By Steve Futch

In the battle with the Asian citrus psyllid (Dipteromorpha citri Kuwayama), two soil-applied insecticides are available to provide effective control of psyllids on young nonbearing citrus trees. The psyllid is a primary pest and a major concern to citrus growers due to its ability to acquire the green- ing bacterium from infected trees and then transmit the disease to healthy trees. The reason to control psyllids is to minimize the spread of greening within a given grove area.

Temik (aldicarb) and Admire Pro (imidacloprid) are both currently registered for use in Florida for the control of the psyllid on citrus trees. For young citrus trees, the products are soil applied and absorbed by the plant’s root system. Temik is mechanically applied as a granular product and must be soil incorporated. Admire is applied as a soil drench in 8- to 10-ounce formulated solution at the base of each tree for less than 4 to 6 feet in height. The placement of the product over the tree’s root system is very important to maximize uptake and translocation into the tree and therefore provide maximum pest control.

Both products must be applied two to three weeks prior to the initiation of the new growth to allow for the product to be absorbed and subsequently trans- ported to the leaves where the psyllids will be feeding. Remember that when Temik is applied, it must be applied be- tween Nov. 15 and April 30, incorpo- rated into the soil and follow setback requirements from wells. The control period of psyllids with either product varies from eight to 12 weeks depending on application rate and environmental conditions.

Over the years, Florida citrus growers have been applying Temik around citrus trees in both young solid set and bearing trees in groves for the control of various citrus pests. However, the ability to apply Temik close enough to root sys- tems of young reset trees in mature groves has been difficult and leads to less than optimum control of citrus pests in mixed-age blocks.

In an effort to improve the applica- tion of Temik to resets in mature citrus groves or in solid plantings of young trees, a grower has identified the need to improve efficacy of Temik to effectively control psyllids in resets in mature citrus groves.

Grower trials

Temik applications to reset trees

By Lee Jones, general manager of Gardiner Florida Citrus

We’ve been battling the psyllid for 2 1/2 years now and HLB for what seems like forever. The 5,500 acres that I manage in- clude groves in all three growing regions (Mar- tin, Hendry, Hardee and Manatee coun- ties). This disease has multiplied rapidly in parts of our groves. I’ve noticed some interesting things about this disease, and I believe my most recent findings will help us keep this disease at manageable levels.

When we first started finding HLB at our grove in Indiantown, I noticed it was more heavily con- centrated around the ditch banks. Researchers told us the psyllid was attracted to the color yellow. When our ditch areas were dug, the Indiantown, shell rock was layered on top of the beds and this high pH soil induced chloro- osis, causing yellow areas between the veins, thereby being more at- tractive to psyllids.

Soon thereafter, I started notic- ing HLB around the borders of blocks with good soil and no inter- vein chlorosis. My thoughts then were that the hurricanes really pounded these outside trees and weakened them to a more suscep- tible state.

Recently, however, I was riding in a neighbor’s grove. He had one block that was half grapefruit and half Valencia. The grapefruit was pushed out after the hurricanes. The Valencia north-south border that was protected from any hurri- cane winds was infected heavily with HLB. This I consider a variety change border.

It seems that a uniformly flush- ing block will have the highest dis- ease pressure on the border. At the GFC groves, we plan on hedging the outside row heavily in some areas to induce continual flushes. It will be a smorgasbord so to speak for the psyllid. Then we will use extra control measures on the borders — preferably systemic insecticides. We also plan on plant- ing a psyllid preferred plant in some areas as a trial. These trap crops could equate to a wall of defense against the psyllid. It could also mean potentially less insecticides on our fruit.

James 1:5 says, “If any of you lack wisdom, let him ask of God, that giveth to all men liberally, and upbraideth not: and it shall be given him.” Our industry is in dire need of God’s wisdom. The old has passed away. To be profitable, we have no choice but to explore new techniques and technologies. It is better to catch a trap crop around our bor- ders than to throw away the trees.

A worker applies Temik to a young tree.

groves, individuals have adapted, modified or developed equipment that has the ability to individually treat resets in mature groves. These manually operated application devices have the ability to adjust the applica- tion rate and/or target site by incorpo- rating the product into the soil at one or two locations around the young reset. It is assumed that multiple ap- plication sites will improve product delivery and uptake by the tree’s root system.

In an effort to assess the effective- ness of this new application method, University of Florida entomologist Michael Rogers and growers are con- ducting trials to look at both applica- tion rates (1 or 2 ounces of product) and soil injection frequency (1 or 2 injection sites) around young trees to improve pest control. For the rate component, Temik is being applied at 1 or 2 ounces of product per tree. For the one-ounce rate, the product is applied on one side of the tree or at a one-half ounce rate on each side of the tree. For the two-ounce rate, the product is also applied on one side or both sides of the trees. In this study, Temik will be compared to Admire Pro at 0.025 or 0.05 fluid ounce per tree as a soil drench.

All treatments will be evaluated on a weekly basis when new flush is available by counting adult psyllids on each tree. Sampling of each treatment will continue until it appears that the control has failed and when those treatments should receive a foliar insecticide. Data from the 2009 trials will be available prior to the applica- tion in the spring of 2009.

Several custom applicators around the state are applying Temik using the newly developed applicators. These applicators are adapted from other agricul- tural crops or operations or fabricated locally. InC Citrus Growers and Florida Citrus Services are currently applying Temik using the newly applica- tors. Application cost varies with the number of trees per acre as well as application methods.

To apply Temik using hand-held applicators, the rate per acre varies from $1.50 per acre for one to five trees, $2.25 per acre for six to 10 trees, $11.00 per acre for 11 to 20 trees, and $17.50 per acre for 21 to 50 trees. These rates do not include the mate- rial, which costs approximately $0.20 per ounce.

We encourage growers, man- agers and production managers to share practices that seem to be working against greening and canker with us, and we’ll share them with readers. The primary criterion for publication is that the practices be legal. You can email your proposed grower observations, tribulations or letters to the editor for consideration to editor Ernie Neff (ernie@southeastagnet.com). Additionally, the Web site-based “Grower trials” section at www.AgNetOnline.com remains active. Those wishing to submit items for consideration for use on the Web site or in Citrus Industry can email us at groverials@southeastagnet.com.

Grower observations

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