



Gulf citrus grower panel discusses trunk injection

By Frank Giles

The Gulf Citrus Growers Association hosted a grower panel in February at the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) Southwest Florida Research and Education Center in Immokalee. The purpose was to discuss experiences and results of trunk injection of oxytetracycline (OTC) to treat HLB. Participating in the panel were Ron English, Florida's Natural Growers/Ranch 1; David Wheeler, Wheeler Farms; and Joby Sherrod, Alico Inc. Ute Albrecht, UF/IFAS associate professor of plant physiology, moderated the panel. She has been a lead researcher on the OTC treatment.

A LEARNING PROCESS

All three growers acknowledged there was a large learning curve with initial trunk-injection

applications last season, and there still is more to learn as the second applications are being made now. But they are getting a better handle on the process and moving the injection devices through groves as efficiently as possible.

Sherrod discussed how Alico's plans for treatments evolved last season based on what made logistical sense.

"We ended up covering about 30% of Alico acreage last year. The target this year is to cover at least double that," Sherrod said. "We started treatments in the second week of January. We are progressing nicely, benefiting from the lessons learned last year."

Overall, the growers believe the treatments have been positive. But expectations have come back down to earth somewhat after trees initially responded vigorously soon after treatments. Moving forward, determining the age at which a tree might be too old to benefit from trunk injection will be important.

"The age of trees we treated last season ranged from about 4 years old to about 20 to 21 years

old,” English said. “Anything older than that, we just didn’t feel like it was viable to do.”

Wheeler observed a similar pattern in his groves. “After last season, on early varieties, we are leaning toward injecting trees 6- and 8-feet in size (and younger). I don’t think I want to inject 20- and 30-year-old trees,” he said. “It just doesn’t seem to be helping, particularly if those trees have blight.”

There also was discussion that the early varieties didn’t seem to respond as well as later varieties like Valencia. Wheeler shared observations on his groves, which were very dry in Polk County and very wet in South-west Florida.

“All through the summer, we felt good about what we were seeing,” Wheeler said. “When fall came, we still

Early varieties didn’t seem to respond as well as later varieties like Valencia.

felt good. We did not see drop. The drop was about a month late. When it came, it came as usual, unfortunately. We are struggling right now to determine what to do this year. We had 4.5 pounds solids in early fruit picking at 100 boxes per acre.”

The growers did acknowledge that some of the fruit drop problems this season are attributable to canker. There are also unknowns caused by the effects of the hurricanes and the trees’ recovery process.

Wheeler reported that a recently harvested Vernia block picked out well, which was encouraging. He said he’s hopeful that trend will continue as harvest of later-season varieties continues.

APPLICATION CONSIDERATIONS

Growers have adjusted their rates of OTC, some for logistical reasons and product performance. In general, they

Grow Your Citrus HLB Free!
U.S. Patent Nos. 11,122,752; 11,406,068; 11,497,176; and 11,503,777

TREE DEFENDER
PROTECTING ONE TREE AT A TIME

We now offer custom composite stakes with attached caps. More economical and superior to PVC.

- Proven by University field trials to grow 100% greening **FREE** trees
- Shown increased growth rates with larger leaves and a fuller canopy
- Tree Defender provides a long-term return on investment
- Our product was created by growers for growers
- Four styles to choose from to fit any budget starting as low as **\$3.75**

863-439-2877
5600 Lake Trask Rd. Dundee, FL 33838
www.threetreedefender.com

MAKE CITRUS GREAT AGAIN!®

Available Trees:

- 5” pots
- Valencia/Kuharske
- Navel/ US-942
- Valencia/Swingle
- Hamlins/812
- OLL-8/Kuharske
- Meyer Lemon/X639
- Persian Lime/X639
- Eureka Lemon/X639
- Harvey Lemon/X639
- Tango/X639

Contact David Nelson
(Nursery Supervisor)
863-232-7245
dnelson@bhgriffin.com

Where gibberellic acid was applied in addition to OTC, the combined treatment appeared to help reduce fruit drop.



Ute Albrecht moderated the panel during a luncheon hosted by the Gulf Citrus Growers Association.

observed that a higher rate offered the most benefit to the trees.

“Last season, the material became available in mid-January. We went out with the first product immediately as soon as we got a case of it,” English said. “We injected about 40 acres of Hamlin at the highest rate. We decided to do full rate and see what happens. Then the second product was available in early February. We injected the rest of the Hamlins at the same rate.

“Leading into this year, we are currently injecting our Hamlins and are almost finished. In Valencia, we are injecting at a lesser rate. It is the way the bag of material works out into gallons of solution. Basically, if you take 40 gallons of water and you dump a bag of the product in, it comes out to about 0.9 grams per tree or 100 milliliters ... The reason we did that was we felt like 150 milliliters was an impossible task. We kept blowing out the tubes in the injectors, so we switched to 100 milliliters because it was the easiest thing to do. And we went out at that rate on everything.”

Others on the panel observed the issues with the injection device, but also commented that there have been significant improvements made to the device over time.

Sherrod made observations on how the timing of application impacted OTC performance. “We did have early- and mid-variety blocks we were injecting as late as May just because of timing and locations. So, in the early and mid varieties, we have now harvested that crop ... One thing we can report is the time of injection appeared to have an impact. For whatever reason, the best months in terms of yield recovery and injection were March and May. We were injecting from January all the way through, but those were the best months.

“Why not April? The assumption there is that it was very dry. At certain times of the year, we did notice the uptake of the material was much slower than other times of the year. That might have had an impact. We don’t know, but we do know those months had the most positive impact to the yield recovery or yield versus the previous year’s yield. A lot of these blocks were hurricane-affected, so having a higher yield this year versus last year is not a major feat, but we did do it. The treated blocks versus the controls were better.”

Sherrod added that where gibberellic acid was applied in addition to OTC, the combined treatment appeared to help reduce fruit drop. They are comparing trees where no OTC was applied, OTC

alone and OTC plus gibberellic acid.

“We have a very good example of that in a Valencia grove where the trial is laid out very well. Visually, it is quite striking. We will have to wait until harvest to get the numbers, but we really think that gibberellic acid is a factor to the whole system in terms of drop. We really feel that is having a benefit.”

STICKING WITH THE SYSTEM

While the growers hoped the first OTC treatment would have resulted in more dramatic improvements, they acknowledged 17 years of decline due to HLB will not be turned around overnight. And they were committed to continuing the treatment, especially on younger trees.

In a discussion about trunk damage due to the injection hole, which all growers agreed was mostly a non-issue, Wheeler noted: “Either the OTC has to work or something else has to come on pretty soon, because we can’t keep going down the path we are going. That is a long way of saying I feel like we didn’t have much of an issue with trunk



The discussion generated a lot of interest and interaction from attendees. Wayne Simmons asked the panel members several questions about trunk-injection logistics and results.

damage, and even if we did, we’d keep doing it because what we were doing before was not working.”

LABEL QUESTIONS

The panel wrapped up with a discussion about the OTC label requirement that the application must

be paused for one year after the second year of treatment. This is for resistance management purposes. The growers on the panel and in the audience expressed hope that an exemption would be made to allow the third application next year to keep the momentum going with trunk-injection therapy. 🍊

An advertisement for Cyan 365. The background is a vibrant orange. On the left, the words "LARGER SIZED FRUITS" are written in large, bold, white and yellow letters. On the right, there are several slices of citrus fruits, including a large slice of grapefruit, several slices of lime, and a slice of orange, along with some green leaves. In the bottom left corner, there is a logo for Cyan 365, which consists of a white circle with a green star inside, followed by the text "CYAN®" and "365" below it. In the bottom right corner, there is a QR code.