Citrus Update



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Take Home Message

- Citrus is still an iconic part of Florida.
- There is hope!
- Home gardeners can grow citrus.



Frequent questions and opinions

I miss the agricultural land.

Too many houses! **Citrus greening** is destroying the industry!

Why are growers selling all the land?

There's no more citrus!



The good ole' days



2003

Before HLB







The brewing of the perfect storm



Terminology

- Box: a field box
 - Oranges: 90 pounds
 - Grapefruit: 85 pounds
 - Tangerines: 95 pounds
- Yield: harvested fruit





Reference: Pallet Boxes for Florida Citrus2002.

Average and **Trend Orange Yield in Boxes** per Acre in Florida





Source: USDANASS and author's calculations



The most asked question...

Is the citrus industry going to survive?



The most asked question...



It's just going to look different.



New Variety



Sugar Belle®

Minneola tangelo x Clementine mandarin



Tolerant versus Resistant

Tolerant

Tree lives with the disease and still produces a viable product

Tolerance means different things to different people

Some consider tolerance to be a tree health trait, others a tree health and fruit production trait

Resistant

Tree does not get the disease or gets the disease and can fight it off

Determined by testing and observation

Few citrus trees have displayed this ability in the UF/IFAS Core Citrus Breeding Program



Where to buy Sugar Belle®

Licensed Nurseries for Sugar Belle[®] 'LB8-9' Mandarin Hybrid for Dooryard Sales (Listed from North to South)





Visit homecitrus.ifas.ufl.edu















UF/IFAS Home Citrus Team





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Two-fold

UF/IFAS Home Citrus Program

UF/IFAS Home Citrus Research Project



What is the UF/IFAS Home Citrus program?

- An initiative to encourage and educate Florida residents about growing citrus in their home landscapes.
- Goals
 - Provide the best and most current information to Florida gardeners who want to grow citrus
 - Support UF/IFAS Extension residential horticulture programs and the Florida Master Gardener Volunteer program in providing the most current scientific-based information to home gardeners.



Why do the home citrus research project?

- We have been testing these tools in commercial settings but wanted to know how effective they were in residential settings
- We wanted to use our results from this study to **give recommendations that homeowners can follow** to successfully grow citrus



Overall research goals

We tested whethercertain tools (kaolin sprays, reflective donuts, individual protective covers) protect young citrus trees from pests and plant pathogens as well as affect their growth compared to standard insecticides.







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13 participating locations from 11 counties



Charlotte Highlands **Indian River** Lake Manatee Orange Palm Beach (2 locations) Polk Sarasota St. Lucie Seminole (2 locations)



Individual protective covers (IPCs) protect trees from adult psyllids





Average ACP per month



Individual protective covers (IPCs) protect trees from citrus leafminers





Average % CLM/flush infestation per month



Kaolin trees had spider mites more often







Visual signs of HLB are variable but more common in control and reflective donut trees





Avg. proportion of visual HLB signs



Control trees had a lower tree trunk girth





Year 1 results

- Individual protective covers may protect young citrus trees from major pests (Asian citrus psyllids and citrus eafminer), but not spider mites
- IPC and kaolin trees seem to have fewer visual signs of HLB/stress
- Trees with reflective donuts grow faster
- Year 2 results are still being processed
 - Stay tuned!



Where to buy an IPC

Visit homecitrus.ifas.ufl.edu for more information





homecitrus.ifas.ufl.edu



Growing citrus in the HLB-era

View Information



homecitrus.ifas.ufl.edu

- Instructional videos
- Instructional handouts
- Many more resources!

MAINTENANCE

Maintaining a citrus tree on Florida involves many techniques and strategies to support the tree's health, fruit production and, ultimately, long life. The maintenance techniques presented here are adapted from current research conducted by UF/IFAS citrus researchers principally for the commercial citrus industry. A USDA NIFA grant is supporting this work to develop successful growing plans for the home gardener from the current knowledge available to Florida's commercial growers. Over a dozen UF/IFAS Extension Master Gardener Volunteer Program participants are working with UF/IFAS researchers to learn more about which techniques work best in the home landscape. Knowledge learned from this ongoing research study will be shared on this website.

Individual Protective Covers (IPCs): Commercial citrus growers are using IPCs to protect newly planted citrus trees from Asian citrus psyllid, a small insect that infects trees with the bacteria that causes citrus greening. This tool is also available for use to protect young citrus trees in the home landscape.

How to Install an IPC (PDF)







Funded by: USDA National Institute of Food and Agriculture-Grant # 2021-70029-36054 The Asian citrus psyllid is the insect known to spread Huanglongbing (HLB; citrus greening). Individual protective covers, also known as IPC, are a

method of psyllid management. The small mesh size prevents psyllids from feeding on a young citrus tree when installed properly and maintained



Step 2: Assemble pole

Place cap on PVC pole.

tep 3: Place pole next to tree

Pole should be two finger widths from

Using a rubber mallet, gently hammer

the pole into the ground 10-12 inches

Place PVC pole next to tree.

Step 4: Install PVC nois

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Step 5: Cover tree with IPC Carefully place the IPC over the tree

ensuring all branches are kept withi Be careful not to break any new growth

Step 6: Secure top of IPC



Tighten the zip tie to secure the IPC

Step 7: Secure bottom of IPC Using a 18-24 inch zip tie or reusable



gear tie, secure the base of the bag by looping the tie around the trunk and PVC pipe. Tighten the tie to secure the IPC

ten S: Maintenance



Check on IPCs periodically to ensure the IPC remains in good working condition. Notears or rips. Bottom of bag stays secure.



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To learn more about citrus tree planting and care, visit homecitrus.ifas.ufl.edu

















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Thank you for your

interest in growing

citrus!

Hurricane Damage–Salt and Wind Burn









Photo Credit: J. Schneider, UF/IFAS Master Garder

Hurricane Recovery for Home Citrus

- Trees are stressed!
 - Shake off dead leaves
 - In 2 weeks, scrap a small portion of a tree branch (at least pencil thick) every 6 inches to determine tree life
 - Green = alive; Brown = dead
 - If brown, cut 2-3 inches below the dead point
 - Tree will likely flush back in the new year
 - Keep watering, but don't over water or don't let trees dry out
 - Pause on fertilizing



Summary

- Citrus is still an iconic part of Florida.
- There is hope!
- Home gardeners can grow citrus.



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Thank you!

Any questions?

