Important South Florida Plant Pest Problems - Past and Present

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Plant pests, why south Florida?

- Southeast Florida is ground zero for invasive pests
- 2 major international airports and 2 major seaports
- Major hub for Caribbean, Central and South America importation/travel
- Contraband issues (live plant material, fresh fruits & vegetables, seeds)
- At least 1 new pest established per month
Outcomes of landscape pest infestations

Mature shade trees are needlessly removed or severely pruned

Overuse and misuse of pesticides

Using landscape or ag pesticides on unlabeled plants (edible plants) or on unlabeled sites

Politicians get involved and tree/pest ordinances enacted

Legislation in some cities and municipalities banning pesticides

Numerous calls to Extension and other offices
For example, Zika worries ....

- Bromeliads demonized
- Impacts on horticulture industry
- Bromeliad ban and removal - Miami Beach, proposed ban in Miami-Dade County
- No evidence that eliminating bromeliads would significantly reduce mosquito populations

**Bromeliad Restrictions Deferred by Miami-Dade Commissioners**

MIAMI — Fearing a potentially devastating blow to the county's $2.7 billion horticultural and agricultural industry, ... voluntarily deferred a measure that would limit — and some argued effectively ban — new purchases of bromeliad plants by the county in an effort to protect against Zika. *Miami Patch, 2/9/2017*
Laurel wilt / ambrosia beetles

- By 2005, found in North FL.
- 1st found in Miami-Dade in 2011, now in most avocado groves.
- Kills avocado trees. Significant loses to the industry and dooryard plantings.
- Kills swampbay and redbay trees (devastating areas in the Everglades)
- Disease spread by the redbay & other ambrosia beetles
Laurel wilt on avocado - ag industry & land use changes
Laurel wilt on redbay and swampbay
Ficus Whitefly

- First reported August 2007 in downtown Miami area (Miami River)
- Species identified as *Singhiella simplex*, a new continental record
- Causing severe defoliation of weeping fig (*Ficus benjamina*)
- Other host plants include strangler fig, “banyan trees” (*Ficus bengalensis* and *F. altissima* [lofty fig])
- Shrub death and sometimes severe tree damage.
- Spread throughout south Florida where ficus is planted
Most people don’t realize there is a problem until the end of fall or early winter after shearing the hedge.

But the plants were infested all summer long.

A lot of pesticide use and misuse

Many people have replaced hedges with other plants = $$$$$

Still a problem
Cycad Aulacaspis Scale

- 1996 first continental find (in Miami).
- Now spread to areas where king and queen sagos grow.
- The most serious pest of cycads. Lethal.
- A threat to rare and endangered cycads.
- Many nurseries no longer grow king or queen cycads.
- Continues to be a major pest.
Lobate lac scale

- 1999 first found (in Broward County).
- Now throughout south Florida.
- Over 300 plant species are hosts.
- Major pest of some native shrubs, especially wax myrtle.
- A minor pest for other species.
- Still around but not as concerning. The most susceptible hosts were killed off.

Wax myrtle killed by lobate lac scale
Croton Scale

- First reported April 9, 2008 in Marathon. Now throughout s. FL.
- A soft scale
- Not a serious pest (usually)
- A lot of sooty mold is a clue
- On many south Florida plants
- Seems to prefer gumbo limbo and croton
- The pest is still active in south Florida but not as damaging
Ladybug larvae are often found eating this scale

Ladybug pupae on gumbo trunk
Sri Lanka Weevil
*Myllocerus undatus*

- Palm Beach, Broward and northern Miami-Dade County (2000)
- From Sri Lanka
- Biology poorly known
- Large host range including fruits and ornamentals
- Lychee a favorite host
- Most damage is done in the spring on new growth
- Still a problem in south Florida
Rugose spiraling whitefly *(Aleurodicus rugioperculatus)*

- First found in Miami-Dade, March 2009
- A lot of flocking, honeydew & sooty mold
- Serious pest?
- Infests many native and non-native trees and shrubs
- Infests (the most complaints):
  - gumbo limbo
  - black olive
  - coconut palm
  - & others
Most people don’t realize there is a problem until the end of fall or winter (after the dry season has started).

No rain to wash off the sooty mold, honeydew and wax.

But the plants were infested all summer long.

Now under control by natural enemies
Whitefly Overreaction

- Most South Floridians are aware of the ficus whitefly and resulting severe plant damage

- Assume that all new pests, especially whiteflies, will cause severe damage

- Tired of the mess and cost of pest control
Tabebuia Thrips
Holothrips tabebuia

- Found in 2001 on trumpet trees, *Tabebuia* spp., in Miami-Dade

- Pest of only tabebuia, especially pink tabs

- Plant decline not seen

- Not an issue anymore
Emerging leaves are attacked
Photo credits

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