(Almost) nothing can stop bacterium decimating Florida's oranges

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HLB-infected citrus fruit at a University of Florida research orchard in Fort Pierce

Peter Spyke has two types of oranges in his groves: those that are the color orange—and those that are green, unsaleable and responsible for the collapse of Florida's orange crop over the past 15 years.

Florida farmers have observed, almost powerless, the spread of the

huanglongbing bacterium ("yellow dragon disease" in Chinese), known worldwide as "HLB" and native to China. It was first reported in Florida in 2005, and has been conquering groves ever since.

The bacterium causes one of the most devastating citrus diseases called "greening": the leaves of the infected trees turn pale, the fruit fails to ripen and remain green, and eventually fall to the ground.

The bacterium is transmitted by a small insect called citrus psyllid.

Compared to the 2003-2004 season, Florida's orange production will be down by 80 percent this season (harvests last from November to April depending on the citrus variety). Grapefruits are the most affected.

"We've lost a great deal of our productive capacity and along with that we've lost juice plants, we've lost jobs, we've lost packing houses," said Spyke, a third-generation citrus farmer.

"At this point we haven't identified any way to make the trees immune to HLB," he said during a tour of his orchard.

Florida citrus farmers have generally been reluctant to destroy contaminated trees, and as a result 90 percent of their groves are infected—compared to only 19 percent in Brazil, while Europe so far has been spared the blight. Sprays used to treat trees in Florida have been ineffective.

https://phys.org/news/2019-12-bacterium-decimating-florida-oranges.html