

# COLD HARDY CITRUS CONNECTION



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## 2022 Citrus Health Forum

I hope everyone had a great harvest season and 2022 is off to a great start! We are excited to be meeting back in person again in Quincy for the 2022 Citrus Health Forum on February 17th! This workshop aims to cover the major issues that citrus growers in our region are facing. Topics will include insect management, proper tree care, production practices, a grower panel, and an in-field demonstration of mechanical pruning. In addition to the educational program, there will be a trade show of vendors. Following the workshop, the Cold Hardy Citrus Association will hold their meeting. I look forward to seeing everyone there!

For the full agenda and to register please visit:

**2022 Citrus Health Forum**



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# Keep an Eye Out for Citrus Greening this Winter

By: Danielle Sprague, UF/IFAS Jefferson County

Recently, citrus greening or huanglongbing (HLB), the major disease devastating the citrus industry in South Florida, was confirmed in Leon and Washington County, Florida and Grady County, Georgia. Fortunately, in these instances, the tree owners understand the severity of the disease and were willing to remove the infected trees in order to further prevent the spread. With more cases popping up in our region, I wanted to encourage growers to continue to scout for the disease. Although cases have popped up, disease incidence in our region still remains relatively low, therefore scouting and infected tree removal can still be a valuable production practice.

Citrus greening is a bacterial disease caused by the bacteria *Candidatus Liberibacter*. The bacterium is spread by an insect, the Asian citrus psyllid. Psyllids spread the disease by feeding on infected trees and moving on to non-infected trees. The bacterium can also be spread through infected budwood. Therefore, it's important to make sure you are purchasing clean budwood because once the tree is infected, there's little hope for survival as there is no cure for citrus greening.

Citrus greening can be difficult to diagnose as it can be easily confused with nutrient deficiency. Symptoms of citrus greening include yellowing of the veins and a blotchy mottle pattern. Nutrient deficiencies tend to have a symmetrical pattern on each side of the leaf vein whereas citrus greening is asymmetrical. Overall, a tree infected with citrus greening will appear unhealthy with discolored leaves, a thin canopy, and reduced fruit production.



## Keep an Eye Out for Citrus Greening this Winter

Early symptoms of citrus greening include yellowing of the leaf veins and a blotchy mottle pattern. These symptoms can be easily confused with nutrient deficiencies. However, nutrient deficiencies tend to have a symmetrical pattern on each side of the leaf vein, whereas citrus greening is asymmetrical. On severely infected trees, leaf drop, shoot die back, and fruit drop occurs. Fruit may be small, misshaped and/or have an abnormal color change. Fruit may also have an off flavor.

Scouting for citrus greening should be done at least four times a year, or more in areas known to have infected trees. The symptoms are most visible now through March while trees are dormant, but can be seen year round. As trees begin to flush in the spring, scouting becomes more difficult because new leaves do not typically express symptoms and older, symptomatic leaves become hidden in the tree canopy. Visually inspect trees by walking or riding through groves. If you see any suspect trees, flag them and send any suspicious samples to the lab to be positively identified. There are several labs in Florida that are able to receive and diagnose samples.

If greening is confirmed, the best thing to do is to remove the tree to prevent additional spread. Fortunately, citrus greening disease incidence in our area is low. Through a proactive approach to dealing with the disease via scouting, early detection, removal of infected trees, and controlling the insect vector, growers can reduce the incidence and spread of the disease. For more information or help with identifying citrus greening, contact your local Extension agent.



University of Florida

### Diagnostic Labs:

UF/IFAS North Florida Research & Education Center

155 Research Road  
Quincy, FL 32351, 850-875-7140

UF Plant Diagnostic Center  
Building 1291, 2570 Hull Rd.,  
Gainesville, FL 32611, 352-392-1795

Florida Division of Plant Industry

P.O. Box 147100,  
Gainesville, FL, 32614, 1-800-282-5153

# Sampling Georgia Citrus Varieties for Brix and Acid



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By: Jake Price, UGA Extension, Lowndes County

On December 15, 2021 I thought it would be interesting to take juice samples from all the citrus varieties I could get my hands on in one day in which the variety and rootstock were known. I am sure there are other varieties being grown in Georgia and northern Florida, but I was able to find 29 varieties. All samples were taken from five locations in the Valdosta area. I mixed juice from 5 fruit per tree unless otherwise noted to represent each tree. Since all varieties are not ripe at the same time this indicates a Brix/Acid value at a point in time. If varieties were on multiple rootstocks I sampled them separately. I also included the date when the tree was planted.

## SAMPLING GEORGIA CITRUS VARIETIES FOR BRIX & ACID

VARIETY	ROOTSTOCK	DATE PLANTED	BRIX	ACID
<b>Southern Frost Navel (UGA)</b>	Flying Dragon	2017	11.7	.6427
<b>Glen Navel</b>	Sour Orange	2014	9.4	.8376
<b>Glen Navel</b>	US-852	2017	10.2	.7506
<b>Cara Navel</b>	US-897	2018	9.5	.7332
<b>Washington Navel</b>	US-852	2017	10	.6500
<b>Sugar Belle Mandarin</b>	US-942	2018	12.9	1.5992
<b>Sugar Belle Mandarin</b>	X-639	2015	12.1	1.5256
<b>Sugar Belle Mandarin</b>	Goutou	2017	12	1.1070
<b>Meyer Lemon</b>	Own roots	2009	7.1	4.9350
<b>Tango Mandarin</b>	US-852	2020	9.6	.8760
<b>Tango Mandarin</b>	X-639	2018	10.9	.9159
<b>Kishu Mandarin</b>	US-852	2017	8.7	.5065
<b>Kishu Mandarin</b>	Rubidoux	2019	10	.6370
<b>Shiranui Mandarin</b>	US-942	2019	11.0	1.0086
<b>Shiranui Mandarin</b>	US-852	2018	11.7	1.3008
<b>Shiranui Mandarin</b>	US-897	2016	13.5	1.3848
<b>Shiranui Mandarin</b>	Swingle	2015	11.8	1.5679
<b>**Golden Grapefruit</b>	Flying Dragon	2009	9.0	1.0116
<b>*Pink Frost Grapefruit (UGA)</b>	Poncirus trifoliata	2009	7.6	1.3751
<b>Marrs Orange</b>	Poncirus trifoliata	2009	10.7	.8393
<b>Ambersweet Orange</b>	US-852	2009	8.1	.5166
<b>Early Pride Mandarin</b>	X-639	2017	11.1	.8792
<b>Sweet Bessie Orange</b>	US-852	2017	6.7	.6633
<b>Orange Frost Mandarin</b>	Own roots	2017	10.6	.9713
<b>Artic Frost Mandarin</b>	Own roots	2015	12.2	.9696
<b>Early Gold Orange</b>	16-6	2008	8.1	.6344
<b>Fairchild Madarin</b>	Flying Dragon	2009	16.1	.9295
<b>Owari Satsuma Mandarin</b>	Kuharski Carrizo	2014	11.4	.7832
<b>Moro Blood Orange</b>	US-942	2019	9.7	1.0683
<b>Poncan Mandarin</b>	Rubidoux	2010	12.2	.6351
<b>Page Tangelo</b>	US-852	2018	12.6	.9581
<b>Hamlin Orange</b>	US-812	2016	9.4	.6876
<b>Sweet Frost Changsha (UGA)</b>	Rubidoux	2016	12.9	.9081
<b>USDA 88-2 (Super Nova)</b>	US-852	2019	14.4	.8221
<b>Keraji Mandarin</b>	US-942	2018	10.7	.4764
<b>*Grand Frost Lemon (UGA)</b>	Poncirus trifoliata	2010	6.3	3.4605
<b>Honey Belle Tangelo</b>	US-897	2018	10.9	1.1848

\*Sample collected on 1/9/2022 and only 3 fruit included in the sample

\*\* Two fruit sampled for this variety

# Upcoming Grower Meetings

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## Citrus Irrigation and Nutrient Management Workshop

February 8, 2022

UF/IFAS Citrus REC, Lake Alfred, FL

[Click Here For More Information and To Register](#)

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## Citrus Health Forum: February 17th

UF/IFAS North Florida REC 155 Research Road, Quincy, FL

Time: 8:30 AM EDT

[Click Here to Register](#)

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## Citrus Zoom Seminar - Scouting and Management of Citrus Diseases

February 24, 2022

Available via Zoom

[Click Here For More Information and To Register](#)

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## Georgia Citrus Association Conference: February 28th

UGA Tifton Conference Center, 2360 Rainwater Road, Tifton, GA

Time: 9:00 AM EDT

Topics include: Crop Insurance, Food Safety, Regenerative Farming, Organic Growing, Nutrition, Winter Protection, New Citrus Varieties and a Trade Show

[Click Here to Register](#)

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# COLD HARDY CITRUS ASSOCIATION CORNER

Well, I think everyone in the Cold Hardy Region has finished citrus harvest. And, all in all, it was a good year. Quality was much better than 2021, yields were better, and we were able to sell all the #1 fruit to the fresh market at favorable prices. This is to be expected as our trees mature and the quality gets better and better.

If you have not heard, the Cold Hardy Citrus Association (CHCA) was able to launch the region name, "Sweet Valley Citrus" at the New York Produce Show in December. Interest was extremely high and while there were 11 other Mandarin companies represented, the Sweet Valley Citrus booth and fruit samples stole the show. Buyers were very excited to hear about the "region brand" and the fact we are on the East Coast with high quality fruit. As we all know, freight has increased so much and the shorter distance to haul can make a big difference in overall delivered price.

The UF/IFAS Citrus Health Forum is being held February 17th at the UF/IFAS North Florida Research and Education Center in Quincy. If you have not signed up, please do so right away. It takes a lot of planning to make this event go smoothly. We have some great speakers and topics and a grower panel that can answer your questions about any part of the citrus industry. We will have a demonstration on mechanical hedging in the afternoon session. You will also hear about "Sweet Valley Citrus" and how you, as a grower, can get involved and be able to label your crop from the Sweet Valley Region (North Florida, South Georgia, and South Alabama). You definitely do not want to miss this!!



Kim Jones, CHCA President

**REGISTER HERE: 2022 CITRUS HEALTH FORUM**