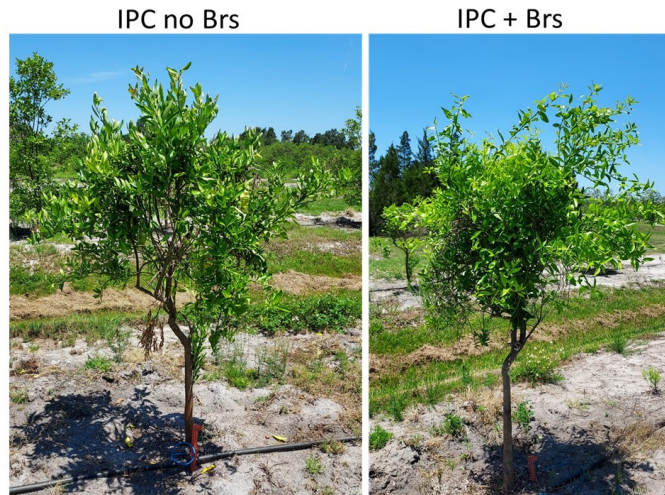


Combining Individual Protective Covers and Brassinosteroids to Prolong Young Citrus Tree Health

Researchers: Fernando Alferez, Ute Albrecht, Ozgur Batuman, Jawwad Qureshi, Saoussen Ben Abdallah

Contact: Fernando Alferez,
alferez@ufl.edu

UF/IFAS SWFREC



Take Home Message:

- Brassinosteroids delay HLB progression after IPC removal.
- Trees flush more profusely after Brs treatment once IPCs are removed.
- Psyllid population is affected by Brs treatment.

Summary: Individual protective covers (IPC), a type of psyllid exclusion mesh bag, are increasingly being adopted to efficiently protect newly planted citrus trees from huanglongbing (HLB) infection.

However, IPCs typically must be removed after 2-3 years due to tree growth. Early evidence indicates that brassinosteroids (Brs), a relatively new class of plant hormones, delay HLB progression. With the aim of prolonging tree health after IPC removal, we are investigating the efficacy of Brs in protecting and/or preventing trees from Asian citrus psyllids (ACP) and *Candidatus Liberibacter asiaticus* (CLAs) infection once they are left exposed. Brs have been approved for commercial use in

Florida citrus. Although the project is in its first months of Brs treatment, we already found that treatment with Brs prevented CLAs infection four months after IPC removal. In contrast, 60% of the trees grown in IPCs without subsequent Brs treatments were HLB-affected at this time. After Brs treatment, trees are flushing more profusely and setting more fruit. In addition, we found less psyllids per flush. Long-term efficacy of treatments still must be assessed.

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