

Questions from the Field: Adoption of Use of Bactericides

By Harold Browning



The actions that have led to availability of three bactericides for use in Florida citrus to promote tree health in the presence of huanglongbing (HLB) demonstrate the value of teamwork and willingness of many disparate interests to come together to submit a package supporting this emergency use. Credit is due for many participants, agencies and individuals who contributed to this effort, effectively shortening the time normally necessary to evaluate and petition for use of new materials. That these materials already had decades of safe use in agriculture was a big advantage, but with no experience in citrus use, the practical side of how best to deploy the bactericides was limited to field experiments in Florida during 2014 and 2015 production seasons.

With approval, and the provision by registrants of the best available field-use recommendations, growers have been deploying these new tools in groves across the state. Under Crisis Declaration from the Florida agricultural commissioner, growers made initial applications during the critical spring flush period, and now are developing the broader, season-long plans for best use of the streptomycin and oxytetracycline bactericides. During this transition of use, many questions have emerged for which there are no clear answers. Among the most commonly raised questions are the following:

- Are these materials more susceptible to ultraviolet breakdown to the extent that application timing needs to be adjusted?
- What are the best adjuvants for use with these materials to get them into the plant, and how do we know the materials are getting into the phloem where the disease bacteria reside?
- What are the complications with tank-mixing these materials that need to be avoided?
- How soon will growers know the benefits of their applications?

While these are only a sample of the questions being raised, they represent a phenomenon that was expected. When new tools are made available, it is rare that all of the details are known or understood. It takes grower practice and follow-up research to adapt the tools to the situation. This is definitely a situation where we will learn as we go.

Despite many uncertainties around the specifics of use, information is available or being developed to assist in answering these questions. Published data and recommendations from the registrants and those who have studied these bactericides in other U.S. agricultural systems (deciduous fruit trees) should provide guidance. That and research in Florida have provided the basis for the progress to date, and will lead the way through this season.

A major effort to coordinate grower trials by the Citrus Research and Development Foundation (CRDF) will offer the potential for growers to learn more from field comparisons that they are making in their own groves, but will also allow comparisons between growers and between season-long patterns of use. CRDF and the bactericides project manager, Stephanie Slinski, will be working with growers to organize data collection from these trials and will serve as a central clearinghouse for results from these field tests.

Harold Browning is Chief Operations Officer of CRDF. The foundation is charged with funding citrus research and getting the results of that research to use in the grove.

