

# CONFERENCE PROGRAM

**IT'S TIME TO CELEBRATE**

**YOUR GREAT PERFORMANCE  
THROUGH TOUGH TIMES**



CAROLINAS GCSA CONFERENCE & TRADE SHOW  
MYRTLE BEACH • MYRTLE BEACH CONVENTION CENTER  
NOVEMBER 15 – 17, 2021

# EARLY ORDER PROGRAM

AUTHORIZED DISTRIBUTOR | MAXIMIZED SAVINGS IN OCTOBER | EXTENDED PAYMENT TERMS

## LOCATIONS

### **TRIAD**

#### **CORPORATE HEADQUARTERS**

5204 HIGHGREEN COURT  
COLFAX, NC 27235  
(336) 855-6363

### **CHARLOTTE**

10404 GRANITE STREET, STE K  
CHARLOTTE, NC 28273  
(704) 927-3100

### **COASTAL**

2407 OCEAN HWY, WEST  
SHALLOTTE, NC 28459  
(910) 363-1230

### **TRIANGLE**

1218 MANGEMENT WAY  
GARNER, NC 27529  
(919) 779-4727

### **WINSTON**

191 BUDD BLVD  
WINSTON SALEM, NC 27103  
(336) 793-9230

### **CHARLESTON**

9492 HAMBURG ROAD  
CHARLESTON, SC 29456  
(854) 999-4039

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# 2021 CAROLINAS GCSA CONFERENCE AND TRADE SHOW

..... #carolinasshow2021 .....

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JRM Inc.....	Inside Back
John Deere.....	Back Cover



## 2021 CONFERENCE & SHOW COMMITTEE MEMBERS

**Chuck Connolly**, *Smithfields Country Club - Chairman*  
**Pete Gerdon**, *Grandfather Golf and Country Club*  
**Daryl Ewing**, *Carolina Lakes Golf Club*  
**Don Garrett, Jr.**, *CGCS, The Walker Course at  
Clemson University*  
**Erik Guinther**, *CGCS, Roaring Gap Club*  
**Brian Stiehler**, *CGCS, MG, Highlands Country Club*  
**Daniel Knight**, *Grandover Resort*  
**Travis Gannon, Ph.D.**, *NC State University*  
**Bert McCarty, Ph.D.**, *Clemson University*  
**Jim Kerns, Ph.D.**, *NC State University*  
**Joe Roberts, Ph.D.**, *Clemson University*  
**Fred Yelverton, Ph.D.**, *NC State University*  
**Tyler Riggin**, *Director, Regional Affairs, Southeast,  
USGA*  
**Tim Kreger**, *Executive Director, Carolinas GCSA*  
**Angie Davis**, *Office Manager, Carolinas GCSA*  
**Melissa Smith**, *Membership Coordinator, Carolinas  
GCSA*  
**Trent Bouts**, *Tee Media Consulting*

# A MESSAGE FROM OUR PRESIDENT



Talk about long time no see! This year's Carolinas GCSA Conference and Trade Show marks the first major in-person industry gathering since the Golf Industry Show in February of 2020. And I can't wait.

I can't wait for the golf, the education, the trade show, and of course I can't wait to see - and celebrate with - friends and colleagues again. I say "celebrate" because everybody on the golf course maintenance side of our industry has reason to be proud.

Clearly, the world endured immense challenges since we last gathered for our "show" in November of 2019 and the golf industry was not immune. Yet, as golf course maintenance professionals have done time and again, we adapted and found a way forward.

As a result, golf became a beacon for millions through dark times, and our industry thrived.

All of us - superintendents and our supplier partners - have much to be proud of. We did more than just good business. We also did our communities a great service, preserving jobs and businesses, and providing healthy recreation when it was a critical need.

None of that was easy and it wasn't just the constant cloud of the pandemic. Labor was in even shorter supply than normal, and parts became hard to find. This, at the same time our courses were so full of golfers it was difficult to simply find time to get the work done. But we did get it done, and as a result, many of our facilities are doing better than ever.

So, yes indeed, we can be proud. And we've got the perfect setting to celebrate with the return of Carolinas Night, quite literally, on the Beach this year. We'll have tents, heaters, food, drink and music on the sand at The Dunes Golf and Beach Club on Tuesday evening.

My heart goes out to those individuals and those families who have been severely affected by the virus, whether in terms of health or their economic situation. But at the same time, as Carolinas GCSA president, I am proud to represent a large group of people who did so much to present a safe environment for so many to continue to work and to play over the past 20 months.

I can't wait to see y'all in November.

Brian Stiehler, CGCS, MG  
President Carolinas GCSA  
Highlands Country Club



**Brian J. Stiehler, CGCS, MG**  
*President*



# BOARD OF DIRECTORS

## › OFFICERS



**Vice-President**  
**John W. "Billy" Bagwell**  
Callawassie Island Club  
Okatie, SC



**Secretary-Treasurer**  
**Chuck J. Connolly**  
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Easley, SC



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**Matthew Wharton,**  
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Carolina Golf Club  
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**Chris DeVane**  
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Carolina Lakes Golf Club  
Indian Land, SC



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The Walker Course at  
Clemson University  
Clemson, SC



**Peter Gerdon**  
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Country Club, Linville, NC



**Brian C. Green**  
Lonnie Poole Golf Course  
Raleigh, NC



**Erik Guinther, CGCS**  
Roaring Gap Club  
Roaring Gap, NC



**James Karl Huntoon**  
Heritage Club  
Pawleys Island, SC



**Ryan D. McClannon**  
Reynolds Park Golf Club  
Yadkinville, NC



**W. Alex Tolbert**  
Orangeburg Country Club  
Orangeburg, SC

## HOTEL ACCOMMODATIONS



**Headquarters Hotel**  
**Sheraton Myrtle Beach Convention Center Hotel**  
2101 North Oak Street, Myrtle Beach, SC 29577

**Call 1-888-627-8203 for reservations**

Group Name: CGCSA Attendees 2021  
Carolinas Golf Course Superintendents

**BOOK ONLINE:** <https://www.marriott.com/event-reservations/reservation-link.mi?id=1624458083369&key=GRP&app=resvlink>

**RATES:** \$109 1 King or 2 Double Beds - 2 Adults

\$128 Club Level, 1 King or 2 Double Beds + 16.27% taxes/  
facilities fees

\$5 + Tax Per Night-Self parking in hotel garage

**Cancellation Policy:** At least 3 Days Prior to Arrival or a 1 night  
cancel fee is charged

*The Sheraton MBCC Hotel WILL NOT SOLICIT reservations from past guests.  
If a third party company reaches out to you presenting themselves to be with  
the Sheraton, do not give any personal information or a credit card number.*

## › EXECUTIVE DIRECTOR AND STAFF



**Tim Kreger**  
Executive Director



**Angie Davis**  
Office Manager



**Melissa Smith**  
Membership  
Coordinator



**Kim Clark**  
Local Association  
Coordinator



**Trent Bouts**  
Editor  
Carolinas Green



# SUMMARY OF CONFERENCE AND SHOW

## SUNDAY, NOVEMBER 14, 2021

Assistant Superintendent Social ..... 6 – 9 p.m.  
*Banditos Cantina*

## MONDAY, NOVEMBER 15, 2021

Blue Ridge Breakfast ..... 7 a.m.  
*Mammy's Kitchen*

Registration ..... 7 a.m. – 6 p.m.  
*Hall of Fame*

Golf Championship ..... 11 a.m. Shotgun Start  
*Caledonia Golf & Fish Club, True Blue Golf Club  
and Wachesaw Plantation Club*

Seminar Lunch ..... 11:30 a.m. – 12:30 p.m.  
*Ballroom DE*

Sporting Clay Event ..... 12 p.m.  
*Back Woods Quail Club, Georgetown, SC*

## MORNING SEMINARS • 8–11:30 AM

**1 Making Herbicides Work or Why they Sometimes Fail?**  
*Travis W. Gannon, Ph.D., Associate Professor of Crop  
Science, NC State University*  
*Bert McCarty, Ph.D., Professor of Turfgrass Science,  
Clemson University*

**2 How Much Shade is Too Much Shade?**  
*Mike D. Richardson, Ph.D., Professor of Horticulture,  
University of Arkansas*

**3 Advanced and Cost-Effective Management of Insect  
Pests of Warm Season Turf**  
*Rick L. Brandenburg, Ph.D., Department of Entomology  
and Plant Pathology, NC State University*  
*Matt Martin, Extension Associate, Turfgrass Department  
of Crop and Soil Sciences, NC State University*

**4 Advanced Weed Management – Cool Season Grasses**  
*Fred H. Yelverton, Ph.D., Professor of Crop and Soil  
Sciences, NC State University*  
*Jim T. Brosnan, Ph.D., Professor of Turfgrass Weed  
Science, The University of Tennessee*

## AFTERNOON SEMINARS • 12:30–4 PM

**5 Fundamentals of Wetting Agents**  
*Mike D. Richardson, Ph.D., Professor of Horticulture,  
University of Arkansas*

**6 Cool Season Turfgrass Insect with Emphasis on the  
Annual Bluegrass Weevil**  
*Rick L. Brandenburg, Ph.D., Department of Entomology  
and Plant Pathology, NC State University*  
*Terri Billeisen, Ph.D., Extension Associate, Department  
of Entomology and Plant Pathology, NC State  
University*

**7 Advanced Weed Management – Warm Season Grasses**  
*Bert McCarty, Ph.D., Professor of Turfgrass Science,  
Clemson University*  
*Fred H. Yelverton, Ph.D., Professor of Crop and Soil  
Sciences, NC State University*

**8 Plant Growth Regulators for Fine Warm Season Turf**  
*Jim T. Brosnan, Ph.D., Professor of Turfgrass Weed  
Science, The University of Tennessee*

**9 Understanding the Intersection of Fertility and  
Disease Management**  
*Grady L. Miller, Ph.D., Professor and Extension  
Specialist, Turfgrass Science, NC State University*  
*Joseph A. Roberts, Ph.D., Assistant Professor and  
Extension Specialist in Turfgrass Pathology and  
Nematology, Clemson University*

**10 Understanding Pesticide Behavior to Optimize  
Applications and Minimize Collateral Damage**  
*Travis W. Gannon, Ph.D., Associate Professor of Crop  
Science, NC State University*

Golf Reception ..... 4 p.m.  
*Immediately following golf at True Blue Golf Club*

Exhibitor Move-In for Large Equipment ..... 6 – 9 p.m.

## TUESDAY, NOVEMBER 16, 2021 • 8–11:30 AM

Exhibitor Move-In ..... 7 a.m. – 2:30 p.m.

Registration, Hall of Fame ..... 7 a.m. – 6 p.m.

## MORNING SEMINARS • 8–11:30 AM

**11 Appreciation – A Tool Rarely Used to Motivate**  
*Dean M. Graves, CGCS, The Dean of Turfgrass  
Consulting, LLC*

**12 Getting to the Root of Managing Soilborne Diseases –  
Cool Season Turfgrasses**  
*Brandon J. Horvath, Ph.D., Associate Professor of  
Turfgrass Pathology, University of Tennessee*  
*Gerald (Lee) Miller Jr., Ph.D., Associate Professor of  
Turfgrass Pathology, University of Missouri*

**13 Putting the “Fun” in Fungicides: Fungicide Program  
Development and Dealing with Bugs and Crud Cool  
Season Turf**  
*Jim P. Kerns, Ph.D., Professor and Extension Specialist  
of Turfgrass Pathology, NC State University*  
*Lee Butler, Extension Coordinator of Entomology and  
Plant Pathology, NC State University*

**14 Holy Grail – Warm Season / Cool Season: POA  
Management and Resistance**  
*Moderator: Bo Barefoot, Precision Labs*  
*Travis W. Gannon, Ph.D., Associate Professor of Crop  
Science, NC State University*  
*Bert McCarty, Ph.D., Professor of Turfgrass Science,  
Clemson University*  
*Fred H. Yelverton, Ph.D., Professor of Crop and Soil  
Sciences, NC State University*  
*Jim T. Brosnan, Ph.D., Professor of Turfgrass Weed  
Science, The University of Tennessee*

**15 Tips for Success: How to Survive and Thrive in the  
Turfgrass Industry**  
*Don Garrett, CGCS, The Walker Course at Clemson  
University, Clemson, SC*



- 16 Fraise Mowing – Management and Weed Control**  
*Raymond K. McCauley, Ph.D., Professor of Philosophy – Crop Science, NC State University*  
*Mike D. Richardson, Ph.D., Professor of Horticulture, University of Arkansas*  
*J. Bryan Unruh, Ph.D., Professor of Environmental Horticulture, University of Florida*
- 17 Talent Acquisition and Recruitment Strategies**  
*Tyler G. Bloom, Independent Consultant focused on Search and Workforce Development*
- 18 The 'Other' Essential Elements, and Some that Might Be?**  
*Beth A. Guertal, Ph.D., Professor of Turfgrass Management and Soil Fertility, Auburn University*
- 19 The Challenge of Managing Nematodes in Turf**  
*Bruce Martin, Ph.D., Emeritus Professor of Turf Pathology, Clemson University, Pee Dee Research and Education Center*  
*Joseph A. Roberts, Ph.D., Assistant Professor and Extension Specialist in Turfgrass Pathology and Nematology, Clemson University*

## AFTERNOON SEMINARS • 12:30–4 PM

- 20 Management of Ultradwarf Bermudagrass**  
*Moderator: Jim Huntoon, Superintendent, Heritage Club, Pawleys Island, SC*  
*Jared R. Nemitz, Director of Golf Course Grounds, The Ford and Field River Club, Pawleys Island SC*  
*Jim P. Evans, Director of Agronomy, The Cliffs at Keowee Falls, Salem, SC*  
*Keith C. Wood, Director of Greens and Grounds, Quail Hollow Club, Charlotte, NC*  
*Adam Charles, Superintendent, The Preserve at Verdae, Greenville, SC*
- 21 Aquatic Plant Management: An Introduction to Keeping Your Ponds Free of Unsightly Plants and Algae**  
*Rob J. Richardson, Ph.D., Professor and Extension Specialist, Aquatic and Non-Cropland Weed Science, NC State University*  
*Matthew Cutulle, Ph.D., Assistant Professor of Weed Science, Plant and Environmental Sciences, Clemson University*
- 22 Renovating and Using Roundup? Don't Leave Home Without this Workshop!**  
*Travis W. Gannon, Ph.D., Associate Professor of Crop Science, NC State University*  
*Bert McCarty, Ph.D., Professor of Turfgrass Science, Clemson University*  
*Fred H. Yelverton, Ph.D., Professor of Crop and Soil Sciences, NC State University*
- 23 Carolinas Labor BMP**  
*Tyler G. Bloom, Independent Consultant focused on Search and Workforce Development*

- 24 POA Resistance**  
*Jim T. Brosnan, Ph.D., Professor of Turfgrass Weed Science, The University of Tennessee*
- 25 Getting to the Root of Managing Soilborne Diseases – Warm Season Turfgrasses**  
*Jim P. Kerns, Ph.D., Professor and Extension Specialist of Turfgrass Pathology, NC State University*  
*Joseph A. Roberts, Ph.D., Assistant Professor and Extension Specialist of Turfgrass Pathology, Clemson University*
- 26 Soil Testing and How to Read Your Report**  
*Beth A. Guertal, Ph.D., Professor of Turfgrass Management and Soil Fertility, Auburn University*
- 27 Bunker Construction: How to Avoid Digging Yourself Into a Hole**  
*Adam Moeller, Director, Green Section Education, USGA*  
*Earl Sanders, President, Green Tee Golf, Inc., Paducah, KY*
- 28 Winter Management of Ultradwarf Bermudagrass Putting Greens**  
*Mike D. Richardson, Ph.D., Professor of Horticulture, University of Arkansas*  
*Bruce Martin, Ph.D., Emeritus Professor of Turf Pathology, Clemson University, Pee Dee Research and Education Center*  
*Jordan Booth, Southeast Region Agronomist, USGA*

- Seminar Luncheon .....11:30 a.m. – 12:30 p.m.**  
*Ballroom DE*
- Carolinas GCSA Student Chapter Turf Bowl.....2– 4 p.m.**  
*Ballroom D*
- Student Question and Answer with Assistant Superintendents .....4 p.m. – 4:30 p.m.**  
*(immediately following Turf Bowl)*  
*Ballroom D*
- Trade Show Open ..... 4 – 7 p.m.**
- Carolinas Night on the Beach .....7 - 10 p.m.**

## WEDNESDAY, NOVEMBER 17, 2021

- Registration, Hall of Fame ..... 7 a.m. – 3 p.m.**
- Fellowship Breakfast, Ballroom D..... 7 – 8 a.m.**
- General Education Session, Ballroom E ..... 8 – 11:05 a.m.**
- DSA Presentation, Ballroom E .....11:05 – 11:20 a.m.**
- Annual Business Meeting, Ballroom E.....11:20 – 11:30 a.m.**
- Trade Show Open .....11:30 a.m. – 3:30 p.m.**
- Skin Cancer Screenings.....11:30 a.m. – 3:30 p.m.**  
*Booth # 3701*
- Buffet Luncheon, Exhibit Hall.....12 – 2 p.m.**
- 27-Hole Challenge Prize Giveaway, Exhibit Hall.....3 p.m.**
- Exhibitor Tear Down .....3:30 – 8 p.m.**

\*All seminar locations will be displayed in the registration area.

# DISTINGUISHED SERVICE AWARD 2021

## › Rick L. Brandenburg, Ph.D.

As the only son of an Indiana farming family there was every expectation that Rick Brandenburg would one day take over the keys to the tractor. So, he was nervous breaking the news to his parents that instead he saw his future in science, specifically in entomology, the science of bugs.

"Neither of my folks had more than a basic education, they didn't understand colleges," Brandenburg says. "I remember talking with my dad, telling him what I had in mind. He came up and hugged me and said, 'Go make something out of yourself.'"

"That was one of those profound moments in a young man's life. Not only was he saying it was okay to do it, he was encouraging me to do it. I think of that moment a lot because it literally changed my life. He was saying, 'The sky's the limit, son. Go for it.'"

And go for it he did, and with such success that this November, the Carolinas GCSA will – finally – present Brandenburg with its highest honor, the Distinguished Service Award.

Because of the pandemic, the presentation during the association's annual Conference and Trade Show in Myrtle Beach, SC comes a year later than initially scheduled. But that delay will do nothing to dampen the enthusiasm of those members ready to express their gratitude for his expertise and the ever-gracious manner with which he has applied it in the region since 1985.

That was the year Brandenburg entered his current position as professor of entomology at North Carolina State University. While he grew up in Indiana, the job at NC State was something of a homecoming. Brandenburg obtained his Ph.D. at NC State in 1981 after earning his bachelor's degree in entomology from Purdue University in 1977. He was a faculty member at the University of Missouri from 1981 to 1985.

Initially, in his new role at NC State, golf and turfgrass occupied only about a fifth of his focus, with the balance on



peanuts. But golf was on the ascendant in the mid-'80s and as the game's footprint in the region grew, so did encouragement and support from both the university and the industry. Soon, Brandenburg's turfgrass focus climbed to 50 percent and today it is 75.

Along the way, his research has led to books, countless presentations and carried him to nearly 50 different countries. Among numerous honors, he was made a Fellow of the Entomological Society of America in 2004 and named William Neal Reynolds Distinguished Professor by NC State in 2007. In tandem with NC State colleague, Dr. Fred Yelverton, he worked to establish the Center for Turfgrass Environmental Research and Education at NC State in 2001.

Yelverton is one of a host of colleagues who Brandenburg counts himself fortunate to have worked with, and not only from NC State. In addition to the likes of Drs. Jim Kerns and Art Bruneau, he also treasures long working relationships with Drs. Bert McCarty and Bruce Martin from Clemson University.

"I'm not a surfer but I like to use the analogy of surfing," Brandenburg says. "I came at a time when there were a lot of really positive things happening in the Carolinas. There was incredible growth in golf and turf and lawncare, and at NC State and Clemson. I got to work with all these really good people at a really good time. I got to be on a really good surfboard and ride a really good wave for a long, long time."

Momentum for that wave was generated in part by fellow NC State researchers already honored with the Distinguished Service Award, namely the late Drs. Carl Blake (1993) and Bill Gilbert (1994) and Dr. Leon Lucas (2007).

Away from the lab, Brandenburg says his wife, Janice, whom he married the same year he took his job at NC State has been a steadfast support. The couple has three adult children, one of whom helps produce Turf, Bugs and Rock n' Roll, Brandenburg's Facebook project that shares news and answers questions for more than 2,000 followers.



# CORPORATE PARTNERS

MONDAY GOLF CHAMPIONSHIP	 	WEDNESDAY FELLOWSHIP BREAKFAST	 	27-HOLE CHALLENGE	  
DEACON PARTNER	 <p>"For all golf is and all it can be."</p>	STUDENT TURF BOWL		CAROLINA'S NIGHT ON THE BEACH	 
MONDAY AND TUESDAY SEMINAR EDUCATION		DSA DINNER	 	SOCIAL MEDIA	
SPORTING CLAY EVENT	 	ON SITE COMMUNICATIONS	 	MBCC PARKING SPONSOR	   
TUESDAY SEMINAR LUNCHEON	  	WEDNESDAY BUFFET LUNCHEON	 	TECHNOLOGY STATION	  
EXHIBIT HALL PLANT DESIGNS		SKIN CANCER SCREENINGS	 		
SEMINAR REFRESHMENT BREAKS		REGISTRATION SPONSOR			
A STEP AHEAD		WELCOMING SPONSOR			

# GOLF CHAMPIONSHIP

## MONDAY, NOVEMBER 15, 2021



### › Caledonia Golf & Fish Club



Since opening to the public in January 1994, Caledonia Golf and Fish Club has rapidly gained a reputation as one of the premier courses in America. It is the first solo design of late, great golf course architect Mike Strantz.

Strantz approached his assignments in a unique way—as an artist, rather than an engineer. His exceptionally creative eye is reflected in the way he sculpted Caledonia’s 18 holes, with large, creative greens guarded at times by ponds, streams and imposing bunkers. The same sort of majestic live oaks that overhang the entryway into Caledonia similarly frames many of the shots at Caledonia, giving the course a rustic feel. No houses encumber the interior of the property—the joy of playing golf is left alone by the worry of hitting a ball into someone’s backyard.



### › True Blue Golf Club



True Blue Golf Club, Mike Strantz’s fourth signature golf course, opened to rave reviews in February 1998.

Strantz also designed the award-winning Caledonia Golf & Fish Club, which opened in 1994, on plantation land adjacent to True Blue. For his efforts at True Blue and Caledonia, Strantz was named “Architect of the Year” by Golf World in 1998. Strantz crafted True Blue to echo many of the characteristics of Pine Valley and Pinehurst #2, with an emphasis on maintaining a natural feel to the course. The par-72 course can stretch to 7,126 and sits on the site of historic True Blue Plantation, a famed 19th-century indigo, and rice plantation. Emphasizing the natural beauty of the area, it incorporates native grasses and vegetation to maintain much of the character of the property.



### › Wachesaw Plantation Club



Crafted by internationally acclaimed Tom Fazio, the course was designed to take advantage of the site’s inherent beauty and interesting elevation

changes not typically found in the Carolina Low Country. The fairways are thoughtfully designed to weave through the giant oaks, with beautiful homes unobtrusively tucked out of the way in the wooded landscape. The elevation changes, along with spectacular water and sand hazards, complemented by the unexpected rolling fairways lined with love-grass knolls and grass bunkers, all contribute to the diversity that makes for such an enjoyable, engaging, and never boring experience.



# GOLF CHAMPIONSHIP INFORMATION

## MONDAY, NOVEMBER 15, 2021

In Partnership with



### › Golf Schedule

#### 10 a.m. - 11 a.m. CHECK- IN

All golfers must check in at the Carolinas GCSA Registration Desk at assigned course prior to the shotgun start.

#### 11 a.m. SHOTGUN START

#### 4 p.m. - 6 p.m. RECEPTION

Reception immediately following golf at the clubhouse at True Blue Golf Club

#### COURSE ASSIGNMENTS

All course assignments will be determined one week prior to the event. Course assignments will be posted on the home page of the website, [www.carolinasgcsa.org](http://www.carolinasgcsa.org) and emailed on November 10.

#### › Championship Flight A & B - Medal Play Tournament

- 1st, 2nd, 3rd place Gross & Net
- Overall Gross
- Carolinas GCSA Superintendent Member Champion (Class A, B and C)
- Overall Gross Carolinas GCSA Affiliate Member Champion  
(Limited to first 100 entries for purpose of flighting and speed of play)

#### › Senior Division (age 50 and up) - Medal Play Only

- 1st Place Gross & Net
- Will play in senior flight from senior tees

#### › Four Ball Flights A & B

- Two Person Team Event
- Number of flights based on number of entries (Limited to first 50 team entries)
- 1st, 2nd, 3rd Place Gross & Net

#### › Captain's Choice Flights A & B

- Four Person Captain's Choice Team Event (Limited to first 75 paired entries)
- 1st Place Gross & Net

- › **Tee Gift** - Each participant will receive a black logoed 12 pack cooler. Perfect for back of cart at work or toting along to your favorite non work activity. Has multiple pockets for taking snacks or storing keys and wallet.



- › **Closest to the Hole:**  
1 Yeti Hopper Backflip 24  
1 per course



- › **Longest Drive:**  
Apple Watch Series  
6 GPS Model



#### › Hole in One

- Club Car Carryall 502 utility vehicle, see ad page 13, 1 per course  
Designated to winning individuals home course/club
- Class A, AA, B & C Members Only



### › Hosts

**Jackson E. Clemons, Jr., Director of Agronomy**  
Caledonia Golf & Fish Club, Pawleys Island, SC

**Kevin Thompkins, Golf Course Superintendent**  
True Blue Golf Club, Pawleys Island, SC

**Scott Fretz, Golf Course Superintendent**  
Wachesaw Plantation Club, Murrells Inlet, SC

# GOLF CHAMPIONSHIP GENERAL RULES



## › Eligibility

Players must be registered to attend or participate in the Carolinas Golf Course Superintendents Conference & Show. Superintendents and affiliates will play in mixed foursomes. Contestants will select to play in Medal Play, Senior Medal Play, Four Ball\*, or Captain's Choice\*\* Division.

*\*Four Ball teams sign up with one partner on registration form. If you would like to play in four ball, and do not have a partner, the Carolinas GCSA will assign a partner.*

*\*\*Captain's Choice teams may sign up with ONE partner on the registration form. If you would like to play Captain's Choice, you do NOT have to sign up with a partner, this is just an option.*

## › Tournament Formats

### MEDAL PLAY

- This is a stroke play individual 18-hole golf event.
- Each contestant will play his or her own ball out on each hole and report their score.
- There will be two flights divided by handicap once field is set.

### SENIOR MEDAL PLAY

This is identical to the Medal Play with these exceptions: Only contestants over age 50 are eligible; Only 1st place gross and net will be awarded in this flight; Senior players will play from forward tees except on holes designated for long drive and closest to the pin contests.

### FOUR BALL

- This is a two person team event.
- Both players will complete the hole and then select the better of their scores to report for their score on each of the 18 holes.
- There will be two flights divided by combined team handicap once field is set.
- Each team will play alongside another team selected by the Carolinas GCSA.

### CAPTAIN'S CHOICE

- This is a four person team event.
- Two contestants will be allowed to register together, and your other two players will be paired with you by the Carolinas GCSA.
- All four players will execute their desired shot from the teeing ground, then select the best respective shot, and repeat that process until the ball is holed.
- Only one team score per hole will be counted.
- There will be two flights divided by combined team handicap once field is set.

**LOCATION:** The tournament will be played at Caledonia Golf and Fish Club, True Blue Golf Club and Wachesaw Plantation Club.

**GOLF ENTRY FEE:** Member - \$110 by October 17, \$125 after October 17. Non-member - \$135 by October 17, \$150 after October 17 (Per Player) Entry fee includes green fee, cart fee, prizes and reception. Member Onsite - \$150, Non-Member Onsite - \$175.

**ENTRY DEADLINE:** First 300 players will be accepted. No entries will be accepted after the first 300 players or **October 31, 2021**, no exceptions.

**CANCELLATION POLICY:** The Carolinas GCSA must be notified of any cancellations by Monday, **November 8, 2021** in order to receive a refund.

## › Golf Championship Committee

Billy Bagwell, Callawassie Island Club, Okatie, SC  
Daryl Ewing, Carolina Lakes Golf Club, Indian Land, SC

Any questions should be directed to Tim Kreger, Executive Director, Carolinas GCSA at 800-476-4272.



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Smith Turf & Irrigation  
704-393-8873



**IR** Ingersoll Rand

## Assistant Superintendent Social

Sunday, November 14  
*Banditos Cantina*  
6 – 9 pm



Entertainment  
featuring:  
Daire Barefoot  
and the Siren

Complimentary.  
Please register for  
planning purposes.

**Green  
Resource**



# SPORTING CLAY EVENT

## MONDAY, NOVEMBER 15, 2021

In Partnership with



Back Woods offers two 10 station sporting clay courses, skeet fields, two five stands and a make or break game. Visit the website at [www.backwoodsquailclub.com](http://www.backwoodsquailclub.com) or call the club at 843-546-1466 for more information.

### › Sporting Clay Schedule

**8 a.m. ....CLUB OPENS FOR PRACTICE**

**11 a.m. - 12 p.m. ....REGISTRATION**

**12 p.m. - 1 p.m. ....LUNCH**

**1 p.m. - 3 p.m. ....EVENT**

**3 p.m. - 3:30 p.m. ....AWARDS & PRIZES**

### REGISTRATION FEE

Member - \$60 by October 17, \$85 after October 17.  
Non-member - \$75 by October 17, \$100 after October 17.  
Member Onsite - \$100, Non-Member Onsite - \$125.  
Includes 100 target sporting clay event; lunch and prizes.  
Pre-registration is required. Limited to 70 shooters.  
Please provide a partner name as pairings will be assigned in advance.



### LOCATION

Back Woods Quail Club, 647 Hemmingway Lane, Georgetown, SC 29440

Situated just off SC 51 south at the intersection of SC 24 and SC 41/51, Georgetown, SC  
(Approx. 1 hour from the Myrtle Beach Convention Center).

### ELIGIBILITY

Shooters must be registered to attend or participate in the Carolinas Golf Course Superintendents Association Conference & Show.

### GENERAL RULES

Shooters must provide their own ammunition and hearing and eye protection (standard ear plugs and safety glasses). Ammunition, hearing and eye protection are available for purchase at the gun club. For safety reasons, no shot larger than 7 ½ can be used at the gun club (for example #1, #2, #3, #4, #5, and #6 are NOT allowed). Back Woods Quail Club will provide gun rental for those who need one.

### ENTRY DEADLINE

Pre-registrations must be received by Thursday, October 31, 2021.

### CANCELLATION POLICY

The Carolinas GCSA must be notified of any cancellations by Monday, November 8, 2021 in order to receive a refund.



# MONDAY GENERAL ACTIVITIES

## MONDAY, NOVEMBER 15, 2021

### › Blue Ridge Breakfast

**7 a.m. - 10 a.m. • Mammy's Kitchen**

1010 North Kings Hwy., Myrtle Beach, SC  
(Located right next to the Old Pavilion Parking Deck)

**Sponsored by**

**Tom Porter - J.K. Morro**

**FREE and OPEN TO ALL CONFERENCE AND  
SHOW ATTENDEES!!!! NOT JUST BLUE RIDGE  
MEMBERS!!!!**



› **Registration 7 a.m. - 6 p.m.**

*Myrtle Beach Convention Center -  
Hall of Fame*

› **Golf Championship 11 a.m.**

*Caledonia Golf & Fish Club, True Blue Golf Club  
and Wachesaw Plantation Club*

› **Seminar Luncheon 11:30 a.m.**

*Ballroom DE*

› **Sporting Clay Event 12 p.m.**

*Backwoods Quail Club, Georgetown, SC*

› **Reception**

**immediately following golf 4 p.m.**  
*True Blue Golf Club*

› **Exhibitor Move-In for Large Equipment  
6 p.m. - 9 p.m.**

### › Monday Seminar Luncheon Menu

**11:30 am - 12:30 pm • Ballroom DE**

- Smoked Turkey Breast with Lettuce, Tomato and Swiss Cheese on a Brioche Roll OR
- Hickory Smoked Ham with Sharp Cheddar Cheese, Lettuce and Tomato on a Brioche Roll
- Whole Fruit
- Snack Size Chips
- Chocolate Chip Cookie
- Sweet and Unsweet Tea and Water



# SEMINAR LINE-UP IN DEPTH

## MONDAY, NOVEMBER 15, 2021 • 8–11:30 AM

# 1

### Making Herbicides Work or Why they Sometimes Fail?



**Travis W. Gannon, Ph.D.**  
Associate Professor of Crop Science, NC State University



**Bert McCarty, Ph.D.**  
Professor of Turfgrass Science, Clemson University

As professionals, we constantly are asked why herbicides do not work to the level expected. Many times, human error is involved in terms of misapplication timing, application method, not understanding how a particular is designed to work, or using the wrong product(s). We will cover PRE and POST emergence products, how they are supposed to work, and understand reasons why they might not work as expected. We will also cover herbicide resistance, its occurrence, and what measures can be taken to avoid or manage existing resistant weed biotypes. Numerous examples will be covered of all topics with time for questions and in-depth discussions.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

# 2

### How Much Shade is Too Much Shade?



**Mike D. Richardson, Ph.D.**  
Professor of Horticulture, University of Arkansas

This seminar will cover a range of topics related to light measurement on a golf course, as well as research information detailing the amount of light that grasses need to perform at expected levels. The first portion of the seminar will define the types of light that grasses need and how to accurately measure that light at a golf facility. The remainder of the seminar will summarize research findings that define the critical light levels needed for various species of golf course turf and how cultural practices and chemical products such as mowing heights, growth regulators and pigments can influence the minimum light requirements. Finally, the seminar will discuss integrated methods to improve turfgrass performance in limited light environments.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**  
SC-0 hrs. NC-0 hrs. GA-0 hrs. TN-0 hrs.



**3**

### Advanced and Cost-Effective Management of Insect Pests of Warm Season Turf



**Rick L. Brandenburg, Ph.D.**  
Department of Entomology  
and Plant Pathology, NC State  
University



**Matt Martin**  
Extension Associate, Turfgrass  
Department of Crop and Soil  
Sciences, NC State University

This seminar will focus on best management practices for turfgrass insects. The seminar will target basic biology to foster an understanding of the conditions that favor insect pest outbreaks. Advanced principles as well as options for highly effective programs and the costs will be discussed in detail for individual pests. Detailed planning will be included through the presentation of case studies.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**

SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

**4**

### Advanced Weed Management – Cool Season Grasses



**Jim T. Brosnan, Ph.D.**  
Professor of Turfgrass Weed  
Sciences, University of Tennessee



**Fred H. Yelverton, Ph.D.**  
Professor of Crop and Soil  
Sciences, NC State University

This seminar will detail weed management strategies for cool-season turf in the Carolinas. Weed control in creeping bentgrass greens will be discussed with an emphasis on Poa Annua, Goosegrass, and Crabgrass. Also included will be weed management in cool-season fairways, tees, roughs, etc. Weed management with new herbicides will be included as well as new uses of older herbicides. New and emerging weed problems will also be discussed.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**

SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

# SEMINAR LINE-UP IN DEPTH

## MONDAY, NOVEMBER 15, 2021 • 12:30–4 PM

### 5

#### Fundamentals of Wetting Agents



Mike D. Richardson, Ph.D.  
Professor of Horticulture,  
University of Arkansas

Wetting agents are widely-used on putting greens to prevent the occurrence of localized dry spot. However, wetting agents can also affect moisture amounts and distribution in the soil, surface firmness, dew retention, and other factors that can influence health and playability. Wetting agents are also a difficult class of products to evaluate because there is no state-mandated “label” that describes exactly what is contained in the product. As such, testing of products is essential to identify the most appropriate products for your facility. This seminar will discuss testing approaches and current knowledge of commonly-used wetting agents.



GCSAA Ed Points: .30



PESTICIDE CREDITS  
SC-0 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

### 6

#### Cool Season Turfgrass Insect with Emphasis on the Annual Bluegrass Weevil



Rick L. Brandenburg, Ph.D.  
Department of Entomology  
and Plant Pathology, NC State  
University



Terri Billeisen, Ph.D.  
Extension Associate, Department  
of Entomology and Plant  
Pathology, NC State University

This talk will focus on reviewing the biology and ecology of common cool season turf insect pests such as white grubs and cutworms. We will cover the latest management approaches for cost-effective and environmentally-sound control for these insects and examine how environmental conditions can impact product efficacy. Particular focus will be given to the annual bluegrass weevil and how its life cycle can influence application product selection and timing. We will review recommendations for annual bluegrass weevil management in the southeast and explain how they differ from other regions in the US.



GCSAA Ed Points: .30



PESTICIDE CREDITS  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

### 7

#### Advanced Weed Management – Warm Season Grasses



Bert McCarty, Ph.D.  
Professor of Turfgrass Science,  
Clemson University



Fred H. Yelverton, Ph.D.  
Professor of Crop and Soil  
Sciences, NC State University

Agronomic, cultural, and pest management strategies will be discussed for managing and controlling the major weed pests on golf courses. Included are weed biology, herbicide mode-of-action, application timing, effective products, new products, and PGR use. Emphasis will be on integrated weed management that includes herbicides, weed life cycles, and cultural control options. A special emphasis will be on herbicide resistant weeds, how to identify them, and management options to prevent and/or managed such biotypes.



GCSAA Ed Points: .30



PESTICIDE CREDITS  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.



# 8

## Plant Growth Regulators for Fine Warm Season Turf



**Jim T. Brosnan, Ph.D.**  
Professor of Turfgrass Weed Science, The University of Tennessee

Plant growth regulators (PGRs) are commonly applied to golf course playing surfaces for an array of different reasons. This presentation will provide an overview of the latest PGR technology for use on warm-season turfgrasses commonly found on golf courses and highlight current research on PGR application scheduling to maximize long-term turfgrass quality. While an emphasis will be placed on PGR programs for use on intensively managed surfaces such as golf course putting greens, effective practices for fairway and rough areas will also be discussed in detail.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

# 9

## Understanding the Intersection of Fertility and Disease Management



**Grady L. Miller, Ph.D.**  
Professor and Extension Specialist, Turfgrass Science, NC State University



**Joseph A. Roberts, Ph.D.,**  
Assistant Professor and Extension Specialist in Turfgrass Pathology and Nematology, Clemson University

This seminar is designed to combine fertility and disease expertise, so attendees have a better understanding of how their fertility program influences disease occurrence and plant health. Information will be provided on turfgrass fertility response, stress recovery, using soil tests, and understanding fertilizer analysis. It will target fairway and greens fertility management programs and the interaction with disease-related issues. It will also include some information specifically targeting organic nutrient sources.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**  
SC-0 hrs. NC-0 hrs. GA-0 hrs. TN-0 hrs.

# 10

## Understanding Pesticide Behavior to Optimize Applications and Minimize Collateral Damage



**Travis W. Gannon, Ph.D.**  
Associate Professor of Crop Science, NC State University

Pesticides are commonly used to manage weeds, insects, and diseases on the golf course. While pesticides are one component of comprehensive pest management programs, it's imperative for managers to understand how to optimize pesticides without adversely affecting human or environmental health. Overall, participants will have a better understanding of pesticide fate and behavior and how to devise best management practices to minimize off-target pesticide injury and maximize pest control.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.



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# TUESDAY GENERAL ACTIVITIES

## TUESDAY, NOVEMBER 16, 2021



All refreshment  
breaks provided in  
partnership with  
Harrell's, Inc.

### Tuesday Seminar Luncheon Menu

- Garden Salad with Tomatoes, Cucumbers and Croutons
- House-made Cole Slaw
- Oven Smoked BBQ Chicken Breast
- Carolina Pulled Pork with Tangy BBQ Sauce
- Creamy Macaroni and Cheese
- Chuck Wagon Corn
- Corn Bread with Sweet Butter
- Seasonal Fruit Cobbler with Fresh Whipped Cream
- Sweet and Unsweet Tea and Water

### › Registration

**7 a.m. – 6 p.m.**

Hall of Fame

### › Exhibitor Move-In

**7 a.m. – 2:30 p.m.**

### › Seminar Luncheon

**11:30 a.m. – 12:30 p.m.**

Ballroom DE

Luncheon provided for AM/PM Seminar  
Attendees

In Partnership with



In Partnership with



### › Carolinas GCSA Student Chapter Turf Bowl

**2 p.m. – 4 p.m.** • Ballroom D

In Partnership with  
Precision Labs

### › Student Question and Answer with Assistant Superintendents

**4 p.m. – 4:30 p.m.**

(Immediately following Turf Bowl)  
Ballroom D

### › Trade Show Open

**4 p.m. – 7 p.m.** • Exhibit Hall



Horry-Georgetown's Ashley Wilkinson with 2019 winning team members Josh Rownd, Alex Zaner, Harry Robishaw and Chase Garvey, with Charles Grainger and Green Resource's Bo Barefoot.



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Aeration



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Aeration



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# CAROLINAS NIGHT ON THE BEACH

Tuesday, November 16, 2021 • 7 – 10 pm • The Dunes

**ENTERTAINMENT - PAUL AND KRISTIE  
HURST - MIDLIFE BAND**

**IN PARTNERSHIP WITH**

**REGISTRATION REQUIRED**

\$50 per person prior to October 17

\$75 per person after October 17

\$100 per person onsite (if space allows)

*\*\*limited to first 500 registrants\*\**



**WILL BE OUTDOORS ON THE LAWN WEATHER PERMITTING**





# CAROLINAS NIGHT ON THE BEACH



## MIDLIFE

Midlife is a St Louis based husband/wife acoustic duo formed in 2013 and is comprised of Paul Hurst and Kristie Hurst. Both had a long time passion for music and when their kids flew the coop, they started a band. They play cover songs ranging from the 60s all the way up to today in all genres of music and customize playlists to the venue and their audience.



They've played hundreds of public and private events all around the St Louis and metro east Illinois area. They've also traveled to Knoxville, TN; Omaha, Nebraska and Sarasota, FL to play corporate events.

## TURFBUSTERS!

### Special Pre-Screening Under the Stars

Is deep tine aerification better? Does grass grow more in the shade? Are walk mowers better than triplex? Does temperature affect surface, how the ball rolls, and speed? If you've ever been stumped by questions like these, it's time to uncover the TRUTH behind turf myths and lore!

Grab your popcorn and favorite red carpet beach attire as The Carolinas Show attendees are treated to a sneak peek of Turfbusters: Season 2 before it hits the GCSAA Show National Premiere. We're serving up a special beachfront viewing on the Big Screen! Watch as Dr. Ben McGraw, Zach Bauer, and Gina Rizzi use grit, humor, and curiosity to crack three curious myths on a Colorado golf course. The Turfbusters Crew will educate using science, research, good-natured banter, spirited debate, and electrifying experimentation offering the truth behind popular turf myths. Get ready to laugh, learn, and be entertained under the stars!

# SEMINAR LINE-UP IN DEPTH

## TUESDAY, NOVEMBER 16, 2021 • 8–11:30 AM

# 11

### **NEW! Appreciation – A Tool Rarely Used to Motivate**



**Dean M. Graves, CGCS**  
The Dean of Turfgrass  
Consulting, LLC

Don't you like to be appreciated for the job you do? We as managers, don't show our appreciation to our team often enough? Appreciation is a wonderful motivator. I will share my experiences on how to put appreciation into action!

I have been involved in golf course management in the Mid-Atlantic for forty-seven years and enjoyed every moment of it. During my career it didn't take me long to realize, people skills were necessary in order to be successful. Turf is the easy part of our responsibilities. People management is an art and science that takes a lifetime to grasp.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**

SC-0 hrs. NC-0 hrs. GA-0 hrs. TN-0 hrs.

# 12

### **Getting to the Root of Managing Soilborne Diseases - Cool Season Turfgrasses**



**Brandon J. Horvath, Ph.D.**  
Associate Professor of Turfgrass  
Pathology, University of  
Tennessee

Soilborne turfgrass diseases are particularly difficult to diagnose and manage because the pathogens subversively infect and damage roots well before plant symptoms arise. This seminar will describe the soil environment in correlation with the biology and epidemiology of the pathosystem of soilborne diseases infecting cool-season turfgrasses. The course will also explain the crucial aspects of each disease cycle, highlighting where disease control measures can most effectively impede pathogen development.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**

SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.



**Gerald (Lee) Miller Jr., Ph.D.**  
Associate Professor of Turfgrass  
Pathology, University of Missouri



**13**

## Putting the “Fun” in Fungicides: Fungicide Program Development and Bugs and Crud Cool – Season Turf



**Jim Kerns, Ph.D.**  
Professor and Extension Specialist of Turfgrass Pathology, NC State University



**Lee Butler**  
Extension Coordinator of Entomology and Plant Pathology, NC State University

This workshop will focus on the most important aspects of developing a fungicide program while trying to keep this topic fun. Given the plethora of fungicides on the market, the workshop will present a historical overview of the development of fungicides. Then the presenters will cover the factors that govern fungicide performance such as fungicide rates, timing, post-application irrigation, and how fungicides move on or within the plant. The workshop will then move into diseases that are difficult to control such as root diseases, dollar spot, and nematodes. Finally, the presenters will present an overview of the diseases observed the past several years. Each attendee will have the option to use a worksheet the presenters have developed to assist them in putting together a strong fungicide program for both bermudagrass and creeping bentgrass. The presenters will instruct attendees how to use the worksheet and will also offer attendees the opportunity to submit the fungicide worksheets for the presenters to review.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

**14**

## Holy Grail – Warm Season/ Cool Season: Poa Management and Resistance



**Travis W. Gannon, Ph.D.**  
Associate Professor of Crop Science, NC State University



**Bert McCarty, Ph.D.**  
Professor of Turfgrass Science, Clemson University



**Fred H. Yelverton, Ph.D.**  
Professor of Crop and Soil Sciences, NC State University



**Jim T. Brosnan, Ph.D.**  
Professor of Turfgrass Weed Science, The University of Tennessee

**Moderator: Bo Barefoot**  
Precision Labs

Poa resistance development, the current scientific thoughts on this occurred, how to integrate weed life cycles, environmental factors affecting weed growth and occurrence, plus chemical and cultural control in developing a holistic weed management program. All major warm- and cool-season weeds will be presented and discussed, along with parameters influencing pesticide performance, potential herbicide resistance, and plant growth regulator use. A holistic management program will be developed for Poa management/control for all warm- and cool-season turfgrasses. A general knowledge of turf culture and experience in pesticide application are required for maximum benefit.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

# SEMINAR LINE-UP IN DEPTH

## TUESDAY, NOVEMBER 16, 2021 • 8–11:30 AM

# 15

### **NEW! Tips for Success: How to Survive and Thrive in the Turfgrass Industry**



Don Garrett, CGCS  
The Walker Course at Clemson  
University, Clemson, SC

A veteran superintendents account of important things he has learned over a 39 year career and how todays assistant superintendents can use these Tips to get ahead in the industry. The instructor shares his experiences through stories, anecdotes, and accounts of things that he has learned and why they are important to your success.



GCSAA Ed Points: .30



PESTICIDE CREDITS  
SC-0 hrs. NC-0 hrs. GA-0 hrs. TN-0 hrs.

# 16

### **NEW! Fraise Mowing – Management and Weed Control**



Raymond McCauley  
Extension Assistant of Crop  
and Soil Sciences, NC State  
University



Mike D. Richardson, Ph.D.  
Professor of Horticulture,  
University of Arkansas



J. Bryan Unruh, Ph.D.  
Professor of Environmental  
Horticulture, University of Florida

This seminar will look at a new management strategy called fraise mowing. The seminar will present research results on how to incorporate fraise mowing into weed control programs, with specific emphasis on *Poa annua* control. In addition, we will present data on using fraise mowing as part of a bermudagrass eradication program. Finally, we will discuss the overall effects of fraise mowing on thatch removal and how to best manage the fraise mowing process to deal with debris removal and promote turfgrass recovery and spring transition.



GCSAA Ed Points: .30



PESTICIDE CREDITS  
SC-0 hrs. NC-0 hrs. GA-0 hrs. TN-0 hrs.

# 17

### **Talent Acquisition and Recruitment Strategies**



Tyler G. Bloom  
Tyler Bloom Consulting

Today's environment for top talent is getting harder and harder. Learn strategies on how to find, develop and keep great employees during a labor crisis. These strategies will delight, surprise, and inspire you to change the way you recruit, hire and lead your employees.



GCSAA Ed Points: .30



PESTICIDE CREDITS  
SC-0 hrs. NC-0 hrs. GA-0 hrs. TN-0 hrs.



**18**

## The 'Other' Essential Elements, and Some that Might Be?



**Beth A. Guertal, Ph.D.**  
Professor of Turfgrass Management and Soil Fertility, Auburn University

We all know about the 'Big Three': Nitrogen, Phosphorus and Potassium. But what about manganese? Iron? Silicon? This seminar will talk about other essential elements that we may or not need for turfgrass production, including calcium, magnesium and sulfur. We will cover some (but not all – chloride? Really?) of the micronutrients as well. We will also take a look at the 'quasi-essential' elements, which includes items like silicon. If they exist we will talk about rates, sources and soil-test levels. If those numbers do not exist we will talk about that too.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**

SC-0 hrs. NC-0 hrs. GA-0 hrs. TN-0 hrs.

**19**

## The Challenge of Managing Nematodes in Turf



**Bruce Martin, Ph.D.**  
Emeritus Professor of Turf Pathology, Plant and Environmental Sciences Department, Clemson University, Pee Dee Research and Education Center



**Joseph A. Roberts, Ph.D.**  
Assistant Professor and Extension Specialist of Turfgrass Pathology, Clemson University

Plant parasitic nematodes persist as perhaps the most difficult of pests to manage in fine turf on golf courses. In spite of the introduction of new products in recent years, the overall challenge of the problem persists. Multiple genera and species of several damaging nematodes including sting, lance and root knot and stubby root occur in our sandy soils, whether natural or constructed. Life cycles and nematode behavior will be discussed for these important and damaging nematodes and how and when to sample for diagnostic and predictive purposes. Also discussed will be realistic expectations of effectiveness (or lack thereof) of all available nematicides labeled for turf. Some topics for consideration will include why specified sand based root zones make an ideal habitat for nematodes and what might be done about that regarding modifications.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**

SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

# SEMINAR LINE-UP IN DEPTH

## TUESDAY, NOVEMBER 16, 2021 • 12:30–4 PM

# 20

### Management of Ultradwarf Bermudagrass

*Moderator: Jim Huntoon ,  
Superintendent, Heritage Club,  
Pawley's Island, SC*



**Jared R. Nemitz**  
Director of Golf Course Grounds,  
The Ford and Field River Club,  
Richmond Hill, GA



**Jim Evans**  
Director of Agronomy, The Cliffs  
at Keowee Falls, Salem, SC



**Keith Wood**  
Director of Greens and Grounds,  
Quail Hollow Club, Charlotte, NC



**Adam Charles**  
Superintendent, The Preserve at  
Verdae, Greenville, SC

With ultradwarf bermudagrass greens becoming more and more prevalent, golfers are demanding turf managers produce ultradwarf greens that are not only visually appealing but are conditioned to produce exceptional ball roll. This seminar will give turf managers insight into various types of surface management techniques and other popular cultural practices being practiced at golf courses today. The seminar attendee will have the opportunity to discuss: topdressing sands, winter covering strategies, aerification practices, the use of data collection and how it can assist in developing management practices that keep growth in a preferred range. Finally, fungicide applications, mowing strategies, growth regulators and green speeds will be discussed.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

# 21

### Aquatic Plant Management: An Introduction to Keeping Your Ponds Free of Unightly Plants and Algae



**Rob Richardson, Ph.D.**  
Professor and Extension  
Specialist, Aquatic and Non-  
Cropland Weed Science, NC State  
University



**Matthew Cutulle, Ph.D.**  
Assistant Professor of  
Weed Science, Plant and  
Environmental Sciences,  
Clemson University

Whether ponds serve as visual focal point for your property or an irrigation source, aquatic weeds can interfere with the appearance and use of the waterbody. Using proper management techniques can keep these weeds at bay and allow full use of your water body. This seminar will give superintendents a complete overview of how to manage their aquatic resources including water quality, aquatic plant identification, and integrated best management practices for control of the major aquatic weed problems. Specific instruction on the newest aquatic herbicides, use of aquatic herbicides in irrigation sources, and management of marginal areas will be emphasized. An overview of relevant rules and regulations that apply



**GCSAA Ed Points: .30**



**AQUATIC CREDITS**  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.



22

## NEW! Renovating and Using Roundup? Don't Leave Home Without this Workshop!



Travis W. Gannon, Ph.D.  
Associate Professor of Crop Science, NC State University



Bert McCarty, Ph.D.  
Professor of Turfgrass Science, Clemson University



Fred H. Yelverton, Ph.D.  
Professor of Crop and Soil Sciences, NC State University

Many golf courses are planning on renovating their fairways in the near future. Traditionally, during this process, several applications of a herbicide mixture containing glyphosate (Roundup, among many other trade names) are used to control the existing grass prior to replanting. However, with the recent media coverage of Roundup lawsuits, many course members are concerned about the use of the product, especially for those living adjacent to the course. Before starting this process, rely on the years of experience of the authors that have dealt with this issue. They provide the latest science regarding this and have conducted numerous "townhall" type general membership meetings explaining the process, alternatives, and how safely the course can steward the use of the product with minimum exposure.



GCSAA Ed Points: .30



PESTICIDE CREDITS  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

23

## NEW! Carolinas Labor BMP



Tyler G. Bloom  
Tyler Bloom Consulting

Through creation of a working system, the ability to secure qualified job candidates becomes turnkey, saving both time and financial resources. Develop an action plan for your facility using the Carolinas Labor BMP using multi-level local and state relationships to secure an active labor pool.



GCSAA Ed Points: .30



PESTICIDE CREDITS  
SC-0 hrs. NC-0 hrs. GA-0 hrs. TN-0 hrs.

24

## POA Resistance – The Ins and Outs And Dos and Dents



Jim T. Brosnan, Ph.D.  
Professor of Turfgrass Weed Science, The University of Tennessee

This seminar will provide an overview of herbicide resistance within Poa populations of golf course turf. There will be a focus on the current status of resistance in Poa populations of golf course turf. This will include different types of resistance, modes of action, downstream consequences and more. Attendees will learn how resistance can evolve as a result of weed management decisions made on the golf course and strategies to mitigate resistance within Poa populations on greens, tees and fairways.



GCSAA Ed Points: .30



PESTICIDE CREDITS  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

# SEMINAR LINE-UP IN DEPTH

## TUESDAY, NOVEMBER 16, 2021 • 12:30–4 PM

# 25

### Getting to the Root of Managing Soilborne Diseases – Warm Season Turfgrasses



**Jim Kerns, Ph.D.**  
Professor and Extension Specialist of Turfgrass Pathology, NC State University

Turfgrass diseases are challenging to manage and pathogens that attack roots, stolons and rhizomes are even more challenging. This seminar will focus on diseases of roots, stolons and rhizomes of warm-season grasses and will cover the current state of knowledge surrounding the cause, epidemiology, and management of these diseases.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**

SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.



**Joseph A. Roberts, Ph.D.**  
Assistant Professor and Extension Specialist of Turfgrass Pathology, Clemson University

# 26

### **NEW!** Soil Testing and How to Read Your Report



**Beth Guertal, Ph.D.**  
Professor of Turfgrass Management and Soil Fertility, Auburn University

It's pages of numbers. LOTS AND LOTS of numbers. What do you do with them, and how does that soil-test report affect your fertilization and turfgrass management?

This session will discuss soil-test reports, using a variety of soil-test reports from samples collected from golf courses, athletic fields and lawns around the nation. We will cover base saturation, cation exchange capacity, soil pH and a raft of other cool information you can glean from your report. From that we will discuss how to use the soil-test report – what do the recommendations mean, and how you might want to adjust the recommended rates of fertilization.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**

SC-0 hrs. NC-0 hrs. GA-0 hrs. TN-0 hrs.



**27**

## Bunker Construction: How to Avoid Digging Yourself Into a Hole



**Adam Moeller**  
Director, Green Section  
Education, USGA



**Earl Sanders**  
President, Green Tee Golf, Inc.,  
Paducah, KY

Bunker construction methods and sand selection have never been more complex or costly. This seminar will discuss the most important aspects of bunker construction and sand selection, so you can determine the best methods and sands for your course. Liner options for bunkers and their potential benefits and challenges will be a specific focus during this seminar.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**  
SC-0 hrs. NC-0 hrs. GA-0 hrs. TN-0 hrs.

**28**

## Winter Management of Ultradwarf Bermudagrass Putting Greens



**Mike D. Richardson, Ph.D.**  
Professor of Horticulture,  
University of Arkansas



**Bruce Martin, Ph.D.**  
Emeritus Professor of  
Turf Pathology, Plant and  
Environmental Sciences  
Department, Clemson University,  
Pee Dee Research and Education  
Center



**Jordan Booth**  
Southeast Region Agronomist,  
USGA

Dr. Richardson will discuss strategies to use covers most effectively to protect greens from winter injury, including when to apply covers and the use of air gaps under the cover. In addition, he will discuss the importance of moisture management and wetting agents on preventing winter desiccation.

Dr. Martin will cover fall and winter diseases such as SDS, Take all Root Rot, Pythium, Leaf spot, and Microdochium patch including pathogen(s) descriptions, environment conditions promoting outbreaks, and management. He will also discuss nematode management going into the winter.

Jordan Booth will discuss the impact of fungicides and plant growth regulators on cold tolerance. He will cover some of his research at Va. Tech on covering and core aeration as it relates to winter management and cold tolerance.



**GCSAA Ed Points: .30**



**PESTICIDE CREDITS**  
SC-3 hrs. NC-3.5 hrs. GA-3 hrs. TN-3 hrs.

# MEET THE SPEAKERS

## Terri Billeisen, Ph.D.



Terri Billeisen completed her B.S. and M.S. degrees in turfgrass entomology at Purdue University and moved to North Carolina in 2011 to continue research in the field. She completed her Ph.D. and post-doctoral research in turfgrass entomology under the direction of Dr. Rick Brandenburg. She has been an extension associate at NC State since January 2017.

## Tyler G. Bloom



Tyler Bloom is principal owner of Tyler Bloom Consulting based out of Bloomsburg, Pennsylvania. His firm focuses on search, workforce development and labor consulting for the turfgrass, green and hospitality industry. He has served 18-years in the golf industry including six as the Director of Grounds and Facilities at Sparrows Point Country Club in Baltimore, Maryland. He earned his bachelor's degree in Turfgrass Science from Penn State University. Bloom's background includes experience at Oakmont, Muirfield Village, Southern Hills and Merion Golf Club.

## Rick L. Brandenburg, Ph.D.



Rick Brandenburg, Ph.D., is a William Neal Reynolds Distinguished Professor in the Department of Entomology and Plant Pathology at North Carolina State University. He has conducted research and extension programs associated with turfgrass and crop pest management for over 35 years and for 16 years served as the co-director of the Center for Turfgrass Environmental Research and Education at NC State. Brandenburg has taught for GCSAA for many years and has been invited to speak in more than 20 countries, written more than a dozen book or book chapters, more than 140 research papers, and hundreds of trade journal articles, extension publications and webinars. He has provided weekly educational videos and blogs on his Facebook page Turf, Bugs, and Rock n' Roll since 2011. Brandenburg has been the recipient of numerous national awards recognizing both his research and educational efforts.

## Jim T. Brosnan, Ph.D.



Dr. Brosnan is a Professor in the Plant Sciences Department at the University of Tennessee (UT) and Director of the UT Weed Diagnostics Center. His research focuses on controlling unique and problematic turfgrass weeds, particularly those with resistance to herbicides. His extension programs aim to provide education and diagnostic support to Tennessee's \$5.8 billion turfgrass industry.

Dr. Brosnan serves as an advisor to the Tennessee Turfgrass Association Board of Directors, and he is actively involved in the Weed Science Society of America, Southern Weed Science Society, Golf Course Superintendents Association of America, and Sports Turf Managers Association. He has consulted at multiple venues on the PGA Tour (including several major championship host sites) in addition to National Football League franchises. Dr. Brosnan received a B.S. in turfgrass science from Penn State University, an M.S. in plant, soil and insect sciences (turfgrass) from the University of Massachusetts Amherst, and a Ph.D. in agronomy (turfgrass) from Penn State University.

## E. Lee Butler



Lee manages the Turf Diagnostics Lab while remaining active in the turf pathology field research program. This allows him to work with turfgrass managers to develop effective disease management plans based on his knowledge of current disease activity and observations made in fungicide efficacy trials. After receiving his B.S. in Turfgrass Management from NC State, Lee worked in the golf course and landscape management industries before returning to NC State to pursue a M.S. in Plant Pathology. During his graduate studies, Lee developed effective control recommendations for spring dead spot control in bermudagrass turf. In addition to speaking at various conferences and meetings across the United States, Lee gives guest lectures in the College of Agriculture and Life Sciences and in the College of Natural Resources at NC State University.

## Adam Charles

Adam Charles is golf course superintendent at The Preserve at Verdae in Greenville, SC and asset manager with Atrium Hospitality for three other courses in North Carolina and Missouri. During his 14-year tenure, Charles steered a transition to the environmental emphasis The Preserve is now known for. A 2001 graduate of Clemson University, he is a past-president of the Carolinas GCSA and Upstate Turfgrass Association.

Charles and his wife, Amanda, live in Greenville with "four children and four dogs, to go with my four golf courses," he says.

## Dr. Matthew Cutulle



Dr. Matthew Cutulle is an assistant professor of weed science at Clemson University in the Department of Plant and Environmental Sciences. He is responsible for research and extension weed management projects in vegetables, small fruits, aquatics, and roadside vegetation management. He received his PhD from the Department of Plant Pathology, Physiology and Weed



Science at Virginia Tech University, an MS in Plant Science from the University of Tennessee and a BS in Biology at Salisbury University. Prior to joining Clemson University, Dr. Cutulle was an herbicide development scientist with Syngenta Crop Protection focused safener technology, herbicide resistance, herbicide volatility, and formulation optimization.

### Travis W. Gannon, Ph.D.



Dr. Travis Gannon is an Associate Professor of Turfgrass Science at North Carolina State University specializing in weed management and pesticide environmental fate and behavior. He obtained his B.S., M.S. and Ph.D. from NC

State University in the Department of Crop and Soil Sciences. Dr. Gannon's research program focuses on understanding various pests and optimizing pesticide programs for sustainable turfgrass management. Dr. Gannon currently advises five graduate students investigating various aspects of pest management and pesticide environmental fate and behavior and is actively involved in Weed Science Society of America, Southern Weed Science Society, GCSAA and Sports Turf Managers Association.

### Don Garrett, CGCS



Don Garrett, CGCS, is a 39 year veteran of the Golf Course Maintenance Industry. He has been the superintendent at the Walker Course at Clemson University in Clemson, SC for the past 22 years and previously worked at Kiawah Island Golf

Resort in Charleston SC, and Dataw Island Club in Beaufort SC. Don has been a member of the Golf Course Superintendents Association of America since 1987 and earned the designation of Certified Golf Course Superintendent in 1995. He is a past president of the Carolinas GCSA and currently serves on their Board of Directors. Don is a 1985 graduate of Clemson University and teaches, advises and employs students in the University's Turfgrass program

### Dean M. Graves, CGCS



Over my career I have had the opportunity to resolve bountiful needs with clients dealing with estate management, athletic fields, capital acquisitions, long range planning, total renovations, rebuilds, and redesigns of

golf courses. Additionally, I aim to implement sustainable management practices, grow and develop innovative technologies, and promote personnel management and motivational systems. My true passion is to improve an existing facility to match the expectations of the customer. I take great pride in developing a relationship with the client to understand the needs of each project and then put into action the philosophies and ideas, coupled with astute communication resulting in a

successfully completed project.

Washington, DC metropolitan area is considered the most difficult area to manage a golf course in the entire country. Having done so for the past thirty-five years has made me an extremely good problem solver. There are few agronomic concerns that I have not been confronted with and resolved during my career. My experiences with both warm and cool season grasses have occurred during a multiplicity of extreme weather conditions. During my tenure in this area I have been known to have the consistently best conditioned courses in the metro area.

### Beth A. Guertal, Ph.D.



Beth Guertal is the Rowe Endowed Professor in the Crop, Soil and Environmental Sciences Department at Auburn University, AL. Dr. Guertal received her BS and MS degrees from The Ohio State University, and her PhD

from Oklahoma State University. Her research program focuses on soil fertility issues in turfgrass management. Guertal served as a Technical Editor for Crop Science, and as an Associate Editor for the Soil Science Society of America (SSSA) Journal, Crop Science (CSSA) and Agronomy Journal (ASA). She is a past-Chair of Division C-5 (Turfgrass Management, CSSA), a Fulbright Fellow and a Fellow of CSSA, SSSA and ASA. Currently she is the immediate past President of the Crop Science Society of America.

### Brandon J. Horvath, Ph.D.



Brandon Horvath is an associate professor of turfgrass pathology in the Plant Sciences Department at the University of Tennessee, and is the 2021 Tom Samples Professional of the Year as awarded by the Tennessee Turfgrass

Association. He received his bachelor's degree from The Ohio State University in agronomy with a minor in plant pathology. He received his M.S. and Ph.D. in turfgrass pathology from Michigan State University. He has worked at several championship golf courses and conducts research in the area of turfgrass disease epidemiology that enables turfgrass managers to maintain healthier turfgrass stands with fewer chemical inputs. He is also currently engaged in research that blends the playing of the game with managing the surfaces that the game is played on. He has given over 250 presentations, and published numerous articles about his work.

### Jim P. Kerns, Ph.D.



Jim Kerns is a Professor and Extension Specialist of Turfgrass Pathology at NC State University. His program focuses on the etiology, epidemiology and management of Turfgrass diseases of

# MEET THE SPEAKERS

both warm and cool-season grasses. His program actively researches how fungicides move in the root zone after post-application irrigation, take-all root rot etiology and management and Pythium root rot management. Each year his program conducts 50 to 70 different fungicide efficacy trials and examines over 400 samples for disease in the Turfgrass Diagnostic Lab.

## S. Bruce Martin, Ph.D.



Dr. Martin is Emeritus Professor of Plant Pathology, and the former research and extension turfgrass pathologist for South Carolina. He has been active in turf research, extension and teaching for the past 30 years with Clemson University. He

holds degrees from Hendrix College, the University of Arkansas and North Carolina State University. Martin's research emphasized disease control programs, nematode control, fungicide efficacy and diseases of turf caused by Rhizoctonia. He has authored or co-authored over 50 refereed journal publications, numerous popular articles and 14 book chapters. He has presented many workshops, and served as guest speaker at conferences throughout the United States and the world.

## L. Bert McCarty, Ph.D.



Bert McCarty is a Professor of Horticulture specializing in turfgrass science and management at Clemson University in Clemson, South Carolina (USA). Previously, he held a similar position at the University of Florida. He

has published numerous articles dealing with all phases of turfgrass management and is an oft requested speaker. He is currently authors or co-authors 11 books, is a co-author for the GCSAA seminars, Weed Control, Advanced Weed Management, Advanced Management of Bermudagrass Golf Greens, and Advanced Management of Bentgrass Golf Greens and is active in a number of professional societies.

## Raymond McCauley



Dr. Raymond McCauley earned his B.S. from Clemson University in Turfgrass Management and went on to earn his M.S. in Plant and Environmental Sciences with a minor in Experimental Statistics. After finishing his Master's, Dr. McCauley

began his role as Assistant Groundskeeper for the New York Mets. During his time there, he worked to prepare the field for both the MLB 2013 All Star game and the 2015 World Series. In 2020 he received his Ph.D. in Crop and Soil Sciences at North Carolina State University. He has conducted research on fraise mowing and how it affects physical soil properties. He is devising programs that expedite bermudagrass recovery and the potential to expand fraise mowing applications. Ray has assisted in 20+ additional studies that have had both local and

national impacts. He is currently an extension assistant at NC State.

## Gerald (Lee) Miller Jr., Ph.D.



Dr. Gerald (Lee) Miller is an Associate Professor of Turfgrass Pathology in the Division of Plant Sciences at the University of Missouri. Lee received his M.S. in Plant Pathology in 2001 at the University of Georgia and his PhD degree

in Plant Pathology at North Carolina State University in 2010. In between his graduate degrees, Lee served as the Manager of Turfgrass Research at the Chicago District Golf Association. Lee is currently the faculty lead for the MU Plant Diagnostic Clinic, and directs both the Missouri IPM program and Pesticide Safety Education Program. Lee currently directs research and extension programs at MU focused towards disease control in turfgrasses. These responsibilities include providing disease diagnosis and control recommendations for the lawn, golf, sports turf, and sod industries in Missouri. His research activities center on the development of disease management strategies that require fewer inputs and result in sustainable, functional, and aesthetic turfgrass fields. Past and current research projects led by Dr. Miller include fungicide resistance detection in dollar spot populations, fairy ring biology and prevention with spring fungicide applications, spring dead spot management and cultural control, the effects of fertility and fungicide application methodologies on large patch control, and detection of Pythium spp. in golf course irrigation water.

## Grady L. Miller, Ph.D.



Dr. Grady Miller is a Professor and Extension Specialist, at North Carolina State University and Co-Director of the Center for Turfgrass Environmental Research and Education. His present University appointment is 50% extension, 25% re-

search, and 25% teaching. In his extension duties, he works closely with the sod, sports turf, utility turf, and golf course industry to address issues and find solutions to common turf problems. In his career he has taught over 60 university course sections in subjects related to turfgrass culture, golf & sports turf management, and research methodology. His research activities have related primarily to turfgrass nutrition and water issues, cultivar evaluation, and general turfgrass culture.

## Adam Moeller



Adam Moeller joined the Green Section's Northeast Region as an agronomist in 2008, conducting Course Consulting Service visits in Pennsylvania, New York, New Jersey, Connecticut and Ontario. In addition to his role as a consulting

agronomist, he serves as Director of Green Section Education, guiding education and outreach materials related to golf course management.



Moeller graduated from Purdue University with a Master of Science degree from the department of agronomy. His graduate research included the investigation of putting green rootzone management, fertility, PGR's, wetting agents, creeping bentgrass cultivars performance and bunker sands. A Wisconsin native, he received his Bachelor of Science degree in horticulture from the University of Wisconsin. He gained experienced working on several golf courses in Wisconsin. Adam is based at USGA headquarters in Liberty Corner, NJ.

### Mike D. Richardson, Ph.D.



Mike Richardson, Ph.D., is professor of horticulture at the University of Arkansas. He earned a B.S. degree from Louisiana Tech University, an M.S. degree at Louisiana State University and his Ph.D. at the University of Georgia. Richardson's

research focuses on cultural practices that impact cool- and warm-season turfgrass production in the transition zone and he has been actively involved with research to screen and develop new turfgrass for a wide range of turfgrass environments. Richardson's excellence in the turfgrass industry has been well-documented through the numerous awards he has received, including the John W. White Team Award for the Turfgrass Management Program at the University of Arkansas, the Researcher of the Year from Seed Research of Oregon and elected as a Fellow in the American Society of Agronomy. In Nov. 2015, Richardson received the Fred V. Grau Turfgrass Science Award from the Soil Science Society of America. In addition to participation in many state and regional turfgrass conferences around the United States, Richardson has lectured in China, Italy, and throughout Europe on various topics related to turfgrass physiology and management.

### Rob J. Richardson, Ph.D.



Rob Richardson is a Professor and Extension Specialist at North Carolina State University. His primary appointment focuses on research and extension related to aquatic plant management. Rob has many years of experience in

aquatic plant management and advises aquatic managers across the US as well as internationally. He is a Past President of the Aquatic Plant Management Society and Past Editor of the Journal of Aquatic Plant Management. He currently serves as a Board of Directors Member for the Weed Science Society of America and serves as a subject matter expert to US EPA on aquatic plant management.

### Joseph A. Roberts, Ph.D.



Joe Roberts is an Assistant Professor and Extension Specialist in Turfgrass Pathology and Nematology at Clemson University. He joined the Department of

Plant and Environmental Sciences in fall of 2019. Current projects in his lab are aimed at understanding microbial relationships across turfgrass systems in an effort to improve turfgrass health. His research and extension programming focuses on plant pathogen interactions and cultural management tools that limit fungal, nematode, and bacterial pathogens of amenity turfgrasses.

### Earl Sanders



Earl Sanders is the President of Green Tee Golf, Inc., a full service Golf Course Construction & Renovation Company that was founded in 2010. Earl has been in the Golf Course Construction Industry for more than 30 years.

### J. Bryan Unruh, Ph.D.



Dr. J. Bryan Unruh is a Professor of Environmental Horticulture at the University of Florida, IFAS, West Florida Research and Education Center in Jay, FL. Dr. Unruh received his Ph.D. from Iowa State Univ. and his M.S. and B.S.

from Kansas State Univ. Dr. Unruh's turfgrass science research and extension program is at the forefront of improving Best Management Practices (BMPs), understanding and changing consumer preferences and behavior related to landscape management, and testing new and novel grasses that have improved turfgrass performance characteristics and require fewer inputs to maintain them. Results from his team's work are included in all three Florida turf industry BMP manuals. Unruh's team was selected to develop the Golf Course Superintendents of America's BMP Planning Guide and Template with the end-goal of having golf-centric BMP manuals in all 50 states by 2021. Dr. Unruh is the Chair of the CSSA C5 Division

### Fred H. Yelverton, Ph.D.



Fred Yelverton, PhD, has been a faculty member at North Carolina State University for 36 years. Since 1995, he has been a professor of turfgrass science in the Crop Science department at NCSU. His specialties include turfgrass

weed management, turfgrass management, plant growth regulators, and weed biology and ecology. His speaking engagements have taken him to 48 states and 25 countries on six continents. He has taught seminars at CGCSA and GCSAA every year since 1995.

# WEDNESDAY EVENTS

## Wednesday, November 17, 2021

### › Fellowship Breakfast

**Dr. Rick Brandenburg**

*North Carolina State University*

This year's Fellowship Breakfast speaker, Dr. Rick Brandenburg from North Carolina State University, will share the story of his near-death experience in 2017. After a research visit to Malawi, Brandenburg returned to the U.S. and was diagnosed with malaria. Complications followed his treatment and suddenly, shockingly, the otherwise strong and healthy Brandenburg spent two weeks in intensive care fighting for his life.

A lifelong man of faith, Brandenburg came out of that experience with a sharpened sense of what was important in his life. "It's about family and friends and neighbors, those sorts of things," he says. "I realized when I survived and came home and reflected on all the calls, cards and visits and so on, it made me appreciate those things at a much might higher level. Mornings are now a little brighter, sunsets a bit more spectacular, and everything in between a little more precious."

Brandenburg will detail his ordeal and what came in its wake when he speaks to the Fellowship Breakfast on the Wednesday morning of Conference and Show week. "My faith is a critical part of my life and various experiences, events and global experiences have all reinforced that faith," he says. "I feel incredibly fortunate to be where I am at."



Janice and Rick Brandenburg with, from back left, daughter in law Hayley, sons Chris and Caleb, and daughter Ashley.

### › Registration

**7 a.m. – 3 p.m.**

*Hall of Fame*

### › Fellowship Breakfast

**7 a.m. – 8 a.m.**

*Ballroom D*

*In Partnership with*



**CORBIN TURF**  
& ORNAMENTAL SUPPLY, INC.



#### Breakfast Menu

- Market Display of Fresh Seasonal Fruits
- Fresh Baked Biscuits
- Butter and Assorted Jellies
- Farm Fresh Scrambled Eggs
- Creamy Southern Style Grits
- Crispy Applewood Smoked Bacon
- Coffee, Orange Juice and Water

### › Wednesday Buffet Luncheon

**12 p.m. – 2 p.m.**

*Exhibit Hall*

*In Partnership with*



**pbi/gordon**  
**CORPORATION**  
Employee-Owned

#### Luncheon Menu

- Garden Fresh Mixed Greens with Tomatoes, Cucumbers, Cheddar Cheese and Bacon
- Buttermilk Fried Chicken
- Sauteed Green Beans with Sundried Tomato Butter
- Buttermilk Ranch Mashed Potatoes with Gravy
- Corn Bread with Cinnamon Butter
- Fresh Baked Cookies and Brownies
- Sweet and Unsweet Tea and Water



# EDUCATION SESSION

## Wednesday, November 17, 2021

### General Education Session

Ballroom E

**Presiding** – Billy Bagwell, Vice President Carolinas GCSA  
Callawassie Island Club

8 a.m.

#### Welcome

Brian Stiehler, CGCS, MG, President Carolinas GCSA  
Highlands Country Club

8:00 – 9:15 a.m.

#### Panel Discussion – Ask The Experts!

**Moderator:** Jim Huntoon, Heritage Club  
**Brandon Horvath, Ph.D.,** Associate Professor of Turfgrass Pathology, University of Tennessee  
**Jim Kerns, Ph.D.,** Professor and Extension Specialist of Turfgrass Pathology, NC State University  
**Fred Yelverton, Ph.D.,** Professor of Crop and Soil Sciences, NC State University  
**Joe Roberts, Ph.D.,** Assistant Professor of Plant and Environmental Sciences, Clemson University



PESTICIDE CREDITS  
SC-1 hrs. NC-0 hrs.

9:15 – 9:30 a.m.

#### First Green Program

Leann Cooper, Senior Manager, Chapter Services Golf  
Course Superintendents Association of America

9:30 – 10 a.m.

#### Rounds4Research Updates

Labor BMP Update

Tyler Bloom, Independent Consultant Focused on Search  
and Workforce Development Tyler Bloom Consulting

10 – 10:30 a.m.

#### Investigating Factors Affecting Fungicide Performance on Golf Course Turf

Cameron Stephens, Ph.D., NC State University



PESTICIDE CREDITS  
SC-0.5 hrs. NC-0.5 hrs.

10:30 – 11 a.m.

#### USGA Southeast Region

##### Highlights of the 2021 Golf Season

Jordan Booth, Agronomist, Southeast Green Section



GCSAA Ed Points: 0.30



PESTICIDE CREDITS  
GA-3 hrs. TN-3 hrs.

11:15 – 11:30 a.m.

#### Distinguished Service Award Presentation

Rick Brandenburg, Ph.D., Dept. of Entomology and Plant  
Pathology, NC State University

11:15 – 11:30 a.m.

#### Annual Business Meeting

**Presiding** – Brian Stiehler, CGCS, MG  
President, Carolinas GCSA, Highlands Country Club

11:30 a.m. – 3:30 p.m.

#### Trade Show Open

Exhibit Hall

11:30 a.m. – 3:30 p.m.

#### Skin Cancer Screenings

Free Screenings at Booth #3701

Attendees will be able to sign up electronically the week prior to  
the show.

**In Partnership with Bayer and New Life Turf**



Provided by Grand Strand Dermatology

12 – 2 p.m.

#### Buffet Luncheon

Exhibit Hall

3 p.m.

#### 27 – Hole Challenge Prize Giveaway

Exhibit Hall Stage Area near John Deere

# 27-HOLE CHALLENGE

In Partnership with



**JOHN DEERE**  
GOLF



The Carolinas GCSA is proud to present the 27-Hole Challenge event to superintendents and assistant superintendent members. Complete the 27-Hole tour of the trade show floor and get to know the industry partners who help make this outstanding event possible. (Winner is responsible for any applicable taxes)

*27-Hole Challenge scorecards will be mailed at the end of October. A replacement card can be picked up at the 27-Hole Challenge Booth #3721 during trade show hours.*

## **Grand Prize \$3,000 Cash**

**2nd Prize \$2,000 Cash**

**3rd thru 6th Prizes \$500 cash**

**7th thru 15th Your choice of technology-based prizes**

## **Assistant Superintendent Member Drawing**

**1st Prize \$500 Cash**

**2nd thru 4th Your choice of technology-based prizes**

**\$7,500 in  
cash  
giveaways**

## **How to Play**

- 27-Hole Challenge participants must be current Carolinas GCSA Class A or B members. Participants in the Next Generation 27-Hole Challenge must be current Carolinas GCSA Class C (assistant superintendent) members.
- 27-Hole Challenge replacement scorecards may be picked up at the 27-Hole Challenge booth #3721 in the exhibit hall during normal trade show hours.
- The event will consist of 27 exhibiting company booths. A hole flag will mark each booth and participants must have their score card stamped at each of the designated booths.
- 27-Hole Challenge booths will be located at various sites throughout the exhibit area and will be designated on the exhibit hall directory, which will be provided on-site.
- Cards must be stamped at each designated booth on either Tuesday or Wednesday during normal trade show hours. All cards must be turned in to the 27-Hole Challenge booth by 2:30 p.m. on Wednesday, November 17.
- All participant scorecards that contain all 27 stamps will be entered in the drawing for prizes.
- Drawing for prizes will be held at the conclusion of the Trade Show on Wednesday afternoon.
- 27-Hole Challenge participants must be present at the Trade Show reception area at 3 p.m. on Wednesday afternoon when the winners are announced in order to be eligible for the prizes.



# GENERAL INFORMATION

## COVID-19 INFORMATION

In order to do our part in keeping everyone safe as we come together for Conference and Trade Show, the Carolinas GCSA will follow all CDC and City of Myrtle Beach guidelines related to COVID-19.

The health and safety of our Carolinas GCSA members, exhibitors, attendees, guests, and staff is our top priority.

Due to the Delta variant being so contagious, whether you are vaccinated or unvaccinated, we recommend the following as we come together and celebrate. Please:

- Wear a mask during all seminars, on the trade show floor and all indoor activities
- Practice social distancing where possible
- Frequently wash your hands with soap and water or use hand sanitizer
- Do not attend any Carolinas GCSA Conference and Show event if you feel sick or have symptoms of COVID-19
- If you have been exposed to someone with COVID-19, please quarantine

Thank you for your cooperation.

## BADGES AND ADMITTANCE

Official Carolinas GCSA badge must be worn at all Conference and Show events. Badge is included in credential mailing.

## CANCELLATION POLICY

Conference and Show cancellation requests must be in writing and received by Monday, November 8, 2021 to receive a refund. A \$25 administrative fee will be charged for all full and/or partial cancellations. After this date, NO refunds will be made. Special refund note: If your credentials have been mailed at the time of your cancellation, you must return them to the Carolinas GCSA before any refund will be issued.

## CREDENTIAL MAILING

Credential mailing will begin in October 2021. Credentials for registrations received after November 3, 2021, 4:30 PM EST, must be picked up on-site at the registration desk at the Myrtle Beach Convention Center.

## RECOMMENDED DRESS

The dress requirements for all Conference and Show events should either be golf casual or business casual.

- Golf Casual is defined as a nice pair of slacks and a collared or mock neck golf shirt.
- Business Casual is defined as a nice pair of slacks with a collared or mock neck shirt and a blazer or sport coat.
- Under no circumstances should denim jeans or caps be worn at Conference and Show events.

## ADVANCED REGISTRATION BENEFITS

Register in advance by **October 17, 2021** and you will receive these great advantages prior to the event:

- A reduced price for conference and show registrations
- Your badge and credentials will be mailed to you so you can go straight to seminars, general session and the trade show. No waiting in lines.

## COMPLIMENTARY FULL CONFERENCE REGISTRATION

Complimentary registration will be offered to Carolinas GCSA Honorary, AA and Retired members, Educators, and Golf Course Owners. All complimentary registrations should call the office.

## SEMINAR SELECTIONS

Seminar descriptions can be found on pages 16-33. Seminars are NOT included with the full conference package. Class sizes are limited so register early. Trade show pass is NOT included with seminar registration.

## FULL CONFERENCE PACKAGE

Your full conference package includes:

- General Education Session
- Trade Show Pass for Tuesday and Wednesday
- Wednesday Lunch

## FAMILY REGISTRATION

Complimentary registration is offered to spouses/significant others and children of Carolinas GCSA members. Guests will have access to the trade show Tuesday and Wednesday.

## COMPLIMENTARY PARKING

Complimentary parking in the large lot behind the Myrtle Beach Convention Center is made possible with the partnership by Bayer, Carolina Fresh Farms, Nufarm and Regal.

## NO SMOKING POLICY

The MBCC and all official Carolinas GCSA Conference and Show events will be smoke free.

## ALCOHOL POLICY

Alcohol is not allowed on the trade show floor under any circumstances.

# PESTICIDE CREDITS AND GCSAA EDUCATION POINTS

	ID #	Seminar	Instructor	SC	NC	GA	TN	GCSAA Ed.Points.
Monday Morning 8:00-11:30 am	1	Making Herbicides Work and Why They Sometimes Fail?	Travis Gannon, Ph.D. Bert McCarty, Ph.D.	3	3.5	3	3	0.30
	2	How Much Shade is Too Much Shade?	Mike Richardson, Ph.D.	0	0	0	0	0.30
	3	Advanced and Cost-Effective Management of Insect Pest of Warm Season Turf	Rick Brandenburg, Ph.D. Matt Martin	3	3.5	3	3	0.30
	4	Advanced Weed Management - Cool Season Grasses	Jim Brosnan, Ph.D. Fred Yelverton, Ph.D.	3	3.5	3	3	0.30
Monday Afternoon 12:30-4:00 pm	5	Fundamentals of Wetting Agents	Mike Richardson, Ph.D.	0	3.5	3	3	0.30
	6	Cool Season Turfgrass Insect - Annual Bluegrass Weevil	Terri Billeisen, Ph.D. Rick Brandenburg, Ph.D.	3	3.5	3	3	0.30
	7	Advanced Weed Management - Warm Season Grasses	Bert McCarty, Ph.D. Fred Yelverton, Ph.D.	3	3.5	3	3	0.30
	8	Plant Growth Regulators for Fine Warm Season Turf	Jim Brosnan, Ph.D.	3	3.5	3	3	0.30
	9	Understanding the Intersection of Fertility and Disease Management	Grady Miller, Ph.D. Joe Roberts, Ph.D.	0	0	0	0	0.30
	10	Understanding Pesticide Behavior to Optimize Applications and Minimize Collateral Damage	Travis Gannon, Ph.D.	3	3.5	3	3	0.30
Tuesday Morning 8:00-11:30 am	11	Appreciation - A Tool Rarely Used to Motivate	Dean M. Graves	0	0	0	0	0.30
	12	Getting to the Root of Soilborne Diseases - Cool Season Turfgrasses	Brandon Horvath, Ph.D. Lee Miller, Ph.D.	3	3.5	3	3	0.30
	13	Putting the "Fun" in Fungicides: Fungicide Program Development and Dealing with Bugs and Crud - Cool Season Turf	Lee Butler Jim Kerns, Ph.D.	3	3.5	3	3	0.30
	14	Warm Season/Cool Season: POA Management and Resistance	Moderator: Bo Barefoot Bert McCarty, Ph.D. Jim Brosnan, Ph.D. Travis Gannon, Ph.D. Fred Yelverton, Ph.D.	3	3.5	3	3	0.30
	15	Tips for Success: How to Survive and Thrive in the Turfgrass Industry	Don Garrett, CGCS	0	0	0	0	0.30
	16	Fraise Mowing: Management and Weed Control	Raymond McCauley, Ph.D. Bryan Unruh, Ph.D. Mike Richardson, Ph.D.	0	0	0	0	0.30
	17	Talent Acquisition and Recruitment Strategies	Tyler Bloom	0	0	0	0	0.30
	18	The "Other" Essential Elements and Some That Might Be?	Beth Guertal, Ph.D.	0	0	0	0	0.30
	19	The Challenge of Managing Nematodes in Turf	Bruce Martin, Ph.D. Joe Roberts, Ph.D.	3	3.5	3	3	0.30
Tuesday Afternoon 12:30-4 pm	20	Management of Ultradwarf Bermudagrass	Moderator: Jim Huntoon Adam Charles Jim Evans Jared Nemitz Keith Wood	3	3.5	3	3	0.30
	21	Introduction to Keeping Your Ponds Free of Unsightly Plants & Algae*	Matthew Cutulle, Ph.D. Rob Richardson, Ph.D.	3	3.5	3	3	0.30
	22	Renovating and Using Roundup?	Travis Gannon, Ph.D. Bert McCarty, Ph.D. Fred Yelverton, Ph.D.	3	3.5	3	3	0.30
	23	Carolinas Labor BMP	Tyler Bloom	0	0	0	0	0.30
	24	POA Resistance: The Ins and Outs and Dos and Don'ts	Jim Brosnan, Ph.D.	3	3.5	3	3	0.30
	25	Getting to the Root of Soilborne Diseases - Warm Season Turfgrasses	Jim Kerns, Ph.D. Joe Roberts, Ph.D.	3	3.5	3	3	0.30
	26	Soil Testing and How to Read Reports	Beth Guertal, Ph.D.	0	0	0	0	0.30
	27	Bunker Construction: How to Avoid Digging Yourself into a Hole	Adam Moeller, Ph.D. Earl Sanders	0	0	0	0	0.30
	28	Winter Management of Ultradwarf Bermudagrass Putting Greens	Jordan Booth Bruce Martin, Ph.D. Mike Richardson, Ph.D.	3	3.5	3	3	0.30
		General Education Session		1.5	0.5	3	3	0.30

\*Aquatic Credits



# CAROLINAS GCSA CONFERENCE AND TRADE SHOW • NOVEMBER 15-17, 2021

**ADVANCED FEE REGISTRATION DEADLINE: OCTOBER 17, 2021**

## REGISTER ONLINE AT:

<https://www.carolinasgcsa.org/Education-Conference/Conference-and-Show/Attendees/Conference-Registration>

**Members:** Click on the url link above  
Select Attendee Member Registration  
Login with username and password

**NonMembers:** Click on the url link above  
Select Attendee Non-Member Registration  
Enter First Name, Last Name and Email  
Follow the onscreen instructions

**Exhibitors:** Click on the url link above  
Select Exhibitor Registration  
Enter Booth Number  
Follow the onscreen instructions  
(Do Not log in as individuals)

If you **forget your username or password** click on Forgot Username or Password and you will be emailed a link to reset.  
The Carolinas GCSA Data System Does Not Show an Individual Password

**ADVANCED FEE REGISTRATION Deadline:** October 17, 2021 at midnight  
**STANDARD FEE REGISTRATION Deadline:** November 7, 2021 at midnight  
**AFTER NOVEMBER 7TH YOU MUST REGISTER AT THE EVENT**

■ REGISTRATION OPTIONS						
	Advanced Fee Prior to Oct 17		Standard Fee After Oct 17		On Site Fee	
	Member	Non-Mem.	Member	Non-Mem.	Member	Non-Mem.
<b>Full Conference Package</b>	180	205	195	220	220	245
<b>Full Student Package</b>	55	55	55	55	55	55
<i>(Package includes General Education Session, Trade Show, Wednesday Lunch, Excludes Seminars)</i>						
<b>SUNDAY</b>						
Assistant Superintendent Reception	0	0	0	0	0	0
<b>MONDAY</b>						
■ SEMINARS SELECTIONS See page 42						
	Member	Non-Mem.	Member	Non-Mem.	Member	Non-Mem.
Mon. (8-11:30)	65	90	80	105	105	130
Mon. (12:30-4:00)	65	90	80	105	105	130
Medal Play	110	135	125	150	150	175
Senior Medal Play (Over 50)	110	135	125	150	150	175
Four Ball	110	135	125	150	150	175
Captain's Choice	110	135	125	150	150	175
Sporting Clay	60	85	75	100	100	125
<b>TUESDAY</b>						
■ SEMINARS SELECTIONS See page 42						
	Member	Non-Mem.	Member	Non-Mem.	Member	Non-Mem.
Tues. (8-11:30)	65	90	80	105	105	130
Tues. (12:30-4:00)	65	90	80	105	105	130
Carolinas Night on the Beach	50	50	75	75	100	100
Spouse/Significant other	50	50	75	75	100	100
Trade Show Pass (T/W)	95	120	110	135	135	160
<b>WEDNESDAY</b>						
Fellowship Breakfast	0	0	0	0	0	0

# 2021 SUPERINTENDENT IMAGE CAMPAIGN

The Carolinas GCSA greatly appreciates the support of the following companies in promoting awareness and appreciation of the role of golf course superintendents.

## GOLD CLUB

### **Arboguard Tree Specialists**

**Barry L. Gemberling**

*Senior Corporate Arborist - The Carolinas*  
P. O. Box 26767 • Charlotte, NC 28221  
Phone (704) 578-5662  
bgemberling@arboguard.com

### **Coastal Floratine, Inc.**

**Jeffrey A. Fitcher, Owner/President**  
P. O. Box 30267  
Myrtle Beach, SC 29588  
Phone (843) 215-6652  
coastalfloratine@gmail.com

### **East Coast Turf Solutions, LLC DryJect and Root Pruning**

**Matt Spatara, Owner**  
8097 Sierra Oaks Blvd.  
Jacksonville, FL 32219  
Phone (904) 615-0288  
matt@eastcoastturf.net

### **FMC Professional Solutions**

**Chris Pearson, Market Specialist**  
303 Cherry Laurel Drive • Clayton, NC 27527  
Phone (919) 795-2649  
chris.pearson@fmc.com

### **Green Resource**

**Jonathan B. Annas, Director**  
5204 Highgreen Court • Colfax, NC 27235  
Phone (336) 669-3236  
jannas@green-resource.com  
**Robert G. Herring**  
*Director, Sales & Marketing*  
P O Box 429 • Colfax, NC 27235  
Phone (336) 215-5368  
rherring@green-resource.com

### **Green Tee Golf, Inc.**

**Earl Sanders, Owner**  
2502 Reynolds Industrial Blvd.  
Augusta, GA 30907  
Phone (706) 496-8586  
greenteegolfinc@aol.com

### **Greenville Turf and Tractor, Inc.**

**Lon Fleming, CEO**  
**Bob Mauragas, President**  
701 Sandy Springs Road  
Piedmont, SC 29673  
Phone (866) 485-8873  
Phone (864) 527-1050  
Phone (843) 742-9583  
Fax (864) 527-1051  
lon.fleming@greenvilleturf.com  
bob.mauragas@greenvilleturf.com

### **Helena Agri Enterprises, LLC**

**Marc Allen, Branch Manager**  
120 Settle Road • Inman, SC 29349  
Phone (864) 706-3927  
allenmd@helenaagri.com

### **J.K. Morro, Inc.**

**Thomas P. Porter, Owner**  
124 Palos Verde Drive  
Mooreville, NC 28117  
Phone (704) 928-9839  
tporter@jkmorro.com

### **Nufarm Americas**

**Cam Copley, Golf National Accounts Manager**  
2104 Countrywood North Road  
Raleigh, NC 27615  
Phone (630) 442-4882  
cam.copley@nufarm.com

### **Revels Turf and Tractor Co.**

**Turner Revels, President**  
**Anthony Revels, COO**  
2217 North Main Street  
Fuquay-Varina, NC 27526  
Phone (919) 552-5697  
Phone (919) 369-7728  
Toll Free (800) 849-5469  
revelscharlest@revelstractor.com  
anthony@revelstractor.com

### **Smith Turf & Irrigation**

**Steve Smith, CEO**  
**Anna-Lindsay Yarbrough, President & COO**  
**Brent Miller, Sales Manager - Golf & Grounds**  
P.O. Box 669388 • Charlotte, NC 28266  
Phone (704) 909-3312  
Phone (800) 932-8676  
Phone (704) 512-9118  
steve.smith@smithturf.com  
anna-lindsay.yarbrough@smithturf.com  
brent.miller@smithturf.com

### **Southern Ag**

**Andrew L. Wampler, Sales Representative**  
P O Box 429 • Hendersonville, NC 28793  
Phone (828) 674-2594  
andrew.wampler44@gmail.com

### **Syngenta**

**Ben Peters**  
*Territory Manager, Professional Solutions*  
Phone (919) 214-2054  
ben.peters@syngenta.com  
**Gracee Hendrix**  
*Territory Manager, Professional Solutions*  
Phone (904) 718-1845  
gracee.hendrix@syngenta.com  
**Danny Jones**  
*Territory Manager, Professional Solutions*  
Phone (770) 329-8686  
danny.jones@syngenta.com

### **Larry Feller**

*Territory Manager, Professional Solutions*  
Phone (843) 693-2187  
larry.feller@syngenta.com

### **Tri-State Pump & Control, Inc. - TSP Turf**

**Al Wilson, CEO**  
**Tripp Cobb, President**  
**Nicole Davis, Marketing Manager**  
1162 Chastain Road • Liberty, SC 29657  
Phone (864) 843-8100  
Fax (864) 843-6373  
awilson@tsppumps.com  
tcobb@tsppumps.com  
ndavis@tsppumps.com

### **Triangle Turf & Ornamental**

**Terry J. Kallam, Division Manager**  
455 U.S. Highway 70 • P.O. Box 368  
Garner, NC 27529  
Mobile (252) 559-0329  
tjkallam@trianglecc.com

## SILVER CLUB

### **Aqua Aid Solutions**

**Sam Green, President**  
5484 S. Old Carriage Road  
Rocky Mount, NC 27803  
Phone (252) 937-4107  
sam@aquaaaid.com

### **Arborjet/Ecologel**

**Eric Steffensen**  
*Eastern Regional Sales Manager*  
228 Annatto Way • Tega Cay, SC 29708  
Phone (704) 441-2509  
esteffensen@arborjet.com

### **Bulk Aggregate Golf, Inc.**

**Wally Gresham, Sales**  
**Randy Dallas, Sales**  
2931 Paces Ferry Road, Suite 100  
Atlanta, GA 30339  
Phone (770) 438-7955  
Phone (910) 379-4889  
wally@bulkagg.com  
rdallas@bulkagg.com

### **Texas Refinery Corp.**

**Bill Wallin, Independent Lubricants Consultant**  
475 Jake Alex Blvd. W., Suite 102  
Salisbury, NC 28147  
Phone (704) 213-4990  
wcwallin@gmail.com

### **The Mazzella Partnership, LLC**

**Nick Mazzella, Owner**  
400 Landau Road • Waxhaw, NC 28173  
Phone (704) 650-4859  
nick@mazzellapartnership.com





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