

## JUST THE FACTS - LBD

**\*Information provided by Fish Branch Tree Farm, Inc. based on current research and reviewed by UF/IFAS.**

Lethal Bronzing Disease (formerly Texas Phoenix Palm Decline) is caused by a phytoplasma, a bacterium without a cell wall.

Many diseases are caused by phytoplasma, including Lethal Yellowing (LY) and Lethal Bronzing (LBD) of palms.

In Florida, Lethal Bronzing was first discovered in 2006 in Hillsborough County.

Highly susceptible palm species include *Sabal Palmetto* (Cabbage Palm), *Phoenix canariensis* (Canary Island Date Palm), *Phoenix dactylifera* (Edible Date Palm) and *Phoenix sylvestris* (Wild Date Palm).

LBD is present in most counties in Florida.

It is spread by a phloem feeding insect, *Haplaxius crudus* (leafhopper or planthopper), which feeds on an infected tree and carries the phytoplasma to other trees.

If fruiting, an early symptom is generally premature fruit drop, followed by browning or bronzing of the lower fronds along with death of the meristem.

In the final stage, the spear leaf can often be seen hanging down in an infected tree.

Lethal palm diseases such as Fusarium Wilt and Ganoderma are currently not treatable. Conversely, OTC (oxytetracycline) has been found to be an effective preventive treatment for LBD.

OTC injections have been successful in preventing contraction of LY for many decades.

At this time, it is believed that after a palm has contracted LBD, the death of the palm may be delayed but the eventual death of the palm is inevitable.

To guard against LBD, susceptible species must be inoculated with OTC PREVENTATIVELY.

OTC injections must be done PREVENTATIVELY 3-4 times per year. Injections should continue indefinitely or unless it is determined that the disease is no longer a threat.

The cost of materials for each injection is minimal, and does not require a pesticide license.

If a palm dies from Lethal Bronzing, the planting site is not contaminated. Therefore, it is safe to plant another susceptible palm in its place.

The University of Florida has hired an entomologist, Dr. Brian Bahder, to research Lethal Bronzing Disease.

Experiments are being done to determine the best options for treatment and prevention. The disease is only problematic when pathogen, vector and susceptible hosts are present.

Current research indicates that if the proper protocol of OTC injections is followed for non-infected susceptible palms, they are neither infectious nor are they infectable.

Further, the use of imidacloprid impacts the spread of LBD only when a vector which has fed on an infected palm is killed before it visits a new susceptible host which is not currently being inoculated.

*Frankly, buyer beware! To be honest, the rapid spread of LBD throughout the state is partially driven by the sale of infected palms. Some suppliers are selling palms from fields known (or suspected) to harbor LBD. Validate your sources and don't be part of the problem!*

Resources for OTC: <a href="http://www.palmtree saver.com">www.palmtree saver.com</a> <a href="http://www.arborjet.com">www.arborjet.com</a>	For More Information: <a href="http://www.flrec.ifas.ufl.edu">www.flrec.ifas.ufl.edu</a> <a href="http://www.fishbranchtreefarm.com">www.fishbranchtreefarm.com</a>
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