

# Individual Protective Covers

**Researchers:** Fernando Alferez, Ute Albrecht, Ozgur Batuman, Jawwad Qureshi, Mongi Zekri

**Contact:** Fernando Alferez,  
alferez@ufl.edu

UF/IFAS SWFREC



## Take Home Message:

- IPCs exclude psyllids effectively.
- Other pests need to be regularly monitored and treated.
- Fruit quality is greatly improved by IPCs.

**Effort Statement:** We have followed fruit quality in trees after IPC removal for three seasons and found that even though trees got infected by the first year, fruit quality was superior to non-covered trees in all three seasons, although it started to decline by the second season.

**Summary:** Psyllid exclusion is the most effective strategy to keep young

citrus trees free from huanglongbing (HLB). Individual protective covers (IPC) are a novel strategy based on psyllid exclusion of individual trees using a protective mesh bag. This strategy is currently being adopted by many growers. IPCs can be installed on solid blocks of trees or in resets. IPCs are especially valuable for planting reset trees in gaps left by dead or removed trees in mature groves where HLB incidence is typically higher and the risk of infection is therefore greatest. IPCs should be placed immediately during planting to prevent any exposure of trees to the psyllids. In our research,

we have found that IPCs effectively exclude psyllids, maintain trees free from HLB, and reduce canker incidence. We also found IPCs do not exclude all pests, and armyworms, black scales, and mites are often present. This means that regular scouting and insecticide application may still be necessary. Fruit produced under IPCs have better internal quality and significantly more soluble solids (Brix) than fruit from HLB-affected trees. Fruit quality is maintained at least for one year after IPC removal, even though trees become HLB-positive.

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