



Compounds to Treat Citrus Huanglongbing

Tech ID: 31942 / UC Case 2020-237-0

BACKGROUND

Citrus greening disease also known as Huanglongbing disease (HLB), has no known cure and causes citrus crop damage worldwide. Management of this disease is expensive and has resulted in annual losses of approximately \$1.2 billion dollars in the state of Florida alone. This disease is caused by the gram negative bacterium *Candidatus Liberibacter* (CLas), and the bacterium's insect transmission vector is the Asian citrus psyllid.

Current strategies of HLB management include chemical treatment against the psyllid vector, identification and removal of infected trees and the use of pathogen-tested citrus nursery stocks for replants in new orchards. A treatment for HLB is desirable in citrus that would not require the destruction of infected trees.



Fig 2: The effect of Huanglongbing (citrus greening) on citrus fruit

BRIEF DESCRIPTION

Prof. Caroline Roper and her colleagues from the University of California, Riverside and Point Loma Nazarene

University have identified compounds that may be used to inhibit CLas growth and thereby treat HLB in citrus crops.

This technology has the potential to be an economical and effective treatment for HLB infected trees.

SUGGESTED USES

- ▶ Compounds to treat HLB affected trees infected by CLas bacteria by inhibiting bacterial growth

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	2023010237	03/30/2023	2020-237

RELATED MATERIALS

- ▶ Blacutt, A. et al. "An In Vitro Pipeline for Screening and Selection of Citrus-Associated Microbiota with Potential Anti-'Candidatus Liberibacter Asiaticus' Properties." *Applied and Environmental Microbiology*, American Society for Microbiology, 1 Apr. 2020, - 04/01/2020

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OTHER INFORMATION

KEYWORDS

Huanglongbing disease,
 Huanglongbing, HLB, citrus greening,
 small molecule, citrus, treatment

CATEGORIZED AS

- ▶ [Agriculture & Animal Science](#)
- ▶ [Chemicals](#)

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