use of these bactericides is governed by the conditions described in the Crisis Declaration letter to EPA from Commissioner Putnam.

To view the letter go to <http://files.ctctcdn.com/168a5f59201/e7bd14cf-0a3a-4f5c-9d3d-66ac12574bbc.pdf>

Growers who use these products during the crisis period and beyond must have copies of the letter.

Growers Need to Follow Law!

It is essential growers make sure they carefully follow the guidelines spelled out in Commissioner Putnam's declaration letter if they use any of the three bactericide products.

Growers should be especially diligent in their use of these products and recognize the importance of maintaining the active ingredient rotation for resistance management, and the use conditions concerning worker re-entry and pre-harvest intervals.

Deviation from the legal use could jeopardize the longer term approval of bactericides. When the EPA approves the Section 18 exemption, details could change, so growers need to stay

Upcoming Board & Committee Meetings

Most meetings are held in the Ben Hill Griffin Hall at the UF-IFAS, CREC campus in Lake Alfred, Florida.

3/22/16 - Board of Directors Meeting 9:30 am

on top of the latest news.

The good news is the timing of the declaration is right to apply during the spring flush. Younger trees are expected to show best efficacy and earliest response. Will these products improve yield, maintain yield or slow decline? We do not have enough data at this point to answer that definitively. However, evidence from field research on these materials indicates improvement in tree health and preliminary gains in fruit production.

This season of use will help answer many questions. CRDF is communicating with many growers who plan to collect data on performance in their groves with specific programs they plan to use this season. This will provide significant additional information on performance and benefit of these materials across a seasonal program of use.



Dr. Harold Browning, Chief Operations Officer of the Citrus Research and Development Foundation, recently testified in front of the Congressional Citrus Caucus in Washington D.C. Browning gave an update on HLB research to the Caucus, which is chaired by Rep. Tom Rooney, (R-FL). Rooney said he is encouraged by the progress of the research and he is optimistic growers will soon be given additional tools to fight HLB.



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Browning Addresses Industry at HCCGA Annual Meeting

Dr. Harold Browning gave the following speech to the Highlands County Citrus Growers Association Annual Meeting on March 3, 2016 in Sebring.

The CRDF remains focused on the prize: tools and tactics that retain productivity of current tree inventories while long-term solutions are developed, tested and delivered. We balance three goals that are sometimes blurred, but are individually important:

1. Promote sustained or improved health of your trees and groves that are infected and declining from impacts of the disease and its stresses
2. Directly attack the bacteria responsible for the disease and its vector
3. Develop management systems to support replanting of citrus trees in this hostile environment

Over recent months, CRDF has been evaluating how to best move forward under the prevailing conditions to focus on outcomes:

1. Tools and strategies that already are available and how best to incorporate these into management systems
2. New tools that are emerging from research, private industry and from growers

We at CRDF are evaluating the current portfolio of projects to determine where opportunities exist to move results to the field. With outside assistance, we are looking to streamline efforts on those topics which hold the greatest promise from the 10-year investment portfolio in discovery and developmental research.

With this focus, CRDF will direct future resources to fewer strategies, those showing greatest promise, and commit dedicated effort to ensure that they are moving forward as quickly as possible.

An important element of the success in attracting and utilizing new funds and other resources to address HLB is coordination of the universe of efforts that is resulting from this success. Recent meetings with federal funding programs and with our colleagues in California and Texas indicate the desire on all fronts to work together to solve this challenge, and there continues to be consensus that Florida is the proving ground for HLB ideas and solutions.

CRDF also recognizes that the best use of emerging tools and tactics will be determined in the field; perhaps first by the scientific method that can tease out differences in treatments empirically; but also importantly, through the adoption of research and demonstration that is going on throughout the industry by you and your colleagues, working closely with the scientists. One doesn't have to look far to see grower trials, to hear sharing of experiences, and unfortunately, to learn what "isn't making a big difference at this point".

HLB is a very complex disease system nested in a complicated and challenging production system. It has challenged our knowledge of how citrus grows, and has challenged how we grow citrus. The best scientists have been tasked to unravel this complex system. While they don't walk in your shoes, it is clear that they understand and respect the difficulties that this disease is causing you.

I met yesterday with two scientists at UF, whose labs are in the Genetics Institute in Gainesville, across the hall from a cancer genetics research program. Their HLB research is housed in greenhouses on the 6th floor of the building, full of plants that are being treated with candidate solutions. These two well-respected scientists have committed to help in finding solutions to HLB, and are gearing up to take their work to the field. Their initial work was supported by CRDF, and now they are recipients of Farm Bill HLB Funding. Without being asked, they indicated that their goal is simple: help find a solution. Their families are grounded in citrus farming in their home country in South America, and they understand the need to beat this disease.

All this to emphasize that the researchers are in step with you, the growers, with downstream businesses that rely on this industry for their well-being, and with elected officials who have supported your efforts. We are all in.

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So, looking to this next season, what can we expect?

1. Availability of bactericides to initiate treatment of infected trees. We remain confident that approval of the petition for use in 2016 will be granted. CRDF is working with registrants and with IFAS Extension to provide best information on how these materials can be used, based on available information. We will continue with field research to refine uses and address any questions surrounding these tools once they are approved.

Behind this outcome, field trials are in place for next steps:

- i. Additional bactericides that will complement available tools
 - ii. Refining application methods to increase effectiveness and reduce costs
 - iii. Looking to new materials for sustained therapy
 - iv. Stewardship of bactericides necessary to preserve their use
2. A newly organized effort to accelerate tolerant resistance in rootstocks and scions. The pipeline has delivered a number of new rootstocks and scions, and CRDF is dedicated to open this pipeline up even further. Our support for commercial-scale plantings of new UF rootstocks in 2015 is one example.
 - a. Coordination with/between citrus breeding teams
 - b. Strengthen the information from grower field trials
 - c. Install a new side-by-side comparison program to bring resistance forward as rapidly as possible

We know resistance is long-term, but citrus breeding has been ongoing for decades, and some products are emerging now.

3. A significant effort to eliminate unmanaged groves is being undertaken, led by FDACS. The initiative has gained momentum and will take the next steps in reducing both vector populations and bacterial reservoirs from outside your groves.

This action will significantly impact in a very positive way the management tools that you are currently using, and will ultimately slow the spread of HLB to new groves as they are planted. I challenge you to imagine how your management would change if you only have to be concerned about your in-grove ACP populations and infected trees.

4. Integration of all tools available to maximize benefit. This is important for existing groves in which tree health management is critical to sustained citrus supply. This is equally important for management of new groves.

One aspect of this is the effort to learn from grower experiences. CRDF has attempted over time to capture case study information on how tools are being used in systems that are “beating the odds”. We continue to look for ways to assist in the grower to grower communications, and to provide a way to analyze “successes.” This includes trees, groves and cultivars which appear to be performing above average in the HLB environment.

5. Finally, we must all keep an eye out for the opportunity to embrace new ideas. It has been said in many different ways..... “the ultimate solution to HLB likely will include things we haven’t discovered or thought of yet”.

CRDF is your organization. The board, staff, project managers and all who are recipients of support from you remain committed to fight this disease. I would like to acknowledge those in attendance who serve on CRDF board or committees, and publicly thank them for their commitment to serving on your behalf.

I have commented previously that the search for solutions to HLB is a quest.

One definition is “A quest is all about seeking something important, and it often involves a journey”. We can imagine the end point and the prize, but the pathway to achieve the goal is not clear. We have been and are on that pathway with uncertain footing, and not sure how close we are to the goal. However, that goal is still as clear as when we began: To provide solutions for Florida growers to be successful in the face of HLB.