

**Aloha Arborist Association**  
**Meeting Minutes**  
**January 21, 2015**

Members Present: Steve Connolly, Carol Kwan, Steve Nimz, Dudley Hulbert, Nicole Brodie, Austin Braaten, Lester Inouye, Gregory Severino, and Desiree Hughes

I. CALL TO ORDER AND APPROVAL OF THE NOVEMBER 19, 2014, MEETING MINUTES

- A) President Steve Connolly called the meeting to order at 6:38 p.m. The November 19, 2014, meeting minutes were approved as is.

II. GUEST SPEAKER – Lester Inouye on Hawaii Biophilia Research Project

- A) Lester provided a memo and a printout from an ISA discussion on “What makes Arboriculture and Urban Forestry roles indispensable or critical?” for reference. Copies of these are attached to the minutes.
- B) Lester has been talking to Dudley, the chair of AAA’s Research Committee, about doing some research to promote arborists as being important. “Sustainability” is part of the green industry, but unfortunately the landscape industry is not considered part of the “green industry”. At this point it’s architects, engineers, recycling, that sort of thing. Also, “sustainable” is an overused term that isn’t people oriented. The biophilic movement, on the other hand, says that man has an affinity and birthright for nature. Research has shown that when people are exposed to nature, productivity goes up, healing rates in hospitals improves, children’s ability to concentrate and do well in schools improves, etc.
- C) The proposed research project is with Makiki Christian Preschool. Lester has been in contact with the principal there who has agreed to collect data on the speed of learning and student concentration. She’s doing it now. There is a yard area at the preschool where Lester would like to plant trees. After it’s planted, the principal will collect more data so the difference can be calculated. He would like AAA’s help with this project. Steve Connolly said that we’d like to help. While it’s difficult for us to collect data, we can do a volunteer work day for planting the trees. Lester plans to apply for a \$10K grant from Kaulunani to fund the tree planting project. After that, the school will collect the data and Lester will analyze it. This will be local data so it should get more respect than research done in the Mainland. We can also try to get some nursery people and landscape contractors to support the project.
- D) Lester has been in contact with State Senator Susan Chun Oakland. He wants to help her write a resolution that “The State of Hawaii will plant trees because...” based on the research results from the preschool project. In the past, most of the State government buildings were landscaped with trees, shrubs, and groundcovers. Now they’re down to trees and grass. He would like to see the Legislature pass a resolution supporting tree planting. Advocacy groups can take this to educate the public about the importance of planting trees.
- E) Nikki mentioned that she did an urban planning program about trying to engage kids around trees. We live in a very green place so it’s easy to be biophilic because there are trees all around us. It might be easier to sell the Legislature on planting trees by pointing out that trees save money and keep us from spending money. Carol added that Greg McPherson, U.S. Forest Service, did research here and developed specifics on cost savings per species. He worked with DUF on the project.

- F) Lester said that he went to the governor's office to try to sell it and it went right over their heads. DOE's view is that education occurs within four walls. DOT's focus is on roads. They don't see any value to the trees. He thinks the best way to sell it is from both the economic and human sides.
- G) Dudley asked what the timeline would be for the research project. It will probably take 3-4 months to get a grant. AAA will provide a letter in support of the grant application. Carol volunteered to write the letter and Steve Connolly will help. Hopefully by next year we will have the data to go to the Legislature to make a pitch for the tree planting resolution. Dudley will take the lead for the project on behalf of AAA as the Research Committee chair.

### III. OLD BUSINESS

#### A) Training Workshops

- i) Tree Worker First Aid, 1/24/2015 at Ho'omaluhia Botanical Garden
  - (a) Nikki reported that the workshop is not full. Eleven people have signed up so far. She will send out a reminder to everyone tonight.
  - (b) Austin thinks that it would be best to roll this into Aerial Rescue eventually.
- ii) Pests and Trees, 3/24-27/2015
  - (a) Carol reported that the Honolulu workshop will be on 3/24 (McCoy Pavilion), the Maui workshop on 3/25 (UH Maui campus), the Kauai workshop on 3/26 (Kauai Nursery & Landscaping office), and the Big Island workshop on 3/27 (Queen's Marketplace). She's still working on getting the local speakers for Maui and the Big Island.

#### B) Research Committee

- i) Per Dudley, Andy Kaufman says that there is not a unified voice on what's needed. There is a new grad student. Kalani has graduated. He was never officially Andy's grad student.

#### C) LICH/Legislature

- i) Steve Nimz said that the same bills keep coming up on leaf blowers and planting all native plants. Boyd Ready is leading the Legislative charge on behalf of LICH and will keep us posted. We should prepare testimony on these and get them to Boyd so he can take them with him when he testifies.

#### D) 2015 HTCC

- i) Greg Severino said that it's still early for this. Before the next meeting he wants to firm up a date tentatively in October.

#### IV. NEW BUSINESS

##### Pest of the Month- Ficus Whitefly (*Singhiella simplex*)

- i) Recently introduced to Florida
- ii) Attacks a number of different *Ficus spp* including microcarpa, benjamina, and bengalensis
- iii) Undersides of leaves are attacked causing yellowing, wilting, leaf drop and death.
  - (1) Can be controlled with Neonicotinoids (i.e. imidacloprid)
- iv) Ficus whitefly seems to be something similar to Lobate Lac Scale. If it gets here, it would be difficult to eliminate. Steve Connolly has never observed whitefly attacking banyans. While Ficus whitefly has other hosts, it primarily attacks Ficus. All arborists should keep an eye out for it. If we see it, let HDOA know right away. If it piles on with the other banyan pests that we're dealing with already, it will probably be the nail in the coffin for our Ficus.
- v) If you travel to Florida, be sure to decontaminate before coming back.

#### V. ANNOUNCEMENTS

- A) Jolie Wanger is our new admin support person. She is heavily involved with Kaulunani since she took over Jackie Ralya's old job. Steve Connolly usually meets with her about once a month and she is a very capable person including dealing with technological things like website development. There's a potential to crosslink stuff between Kaulunani and AAA too. Carol is tentatively scheduled to meet with her 2/5/15 and Nikki will be meeting with her later as well for turnover. Jolie can't attend the next several meetings due to conflicts with her son's soccer so Carol will continue to take notes and email them to her.
- B) Steve Connolly acknowledged Nikki Brodie's efforts and assistance in the admin support position. AAA greatly appreciates her help.
- C) Greg will be doing a job in Pupukea using cross line speed line if we want to make this an observation thing. Steve Connolly will send out an email about it to see if there is interest. Steve Connolly has some of this type of work at his plant in Waimanalo too.
- D) Austin said that Jeremy Dunivan is back on Island as of 1/23 for a month or so.
- E) The Western Chapter Tree Climbing Championship (WC TCC) will be held on 2/22-23 this year in Sacramento

## ADJOURNMENT

A) The meeting was adjourned by President Steve Connolly at 8:02 p.m.

Respectfully submitted,  
Carol Kwan

## PLEASE JOIN US!

*The next meeting will be on Wednesday, February 18, 2015, 6:30 p.m. – 8:30 p.m., at Seven Palms Bar & Grille, 943 Valkenburg St. [NOTE: Subsequent to meeting, the next meeting location was changed to Schooners at 57 Arizona Memorial Drive. See map below.]*



## Attachments:

1. 2015 AAA Membership Application
2. Lester Inouye Memo to AAA
3. ISA Discussion re “What Makes Arboriculture and Urban Forestry Roles Indispensable or Critical?”
4. Pest of the Month – Ficus Whitefly

**2015 Aloha Arborist Association  
Membership Application**

Please process my membership with Aloha Arborist Association for calendar year 2015.

Membership:  \$10 Student     \$25 Government Employee     \$50 Individual

\$150 Company     \$1,000 Lifetime Member    Date: \_\_\_\_\_

Name: \_\_\_\_\_

Company: \_\_\_\_\_

If Company Membership, please designate 3 company representatives for voting purposes\*:

\_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_ Website: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Mobile phone: \_\_\_\_\_

E-Mail: \_\_\_\_\_

You may publish this information on the AAA website:  Yes     No

*\*Company members may send any of their employees to workshops at AAA member rates*

Please send this completed form to Aloha Arborist Association, 3620 Waialae Ave Ste 203, Honolulu, HI 96816 with a check made payable to Aloha Arborist Association. If you prefer, you can pay online with a credit card at [alohaarborist.com/index.php/become-a-member/](http://alohaarborist.com/index.php/become-a-member/) and send us this form via email ([info@alohaarborist.com](mailto:info@alohaarborist.com)).

**Mahalo for your support!**

**Lester H. Inouye  
& Associates LLC**

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Architecture    Honolulu, Hawaii  
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## **M E M O R A N D U M**

**RE: THE ALOHA ARBORIST ASSOCIATION RESEARCH PROJECT: BIOPHILIA**

Research work can and should go in many directions. I am interested in taking the AAA into the area of research that provides promotional data/information.

AAA is looking into research to develop information on trees in general: Tree disease, tree physiology, invasive species, etc.

I would like to see research done to develop information that could/will be used to promote Arboriculture and the Urban Forest profession.

**ISA Blog:** I saw this blog by Master Arborist Jason Paul.

Jason Paul asked the questions: “What makes Arboriculture and Urban Forests roles indispensable or critical?”

“How can we use this information to evidence and promote these roles?”

### **AAA Objective:**

Develop/provide the Aloha Arborist Association with information that can be used to promote their role in the environment as being necessary and critical for the public good.

**Join a Movement:** The best way to move ahead is to be part of a larger movement. The present big movement appears to be the “Sustainable” Movement.

The Sustainability Movement is big right now and the Landscape industry is really not part of this Green “Sustainable” Movement. Architects and Engineers are the Green Industry.

Sustainability is a PRODUCT oriented movement and not a People oriented movement.

LEED points are mainly given for how much product you recycle and save. Very little is given for landscape.

### **Biophilic movement:**

Biophilic is defined as man’s love for and affinity for nature and the Biophilic movement started some 15 to 20 years ago. The term was coined by the famous psychologist Eric Fromm. Eric Fromm is famous for studying what makes a human being the best he can be.

Stephen Kellert, a professor of Social Ecology at Yale University is one of many others are doing much research on biophilia and its effects on Man. They have developed data to showing that being in contact with nature improves the children’s ability to concentrate, patients in the hospital heal faster after surgery takes place and in general improves the quality of life. Problems such as Attention Deficit Syndrome and even Post Traumatic Syndrome has been shown to be greatly reduced by being in contact with nature.

Arborists and Urban Foresters maintain the largest most effective element of the natural urban environment. Trees are the largest most sustainable part of nature in the urban environment. Think about it. Ground cover gives way to “weeds”. Shrubs usually die within a short period of time. What’s left of the landscape is usually trees and grass. Look at all the public buildings in town.

**The Plan:**

Do research to collect data of the effects that trees have at a local preschool in regards to the children’s learning, behavior, and concentration ability. I am in contact with the principal of the Makiki Christian Pre-School who is willing to collect data of the effects of trees on the preschool children. Data has been and is being collected now so a before and after comparison can be done to verify that the introduction of trees to their environment improves the learning ability and wellbeing of the children.

Compile the information to develop promotional material for the use of the AAA.  
Create a AAA Advocacy Committee to develop local promotional material for distribution.

I am in contact with Senator Susan Chun Oakland’s office to help work on a tree planting resolution for introduction in the Senate. That resolution will be stronger with local information. The State of Hawaii should plant trees where ever possible for the good of the people and commerce (the visitor industry).

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International Society of Arboriculture

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As Arbs & Urban Foresters we know the roles we play are essential in our towns and cities, but what is the consensus of opinion of the KEY aspects and essential elements of Arb and UF?

+ Follow Jason Paul

Jason Paul Conheeneey B.Sc. (Hon's) ISA Cert MArborA ISA Certified Arborist with 14+ years of experience Top Contributor

What makes Arb and UF roles indispensable or critical? What real evidence exists? Is it just what we find in research papers or is there more we can use? How can we use this information to evidence and promote these roles?

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Comments

Joseph Sentance, Jason Paul Conheeneey B.Sc. (Hon's) ISA Cert MArborA and 1 other like this 8 comments • Jump to most recent comment



Bob Brennan Arborist at Fairchild

We try to teach and make less confusing the world of trees. I personally do not like abbreviations. They make what we are more confusing. If you are a Board Certified Master Arborist then spell it out and be very proud of the fact that fewer than 1000 people in the world hold the title. I am a Certified Arborist not an arb. Mostly what we do is teach, eliminate confusion and clarify misconceptions.

As an Urban Forester we try to inform the government officials and public about the proper treatment and care of trees. Why it is worth paying for and protecting tree roots and canopies. That is my opinion Lets try to leave the confusion spreading to the others

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Jason Paul Conheeneey B.Sc. (Hon's) ISA Cert MArborA ISA Certified Arborist with 14+ years of experience Top Contributor

Thanks Bob, excuse my use of abbreviations, i believe there is a character limit in the discussion bar, and in the UK Arb may be understood as arborist and arboriculturist alike. I'm currently working on getting that Board Certified Master Arborist Status, a very prestigious award. But i'm thinking that even with all the qualifications, there are those who don't understand the importance of what we do and why we do it. And generally those are the people who make decisions. There are key aspects about trees that makes them indispensable in our modern ever more urbanised living. I'm trying to tease out just what these essential aspects or elements are, where the seat of the strongest evidence exists, and any avenues we have not yet explored that justify the need for becoming not only qualified in Arboriculture and Urban Forestry, but specialised?

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Bob Brennan Arborist at Fairchild

This is a daily quest that many of us and our predecessors have sought. I speak with anyone who will listen. Rarely the local officials are educated enough to save the right tree. More often than not Landscape Architects. are the least informed. I attempt to be able to explain from the cellular level to the bad planning aspects of the projects.

Here we have people from all over the world trying to make ends meet. or just get by and doing work that they are not trained for is a very common practice. They are supervised by people who

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Jason Paul C. ISA Certified Arborist with 14+ years of experience Follow Jason Paul

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are not qualified to teach them and bosses who watch the bottom line. ONLY....

BCMA Board Certified Master Arborist is a quest also for me. School and study I am speaking with young college students. and trying to work with them to create a plan to get them more involved in how to get to the others..

Use more panels and don't worry about how many characters we use.... Keep up the good fight....

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**Jason Paul Conheeney B.Sc. (Hon's) ISA Cert MArborA**  
ISA Certified Arborist with 14+ years of experience  
Top Contributor

Jason Paul

Thanks Bob, I value you opinion and the great efforts you're putting into educating those around you. I recently read a discussion that spoke of the Undervaluing and comparatively low wages of Arborists (Certified Municipal or Board Certified Master) Arboriculturists, and Urban Foresters and asked why this was. I feel the questions I pose here indirectly address that concern also. For if we cannot justify our roles as critical, in a succinct and understandable way to those in power but uneducated and lacking any serious consideration of the indispensable nature of trees in and around our towns and cities then the essential roles we play will also remain in lower standing despite all the university qualifications, ISA certifications, membership statuses etc. iTree has and does a wonderful job of turning benefits it into monetary numbers, research papers show influence of trees on human health, wellbeing and to the Chief Executive; the productivity impact potential to his or her staff over time. But is there more we can do to evidence this? I want, no, I need to be able to make a statement about trees that makes everybody sit up and listen, that makes everybody realise the intimate and essential relationships they have with them, and that the trees we have in and around our towns and cities, while generally thriving in the wild, need experts and specialists to continually find ways to build resilience, increase benefit potential of canopy cover and ensure successful integration into urban landscapes...

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**Melissa Gildea**  
Landscape Architect, ISA Certified Arborist

Melissa

In urban, ex-urban and suburban areas, where trees are valued but also a liability and often a hazard, it is important that specialists care for the trees so that the trees that provide services do not become a hazard. And anywhere trees are valued, care from an arborist can ensure some longevity. Specialization hopefully means more informed care. Of course, if trees are not valued, arborists have less value. That is when tree canopy advocacy becomes important.

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**Jason Paul Conheeney B.Sc. (Hon's) ISA Cert MArborA**  
ISA Certified Arborist with 14+ years of experience  
Top Contributor

Jason Paul

Thanks Melisa, leading on from your well made points, i'm finding we need to evidence the critical role of urban trees but built into that, the delicate nature of their sustained and harmonious urban existence, and therefore the critical role of the Arb professional without whom the (now evidential) benefits (asset values) would be irrevocably lost and only liability through law (e.g nuisance and neglect to maintain causing unreasonable risk) would exist.

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**Gordon Mann, RCA #480**  
Owner Mann Made Resources, Registered Consulting Arborist #480

Gordon

We have to help people understand that trees are infrastructure assets, and like all assets and things of value, they have to be managed. We don't manage hazard trees, we mitigate them. We manage risk, and if we have a large inventory of anything, we have varied levels of risk.

Simply, a large tree cannot be readily replaced by a small tree, so we have to manage and grow the large trees because that is what provides the services and benefits.

If we simply think trees are nice, they are expendable and not highly valuable to manage risk. We just remove and replace them because trees are nice. When the trees are valuable assets, they are managed for return on investment, and larger trees are one of the best assets to provide a cumulative, multi-tasking return on investment.

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**Jason Paul Conheeney B.Sc. (Hon's) ISA Cert MArborA**  
ISA Certified Arborist with 14+ years of experience  
Top Contributor

Jason Paul Thanks Gordon. So, trying to keep summary, the overriding thought so far is that we as professionals are educators and consultants, informing the public, the planners and the decision makers as to the importance of trees as infrastructure assets, because the importance of the roles we play are directly relevant to the importance with which trees are held. OK, I guess the real question is what makes urban trees or urban tree populations indispensable? Sure we have the numbers from iTree and other evaluation methods, and they have done a great job in many cases to put the value of trees into a comparable context with other structural asset types.

But is it really this asset valuation that makes them indispensable? Yes, that's important to a certain extent but on a somewhat surface level. But is there not some deeper, affinity or innate meaning within the human psyche and/or genetic makeup that fundamentally endears us as a species to trees and areas of natural environment? Moreover, that directly pertains to our most basic physical and psychological wellbeing? In fact I firmly believe that without trees in our towns and cities, without that connection with them as iconic representations of the natural world from which we have evolved, whether we are aware of it or not, the structure of our urban civilisation would begin to fall apart. In short, I believe green infrastructure and particularly trees are like the glue that make urbanisation not only bearable but a possibility...

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# Ficus Whitefly

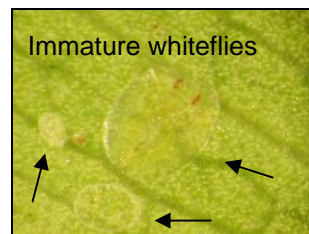
## A New Pest in South Florida

**Introduction:** There is a new pest attacking ficus trees and hedges in Miami-Dade, Broward and Palm Beach Counties, Florida. This pest was identified as the fig (ficus) whitefly, *Singhiella simplex*, and is a new US continental record. Whiteflies are small, winged insects that belong to the Order Hemiptera which also includes aphids, scales, mealybugs, and bugs. These insects typically feed on the underside of leaves with their “needle-like” mouthparts. Whiteflies can seriously injure host plants by sucking juices from them causing wilting, yellowing, stunting, leaf drop, or even death.

**Description and Damage:** The leaves of ficus trees infested with whiteflies begin to turn yellow before the leaves are dropped from the plant. Ficus trees without their leaves are one of the most obvious symptoms of a whitefly infestation. This whitefly has been most commonly found infesting weeping fig (*Ficus benjamina*) but has also been reported on *F. altissima* (lofty fig, false banyan tree), *F. bengalensis* (also called “banyan tree”), *F. microcarpa* (Cuban laurel), *F. aurea* (strangler fig), *F. lyrata* (fiddle-leaf fig), and *F. macclandii* (= *F. binnendijkii*) (banana-leaf fig). This whitefly may eventually be found on other species of ficus.



If the foliage is disturbed the small, white gnat-like adult whiteflies can be seen flying from the foliage. The adult whitefly resembles a very small moth with a yellow body and white wings with a faint grey band in the middle of the wings. Immature stages (eggs and nymphs) can be found primarily on the underside of the leaves. Prior to adult emergence, the nymphs are tan to light green discs with red eyes. The underside of infested leaves look like they are dotted with small, silver or white spots which are actually the empty “skin” of the pupae after the adult emerges.



**Biology:** The life cycle of the ficus whitefly is approximately one month. Eggs which are usually laid on the underside of leaves hatch into a crawler stage. The crawler wanders around the leaf until they begin to feed. From this point until they emerge as adults, they are

immobile and remain in the same place on the plant. These feeding, non-mobile stages (nymphs) are usually oval, flat, and simple in appearance. The early nymph stages can be very difficult to detect.

**Management:** Although efforts to understand and control this pest are ongoing, there are several potential options for whitefly control. However, it is necessary to consider the site (landscape, hedge, large tree, container, production, etc), the size and number of trees, and the surrounding environment before taking steps to control this pest. For large trees, for example, a foliar spray may not be possible.

In the landscape, several natural enemies have been observed attacking this whitefly which can play an important role in long term control. Awareness of these natural enemies is very important so decisions for additional control measures can be made wisely so as not to also kill the natural enemies. The most commonly seen natural enemies include beetle predators, parasitoids, and lacewings.



Monitor your ficus plants for early signs of an infestation because it will be easier to manage the pest before it builds to high populations and causes major damage. Defoliation usually occurs after the whiteflies have been there for several generations. Also, if infested trees or hedges are trimmed, either leave the clippings on the property or if removing, bag the clippings to reduce the chance of spreading the insects. If clippings are being transported in a truck, be sure to either bag them or cover these clippings with a tarp. Although the eggs and early stages of the whitefly on fallen leaves will die, the last nymphal stage of the whitefly can likely survive, emerge into an adult and attack more ficus. Insecticidal soap or oil sprays may be an effective method of control for small trees or shrubs, but, thorough coverage of the undersides of the leaves is especially important. It will also be necessary to repeat these applications every 7 to 10 days. The use of other insecticides may be necessary to control this pest. However, it is important to use products that will not be detrimental to the natural enemies. Protecting natural enemies may be a critical component in the long-term control of this pest. Insecticides with systemic properties may be very useful in whitefly control because they can be applied as a drench to the soil and provide longer lasting control.

**Control in the Landscape:** The current recommendation is to drench the soil around the base of the tree or hedge with a product that contains a neonicotinoid compound (see below table). If applied appropriately, these products should provide sufficient control of the whitefly for 4-8 months (or perhaps longer) depending on the size of the tree or shrub. It is advisable to monitor your plants 3 months after application for the presence of live nymphs. Foliar sprays can also be applied to treat “hot spots” or get quick knockdown in addition to the soil applications. Products that can be considered for foliar applications are listed in the next section (Control in the Nursery), but it is important to only use those products that are allowed in the landscape. Also, the products (neonicotinoids) listed in the below table can also be

used as a foliar spray but it is not recommended that you use them as both a foliar and soil application and it is the soil application that will provide the longest control.

#### Products Containing Neonicotinoid Compounds

| Active Ingredient | Trade Name                                                    | Over-the-Counter | Commercial Product |
|-------------------|---------------------------------------------------------------|------------------|--------------------|
| Clothianidin      | Arena 50 WDG                                                  |                  | X                  |
|                   | Aloft (combined with pyrethroid)                              |                  | X                  |
| Dinotefuran       | Safari 20 SG                                                  |                  | X                  |
|                   | Spectricide Systemic Tree & Shrub Insect Control + Fertilizer | X                |                    |
| Imidacloprid      | Merit 75 WP, 75 WSP, or 2F; CoreTect                          |                  | X                  |
|                   | Bayer Advanced Tree & Shrub Insect Control                    | X                |                    |
| Thiamethoxam      | Meridian 25 WG                                                |                  | X                  |

**Control in the Nursery:** Follow the recommendations for whitefly management on <http://mrec.ifas.ufl.edu/Iso/IAWG/> or <http://mrec.ifas.ufl.edu/LSO/bemisia/bemisia.htm>. In addition to the neonicotinoid insecticides listed above, insecticides that can be applied to the foliage for whitefly control include Aria (flonicamid), Avid (Abamectin), Azadirachtin, BotaniGard (mycoinsecticide with *Beauveria bassiana*), Distance (pyriproxyfen), Endeavor (pymentrozone), Endosulfan, Judo (spiromesifen), Talus (buprofenzin), Talstar (bifenthrin) and Tristar (acetamiprid). However, as stated above, a soil application is recommended and foliar applications should be used when whitefly populations are extreme or there is a need for quick knockdown. Rotation of insecticides among different modes of action is critical in the management of pests and is especially important for whiteflies that have been shown to develop resistance to insecticides. If plants have received a neonicotinoid drench, DO NOT spray with another insecticide in this group.

Also available are products that contain more than one insecticide such as Allectus (imidacloprid + bifenthrin) which is for use in the landscape and Discus (imidacloprid + cyfluthrin) which is for use in production. Sometimes these products are useful because you get the benefits of two different insecticides, however, it is important to use these products only when there is a need for both insecticides. It is also important to apply them in a way to get that added benefit of two insecticides. For example, it would be advisable to use these only as a foliar application and not a soil application. No matter what insecticide is selected, it is very important to check the insecticide label to determine if the insecticide can be used in the landscape, in production, or both. Note that many of the products containing a systemic insecticide also have restrictions about using near water (ponds, lakes, rivers, etc.). Always follow the label directions – **“The label is the law”**.

There have been reports of this whitefly killing ficus trees and hedges. There have been cases of branch dieback which sometimes can be severe and in a few cases plant death. In most cases, the trees and hedges will grow new leaves. If the tree or hedge has suffered from a massive loss of leaves, it is important not to overwater. Without leaves, the plants are less efficient at taking in the water and start to rot in the roots or lower trunk which may lead to plant death. If the twigs are still supple, the plant will produce new leaves in a few weeks. As soon as new growth is evident, a systemic insecticide applied to the soil may provide protection to the new growth.

For more information, contact your local Extension agent for additional information. Please visit the UF/IFAS Miami-Dade County Extension website for updates <http://miami-dade.ifas.ufl.edu> or <http://mannion.ifas.ufl.edu>

Catharine Mannion, University of Florida, Tropical Research and Education Center; Lance Osborne, University of Florida, Mid-Florida Research and Education Center; Adrian Hunsberger and Henry Mayer, Cooperative Extension Service, Miami-Dade County; Greg Hodges, Department of Agriculture and Consumer Services, Division of Plant Industry.

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