Return to: Rita Wilson, AgriLife Ext.

Vendor# 01-14166

GL# 01107260-550300

LUBBOCK COUNTY
TRAVEL AUTHORIZATION & PER DIEM REQUEST

THE DEPARTMENT DIRECTOR IS RESPONSIBLE FOR SECURING ALL SIGNATURES PRIOR TO TRAVEL. **AN APPROVED TRAVEL AUTHORIZATION MUST BE SUBMITTED TO THE AUDITOR'S OFFICE ACCORDING TO THE ACCOUNTS PAYABLE PAYMENT SCHEDULE TO RECEIVE A TRAVEL ADVANCE.** AGENDAS, BROCHURES, FLYERS, OR OTHER SUPPORTING DOCUMENTS MUST BE ATTACHED.

NAME: Reid, Christina (Last First) DATE: 8/7/24

DESTINATION(CITY,STATE): Tulsa, OK

PURPOSE: 2024 IPPS SR Annual Meeting

TRAVEL DATE(S): 10/26-30/24

☐ Per Diem requested by the _____ day of _____, _____.

_____ # of Breakfasts	@ $15.00	per meal	=	$ 0.00
_____ # of Lunches	@ $16.00	per meal	=	$ 0.00
_____ # of Dinners	@ $30.00	per meal	=	$ 0.00
		Total Advance	=	$ 0.00

Org: _____ Object: _____

I hereby request authorization to travel outside Lubbock County on official business as detailed above. I have read the Lubbock County Travel Policy and will follow that policy for travel and in making requests for advancement and reimbursement of expenses. I understand that I must submit a travel expense form within ten days of returning from this travel or the full advance will be deducted from my next paycheck.

EMPLOYEE SIGNATURE _____ DATE 8/7/24

I hereby certify the above-requested travel for official Lubbock County business is directly related to this department's operations. There are sufficient unexpended funds in the current budget line item to cover all reimbursable expenses incurred. **Agendas, brochures, flyers, and supporting documents are attached and 3 meals are included in the registration fee and will not be reimbursed.** Please issue a travel expense advance if requested.

DEPARTMENT DIRECTOR Ronda Alexander DATE 8/9/2024

APPROVAL FROM TWO (2) MEMBERS OF THE COMMISSIONERS' COURT:

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

NOTE:ALL SIGNATURES ARE REQUIRED FOR TRAVEL AND/OR PER DIEM ADVANCES. FAILURE TO FILL OUT THE FORM CORRECTLY OR PROVIDE PROPER DOCUMENTATION MAY CAUSE A DELAY IN TRAVEL AUTHORIZATION AND PER DIEM ADVANCES.

LUBBOCK COUNTY - TEXAS A&M AGRILIFE EXTENSION
TRAVEL COORDINATION FORM

Name Christina Reid

Purpose of Travel 2024 IPPS SR Annual Meeting

Conferenc/Meeting/Activity Date 10/26-30/24

Destination Tulsa, OK

Mode of Transportation:
- County Vehicle ____
- Personal Vehicle ✓
- Travel with Other Staff ____
- Commercial Transportation ____

→ Checked airfare rates (attached)

Travel Date(s)
- Departure Date/Time 10/26 7:00am
- Return Date/Time 10/30 8:00pm

Official Dates for Conference/Meeting/Activity (attach agenda/documentation if available)
10/27-30/24

Out of County Travel (attach copy)
- Submitted to DEA ✓
- Approved by DEA ___

Out of State Travel (attach copy - 30 day advance request required)
- Submitted to DEA ✓
- Approved by DEA ___
- Submitted to Commissioners Court _____

Anticipated Expenditures
- Registration Fee granted scholarship! (savings of $635)
- Lodging $1036.89 approx.
- Meals any note covered
- Other mileage (approx $608.36)

Agent Signature [signature] Date 8/7/24

County Administrator Signature [signature] Date 8/9/2024

(Attach completed request to County Travel Authorization Request)

Log in Español

would still need rideshare

OCT 26 - 30
LBB → TUL

Trip & Price Details

Price Payment Confirmation

Flight Modify

Sat 10/26	# 3228 / 1309	LBB 7:25 AM →	TUL 1:50 PM	6 hr 25 min	1 stop	Anytime
Wed 10/30	# 1073 / 4766	TUL 6:30 PM →	LBB 9:40 PM	3 hr 10 min	1 stop	Anytime

Price per Passenger	$590.47
Taxes and fees per Passenger	$93.49
Total per Passenger	$683.96
Passenger(s)	x1
Flight total	**$683.96**

or from $67/mo* with uplift Learn more

Helpful Information:

- All fares and fare ranges are subject to change until purchased and are per person for each way of travel.
- Starting July 1, 2023 (12:00 a.m. CT), for Wanna Get Away® or Wanna Get Away Plus™ reward travel reservations (booked with points): If you do not cancel your reservation at least 10 minutes before the flight's original scheduled departure time, any points used for booking will be forfeited, along with any taxes and fees associated with your reward travel reservation. For Anytime or Business Select® reward travel reservations: the points used for booking will be redeposited to the purchaser's Rapid Rewards® account, and any taxes and fees associated with the reward travel reservation will be converted into a Transferable Flight Credit™ for future use.
- Cash + Points bookings will not earn Rapid Rewards points, tier qualifying points for A-List or A-List Preferred status, or Companion Pass qualifying points.

Flight Extras

Upgrade to Business Select®

Prices shown per passenger, per one-way.

- ✔ Get a guaranteed **A1-A15** boarding position
- ✔ **12** Rapid Rewards points per dollar per qualifying flight[11]
- ✔ Free Inflight Internet[12]

*Please read the fare rules associated with this purchase.

- ○ **Upgrade departing trip for $51**
- ○ **Upgrade returning trip for $50**
- ○ **Upgrade both for $101**

Apply upgrade

Flexibility comes with every fare.

Two bags fly free®.[1]

No change[2] or cancel[3] fees. Change your flight later without a fee. Fare difference may apply.

[1]1st and 2nd checked bags Weight and size limits apply. [2]Fare difference may apply. [3]Failure to cancel a reservation at least 10 minutes prior to scheduled departure may result in forfeited flight credits.

BAG FEE *	$0.00
SUBTOTAL	$590.47
TAXES & FEES	$93.49
TRIP TOTAL	**$683.96**

Show price breakdown

YOU PAY TODAY	$683.96
CREDIT ON YOUR STATEMENT	-$200.00
TOTAL AFTER STATEMENT CREDIT	**$483.96**

Not ready to buy yet? Save this flight for later.

*1st and 2nd checked bags fly free®. Weight and size limits apply.

Log in for faster checkout | Continue

By clicking 'Continue', you agree to accept the fare rules and want to continue with this purchase.

Add a Car

Products not confirmed until purchase.

No worries, your flight will remain in your cart while you search for a car.

Add a car

Book now. Pay later!

From $61.86*/day in Tulsa

*Taxes and fees excl. Terms apply.

Book now

PICK-UP LOCATION	PICK-UP DATE	PICK-UP TIME
Tulsa, OK - TU	10/26	3:00 PM
Tulsa, OK - TUL	Sat, Oct 26, 2024	

RETURN LOCATION	RETURN DATE	RETURN TIME
Tulsa, OK - TU	10/30	5:00 PM
Tulsa, OK - TUL	Wed, Oct 30, 2024	

RENTAL COMPANY (Optional): No preference

VEHICLE SIZE (Optional): No preference

Search

Not ready to buy yet? Save this flight for later.

*1st and 2nd checked bags fly free®. Weight and size limits apply.

Log in for faster checkout | Continue

By clicking 'Continue', you agree to accept the fare rules and want to continue with this purchase.

Fare Benefits

Two bags fly free®[1]

First and second checked bags. Weight and size limits apply. A golf bag or skis in a container acceptable to Southwest® can be substituted for one checked bag.

No change[2] or cancel fees[3]

If you need to change an upcoming flight itinerary, you'll only pay the difference in fare (if one applies). Failure to cancel a reservation at least 10 minutes prior to scheduled departure may result in forfeited travel funds.

Flight credit[4]

Flight credits will be issued as long as the flight is canceled at least 10 minutes prior to the scheduled departure. Flight credits don't expire and are non-transferable. For travel booked with Rapid Rewards points: starting July 1, 2023 (12:00 a.m. CT), for Wanna Get Away® or Wanna Get Away Plus™ reward travel reservations (booked with points): If you do not cancel your reservation at least 10 minutes before the flight's original scheduled departure time, any points used for booking will be forfeited, along with any taxes and fees associated with your reward travel reservation.

Transferable Flight Credit™[5]

Transferable Flight Credit™ will be issued as long as the flight is canceled at least 10 minutes prior to the scheduled departure. Transferable Flight Credit can be transferred between Rapid Rewards® Members. Only one transfer is permitted. For bookings made through a Southwest® Business channel, there is a limitation to transfer only between employees within the organization. Transferable Flight Credits don't expire. For travel booked with Rapid Rewards points: starting July 1, 2023 (12:00 a.m. CT), for Wanna Get Away® or Wanna Get Away Plus™ reward travel reservations (booked with points): If you do not cancel your reservation at least 10 minutes before the flight's original scheduled departure time, any points used for booking will be forfeited, along with any taxes and fees associated with your reward travel reservation.

Free same-day change/standby[6]

Same-day change: On the day of travel, you can switch free of airline charges to another flight with space available departing on the same calendar day between the same origin airport and destination airport as your original flight. With the exception of A-List Preferred and A-List Members, Customers who purchase Wanna Get Away fares are not eligible for free same-day change.

Same-day standby: You can list for same-day standby on an earlier flight via a Southwest Customer Service Agent at the airport or the Southwest app or mobile web. You will receive a message based on the contact preference selected during booking if you are cleared on the flight.

For both same-day change and same-day standby, you must change your flight or request to be added to the same-day standby list at least 10 minutes prior to the scheduled departure of your original flight or the no-show policy will apply. If using the app or mobile web for standby, you must list your name 30 minutes ahead of scheduled departure. You will be required to pay any government taxes and fees associated with these itinerary changes but refunds will be provided. Your original boarding position is not guaranteed. Southwest Business Customers booked through travel agencies may need to see a Southwest agent at the airport for both a same-day change or standby listing. See southwest.com/standby for more details.

Refundable[7]

As long as you cancel your reservation at least ten (10) minutes prior to the scheduled departure of your flight. If you cancel, you're eligible to receive 100% of your ticket value as a refund to your original form of payment. A Southwest flight credit from a previous reservation that is applied toward a Business Select or Anytime fare will be refunded as a Transferable Flight Credit. For travel booked with Rapid Rewards points, if canceled, points will be returned to the Rapid Rewards account holder who booked the ticket.

*Starting July 1, 2023 (12:00 a.m. CT), for Wanna Get Away® or Wanna Get Away Plus® reward travel reservations (booked with points): If you do not cancel your reservation at least 10 minutes before the flight's original scheduled departure time, any points used for booking will be forfeited, along with any taxes and fees associated with your reward travel reservation.

For Anytime or Business Select reward travel reservation: the points used for booking will continue to be redeposited to the purchaser's Rapid Rewards account, and any taxes and fees associated with the reward travel reservation will be converted into a Transferable Flight Credit™ for future use.

Priority and Express Lanes[8]

Priority and Express Lanes, (where available), can be accessed by Business Select and Anytime Customers and A-List and A-List Preferred Members. Priority Lanes are at Southwest check-in counters, and Express Lanes are at security checkpoints.

EarlyBird Check-In®[9]

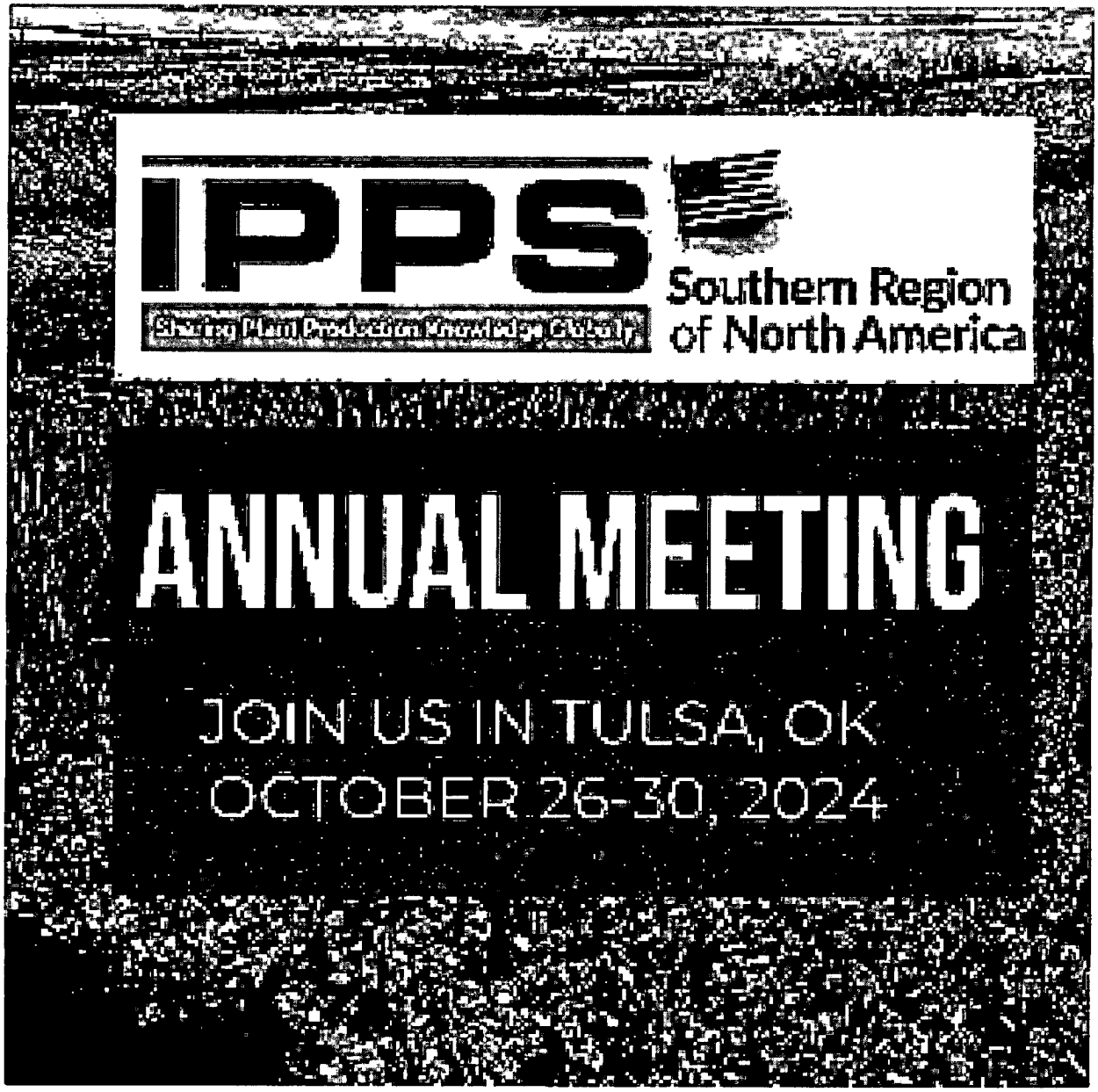
You will automatically be checked in to your flight 36 hours prior to scheduled departure. For Anytime fares purchased between 36 and 24 hours, the boarding position assignment process has begun so this may impact the boarding position assigned to you. If you purchase an Anytime fare within 24 hours of your flight's scheduled departure, you will not receive the EarlyBird Check-In benefit. In an irregular operation situation, the boarding position is not guaranteed.

Events

2024 IPPS Southern Region Annual Meeting: Tulsa, OK

2024 IPPS Southern Region Annual Meeting: Tulsa, OK

26 OCT 2024 - 30 OCT 2024



The IPPS Southern

Region looks forward to welcoming plant production professionals at the annual meeting in Tulsa, OK.

CLICK HERE TO SEE ALL THE 2024 ANNUAL MEETING DETAILS

Register BEFORE 18 September & Save!

Early Rate is only available to active IPPS Members. Register by 18 September 2024.

- EARLY Member Full Registration: $575
- Non Member Full Registration: $635
- Student Full Registration: $185

CLICK HERE FOR MORE REGISTRATION OPTIONS

Schedule at a Glance:

- Saturday 26 October ARRIVE, DINNER ON YOUR OWN
- Sunday 27 October TOURS 7:30AM-8PM
- Monday 28 October EDUCATION, AWARDS BANQUET, LIVE AUCTION
- Tuesday 29 October TOURS 7:30AM-5PM, DINNER ON YOUR OWN, QUESTION BOX
- Wednesday 30 October EDUCATION, MEETING CONCLUDES 12pm central

QUICK LINKS TO MEETING DETAILS:

CLICK HERE TO REGISTER

CLICK HERE TO SEE THE EDUCATION SESSIONS

CLICK HERE TO SEE THE TOUR SCHEDULE

CLICK HERE TO BOOK A ROOM

October 26-30, 2024
Hyatt Regency Tulsa
100 E 2nd St. S, Tulsa, OK

Double Room: $133 plus taxes & fees

Regency Club King $153 plus taxes & fee

Call 877-803-7534 use code G-IP24

Deadline for room block reservations is September 27, 2024.

- Complimentary self parking for overnight hotel guests
- Airport: Tulsa International Airport (TUL)
- Shuttle Service: A complimentary 24-hour round-trip shuttle is available between Tulsa International Airport and the Hyatt Regency Tulsa

THANK YOU MEETING SPONSORS!

Education Sessions

Moderator Session 1: Linda Guy, Plants Nouveau

The Next-Generation of Substrates: All you need to know about new substrate concepts and ideas

SPEAKER: Dr. Jeb S. Fields, Director of Louisiana State University AgCenter Hammond, LA

PROGRAM DESCRIPTION: We are currently in a substrate renaissance. The first major paradigm shift in containerized production occurred in the 1960's, when the first true soilless substrates began to appear on the scene. Since then, substrate practices and materials have been fairly stable. However, we are now experiencing another shift, where social, environmental, and economic implications necessitate major changes to our substrate materials and how we use them. In this talk we will discuss some of the recent exciting advances growers need to know, particularly surrounding wood fiber & other peat alternatives, stratification practices, and temperature management. All with an eye towards supporting growers with practical options to improve crop productivity and reduce costs.

BIOGRAPHY: Dr. Jeb S. Fields is an Assistant Professor & Extension Specialist with the Louisiana State University Agricultural Center, serving the nursery, greenhouse, and landscape industry. He is domiciled at the Hammond Research Station where he is the acting station director and director of the Hammond Trial Gardens. Dr. Fields has become an internationally recognized soilless substrate scientist through his work on nursery and greenhouse production. He leads many national collaborations including research efforts in stratified substrates and serves in leadership roles with various academic and trade associations. In addition to his academic responsibilities, Jeb is the Editor of Nursery and Landscape Insider, a Ball Publishing biweekly e-newsletter that reaches over 32,000 growers, worldwide. His successes have been highlighted with national recognition, receiving the Distinguished Service Award from the Louisiana Nursery and Landscape Association, the ASHS Distinguished Achievement Award in Nursery Crops, and the Southern Region ASHS Young Extension Faculty of the Year award. His career was rooted in agriculture from an early age. Jeb's family has operated an agricultural dealership located in central Florida since 1965, and he spent much of his early life traversing woods and waterways, picking up his Eagle Scout on a path to his current pursuits. His interests in environment and agriculture led to his pursuit of a B.S. degree at the University of Florida, where he focused on horticulture pursuing his passions. He then set forth to North Carolina State in pursuit of a M.S. degree followed by a Ph.D. at Virginia Tech.

SPEAKER: Mike Serant, President – MicroLife Organic Biological Fertilizers

PROGRAM DESCRIPTION: No matter how small or how large each growing container is, from 1" cells to 100 gal buckets they all have ecosystems. These ecosystems, when developed well, will improve plant growth and reduce plant problems. All inexpensively done. The end results are healthier plants to market quicker with reduced production cost. We will look at the microorganisms you want present in each of your containers, how to achieve that and how to keep the microbes thriving. When the microbes thrive so do the plants. Along the way we will visit about total plant nutrition and the measurement of energy in plants via a brix instrument.

BIOGRAPHY: Mike Serant, along with his mother, Joyce Serant, started San Jacinto Environmental Supplies in 1984 by selling chemical fertilizers and chemical pesticides to landscape professionals. They quickly realized that most chemical fertilizers are basically junk food for soils and plants which then predicates the need for chemical pesticides. The chemical fertilizers were making the plants sick, and the chemical pesticides were further weaking the soil and plants. Thus, they started their

Organic journey on what is True Plant and Soil Health. This led to manufacturing The MicroLife Organic Biological Fertilizers and Amendments line starting in 1988. MicroLife products, by following Natural Law and The Laws of Nutrition, has shown superior results with horticulture professionals. In 2004, Mike co-founded OHBA, www.ohbaonline.org, a 501-c-3 Organic education nonprofit that focuses on Soil/Plant/Human Health and regularly works with the giants of the industry in the latest in soil biology and plant chemistry. For 20 years, OHBA has been producing outstanding noncommercialized Organic education seminars featuring the brightest women and men in their fields. Mike is happily married to wife Gail of 38 years and has a wonderful son, Michael. Mike in his free time works on his farm, immerses himself in Nature and is a vivacious reader.

Innovative Trends in Irrigation: Enhancing Efficiency in Container Nurseries

SPEAKER: Caleb Saunders, Founder, Canopy

PROGRAM DESCRIPTION: This presentation explores the latest trends and technologies in irrigation, with a focus on container nurseries. We will delve into innovative strategies to optimize water usage, reduce labor and fertilizer inputs, and improve profit margins by producing high-quality plants more efficiently. Drawing from recent IPPS conference insights, advancements in irrigation solutions, plus discussions with growers, we will discuss how integrating weather data, software, and hardware can revolutionize irrigation management. Topics include precision irrigation, cyclic irrigation, and the use of environmental sensors and leachate fraction measurements to achieve sustainable agricultural practices and superior crop yields.

BIOC IPPS Southern Region of North America ers is a fourth-generation farmer, carrying on his family's century-long tradition in agriculture. Raised on a nursery, Caleb gained hands-on experience in plant cultivation and frequently attended trade shows to deepen his knowledge.

Caleb earned a degree in mechanical engineering from Virginia Tech. After graduation, he returned to the family farm, where he assisted in the implementation of a cutting-edge irrigation system based on research from the University of Florida, guided by renowned horticulturists Tom Yeager and Jeff Million.

With over a decade in the software industry, Caleb has developed expertise in implementing and building software solutions. His journey has come full circle as he now applies his technological skills to revolutionize irrigation practices in agriculture.

As the founder of CanopyGrow.tech, Caleb merges his farming background and technology expertise to create optimized irrigation solutions. These innovations save water, reduce fertilizer and labor costs, and improve crop yields. Leveraging advanced research and the extensive experience of Saunders Brothers, Caleb and his team are developing scalable solutions to meet the needs of modern nursery operations.

Caleb's unique blend of agricultural heritage, engineering acumen, and software proficiency positions him as an innovative leader in irrigation technology, dedicated to enhancing the efficiency and sustainability of plant nurseries.

The Charles Student Research Competition Sessions

Moderator Session 2: Dr. Mack Thetford, University of Florida

First Student Presentation

Second Student Presentation

Third Student Presentation

Fourth Student Presentation

Moderator Session 3: John Davy, Panhandle Growers, Inc.

ⓘ stainability and Horticulture Plastics: Current and Emerging Environmental and Regulatory Challenges

SPEAKER: ector of Sustainable Solutions at The HC Companies

PROGRAM DESCRIPTION: A growing body of evidence and public concern over environmental impacts of plastic pollution and the potential human health impacts of microplastics is driving regulatory actions at international, federal, state, and local levels. These regulations are intended to control the composition and application of plastic products, drastically increase recovery and recycling rates, and prevent misleading or false environmental claims about plastics. These current and coming regulations can apply to plastic manufacturers, propagators, growers, retailers, and marketers in various geographical regions in many different ways. It will become increasingly important for all companies in the horticulture value chain to understand the potential environmental impacts of plastics and how their operations must adjust to how plastics will be managed in the future.

BIOGRAPHY: Tom Marting is the Director of Sustainable Solutions for the HC Companies. HC Companies is the leading producer of horticulture containers in North America serving greenhouse, nursery, and retail markets. At HC Companies Tom leads the research and development efforts for environmentally sustainable innovations, advocates for sustainability across the value chain, and advances the company's sustainability strategies. He holds a Bachelor of Science in Chemical Engineering from Ohio University.

Tom was recognized in 2015 by the City of Akron, Summit County, and Greater Akron Area Chamber of Commerce as a Summit of Sustainability Change-maker Award winner. He and his co-author Dr. Emily Kennedy won Research and Technology Management's 2017 Maurice Holland Award for their work in applying biomimetic design for sustainable innovation. Tom was honored in 2019 as a member of Environmental Leaders and Energy Management Today's E + E 100 List.

Drone Applications for Nurseries

SPEAKER: James Robbins, Ornamental Hort Services

PROGRAM DESCRIPTION: This talk will focus almost entirely on how drones may be used in nurseries. Applications include: sales & marketing, crop monitoring, chemical applications, asset tracking & management, and plant inventory, including an update on our efforts using RFID tags. The talk will also emphasize options that growers have to accomplish these tasks. This presentation should help participants make improved decisions when considering using drones.

BIOGRAPHY: Dr. Robbins has a unique blend of academic (28 years) and nursery industry experience (9

years etirement in January 2022, Dr. Robbins was an Extension specialist in commercial ornar y of Arkansas. His role was to support all Green Industry businesses including garden centers, wholesale growers, and landscapers. His research program focused primarily on nursery production related issues (e.g. automation, growing media, fertilizer, weed control) and woody plant evaluation. For the past 14 years he has been primarily focused on applications for drones in nursery production. Dr. Robbins currently operates Ornamental Hort Services out of Little Rock, AR.

Getting it right: Improving your success with pre-emergence herbicides

SPEAKER: Steve Larson, Greenhouse and Nursery Specialist with ENVU

PROGRAM DESCRIPTION: Controlling weeds in a nursery operation is the number one pest management expense when you add up chemical costs, application labor & equipment, hand-weeding labor, and periodic spot treatment of emerged/escaped weeds. Foundational to an effective weed control program is the use of properly selected pre-emergence herbicides. Choosing the right products for your nursery, applying them accurately, and employing the latest strategies will ensure an optimal outcome. In this talk we will cover proper processes to calibrate & apply granular pre-emergence herbicides, and we will cover the latest research on application timing.

BIOGRAPHY: During his 45+ years in the T&O industry, Mr. Larson has worked as a grower, in technical sales, marketing, and technical support. He has worked in container nursery production, greenhouse crop production, and a variety of technical roles while working for Hines Nurseries, The Scotts Company (formerly Grace-Sierra), BASF, and Envu (formerly Bayer). Currently, Steve is the GH & Nursery Sales Specialist for Envu, covering the Central US. He earned his Bachelors & Master of Science degrees in Horticulture from Purdue University.

Moderator Session 4: Mengmeng Gu, Colorado State University

Rose Rosette Disease – Where from? What now?

SPEAKER: Kevin Ong, Professor & Associate Dept Head, Plant Pathology & Microbiology, Texas A&M University

PROGRAM DESCRIPTION: Rose Rosette Disease (RRD) caused by the rose rosette virus is a North A ⓘ ican disease first reported over 75 years ago. A quick historical walk to explore the epidemics of this disease, and knowledge learned over those years. And an update of current strategies to prevent the spread

of this practices during rose propagation.

BIOGRAPHY: Dr. Ong currently serves as the Associate Department Head in the Department of Plant Pathology & Microbiology at Texas A&M University in College Station, overseeing its extension programs. His areas of expertise include plant diagnostics, diseases of ornamentals and tree fruits. He received his PhD in Plant Pathology from Clemson University and joined Texas A&M in 2002 as the Extension Urban Plant Pathologist based at the Dallas Research & Extension Center. In 2008, he moved to College Station to direct the Texas Plant Disease Diagnostic Lab at Texas A&M College Station (TPDDL). The Extension Plant Pathology & Microbiology (ExtPLPM) unit that he leads provide plant health support, both education and practical to stakeholders in Texas and beyond. Dr. Ong continues to work with Texas Department of Agriculture and the USDA-APHIS-PPQ in areas related to pest/pathogen management and quarantines. His applied research interests include the development and optimization of pathogen detection methods; and development and implementation of best management practices to minimize and/or manage disease incidences. His recent applied research programs include works in rose diseases and virus tested roses (National Clean Plant Network Rose) and seed health testing methodologies for ToBRFV on tomatoes and peppers.

AQUA4D: Unleashing the true Potential and Power of Water

SPEAKER: Jeff Nunes, US Agronomy Manager for AQUA4D US LLC

PROGRAM DESCRIPTION: AQUA4D Technology revolutionizes nurseries and plant propagation by enabling irrigation with saline water and cultivation in saline soils, while mitigating water wastage, brine generation, and high energy costs. Its unique approach enhances the dissolution of mineral and organic particles in water, facilitating optimal hydration and nutrient absorption for plants. By addressing soil salt accumulation, it improves water penetration and retention in the soil, fostering healthier plant growth. The technology's resonance frequency manipulation reduces water molecule cluster size, restoring water's natural properties for efficient irrigation. Unlike traditional methods like Reverse Osmosis (R.O.), AQUA4D produces no wastewater, eliminates brine generation, and reduces electricity and maintenance costs, making it environmentally friendly and cost-effective. For nurseries and plant propagation, AQUA4D offers a sustainable solution to overcome challenges posed by saline water and soils. It ensures consistent water quality and availability, promoting robust root development and vigorous plant growth. With AQUA4D, nurseries can optimize resources, improve crop yield, and enhance overall productivity while contributing to environmental conservation.

BIOGRAPHY: Jeffery Lee Nunes, born in 1978, is a visionary figure in agriculture. Hailing from the heart of

Califc his passion for technology with a deep-rooted commitment to sustainable farming practi[illegible] experience in alternative agricultural practices, he pioneered agricultural startups, integrating cutting-edge innovations to optimize crop yields while minimizing environmental impact. Nunes' ethos revolves around community empowerment, advocating for small-scale farmers and equitable access to resources. His philanthropic endeavors extend to rural development projects, fostering agricultural resilience worldwide. Nunes' legacy embodies the harmonious blend of technology, tradition, and stewardship, shaping a greener, more prosperous future for generations to come.

Leaf Sap Analysis for Plant Resilience

SPEAKER: David Knaus, President & Founder of Apical Crop Science LLC

PROGRAM DESCRIPTION: Discover the power of Leaf Sap Analysis, an emerging tool reshaping global horticulture. With a decade of success in diverse growing environments, it fine-tunes fertilization strategies by analyzing plant fertilizer and mineral flows.

Join the founder and President of Apical Crop Science for an in-depth exploration of integrating leaf sap analysis into professional growing environments. Learn how it enhances plant performance and resilience to stress by addressing issues like overfertilization, nutrient runoff, and cultivar preferences.

BIOGRAPHY: David Knaus is the President and Founder of Apical Crop Science LLC, an ag-tech company that combines laboratory analysis, smart data management, and sustainable growing products to provide growers with the tools they need to grow high-yielding crops organically. As a successful farmer, college instructor, and professional crop advisor for over 10 years each, he offers a unique perspective into the challenges farmers face, and how to use the best of academic research and laboratory analytics to drive smart in-field decision-making that has helped growers across the country and internationally.

Wednesday 30 October 2024 Education Sessions

Moderator Session 5: Todd Lasseigne, Bellingrath Gardens and Home

Unlocking Crop and Facility Potential With Water Treatment

SPEAKER: Justin Leavitt, Business development manager at Moleaer, Inc.

PROGRAM DESCRIPTION: Oxygen plays a pivotal role in achieving optimal plant health and irrigation water q[illegible]y. We'll dive into the science behind the different forms of oxygen, including nanobubbles, and how oxygen concentrations impact stored water ponds and tanks, facilities, and crops. Learn how oxygen

oxygen concentrations impact stored water ponds and tanks, facilities, and crops. Learn how oxygen nanol IPPS Southern Region of North America chieve elevated, stable levels of oxygen while providing an array of additional benefits for operational efficiency and sustainability.

BIOGRAPHY: Justin brings over 8 years of sales experience in horticulture to Moleaer. Previously, he served as Sales Manager at BioBee, specializing in crop protection, and as IPM Manager at Costa Farms. Justin holds a horticulture degree from North Carolina State University, where he found passion in greenhouse production. His background blends academic knowledge with practical expertise, making him adept at navigating the complexities of horticultural science. Justin's commitment to bringing innovation to horticulture markets aligns with Moleaer's mission to revolutionize agriculture through nanobubble technology.

Managing Plant Nutrition for Resistance to Pests and Diseases

SPEAKER: Jason Stoll, Sales Consultant at Advancing Eco Agriculture

PROGRAM DESCRIPTION: In this presentation, I will explore the concept of plants possessing both passive and active immune responses to insect pests and diseases. We will delve into strategies for managing nutritional balance to ensure optimal plant health and discuss the crucial role microbes play in enhancing plant resilience.

BIOGRAPHY: Jason Stoll is a dedicated agricultural consultant committed to improving farm economics, regenerating soil health, enhancing plant health, and reducing pest and disease pressure. As a consultant for Advancing Eco Agriculture, Jason leverages his extensive background in farming and horticulture to provide valuable insights and support to farmers and horticultural professionals.

From a young age, Jason was deeply involved in agriculture, managing his own vegetable plot and keeping bees by the age of thirteen. By his twenties, he was overseeing irrigation and fertilizer application on his family's vegetable farm. His passion for promoting sustainable farming practices led him to a marketing role at a local organic produce co-op and later to positions as sales and general manager at HOPE Produce, where he managed the sale of a diverse array of organic vegetables.

Seeking to broaden his impact, Jason joined Advancing Eco Agriculture, where he now assists numerous farmers in adopting regenerative agriculture practices. His dedication to helping farmers grow better food while maintaining ecological balance is evident in his work.

Clean Crops Start With Clean Props

SPEAKER: Max Gilley, MidSouth Technical representative at Biosafe Systems, LLC

PRO(Most operators know that clean crops start with clean props, but how do you maintain a clean propagation area in a modern horticultural setting? Learn how to clean and disinfect growing areas and let automation and reduced-risk chemistry replace brooms and dustpans. Examine propagation's most chronic pathogens and how to manage each pest specifically. Start your clean crop with cutting dips, soil surface algae management, and foliar disease control tips. Execute efficient disinfection programs for hard surfaces, floor algae, recycled trays/pots, irrigation water, and line shocking. Identify vulnerabilities in your operation's procedures and fill the gaps with sustainable solutions.

BIOGRAPHY: BioSafe Systems has a hand in all facets of agribusiness and for 25 years has been promoting sustainable practices for agricultural and horticultural crop protection, water treatment, soil management, and sanitation. Max Gilley is a technical sales representative for BioSafe Systems currently covering the MIdSouth Territory of MO KS, AR, OK, MS, LA, and Texas. A Missouri native with a B.S. in Plant Science (University of Missouri) and M.S. in Plant Pathology (Mississippi State University); Max has 10 years of experience working with operators in a number of horticultural settings. When not helping growers, Max enjoys the outdoors by fishing, floating, and camping.

Moderator Session 6: Jenny Ryals, Mississippi State University

The Role of Entomopathogenic Nematodes

SPEAKER: Lee Hanson, Research & Development Director, Asymmetry Technologies

PROGRAM DESCRIPTION: Nematodes are microscopic, worm-like organisms that live in various environments, including soil and water. Entomopathogenic nematodes (EPNs) are a special type that naturally hunt and kill insect pests, protecting crops and plants. They offer several benefits:

Natural Pest Control: EPNs specifically target harmful insects, leaving beneficial insects, humans, and animals unharmed.

Environmentally Friendly: They naturally decompose without leaving dangerous residues or harming the environment.

Effective in Hard-to-Reach Places: EPNs move through soil to find pests hidden in places that pesticides can't reach.

Reduced Resistance: Pests struggle to develop resistance to EPNs, which are adaptable living organisms.

Sustainable: Using EPNs helps keep soil healthy and productive over time. This makes EPNs a great

op[illegible] safer, more sustainable pest control solutions.

BIOC[illegible]irector for Asymmetry, Lee is responsible for QA/QC and experimental design, in addition to overseeing all facets of the lab and fermentation. His experience with industrial biotech and fermentation dates back to 1994. After earning his degree in microbiology from Georgia State University with a minor in chemistry, Lee worked as a formulation chemist and operations manager at two of the leading industrial compounding companies in the southeast.

Lee launched his first company in 1994, which was focused on industrial biotech and fermentation. He then joined with key industry partners, to build a successful industrial biotech company in the Metro Atlanta area. After selling that company in 2008 and enjoying a brief hiatus, Lee once again teamed up to launch Asymmetry Technologies, a research driven company focused on providing inventive and novel solutions for real world challenges facing the Agricultural, Horticulture and Soil Science industries.

Air Root Pruning: The Latest and Greatest Step Forward in Propagation

SPEAKER: Chris Murphey, Rediroot

PROGRAM DESCRIPTION: Modern propagation of trees and shrubs has evolved over the years. From humble beginnings of raised beds with misters and hog wire hoops overtop, sand beds on the floor of greenhouses, boxes with all sorts of substrate combinations, the ubiquitous 2" rose cups up to the still popular economic blow molded plastic single use trays. To this day nurseries use all of these methods for a multitude of justifiable reasons.

Over the past 40 years advancements in technology have provided many breakthroughs to improve propagation results. These breakthroughs include improved understanding of the role of hormones, wide array of substrate options available nearly nationwide, great advancements in irrigation options for the greenhouse environment and recently an increased focus on the potential role of light manipulation.

For this presentation we will explore the significant advancements made in the area of root modification in the propagation phase of plant production, specifically the options available today for producing plants with healthy, well branched, non-circling root systems that will result in production advantages down the road, giving your plants a much better opportunity to move through production with high survival rates, rapid growth and a long life in the ground somewhere!

BIOGRAPHY: Graduated from the University of Tennessee in 1983 with a Bachelor of Science degree in O[illegible]mental Horticulture and Landscape Design. My career path down the 'Yellow Brick Road' of the Green Industry has included stops as estimator/buyer for landscape contractors; marketing, sales and logistics for

large production; production manager for B & B farms; owner/operator of a small landscape company, production and marketing of compost and vermicompost; and for the past 8 years sales, marketing and design of root enhancing products for the nursery industry. I live in middle Tennessee with my wife Beth, have 4 children, 3 grandchildren, a house full of critters and a yard full of flowers. I can be reached at chris@rediroot.com.

Moderator Session 7: Jim Crockett, Nufarm

International Delegate Report: A South African Adventure

SPEAKER: Laura Miller

IPPS International Exchange Program 2023 : Southern Region North America to Europe

SPEAKER: Teagan Holly Young, University of Florida

Looking Forward to Orlando in 2025

SPEAKER: Todd Gentry, Cherry Lake

7:30 am: load buses

7:45 am: leave hotel, travel to Greenleaf Nursery in Fort Gibson (51 min)

8:45 am: tour Greenleaf Ft. Gibson (1 hr)

9:45 am: load buses

10:00 am: travel to Sooner Plant Farm (30 min)

10:30 am: tour Sooner (1 hr)

11:30 am: load buses

11:45 am: travel to Greenleaf Nursery in Park Hill (10 min)

12:00 pm: LUNCH at Greenleaf

1:00 pm: tour Greenleaf (1.5 hours)

2:30 pm: load buses

2:45 pm: travel to Sugartree Nursery (45 min)

3:30 pm: tour Sugartree Nursery (1 hr)

4:30 pm: load buses

4:15: travel to Tulsa Botanic Garden (1 hour, 15 min)

5:30 pm: tour/dinner/drinks at Tulsa Botanic Garden (2 hr)

7:30 pm: load buses

7:45 pm: travel to hotel (15 min)

8:00 pm: arrive at hotel

Tuesday 29 October Tour Schedule

7:30 am: Load buses

7:45 am: travel to Philbrook Museum of Art (15 min)

8:00 am: tour Philbrook Museum of Art garden (1 hr)

9:00 am: load buses

9:15 am: travel to Sanders Nursery (40 min)

9:55 am: tour Sanders (1 hr)

11:00 am: load buses

11:15 am: travel to Gathering Place (45 min)

12:00 pm: arrive at Gathering Place, distribute box lunches

1[illegible] pm: Lunch

12:30 pm: tour Gathering Place (1.5 hr)

2:00 | 2:15 | d production facility (20 min)

2:25 pm: tour Southwood production facility (45 min)

3:10 pm: load buses

3:20 pm: travel to Southwood Garden Center (10 min)

3:30 pm: tour Southwood Garden Center, Happy Hour (beer, wine, non-alcoholic drinks)

5:00 pm: load buses

5:10 pm: travel to hotel (20 min)

5:30 pm: arrive at hotel, dinner on your own (take a student to dinner night)

8:00 pm: Ice-cream Social and Question Box

Sunday Tour Stop Descriptions

Greenleaf Nursery

Founded in 1945, Greenleaf Nursery is one of North America's largest wholesale nursery growers, with four locations (Oklahoma, Texas, and North Carolina). Greenleaf produces over 8,000 cultivars of plants, including broadleaf evergreen and deciduous shrubs, 70+ cultivars of ornamental grasses, shade, and ornamental trees, as well as a color program featuring annuals, perennials, and tropical plants. Between all locations, their nurseries are nearly self-sufficient in propagation. Their primary markets in the U.S. and Canada are retailers, wholesale distribution centers, and landscapers. The Fort Gibson location produces bare-root deciduous trees and shrubs for high-quality liners destined for larger container sizes. The Park Hill location produces container-grown plants on a beautiful site adjacent to Lake Tenkiller, making water management a crucial nursery component.
https://www.greenleafnursery.com/

Sooner Plant Farm

Founded in 1999 by Brian and Marsha Chojnacki, Sooner Plant Farm specializes in mail-order plants (direct to consumer). The nursery produces over 4,700 cultivars of popular landscape plants as well as hard-to-find and rare cultivars in quarts (perennials), 1-gal, 5-gal (5 to 6-foot trees), and 7-gal (shrubs). Pioneers in e-commerce, Sooner Plant Farm's online sales website was launched in 2004 and proved to be such a strong market that the nursery began focusing exclusively on online s[illegible], in 2007. Partnering with FedEx Ground, they perfected their shipping methods and are now a

top-ranked internet nursery retailer. https://www.soonerplantfarm.com/

Sugartree Nursery

Sugartree was founded in 1994 by Daryl and Deborah Bailey in Hulbert, OK, producing container-grown trees for local field growers. Purchased in 2015 by Scott and Bethany Maxwell; production was expanded, and container-grown shrubs, grasses, and perennials are now produced for regional rewholesalers and select retailers. The 40-acre facility contains 350,000 sq ft of covered overwintering houses with 15,000 sq ft of propagation space. No supplemental heating is used on the nursery. All shipping is handled by Sugartree. The crop mix of landscape plants currently consists of 676 varieties (238 shrubs, 86 grasses, 350 perennials).

Tulsa Botanic Garden

Tulsa Botanic Garden is an all-season oasis blooming in the rolling hills just 8 miles northwest of downtown Tulsa. A 2012 master plan envisions 60 acres of developed gardens and facilities contrasting with the remaining 110 acres of natural beauty. The A.R. and Marylouise Tandy Floral Terraces opened in 2015 and features themed terraces on a natural hillside with a central water feature surrounded by seasonal display beds and beautiful art deco design elements. The Children's Discovery Garden is a wonderland for kids of all ages with the iconic Spring Giant, carnivorous plants, Sensory Walk, Hummingbird Walk, Tree Fort and Round Pond. The Lakeside Promenade gracefully encompasses a seven-acre lake, and the Cross Timbers Trail provides a 1mile hike through the native prairie and forest. In July 2023, The Bumgarner Family Foundation Lotus Pool and Stanford Family Liberty Garden opened. The Jim and Cherry Bost Arboretum will open in October 2024. https://www.tulsabotanic.org/

Tuesday Tour Stop Descriptions

Philbrook Museum of Art

The Philbrook Museum of Art is a premier destination for cultural engagement and garden delight. Opening in 1939, it features a historic home, a world-class art museum, and 25 acres of gardens. The Philbrook Collection features more than 16,000 objects focusing on American, Native American, and European art. On-site growing facilities include a small greenhouse for propagation and overwintering tropical and stock plants. https://philbrook.org/

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Sanders Nursery and Distribution

San tribution is one of Oklahoma's largest and most respected nurseries, building upon the traditions of superior quality, fair pricing, and great service. The business sells retail and wholesale plants by offering extensive plant selections locally. Many products are produced on-site, including field-grown trees and container-grown annuals and perennials in greenhouses. Ever-changing to meet needs and opportunities, the nursery has recently added new specialty crop production areas (vegetables and cut flowers), demonstration gardens, and agritourism features. https://www.sandersnurseryok.com/

Gathering Place

Gathering Place, an award-winning 66.5-acre park along Tulsa's riverfront, opened in 2018. Recently named USA Today's Best City Park of 2024 and recognized as a top 100 unexpected travel destination by National Geographic, Gathering Place is a free park for all. From weekly educational programs and high-production events to boat rides on the pond and access to world-class playgrounds, sports courts, a skate park, and a BMX pump track, visitors can experience the magic of Gathering Place at no cost. The park boasts an impressive natural landscape, featuring 1.2 million plants of 400 species, more than 6,000 trees, and 16 acres of prairies. All of Oklahoma's ecological regions are represented in various gardens throughout the park, including prairies, wetlands, and forests. https://www.gatheringplace.org/

Southwood Landscape and Garden Center, Growing Facility

Southwood opened its doors in the spring of 1982 as a small landscape design-build firm and grew into a full-scale garden retail, landscape services, and plant production business. The garden center encompasses 5 acres and includes a 25,000-square-foot, state-of-the-art greenhouse. The nearby greenhouse production facility grows many of the garden center's products, including pansies, roses, mums, and summer annuals. It continues to be a family-run operation, headed by native Tulsans Margaret Schulte and Brenda Baird, daughters of founders Joe and Ginny Schulte. https://southwoodgardencenter.com/