

Strategies to control citrus HLB disease in California

Ashraf El-kereamy^{*1}, Tariq Pervez¹, Alaeldin Rezk¹, Ahmed Ismail²,

¹University of California Riverside, Riverside, California

UC Lindcove Research and Extension Center

*ashrafe@ucr.edu

Introduction

Citrus HLB disease is a bacterial disease caused by *Candidatus Liberibacter asiaticus* (CLAs) and transmitted by the Asian Citrus Psyllid (ACP) insect. Infected trees decline and lose its yield and fruit quality causing a significant damage for the citrus industry. The disease caused the loss of more than 50% of Florida citrus. Currently, the disease is only presence in the residential area of southern California, no infection was detected in any of the California citrus orchard. Several strategies are being tested in case the disease spread more and reach the commercial citrus groves. Several projects are undergoing to establish integrated approach to control the HLB in California.



Introduce new tolerant varieties and rootstocks from other states through the CCPP (Citrus Clonal Protection Program) led by **Georgios Vidalakis**, professor and CE specialist at UCR



Optimization of cultural practices for improving root health and the tolerance to HLB. Evaluation of new HLB tolerant rootstocks, soil amendments and mulching to overcome to tolerate the HLB, by **Ashraf El-kereamy**, CE specialist, UCR



Improving the methods of HLB detection and diagnosis using different methods including using the Canines for ACP and HLB detection



First structure in California to grow Citrus Under Protective Screen (CUPS) at UCANR LREC to exclude the ACP, evaluate the performance of our varieties and the new varieties and rootstocks. By **Philippe Rolshausen**, CE Specialist, UCR

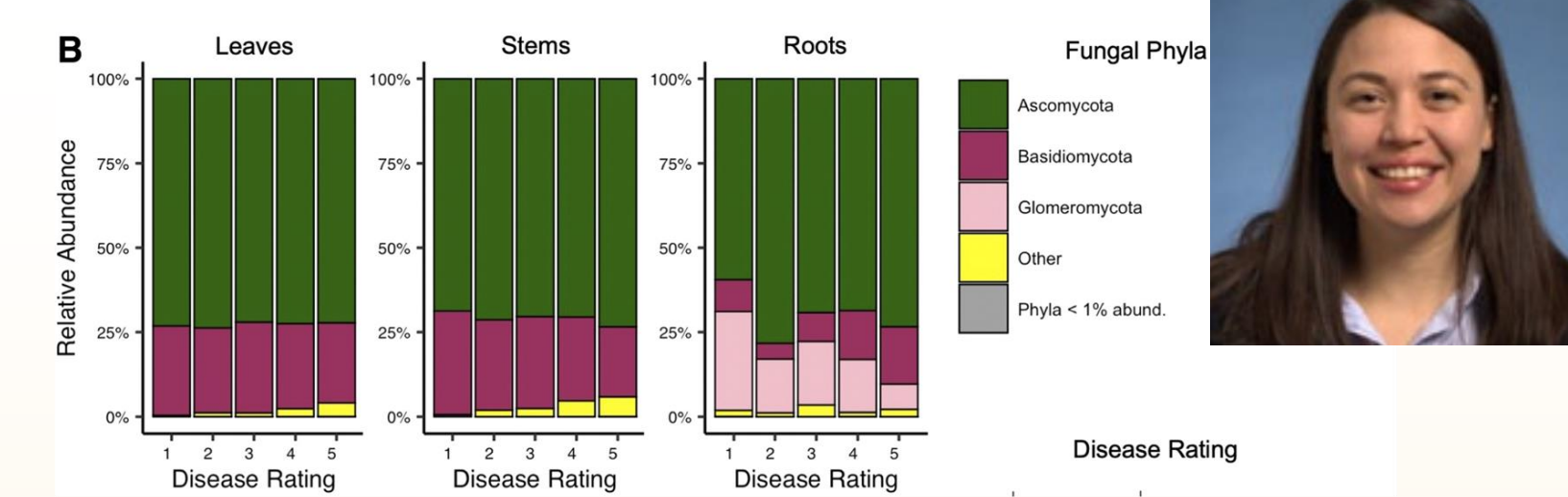
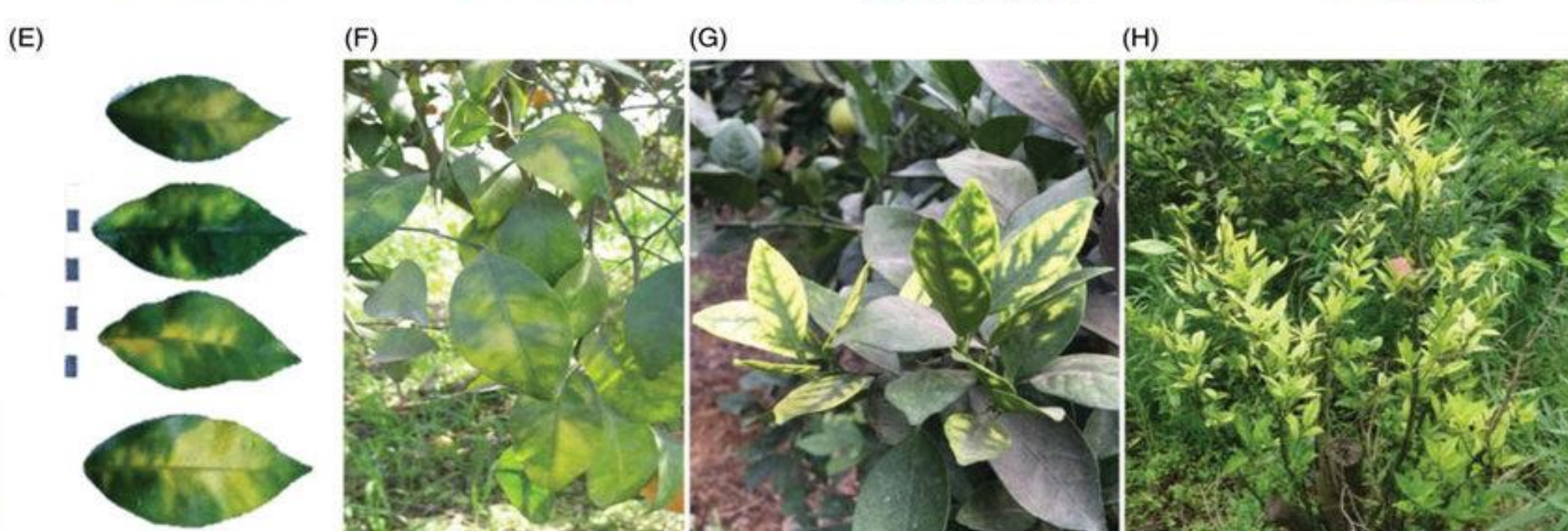
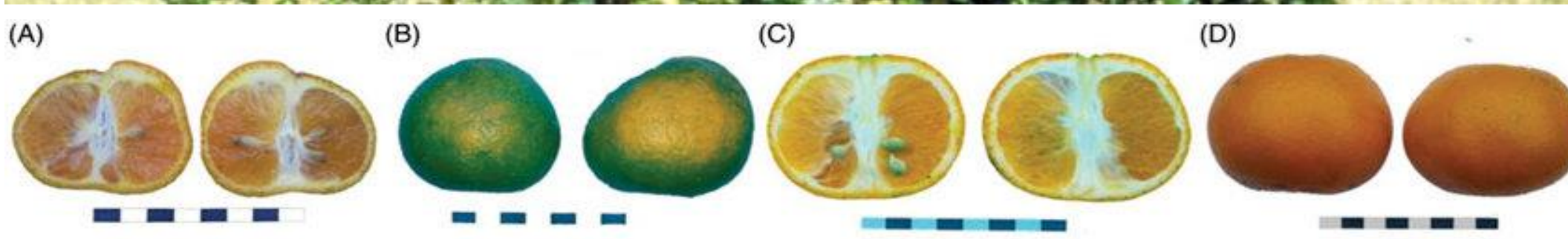


Danelle Seymour,
Assistant Professor,
UCR

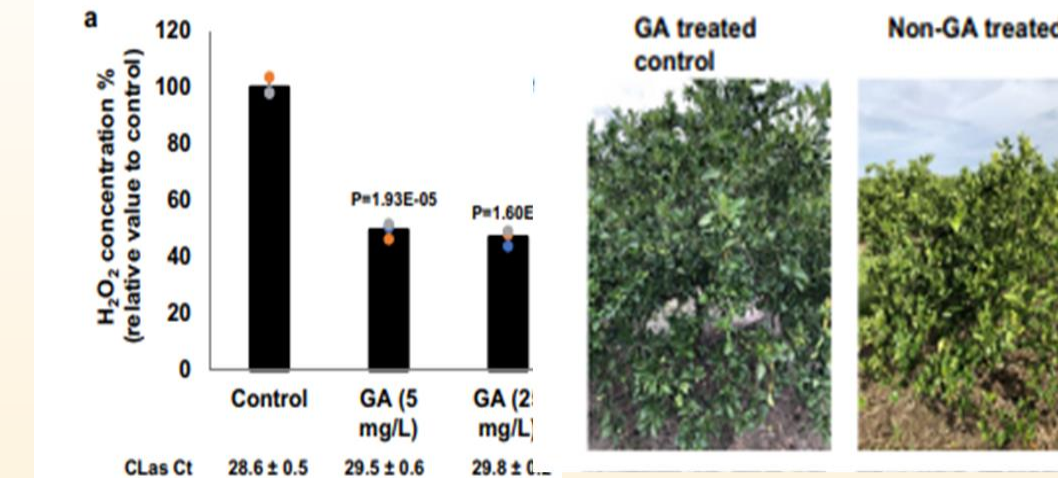
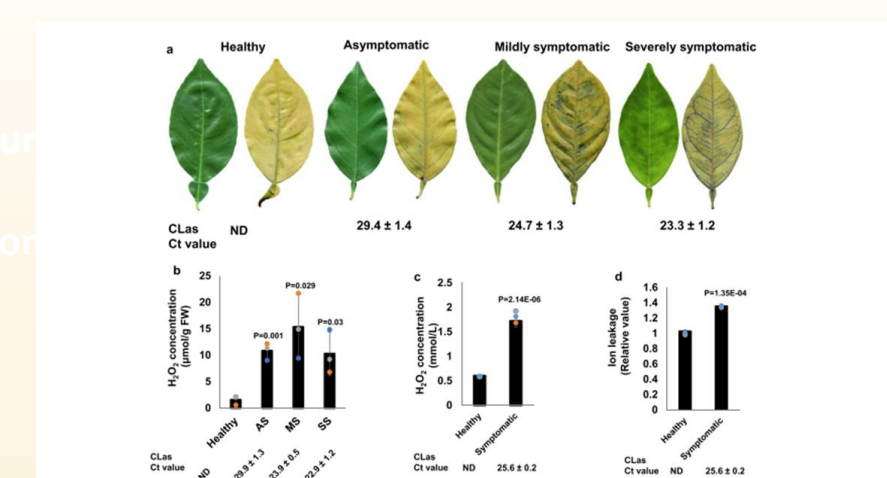
Nian Wang
Associate Professor,
University of Florida



Field survey for ACP and HLB control at LREC
Extension Education: Growers and PCAs
Slide Presentations in the conference room
Workshops for ACP and HLB detection
Web-based information and learning
by **Sandipa Gautam**,
Citrus UCIPM Advisor



CAP: Combining cultural and genetic approaches for grove success to unravel and enhance resistance/tolerance to Huanglongbing led by **Caroline Roper**, Professor, UCR



CAP: Development, evaluation, and delivery of citrus HLB management approaches by targeting its nature as pathogen triggered immune disease

Aim

In this poster, we highlight our effort at the University of California Riverside and UC Lindcove Research and Extension Center in collaboration with other states to establish integrated innovated approaches to save the future of citrus in California.

Credit: J.M. Bové, INRA Centre de Recherches de Bordeaux, Bugwood.org