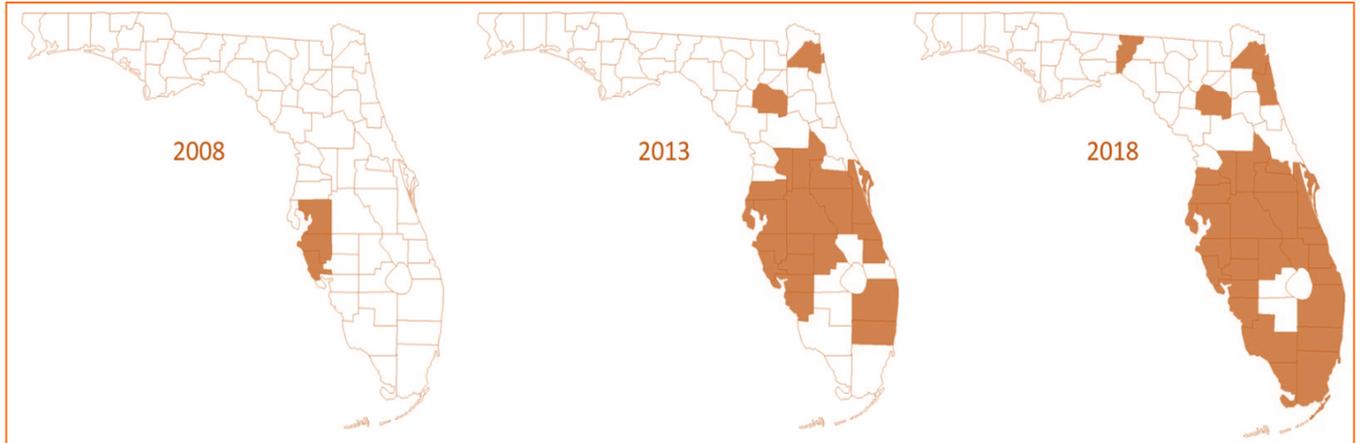


## The Spread of Lethal Bronzing in Florida



Lethal Bronzing has spread rapidly throughout Florida since its introduction to the state as seen in the image above. Preventative treatments should be considered regardless of the detection of Lethal Bronzing on or near a property.



Palm trees showing signs of Lethal Bronzing

# What You Can Do: OTC Trunk Injections

## About Lethal Bronzing Disease

Lethal Bronzing is a phytoplasma disease that infects the vascular tissue within the trunk of infected palms preventing the movement of water and nutrients and eventually resulting in the death of the infected palm. The disease is spread by an insect called a Planthopper allowing for the widespread movement of this disease throughout Florida. This disease has a wide host range identified by University of Florida laboratory testing. The following list are the current species identified by UF as hosts of this disease, those marked with an asterisk are the species that are most frequently infected and those which have a value that justifies the expense of trunk injections:

### Current species identified by UF as hosts of this disease

<i>Adonidia merrillii</i>	Christmas Palm
<i>Bismarckia nobilis</i>	Bismarck Palm
<i>Butia capitata</i>	Pindo Palm
<i>Carpentaria acuminata</i>	Carpentaria Palm
<i>Cocos nucifera</i>	Coconut Palm
<i>Livistona chinensis</i>	Chinese Fan Palm
<i>Phoenix canariensis</i>	Canary Island Date Palm*
<i>Phoenix dactylifera</i>	Edible Date Palm*

<i>Phoenix roebelinii</i>	Pygmy Date Palm
<i>Phoenix sylvestris</i>	Sylvester Palm*
<i>Pritchardia pacifica</i>	Fiji Fan Palm
<i>Pseudophoenix sargentii</i>	Buccaneer Palm
<i>Sabal Mexicana</i>	Mexican Palmetto
<i>Sabal palmetto</i>	Cabbage Palm
<i>Syagrus romanzoffiana</i>	Queen Palm
<i>Trachycarpus fortunei</i>	Chinese Windmill Palm

## Trunk Injections

Unlike other fatal palm diseases Lethal Bronzing can be prevented with trunk injections of the antibiotic Oxytetracycline(OTC). The University of Florida recommends injections every 3-4 months for the life of the palm, however for the best preventative control Juniper Landscaping recommends injections every 3 months for a total of 4 per year. The injections are made by drilling a small hole into the trunk and inserting a plastic valve into the hole through which the OTC is injected. Each injection site can be used twice for a total of two holes in the trunk per year.

Although OTC provides very good control of Lethal Bronzing there is still a small possibility that a treated palm can become infected. Therefore Juniper Landscaping cannot provide any warranty for treated palms. The injection sites also create wounds in the trunk which can be potential entry points for other palm diseases such as Thielaviopsis Trunk Rot and Ganoderma Butt Rot. The risk of infection with these other diseases is low, but must be considered when deciding whether to start injecting palms. The cost of injections, replacement cost of palms, and the risk of infection through injection sites must all be weighed by the client when considering starting an OTC injection program.

