

## Video: Striving to save Florida's struggling citrus industry with GMOs

Scientists are making progress toward breeding new citrus trees that better tolerate infection by the fatal bacterial disease citrus greening...

The most promising avenue toward infection resistance, if not immunity, lies with transgenics, the science of manipulating a tree's genes at the molecular level, Ed Stover, a geneticist with the U.S. Department of Agriculture ...told about 180 citrus growers, scientists and guests during a luncheon at the Citrus Research and Education Center in Lake Alfred[, Florida].

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Citrus greening was discovered in Florida in 2005 and has since led to a more than 70 percent reduction of the state's annual citrus harvest. The disease weakens a tree, causing it to produce smaller fruit and increasing levels of pre-harvest fruit drop...

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One promising avenue in transgenic breeding is encouraging the expression of a class of proteins called "thionin" that occur naturally in most plants and are used as defenses against disease, Stover said.

Breeders are also looking at transgenic changes that would promote the expression of antibodies that live in the phloem, a plant's vascular system that carries water and nutrients and also greening bacteria... Various transgenic trees are in early field trials, Stover said, and more are being screened in greenhouses.

Stover estimated it would take another five years before scientists could be assured the transgenic trees in the field are truly resistant.

**Read full, original article:** [Scientists discuss new anti-greening citrus strategies at event in Lake Alfred](#)