



reemendous Tidbits

Distributed by Artistree Landscape Maintenance & Design to Educate and Inform the Communities That We Service.

“In all things of nature there is something of the marvelous.”—Aristotle

Hate Pink? (PHM) Pink Hibiscus Mealybug

The Florida landscape is constantly besieged with insects and pests that love to munch away on our plants causing damage and destruction wherever they go, and the list of new pests and pest alerts is always growing. Pink Hibiscus Mealybug was first reported in Florida in 2002, but it was already prevalent in the Caribbean, so it was only a matter of time before it reached the U.S. Infestations are spread by wind, on infected plant material, also by ants and other small insects. They are known to attack more than 200 plant species, not just hibiscus. PHM has spread to 34 counties and has been an increasing problem in the tri-county area from Manatee County to Charlotte County.

What do they look like?

Adult mealybugs are small, about 3 mm long and pink in body color, but are covered with a waxy secretion. Females are usually obscured by this white mealy wax. When adults are crushed their body fluids are also pink. Adult males are smaller than females, reddish brown and have one pair of wings and two long waxy “tails.” Females can deposit up to 600 eggs and produce up to 15 generations per year.



PHM Male



PHM Female

How Do They Damage the Plant?



Leaves are stunted and deformed.

Pink hibiscus mealybug feeds on the soft tissues of many plant species and injects a toxic saliva that causes curling and contortion of leaves. The entire plant may be stunted and the shoot tips develop a bushy appearance. Buds may not flower and stems may twist. Fruit may also be deformed. The mealybug excretes honeydew which encourages the development of black sooty mold. Very high populations can kill plants.

How Do We Control Them? There are two parasitic wasps that attack the pink hibiscus mealybug and cause no harm to other insects, plants or animals. Chemical control of PHM is difficult because the waxy covering protects the mealy bugs and eggs from chemical exposure and will kill the beneficial insects. The Department of Agriculture (DACS) recommends the use of biological control as the safest and most economical method of control. DACS has released more than 2 million parasitic wasps in the last four years in more than 30 counties and they are proving successful in controlling the PHM. The parasites are now being reared at the Department’s Division of Plant Industry in Gainesville at a rate of 16,000 per week. Another natural enemy that is proving helpful is a lady beetle, a mealybug predator and is already well established in Florida. According to the Sarasota County Cooperative Extension, two-thirds of these wasps reared in Gainesville are being released in the Sarasota and Manatee County area. The parasitic wasp is about 97 percent effective at controlling pink hibiscus mealybug, but it does take time to build up sufficient numbers for control. Artistree has also treated infected plants with systemic pesticides so as not to kill the beneficial insects. Resources: Just the Facts, Solutions for Your Florida Lawn and Garden, *Pink Hibiscus Mealybug*, Sarasota County Extension. *The Pink Hibiscus Mealybug Management*, University of Florida IFAS Mid-Florida Research & Education Center. *Tiny Wasps Proving Helpful to Area Gardens in Controlling Destructive Pink Hibiscus Mealybug*, Denise Feiber, Department Press Release, Department of Agriculture 10-19-06



Parasitic wasps only attack PHM



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Tidbits & Trivia

Did you know. . .

- The average Humming bird weighs less than a penny.
- Cool as a cucumber? It’s true...the inside of a cucumber on the vine measures as much as 20 degrees cooler than the outside air on a warm day.
- The St. John’s River is one of the few rivers that flows north instead of south.
- The Zebra longwing butterfly is the Florida state insect.

Sarasota County Establishes New Fertilizer and Landscape Management Code

Ongoing outbreaks of Red Tide over the last several years and concerns about the water quality in our waterways has led to the creation of a new fertilizer ordinance in Sarasota County. The new ordinance, referred to as "Sarasota County Fertilizer and Landscape Management Code" (Ordinance No. 2007-062) adopted August 27, 2007. The purpose of the new ordinance is to protect the bays, rivers, and gulf, to reduce the nutrient runoff into the receiving water bodies, and to have the proper use of fertilizer including the timing, type, amount, and technique of application.

The ordinance regulates the proper use of fertilizers by requiring proper training of commercial and institutional fertilizer applicators. It requires the use of Best Management Practices which provide specific management guidelines to minimize negative environmental effects associated with the misuse of fertilizers. Commercial fertilizer applicators must provide proof of completion of an approved training program to the county tax collector's office within 180 days. All applicable employees at Artistree have completed the training and are certified in Best Management Practices.

In addition to being certified in BMP's there are regulations applicable to the application of fertilizers, which includes pesticide/fertilizer mixtures.

Here is a brief description of these regulations:

- **Timing of application:** "Restricted Season" June 1 through September 30. No fertilizers containing nitrogen/phosphorus can be applied during the restricted season.
- **Fertilizer Content and Application Rate:** Limits the amount of phosphorus to .25 lbs. per 1000 sq. ft per application and no more than .50 lbs. per 1000 sq. ft. per year. Fertilizer shall contain no less than 50% slow release nitrogen. No more than 4 lbs. of nitrogen per 1000 sq. ft shall be applied in any area in a calendar year.
- **Impervious Surface:** No fertilizer may be on any impervious surface. Fertilizer should be removed and applied to turf/plant material or returned to the original or appropriate container. No fertilizer should be swept, blown or washed into drains, ditches or water bodies.
- **Fertilizer-free Zone:** No fertilizer shall be applied within 10-feet of a water body or wetland area
- **Low Maintenance Zone:** A voluntary 6-foot low maintenance zone is recommended, but not mandated from any water body.

- **Mode of Application:** Spreader deflector shields are required when fertilizing with broadcast spreaders.
- **Management of Grass Clippings and Vegetative Material:** No grass clippings or vegetative material may be washed, swept, or blown into storm water drains, ditches, water bodies or roadways.

Enforcement and penalties have also been outlined in the ordinance, starting with a warning on the first offense with the possibility of up to \$500.00 in fines.

Sarasota County is not the first county to implement a fertilizer ordinance. Other counties have implemented similar regulations and because of this, the state has created a Consumer Fertilizer Task Force within the Department of Agriculture to gather and assess information regarding the effects of fertilizer to our water bodies and determine if it is necessary to develop statewide guidelines governing fertilizer use rates, formulations, and applications. The task force consists of 13 members and they must submit a report of their recommendations and findings, including recommendations for statutory changes, if any, to the President of the Senate and the Speaker of the House of Representatives by January 15, 2008. You will find the entire act in Section 10. Section 576.092, Florida Statutes.



It's Time to Mulch

It's that time of year again. Artistree workers were busy in October spreading new mulch in many of our communities. Two applications a year are recommended, one in the spring and one in the fall. If you haven't applied mulch in a while, there are many reasons why you may want to reconsider. First of all, your plants will 'love' you for it. The benefits

far outweigh the time and expense. Mulch is like candy to your plants, they will respond and perform much better. Mulch helps to hold moisture in the soil, suppress weeds, keep the soil temperature even, prevent erosion, and adds beauty to the landscape. Keeping your mulch maintained at 2-3 inches is a good landscaping practice.



Mulch is like candy to your plants, they will respond and perform much better.

A Team Player You Should Know—Meet Terry Lipman

Terry has been with Artistree for over 7 years and has worked in the green industry for over fifteen years. He is the Account Executive for one of our largest communities, University Park Country Club and Sabal Bay, which includes over 850 homes and much of the common ground. As the Account Executive he works closely with property managers, homeowners, and the crews to oversee the daily operations and address any questions or concerns in the landscape.

He is also in charge of the daily operations in our north shop, which includes about 80 employees and during the peak season oversees the H2B program, which is the government program for incoming seasonal workers. The program runs from March through November and keeps him busy initiating contracts and securing housing and transportation for 50 additional workers.

Terry is very passionate about his work. He has a Bachelor of Science degree in Agronomy, which is the study of plant protection and pest management from the University of Georgia and he has a Masters

Degree from Virginia Tech in Agricultural Education. He also has a Lawn and Ornamental Pesticide License and is on the Integrated Pest Management (IPM) Advisory Board with Sarasota County. He loves ‘happy plants’ and believes that with the proper pruning techniques, fertilization, and the right plant in the right place there will be minimal pesticide usage.

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Terry Lipman

Terry also loves diagnosing plant problems and educating homeowners about horticulture. With the many challenges and changes in the green industry, one of Terry’s goals is to continue his education and educate others in horticulture about the climate, pests and usage of pesticides. He also likes teaching and training the crews and is very involved in Artistree’s in-house training programs.



Account Executive—Terry Lipman

He is happy to be a part of the Artistree team and is appreciative of Joe Gonzalez and Frank Fistner, Artistree owners, for their support of continuing education, company policies, and for providing all the tools needed to get the job done in a professional manner.

Terry keeps busy outside of the job with his six children ranging in ages from 23 to 9, and is very involved in their organized activities and sports. He loves the outdoor life and maintains a home and animals on five acres.

Thanks for a great job!

The Drought Continues

After experiencing a very dry fall, winter and spring, we all looked forward to, and welcomed, the rainy season this year, even with the threat of hurricanes. However, we fell quite a bit short of the expected rainfall and, thus, we are in a continued mode of drought. Many of our seasonal residents may have noticed this when they returned to a lawn and landscape that lacked the growth and vigor of an abundant amount of rainfall. Water restrictions were enforced throughout the summer as our irrigation and maintenance crews dealt with the challenges and expectations of these limitations. According to the Southwest Florida Water Management District, as of August 30, 2007, all sixteen counties within the District are experiencing below-normal rainfall. The district wide rainfall deficit, measured in a twelve-month period is approximately 12 inches, categorized as critically abnormal. As of September 18, 2007 the U. S. Drought Monitor indicates that all sixteen counties within the District



are experiencing drought or drought-like conditions. Charlotte, DeSoto, Hardee, Highlands, Hillsborough, Manatee, Polk and Sarasota counties are most affected, with conditions characterized as moderately to severely abnormal. Previously predicted above normal rainfall has not yet materialized and, as of September 20, 2007, the latest predictions indicate that below-normal rainfall is expected for the series of three-month outlooks spanning November-December-January through March-April-May, thus we must still comply with local watering restrictions. The SWFWMD is encouraging everyone to skip a week of irrigation during the fall and winter months. During the cooler months your lawn and landscape plants don’t transpire as much, so they don’t need as much water. You can learn more about water conservation at watermatters.org.



Resource: SWFWMD Second Board Order Modifying Water Shortage Order No. SWF 07-02



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the more we GROW"

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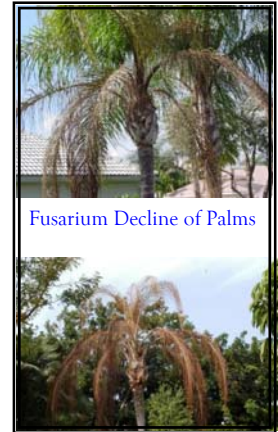
Cool Season Annuals

- Snapdragon
- Begonia
- Impatiens
- Alyssum
- Geranium
- Petunia
- Blue Salvia
- Marigold
- Pansy
- Dusty Miller
- Lobelia
- Dianthus
- Amaranthus
- Gazania
- Verbena

New Diseases Affecting Landscape Palms

Palms have always been susceptible to a wide range of diseases and disorders, but not all of them are detrimental to the life of the palm. However, there have been recent publications of two new diseases that are affecting some of our prized landscape palms with the potential for a serious impact. Fusarium Decline of Palms has been found in some local communities attacking Queen palms and Washington palms. Symptoms begin on the lowest leaves in the canopy and progress up through the canopy. A brown stripe on the petiole extends into the rachis of the leaf. The palm takes on an appearance of being freeze-dried when the disease has spread through the entire canopy. Infected palms die quickly, often within a few months of the initial symptoms. There is no cure once a palm is infected, and no preventative fungicide treatments are recommended. The disease is probably spread by wind into new sites. It could also be spread by pruning tools. Palms should not be replanted into a site where a palm with this disease was removed.

Another disease of serious concern is Texas Phoenix Palm Decline (TPPD). Discovered in late 2006 infecting Canary Island Date Palm with symptoms that appear similar to Lethal Yellowing (LY) disease. However, DNA analysis determined the palms were infected with a phytoplasma genetically distinct from the one that causes LY. As of July 2007 known susceptible hosts for Texas Phoenix decline phytoplasma are *Phoenix* species, specifically *P. canariensis*, *P. dactylifera* and *P. sylvestris*, and *Syagrus romanzoffiana* (Queen Palm). It has not been found in the *P. roebelenii* (Pygmy Date Palm). It is believed that this new disease is spread by an insect, a planthopper as in LY, but it is not believed to be the same planthopper. The difference between LY and TPPD comes down to genetics. They appear similar, but are different. Symptoms begin with fruit drop and death of flowering or fruiting. If the palm has been pruned to remove the flowers, this would not be noticed. Another symptom to watch for is premature death of the lower foliage. The foliage is affected from the lower leaves up and from the tips of the leaves towards the base of the palm. Fronds brown and die prematurely, they may hang down



Fusarium Decline of Palms



Premature death of lower foliage.



Dead spear leaf

toward the trunk rather than holding their place. When less than 1/3 of the canopy has been affected, the spear leaf dies, although this may be difficult to detect. Once the center spear dies, the palm will eventually die. The only way to confirm the palm has died from TPPD is by a DNA analysis from trunk tissue. If the spear leaf has died, the palm should be removed as soon as possible and not replaced with a palm of the same species. There is an antibiotic that can be applied as a preventative measure, it may also be effective in the early stages of the infection, but it will not work once the spear leaf has died. There is only one source for this antibiotic, so this process may be costly. Please keep in mind that brown or dying fronds does not necessarily indicate the presence of one of these diseases. There are many factors in the environment that affect our palms. Talk to your Account Executive at Artistree if you have a concern about one of the palms in your landscape.

Resource: "Palm Diseases Caused by Phytoplasmas: Lethal Yellowing and Texas Phoenix Palm Decline" by Monica L. Elliott and Nigel A. Harrison, University of Florida, IFAS, Fort Lauderdale Research and Education Center, July 2007