APRIL 2022 UF/IFAS EXTENSION VOL. 3 NO. 2

COLD HARDY CITRUS CONNECTION

UF|IFAS UNIVERSITY of FLORIDA

IN THIS ISSUE

We hope this growing season is off to a great start and everyone fared the freezes with minimal damage! We are excited to welcome Dr. Muhammad Shahid to our cold hardy citrus team. In this edition, you'll find more information on Dr. Shahid's background and his role for supporting citrus in our region. We are very excited to have him as part of our team! You'll also find a link to two surveys: one regarding reports of soft citrus fruit and another on the use of biostimulants in citrus production. Please consider filling out both surveys so we can gather more information. And of course, an update from Jake Price on their grove in Lowndes County. Be sure to go ahead and mark your calendars for the 2022 Citrus Expo in Ft. Myers, August 17-18. Please don't hesitate to reach out to us if we can help in any way!

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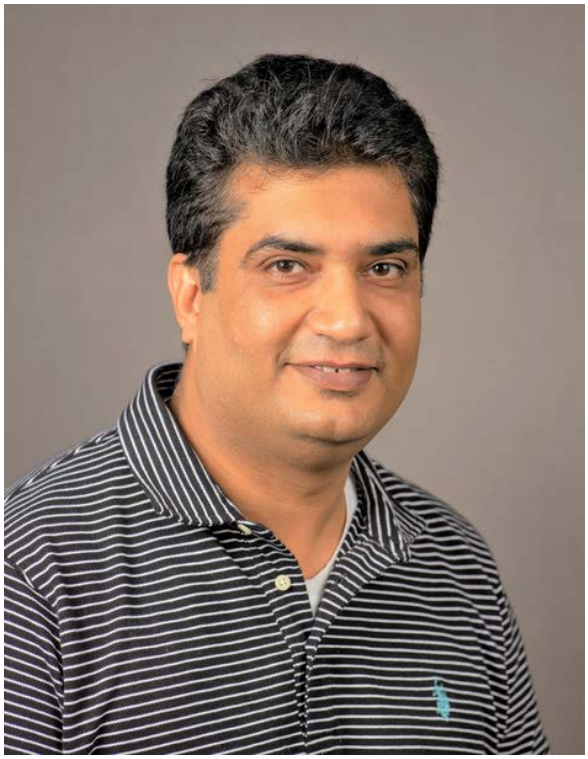
Welcome Dr. Muhammad Shahid!



Dr. Muhammad Adnan Shahid has joined the UF/IFAS North Florida Research and Education Center (NFREC) as Assistant Professor of Horticulture/Fruit Crops Specialist since January 2022. He comes to NFREC from the University of New Hampshire Department of Agriculture, Nutrition and Food Systems where he worked as a state specialist, controlled environment agriculture conducting research and extension in nutrient and water eco-management in horticultural crops production. He received a PhD in horticulture from the joint-venture program of University of Agriculture Faisalabad, Pakistan and Cornell University where he studied the effects of abiotic stresses on crop production. Dr. Shahid has also worked from 2016-2019 as research scientist at Horticultural Sciences Department, University of Florida, Gainesville, where he conducted research-driven extension on nutrient management in vegetable and fruit crops.

Dr. Shahid grew up in an agricultural family and brings experience in field, greenhouse, and hydroponic horticultural crop production. The main objective of Dr. Shahid's research program is to develop an integrated research and extension program in environmental stress tolerance and physiology of fruit crops that includes cold hardy citrus, tree fruit, tree nuts, and small fruits. He is interested in investigating the influence of biotic (pest & diseases) and abiotic stressors (heat, cold, drought, salinity, heavy metal toxicity etc.) and their interactive effect on fruit crops, and identify mitigation strategies (nutrient & water management, PGRs, tolerant genotypes, cultural practices) enhancing resilience to these stressors with improved production. His extension goal is providing fruit producers particularly cold hardy citrus producers with relevant, research-based information for improving farm productivity, profitability and produce quality through smart-agricultural-practices in climate change scenario.

Although Dr. Shahid's position is a fruit specialist, cold hardy citrus production will be his major focus of research and extension. He is interested in evaluating new early maturing scion/rootstock combinations for high cold tolerance, and disease

Welcome Dr. Shahid (Continued)

resistance to extend harvest window for fresh market. In addition, he will also be working on best management practices (BMPs) for sustainable and profitable cold hardy citrus production for fresh in the newly emerging cold hardy citrus region (north FL, south of Alabama and south of Georgia). His main goal is to take cold hardy citrus from a niche to an industry.

For further details, research interests and contact information, please visit Dr. Shahid's webpage:
https://nfrec.ifas.ufl.edu/faculty-directory/muhammad-shahid/

Soft Citrus Fruit Survey

Dr. John Chater, UF/IFAS Citrus Research and Education Center, Assistant Professor of Horticulture, focusing on citrus variety improvement, is conducting a survey about soft fruit. There were several reports of growers harvesting soft fruits of various varieties over the last one or two seasons. The fruit harvested were reported to be too soft to pack by these affected growers. The UF/IFAS CREC Team intends to find out where and why this is happening so that they can work to develop a solution. To gather more information, they are asking growers to complete a survey. To complete the survey, please use the link here:

https://ufl.qualtrics.com/jfe/form/SV_0wft2BotXkAq3EW

For more information, or to speak with Dr. Chater directly, please contact him at 863-956-8662 or by email at jchater@ufl.edu.

UF/IFAS Photo by Tyler Jones

Biostimulants in Cold Hardy Citrus Survey

Plant biostimulants are substances and/or microorganisms that, when applied to plants or the rhizosphere, stimulate natural processes to improve nutrient and water uptake and use efficiency as well as induce tolerance to insect pests, diseases, and environmental stresses. Biostimulants may also improve quality characteristics like shelf life, sugar content, fruit color, fruit fragrance, fruit shape and size, and post-harvest life in fruit crops.

Biostimulants are commercially available in many different formulations with varying ingredients and commonly marketed under names like 'biological plant activators', 'plant health stimulator' or 'probiotics for plants', just to name a few. Some of the most common ingredients are humic substances (humic and fulvic acids), seaweed extracts, beneficial bacteria, beneficial fungi, microbial inoculants, amino acids, and polyamines.

Plant biostimulants have great potential for use in horticultural production systems, specifically cold hardy citrus by improving production and quality while reducing fertilizer inputs, environmental impacts, and improving frost tolerance. To better help fruit growers in North Florida, Alabama, and Georgia with the use of crop biostimulants and to direct our future research and extension education programs, please spend a few minutes filling out this anonymous survey to share your experience, concerns, confusion, and hopes about the efficient use of biostimulants. Your response will be used for research and educational purposes only. Your participation is highly important and greatly appreciated to shape our research and educational programming.

If you have any question about the survey, please feel free to contact Dr. Muhammad Shahid (mshahid@ufl.edu), Fruit Specialist at North Florida Research and Education Center, Quincy and/or Danielle Sprague (dsprague@ufl.edu) Extension Agent in Jefferson County. Thank you!

Link to survey here:

https://ufl.qualtrics.com/jfe/form/SV_cU7eXWuQSCv4nxY?jfefe=new

Pruning Test Plot Trees

By: Jake Price, UGA Extension, Lowndes County

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In February 2021 we pruned the Owari rootstock trial trees to where most limbs were at least 18" from the ground. We were proud of our work and thought we would not have trouble with fruit touching the ground, but with a 337lb/tree average this past November we had a lot of limbs that we had to prop up to keep fruit off the ground. Much of this could have been avoided had we pruned lower limbs when the trees were 1-4 years old. As the trees grow in the first few years I suggest to remove low growing limbs but do not remove more than about 15% of the foliage at a time or it could reduce tree growth. Owari limbs tend to grow downward so this satsuma variety requires more attention that Brown Select or Silverhill satsumas which tend to be more upright. Photos of our pruned Owari's are below (Fig. 1 & 2).

Figure 1

Figure 2

Pruning Test Plot Trees

By: Jake Price, UGA Extension, Lowndes County

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We also prune long gangly limbs that are usually about finger size in diameter. We also pruned lower limbs on our Sugar Belle (fig. 3) which are more of an upright grower. The jury is still out on how to prune Sugar Belles from what I hear. The Tangos grow upright at our plot and they were pruned to remove the vigorous upright growth to promote more lateral growth. Figure 4 shows pruned Tangos in the background and unpruned trees in the foreground. The Tangos on 10 HLB tolerant rootstocks will be in the ground 2 years this May and we will let them fruit this year (if a late cold snap doesn't freeze blooms).

Figure 3

Figure 4

COLD HARDY CITRUS ASSOCIATION CORNER


Kim Jones, CHCA President

A sincere welcome to Dr. Muhammad Shahid who has joined the team at the NFREC recently. Dr. Shahid will be working with CHCA and citrus growers to improve our emerging industry and we are very happy and fortunate to have him. He is filling the position left when Dr. Pete Andersen retired. Thanks to UF/IFAS and the NFREC for continuing to find ways to support our industry and we hope to hear more from them shortly.

It is exciting to see the citrus industry growing in the cold hardy region. Tree acreage and counts are increasing along with grower knowledge in managing citrus groves. Infrastructure to support the industry is also expanding and as the juvenile trees come of age, the quality of our fruit gets better and better.

There is a lot of good momentum coming out of the 2021 season. Our reports from the buyers are very positive and they are already asking about availability for the 2022 season. Always a good sign!!

Cold Hardy Association board has been working hard to finalize the plans for the 2022 season using the ***Sweet Valley Citrus*** region name. We hope to have those plans in place and available to the CHCA members in early summer. Be listening for more on this and be sure you are a member of the CHCA.

Also, we will be hosting a Zoom meeting on May 17 at 5:00. This will allow you a platform to ask questions of some of the CHCA board members and other growers on the call. Mark your calendars and participate in this informative session. The link to join is:

https://us06web.zoom.us/j/81623309724pwd=QnpDNzhZekRiR2M1WmlXTlVsZVZtUT09

Thanks to all of you who are current with CHCA dues. If you are not a member but would like to join, the link below will direct you to the membership application.

Cold Hardy Citrus Association Membership Application