to be taken in acidifying irrigation water, and systems need to be checked regularly. Mistakes or equipment failure can cause over-acidification and quickly have negative impacts to the rootzone of the soil and impact production. When carefully managed, neutralizing bicarbonates in irrigation water by acid injection can be very effective, however.

Even within a grove, the soil pH can vary, so it is best to break up large groves into smaller blocks when sampling soil to check pH.

Granular elemental sulfur products are readily available and can be used by growers to lower soil pH. These products are broken down by soil microbes that acidify the soil in the process. Because this process is dependent on microbial activity, it can take longer for this affect to take place. Growers can also use acid-forming fertilizer blends on a regular or occasional basis depending on pH trends in the grove.

ANNUAL CHECK

Checking soil pH once a year is a recommended practice. Typically, growers will submit a soil sample to a lab for a full nutrient profile that includes pH. The best time to do this is late summer/fall before fertilizer applications need to be made and to allow time for potential adjustments in pH to take effect. Comparing soil pH year after year can be helpful to track trends over time and to aid in management decisions.

See Citrus Soil pH Management at edis.ifas.ufl.edu/publication/SS666 for more information.

Brandon White is a University of Florida Institute of Food and Agricultural Sciences commercial crop production and food systems Extension agent in Tavares.

Quicker, More Targeted Research

By Rick Dantzler, CRDF chief operating officer

The Citrus Research and Development Foundation (CRDF) has taken a different approach with a significant portion of its funding this year. Instead of funding projects through a typical request for proposals around numerous general topics, we are reaching out to researchers with expertise in particular areas, consulting with them about what specifically we wish to have investigated, and then getting a proposal from them for our evaluation. This has two advantages: speed and more targeted research. While it doesn’t give everyone a shot at this money, the dire state of the industry outweighs this concern.

It also opens an avenue for CRDF to run down the occasional anecdotal report we hear from growers regarding something they are doing that seems to be working. A meeting I had a while back with growers regarding their use of gibberellic acid and 2,4-D resulted in CRDF funding a project with University of Florida Institute of Food and Agricultural Sciences researchers Tripti Vashishth and Fernando Alferaz in which we incorporated some of these growers’ suggestions. For their other suggestions, CRDF will advertise the scope of work and solicit bids from public and private sector researchers. We are doing the same thing with brassinosteroids, zinc and injecting oxytetracycline.

So, if you are doing something that you believe is working, please let us know. We have created a place on the CRDF website for you to share your practice with us. You may also call me. A word of caution: We do not view this as a way for, say, a fertilizer manufacturer to get CRDF to do basic research on its product, but if growers are using products in unique ways and can attest to their effectiveness, we will attempt to find a way to do testing.

Related to this is a project CRDF funded years ago, which was to run down “escape” trees — those that seemed to be escaping the ravages of HLB — to evaluate tolerance. CRDF funded Fred Gmitter, UF/IFAS researcher, to perform evaluations in Florida and China on trees that appeared to have natural tolerance. Unfortunately, they never led to much, but with the hope that the Donaldson tree has created and with the encouragement of the Florida Citrus Commission, CRDF intends to reinstate the program. You will find a link on our website which allows you to report trees you believe are exhibiting significant tolerance compared to others in the block.

I mentioned that CRDF, at the encouragement of several growers, is aggressively researching injecting oxytetracycline. With anything of this nature, residues remaining in fruit, juice and peel — if any — are paramount. For that reason, CRDF has contracted with the U.S. Department of Agriculture’s National Science Laboratory in North Carolina to test samples from these experiments for residue. This laboratory has the equipment that is sensitive enough to determine residues below the required thresholds, and their work is also done according to Good Laboratory Practices, a protocol required for federal registration. The first batch of samples have already been sent off, so fingers crossed…

Grower Dollars at work for you

Column sponsored by the Citrus Research and Development Foundation