

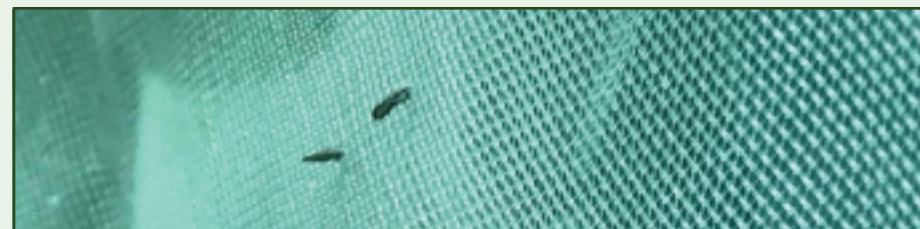
# TREE DEFENDER

## Proven Protection for Citrus Trees



## Local Growers Develop Economically Efficient Way to Protect Young Trees

The Tree Defender was originally created by growers for growers to provide an immediate solution to citrus greening by preventing psyllids from infecting trees. Having been in the field now for over three years, Tree Defender can still confidently say that no psyllid has yet to be found on any tree being covered by their protective, breathable screen. Tree Defender isn't just a short-term solution to citrus greening and protection from pests, it is a long-term investment that provides commercial growers an economic advantage that makes their yields much more profitable. Tree Defender is just as economical & effective whether you're protecting a backyard tree at home or a commercial grove with one million trees.



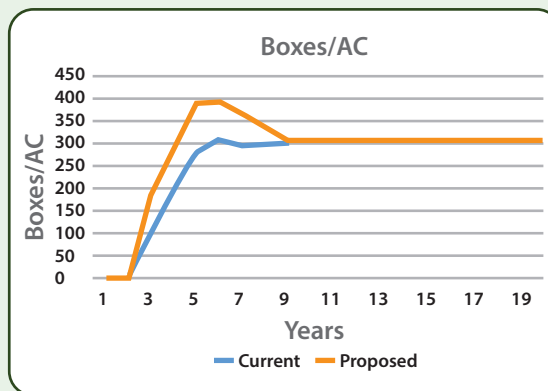
*Psyllids on the screen of a Tree Defender*

The goal is to use Tree Defender to protect young trees from psyllids and greening during their first two years as they are in a vegetative and growing state. After those two years, the bag is removed, and the trees are healthy, pesticide free, and ready to start producing fruit and crops immediately. If the grower wishes to continue protecting the tree into the mature years, then they simply purchase a larger Tree Defender.

Dr. James Graham, an emeritus professor of Soil Microbiology at the University of Florida Citrus Research and Education Center, has done extensive analysis of the economic benefit that The Tree Defender produces for prevention of citrus greening in the early stage of tree development. Graham used an economic model to calculate the yield and profit advantage for protecting the citrus tree from psyllid infection for the first two growing seasons.

"The model can be run with adjustments of various parameters such as variety, fruit quality, fruit value, cost of the Tree Defender, and years of protection of the tree from Tree Defender to study different outcomes," Graham said. "The model calculates that Valencia trees planted at 250 per acre protected with The Tree Defender for the first two season returns a profit of over \$3,000 per acre and an Internal Rate of Return (IRR) of 60.7%."

"If you're considering the use of insecticides alone to protect the tree from psyllid transmission, you're not only paying more than if you were only using The Tree Defender, there is no guarantee these applications



*Difference in yield between trees infected by year 3 (current) and trees protected from infection by the Tree Defender (proposed)*

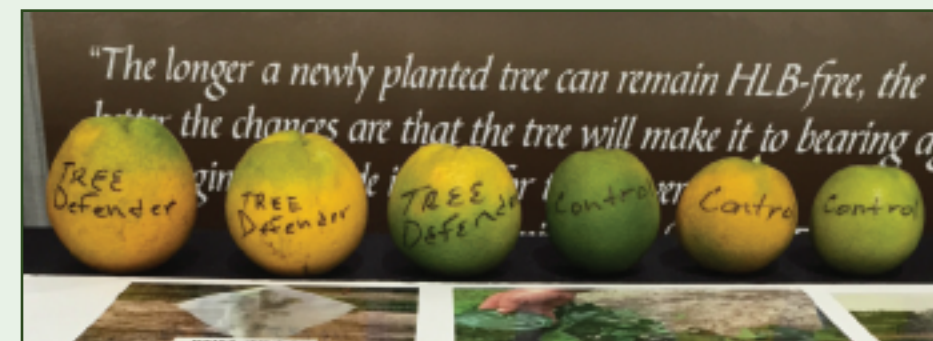
will be effective. Infected psyllids from outside the block and incomplete protection with insecticides will lead to roughly 50-60% of trees becoming diseased by the second season which significantly reduces yield," Graham added.

"Delaying the infection risk immediately increases the tree's ability to produce fruit during the early years as opposed to trees getting infected before they reach full production stage. The Tree Defender is extremely durable and can be used for multiple years and for multiple plantings, which further increases its economic value."

"The Tree Defender is a highly profitable investment for Florida citrus growers that plant trees as resets or in solid blocks and I wouldn't consider planting a tree without the protection that The Tree Defender affords," Graham said.

James Shinn of Shinn Groves has been using Tree Defender for three years now and is extremely pleased with the results that the bag helps to produce and the value that each bag has. "I've had the Tree Defenders on some of my resets for multiple years now, and we've seen our trees grow nicely while under the bag and produce great results once we remove the bag," Shinn said.

"We've compared our trees that have The Tree Defender on them side-by-side with trees without Tree Defender and have seen that we get better growth and a faster production stage from the trees that are protected with the bags."



*Fruit size comparison between trees that were protected with Tree Defender and trees that were not*

"One of the best qualities of The Tree Defender is its versatility. It protects our trees from greening and psyllids, keeps deer from eating our leaves, provides UV protection to the leaves, and we can use the bags for multiple years on multiple trees. They pay for themselves after the first two years," Shinn added.



*Multiple grasshoppers on Tree Defender bag unable to get to the tree*



*Orange Dog Caterpillar on Tree Defender*

Bobby Barben, owner of the Barben Fruit Company who also serves on the Board of Directors of the Citrus Research and Development Foundation (CRDF), added that he's had The Tree Defender for years and currently has orders in place for more.

"Tree Defenders do their job and they do it well. We have no canker, psyllids, or deer problems and we are loving what we are seeing," Barben said.

The Tree Defender is more than just a quick fix for keeping your young trees healthy. While that is a major benefit of them, they provide a long-term return on investment and help give growers confidence. Not only has no psyllid ever been found in a Tree Defender bag, but out of the roughly 60,000 bags that were in-use across the state when Hurricane Irma hit, less than 10 were reported to have been ripped or blown off.

"Each bag creates an individual micro-environment," said co-founder Scott "Scotty" Thompson. "This means that in the unlikely event that a bag becomes compromised and a tree does become diseased, you would only expose that individual tree, not a whole acre of trees if you're using



*Leaf size from trees covered by the bag*

The Tree Defender, with its patent-pending design, is available in a 4-foot, 5-foot, 7-foot all the way up to a 12-foot bag. These larger bags are designed for mature trees. They have four sides with two opposing zippered sides which allows for harvesting activities without removing the Tree Defender. Each screen has a life expectancy of up to eight years and is also ideal for protecting various other small trees and plants such as tomatoes or peppers.

While the Tree Defender is currently available to commercial growers, the company is working with a few selected nurseries and retailers at setting up distributor partnerships so that individual covers will be available very soon for casual and backyard growers.



*Scott Thompson & Tommy Thayer*

**For details about product orders, availability, and cost, call (863) 439-2877 or visit [thetreedefender.com](http://thetreedefender.com) for more information.**