



CITRUS RESEARCH & DEVELOPMENT FOUNDATION GROWER RESEARCH REPORT

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Guidance for Grower Field Trials

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The bactericides that have recently become available to citrus growers by a crisis exemption have no history of widespread use against HLB. The registrants have not yet concluded the extensive field studies usually preceding EPA registration to establish the best field use patterns and therefore little guidance is available. This lack of guidance is a consequence of early availability of these materials.

There is no immediate solution to this lack of guidance, but as registrants continue to conduct field trials, better recommendations will become available. Another option is for growers to collect data on their own field use by conducting field trials. This will help to determine the benefit of the investment in bactericides and to help develop recommendations for future seasons.



Grower field trials do not need to be complicated, and the only essential requirement is to leave an untreated control. The untreated control is an adjacent block or several rows within a block that is similar to the treated area, but receives no bactericide application. The yield data collected from the two blocks (treated and untreated) can be compared to look for an effect of the bactericide treatments. Confidence in the results of such grower field trials will increase if repeated two or more times.

For even more information on treatment effect, evalua-

Upcoming Board & Committee Meetings

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

5/10/16	Industry Research Coordinating Committee	9:30 am
5/17/16	Commercial Product Delivery Committee	9:30 am
5/24/16	Board of Directors	9:30 am
6/15/16	Board of Directors in Conjunction with Florida Citrus Industry Annual Conference, Bonita Springs, FL	9:30 am

tion trees can be identified within the treatment and control blocks to be evaluated individually. Evaluations can include a measure of disease severity called disease indexing. This method involves looking at a tree on one side of the row, dividing the canopy into quadrants and giving each quadrant a score of 0-5. This is repeated on the opposite side of the tree. This is not a difficult method and should only take 10-20 seconds on each side of the tree. Other methods of evaluation include evaluating the relative amount of bacteria in a leaf sample by PCR analysis. PCR is the only method available for quantifying how much bacteria is in the tree. Two labs in Florida will analyze samples at no cost to growers. Another evaluation method is calculating the percentage of pre-harvest fruit drop.

All of this data collection will be important to help growers make decisions for the next growing season, but growers should also be aware that recovery from HLB is a long process and results will not be apparent immediately. The laying down of new phloem in a young, less severely declined tree may take as long as six months.

This must also accompany the growth of healthy, mature leaves to regenerate the canopy that will provide the carbohydrates necessary to induce expansive root growth. In this class of trees a grower may see a treatment effect after one year of bactericide use, but in older, more severely declined trees, recovery will take longer and a treatment ef-

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fect may not be apparent after one year, especially when yield is the only measure of treatment effect. We encourage growers to plan to continue these field trials through more than one season.

CRDF is very interested in coordinating with those who are conducting grower field trials so that data can be compared across varieties, regions, and field use patterns of the bactericides. In this way, results can be shared among growers at the end of the season.

A document had been created to describe the above methods in detail and is available at: <http://bit.ly/1PQEPGT>. Growers with questions about setting up field trials should contact CRDF project managers or UF extension agents.

CRDF Expected to Finalize Strategic Plan in May

The CRDF's six month strategic planning process is coming to an end and the Board of Directors is expected to finalize it in May.

In March and April, the CRDF BOD received and discussed the results from planning that started in October. The goal is to undertake an updated and vetted process to define CRDF focus, planning, budget allocations, organization and stakeholder engagement for the next 6 years. The Foundation wants to utilize the recommendations during the 2016-2017 budget planning.

In April, the Board identified action items, timetables and responsible parties. In May the Board is expected to adopt final plans moving forward.

An important result of the six month long process is CRDF partnering with UF-IFAS to develop and distribute a grower "playbook" of practices and tools that are currently available to combat the effects of HLB. The playbook is expected to be completed by the Citrus Expo in August.

nuPsyllid Project in Year Four

An ambitious project to develop a psyllid incapable of transmitting HLB is moving forward. The 5-year project, known as nuPsyllid, is funded by the USDA's SCRI program in 2012 and involves 40 investigators at 17 institutions includ-

ing UF, USDA-ARS, University of California, Davis and Riverside; USDA, APHIS, Cal Tech and Texas A&M.

The nuPsyllid project is past midpoint of year four. Significant progress has been made in several areas of science. In early May, project management (CRDF), technical team leaders, science advisors and stakeholders will meet to discuss plans and budgets heading toward the end of the project in September, 2017.

Progress on nuPsyllid has stimulated several allied lines of research, some being pursued through CRDF and others competing for USDA-SCRI Citrus Disease Research and Extension Program funding.

Farm Bill Citrus Research Money Continues to Flow

The U.S. Department of Agriculture (USDA) recently made an additional \$22 million in grant money available for citrus research designed to help growers fight HLB. This marks the third installment of the 5-year, \$125 million in citrus research funding provided in the 2014 Farm Bill.

The CDRE grants are administered by the National Institute of Food and Agriculture (NIFA). NIFA gives priority to projects that are multi-state and multi-institutional and include clearly defined mechanisms to communicate results to producers.

The pre-applications (due May 16) are reviewed by a Stakeholder Relevance Committee which is made up of producers from the domestic citrus industry. Review of pre-applications by this committee allows NIFA Program Managers to invite full proposals on those ideas that are highest priority.

Applicants who are invited to submit full applications based on the relevancy review will be required to submit them by August. For more info on the grant program go to <https://nifa.usda.gov/funding-opportunity/citrus-disease-research-and-extension-cdre>