



*Ogden Golf & Country Club, Ogden, UT
Superintendent: Greg Gilmore*

-MISSION STATEMENT-

The Utah GCSA is dedicated to improving the superintendents' position in the golf industry through education, networking, advocacy and to grow the game of golf.

-VISION STATEMENT-

The Utah GCSA is a community of golf course management professionals and a go-to information source to enhance and grow the profession.



UPCOMING EVENTS

- ✓ March 31: 2020 UGCSA memberships expire
- ✓ April 1: UGCSA Educational Scholarships open
- ✓ April 15: Legacy Awards applications due
- ✓ April 26 - May 2: Rounds 4 Research auction
- ✓ April 30: ELGA applications due
- ✓ April 30: MVT nomination deadline
- ✓ May 15: UGCSA Educational Scholarship deadline



OFFICERS

- President: Nate James, Soldier Hollow Golf Course
- Vice President: Brian Roth, CGCS, Oquirrh Hills Golf Course
- Secretary/Treasurer: Wes York, Oakridge Country Club

DIRECTORS

- Jay Geise, Hobble Creek Golf Course
- Dallin Naulu, The Oaks at Spanish Fork
- Mike Valiant, CGCS, Glenwild Golf & Spa
- Josh Virostko, Lakeside Golf Course

ASSISTANT DIRECTOR

- Brecken Varah - Willow Creek Country Club

AFFILIATE REPRESENTATIVES

- Eric Allred, Green Source, LLC
- Ross O'Fee, CGCS, Empire Turf, Inc.

PAST PRESIDENT

- Alan Davis - Willow Creek Country Club

NEWSLETTER EDITORS IN CHIEF

- Alan Davis & Kara Davis

UTAH GCSA OFFICE

- Natalie Barker, Chapter Executive
- P.O. Box 572583 Murray, Utah 84157
- Phone: (801) 282-5274
- Email: intermountaingcsa@gmail.com

INSIDE THIS ISSUE

Page 4: President's Message

Page 6: Chapter Executive's Corner

Page 7: New Members

Pages 9-10: Member Spotlights

Page 12: Most Valuable Technician

Page 14: Certified Status Renewal

Page 15: Rounds 4 Research

Pages 17-18: Environmental Leaders

Pages 20-28: Biological Thatch

Page 28: Mobile Alerts

Page 30: 2021 Utah GCSA Sponsors

SPONSOR ADS

Page 3: Sprinkler Supply Company

Page 5: RMT Equipment

Page 7: Target Specialty Products

Page 8: Stotz Equipment

Page 11: Turf Equipment & Irrigation

Page 13: Mountainland Supply

Page 14: Wheeler Machinery

Page 14: Simplot Turf & Horticulture

Page 16: Airgronomics

Page 19: Winfield

Page 23: Green Source, LLC

Page 26: Mile High Turfgrass

Page 29: Wilbur Ellis

*The highest compliment you can pay our sponsors is by purchasing from them.
They support our association so let's support them!*

BUILT TO LAST

THE G885 GOLF ROTOR:
POWERFUL, PRECISE AND VERSATILE.



THE PERFECT COMBINATION OF POWER, PERFORMANCE, AND SERVICEABILITY.

Powerful – patented gear drive offers the highest torque output of any rotor on the market



21 Nozzles – precision, versatility, and wind-fighting efficiency



Total Top Service – access every component through the top without disturbing the playing surface



G885
TTS SERIES
GOLF ROTOR

Sprinkler Supply Company
801-566-8102
www.sprinklersupplyco.com

GOLF IRRIGATION | *Built on Innovation®*
Learn more. Visit hunterindustries.com



Hunter®



PRESIDENT'S MESSAGE

Nate James, Soldier Hollow Golf Course

Hi UGCSA Members,

It surely has been a mild winter and I am hoping you have gotten out and enjoyed this nice weather we have experienced! For the most part, it does not look like it will slow down anytime soon. Spring weather is on the way. Warm sunshine and blue skies are in our future. There is nothing finer than feeling that warm sunshine on your shoulders as you gallivant down the fairway after a well struck tee shot.

This will easily be a memorable year in history. Traditionally, we would look back, fondly on the year and reminisce of the accomplishments, great golf and celebrate the season. This year however, we are more excited about looking forward to 2021 than discussing the pandemic and the shadow it cast over the last year.

One thing we all learned about 2020 is that we all experienced some kind of change. Turns out, we like some control with our change. But that runs contrary to most of our lives which, some would argue, are not in our complete control. **I urge you to embrace change, by stepping into a more active role as a UGCSA member.**

I've heard some people say "Why would I want to go to an association meeting? It's not like I'm going to get anything out of it." Those people are missing out! Not only can you learn a lot from networking with your members, active participation in a professional association can also bring in business.

I became a member mainly for the reasons mentioned above, and although it was certainly worthwhile in both of these areas, my relationships with other members brought me far greater benefits than I could ever have imagined! **You can become more active by:**

- ✓ **Being active on the board**
- ✓ **Being a committee member**
- ✓ **Playing in one of our sponsored golf tournaments**
- ✓ **Attending our conference meetings**
- ✓ **Volunteering for one of our community service projects**

So as the calendar page turns to a new year, let me say thank you. Thank you for your continued dedication, loyalty and support. Let us all march into April with pride of what we have accomplished, and the drive to make the next year even more amazing as we move forward.

Have a great start to your season, and I look forward to seeing you all soon.

Sincerely,

Nathan James



SPRING SPECIALS GOING ON NOW!

For Details

Call 801-261-2100

Your One Stop Shop For All Your Equipment Needs

www.RMTEquipment.com

4225 S 500 W Murray, Utah 84123 | 801-261-2100



CHAPTER EXECUTIVE'S CORNER



Hi Everyone! Happy SPRING!!

A chance for new ideas, processes, and thoughts to bloom. As we head into the golf season, I'm wishing you all a great year! Here are a few reminders and items of interest...



Membership applications have been mailed out to address you have on file. (year runs from April 1st—March 31st). Make it easier and join/renew online at www.utahgcsa.org. Please note that retired members and equipment managers ONLY need to fill out and submit the application portion.



The Rounds 4 Research auction is open from April 26 - May 2. This is a great opportunity to bid on those high-end courses that are difficult to get on. Going out of town? Check out what courses are available in the area! Proceeds support turfgrass research and our local chapter. If you are interested in donating a round, visit <https://www.eifg.org/research/rounds-4-research>



In addition to the Utah GCSA Educational Scholarship, GCSAA is offering a \$1,500 Legacy Award for children and grandchildren of members. For more information, check out <https://www.gcsaa.org/education/scholarships>

Natalie Barker, Chapter Executive



new members

- Eric Davis, Assistant Superintendent – South Mountain Golf Course
- Shelby DuBois, Equipment Manager – Lakeside Golf Course
- Marshall Fast, Assistant Superintendent – Mountain Dell Golf Course
- Rick Luke, Assistant Superintendent – Stonebridge Golf Course
- Justin Richardson, Equipment Manager – Soldier Hollow Golf Course
- Devin Sanchez, Assistant Superintendent – Stonebridge Golf Course
- Austin Tilley, Assistant Superintendent – Stonebridge Golf Course
- Justin Wilkerson, Equipment Manager – Wapika Ranch Golf Course

SPRING TURF RECOVERY

POWERED BY NUTRIFENSE™

April 7, 2019

June 1, 2019

"The spring of 2019 was the most challenging of my career. Ice caused extensive damage on over an acre of greens. The Turf Fuel Recovery Program exceeded my expectations and helped me open my greens sooner than I anticipated. I am so glad I trusted Turf Fuel products with my fertility during my recovery, and I am excited to use their products in a standard program."

- Ian Daniels,
Superintendent, Teugega Country Club





Salt Lake City, UT
Daryl Dinkel | 970.214.7101
daryl.dinkel@target-specialty.com

target-specialty.com/uts
Freeport Center, Building J-10
Clearfield, UT 84015



TSP UTDCSA 10 RL_03-03-20



JOHN DEERE



STOTZ
EQUIPMENT

9009A TerrainCut™
Rough Mower



WE ALSO CARRY
AND SERVICE:



**WE MAKE YOUR
LIFE EASIER!**

14750 S Pony Express Rd | Bluffdale, UT 84065
(801) 966-4231 | www.StotzEquipment.com

FEBRUARY

MEMBER SPOTLIGHT



**Questions with
Sean Rivera, Superintendent @
Schneider's Bluff Golf Course in West Point, UT**

**1. HOW LONG HAVE YOU LIVED IN UTAH?**

Lived in Utah for 39 year (my entire life).

2. WHY UTAH?

Where else would I wanna be ;) My wife and I have all our family here, we love the 4 seasons. Utah is a great place to raise a family.

3. WHAT DREW YOU TO YOUR CURRENT FACILITY?

I started working at Schneider's Bluff when I was 15/16 years old (1998) as a sand trap specialist:)). From there, I became the Assistant (2001) and eventually the Superintendent (2004).

4. ENJOY CITY OR COUNTRY MORE?

West Point has always been country living so definitely country living over city living. When I started at the course that was the only thing out there. Now we have housing creeping all around and Legacy coming right by us, I'm turning into the old man who misses the good ole days!

5. HOBBIES / INTERESTS?

My hobbies are golf - of course, fishing, camping, hunting, pickle ball, and a good Texas Hold'em game.

6. HOW IS YOUR GOLF GAME? HOW MANY TIMES DO YOU PLAY A YEAR?

My golf game comes and goes. If I keep it in the low 80s I'm happy. I try and play 18 holes a week with the crew. It's a good team builder and lets us see the course from the players perspective.

7. FAVORITE PRO / COLLEGE TEAMS?

I'm a Bears, Irish, Jazz, and Red Sox fan. I must admit I don't watch like I used to. I Love watching golf though.

8. WHAT IS THE MOST INTERESTING SITUATION (WORK OR PERSONAL) YOU'VE BEEN IN?

Like everyone else, the challenges of the hot dry summers never cease! Just when you think you have seen it all, the course will throw something new at you. This year we had a pump go out mid-summer. I'm glad to have that be the first one to go out and hope to avoid it (at least in July/august) from here on out.

9. ANYTHING ELSE YOU WANT TO SHARE?

I have been married for 14 years (Kayli), 3 kids, 2 boys Bennett 19 (just joined the Air Force) Cole 11, and Ivy 14.

MARCH

MEMBER SPOTLIGHT



10 Questions with Brent Spencer, Superintendent @ Sunset View Golf Course in Delta, UT

1. HOW LONG HAVE YOU LIVED IN UTAH?

63.75 years (entire life)

2. WHY UTAH?

I didn't have a choice. Mom had me, and I have been stuck ever since. (I really love it here)



3. WHERE ARE YOU FROM ORIGINALLY / RELOCATED FROM RECENTLY?

Born in Delta and have lived in Hinckley my whole life.

4. WHAT DREW YOU TO YOUR CURRENT FACILITY?

I grew up as a truck driver/heavy mechanic. I wanted something a little more stable, so I applied to work for Millard County Recreation in hopes that it would help me get a job with the road department. I worked in the shop for the first winter, and then moved over to the golf course in the winter. I fell in love with working on the golf course and have been there ever since.



5. ENJOY CITY OR COUNTRY MORE?

I am a 100% country boy. I only go to the city when my wife or kids make me.

6. HOBBIES / INTERESTS?

My family is first and foremost the most important to me. So, everything I do really revolves around them. Hunting, camping, watching sports, and the occasional golf game.

7. HOW IS YOUR GOLF GAME? HOW MANY TIMES DO YOU PLAY A YEAR?

For me, I feel I play pretty well, as long as I get as many mulligans as I can. I don't do it to compete but am just a recreational golfer. I get out and golf as much as I can depending on work and family.

8. FAVORITE PRO / COLLEGE TEAMS?

My favorite Pro Golfer is Phil Mickelson. Denver Broncos have always been a favorite, and as for college Brigham Young University (BYU) is who I tend to cheer for the most.

9. WHAT IS THE MOST INTERESTING SITUATION (WORK OR PERSONAL) YOU'VE BEEN IN?

My kids will tell you that it was me driving a dump truck down a single lane road through the canyons with switchbacks not big enough for the truck (at 16). I got pretty good at hanging half the car off the side of a cliff while driving, thanks to my dad.

Personally, I would say that I have kissed the Blarney Stone in Ireland (my wife made me do it since she's from Dublin. Other than that, I've golfed around the world; Japan, Ireland, Germany, and a lot around the United States.

10. ANYTHING ELSE YOU WANT TO SHARE?

I would like to personally thank some of the Pros that I've worked with throughout the years; Kent Abegillen, Todd Mullen, and Casey Fowles - you all are amazing and have helped out a lot through the years.

Kevin Morris, thank you for hiring me and teaching me what I know. You have been a great friend through the good and the bad my whole life.

I would also like to thank my wife for all she puts up with. She is an amazing woman, and sometimes I feel like she is the mistress of the relationship when I have to run out to the golf course to fix something.



Turf Equipment & Irrigation, Inc. Salt Lake City, St. George, Utah & Boise, Idaho
 Toll Free 800-566-8873 SLC 801-566-3256 or Boise 208-331-0074



*Setting the Standard with the
 World's Most Cultured Grinders*



THE LEADER. SINCE 1961.



Results through design, not weight.



2021 MOST VALUABLE TECHNICIAN AWARD

Presented in partnership with Foley Company

Does your turf equipment technician deserve some much-needed recognition for the vital, behind-the-scenes role they play in the success of your golf facility? If so, he or she is eligible for *GCM's* Most Valuable Technician (MVT) awards program, presented in partnership with Foley Company.



RECOGNITION



There are several benefits to you and your equipment technician if he or she wins:

- Both the nominating superintendent and the winning equipment manager will receive a complimentary trip to the Golf Industry Show (full-pack registration, airfare, hotel and spending allowance).
- The winning equipment manager will receive \$2,500.
- The chapter of the nominating superintendent will receive \$1,000. Be sure to nominate your equipment manager to make a difference for your chapter as well!

SELECTION



The industry will vote for the MVT winner in May. Nominations will be narrowed to a field of three finalists by a team of industry judges. *GCM* readers will have the opportunity to review the qualifications of the finalists and vote online for their favorite. The winner of the MVT contest is then profiled in the magazine.

DEADLINE



Nominations for the 2021 MVT award are open through April 30, 2021

Submit a nomination **by April 30th** here:
<https://form.jotform.com/80314582626961>

**THE PERFECT TOOLS
FOR ANY GOLF
SUPER & TEAM!**

GET
10%
OFF!

**NOW WITH MM18 FUEL™
QUIK-LOK™ ATTACHMENT SYSTEM**

Milwaukee

COUNTER DAYS

Don't Miss Out!

10% Off Milwaukee Power Tools,
Hand Tools, and Accessories!

Apr. 7thOrem AG

Apr. 13thSpanish Fork

Apr. 15thSt. George HVAC

Apr. 26thVernal

Apr. 27thRoosevelt

Apr. 29thRock Springs

May 5thKaysville

May 11thSalt Lake City

May 13thOrem HVAC

May 18thPocatello

May 20thIdaho Falls

May 25thFarr West
Tool & Safety

**JOIN US FOR LIVE-DEMO
MILWAUKEE COUNTER DAYS**



Contact Jeff Stoddart, Sales Manager for Mountainland Supply
Golf & Turf at jeff.stoddart@mc.supply

MOUNTAINLAND
SUPPLY COMPANY

mountainlandsupply.com



Congratulations to **Christopher P. Hart, CGCS**, Superintendent at Wapika Ranch Golf Course in Big Piney, Wyoming, for renewing his certified status in January 2021!



Portable Air Compressors:

- Higher Air Flow
- Better Specific Fuel Consumption
- Larger Fuel Autonomy

Contact Jay Brown at 801-209-4964 for all your Compressed Air and Generator needs.

Wheeler Power Systems **CAT**

wheelercat.com | [f](#) [t](#) [y](#) [in](#)



Simplot
TURF & HORTICULTURE

Reveal the beauty within

Rely on **PerformancePack™** to enhance the look and performance of your turf and landscape.

YOUR REP:
Patrick Sherer
patrick.sherer@simplot.com
cell: (208) 850-0736 | 208-454-6343

Learn more about all 10 PerformancePacks at **TH.Simplot.com** and follow **@SimplotTurf** on Twitter.

© 2021 J. R. Simplot Company.



The Rounds 4 Research program was designed to address a critical shortage in turfgrass research funding by auctioning donated rounds of golf online.

The program is administered by the Environmental Institute for Golf, the philanthropic organization of the Golf Course Superintendents Association of America.

Rounds 4 Research allows GCSAA chapters and turfgrass foundations to participate as fundraising partners with the vast majority of proceeds going back to those organizations. In this way, these organizations can direct the proceeds to specific projects that will have the most significant impact in their local areas.

The EIFG's Rounds 4 Research is an expansion of the innovative program that was introduced by the Carolinas Golf Course Superintendents Association. After the Carolinas GCSA realized the program's scope had grown beyond what it could administer, it offered the program to GCSAA. As GCSAA's philanthropic organization, the EIFG was the natural choice to oversee this exciting fundraising effort.

With your support, you can help us keep the future of our game green.

Donate a round here:

<https://www.eifg.org/research/rounds-4-research/donate-a-round/online-form>



AIR2G2



SHOCKWAVE



KORO



ROOT PRUNING



LASER GRADING



SISIS

CALL US TODAY!
801.814.1159

Utah
Colorado
Southern Idaho
and Wyoming

FOLLOW US



Justin Woodland
airgronomics@gmail.com

www.AIRGRONOMICS.com

2021



GCSAA

ENVIRONMENTAL
LEADERS IN GOLF

AWARD

Presented by GCSAA and *Golf Digest*

In partnership with

syngenta®

In support of



Get the recognition you deserve and
help advocate for the golf industry.

GCSAA/*Golf Digest* Environmental Leaders in Golf Awards

There are four ELGA awards available.
Members may apply for one, two, three,
or all four awards in a single year.

The awards are:

- Natural Resource Conservation Award
- Healthy Land Stewardship Award
- Communications and Outreach Award
- Innovative Conservation Award

**NEW
DATES**

One winner and two runners-up will be recognized for each of the four awards. An individual can only win one award per year. Applications will open **February 1, 2021** and will close **April 30, 2021**.

Visit www.gcsaa.org/ELGA to apply today to
support the superintendent profession!

More details

2021



GCSAA

ENVIRONMENTAL
LEADERS IN GOLF

AWARD

Presented by GCSAA and *Golf Digest*

In partnership with

The syngenta logo consists of the word "syngenta" in a blue, lowercase, sans-serif font, with a small green leaf icon above the "y".

In support of



Why should you apply?

1. Highlighting your environmental stewardship benefits the whole golf industry.
 - *Golf Digest features the winners every year, highlighting the great work of superintendents to their golfing audience.*
 - *GCSAA uses these stories to advocate for golf to legislators and the general public.*
2. Applying is easier than ever!
 - *The online application is mostly yes/no questions.*
 - *The system saves your answers so you can start now and finish later.*
 - *The system saves your answers from previous years, so next time you can just edit and resubmit.*
3. You don't have to be an all-around standout to win.
 - *The awards are set up to recognize people in specific areas of conservation.*
 - *Since you can only win the award once – keep applying if you don't win. You may have scored right behind the winners who then won't eligible the next year.*

These environmental stewards demonstrate the importance of valuable green space in our local communities while showing the economic savings of conservation practices implemented on golf courses. We know that many superintendents are not comfortable seeking recognition for the excellent work they do, but stories about ELGA award winners and their courses help us advocate for the superintendent profession and demonstrate the value of professionally managed landscapes.

Apply by April 30th here: <https://gcsaa.org/ELGA/>

WINFIELD®

Helping You Win

Service. Solutions. Insights.

When it comes to your course, you need a partner that's consistent. Count on us for the right products and the technical insights you need to help your business thrive.

Call your WinField® representative today to learn how we can help you win.

ROMAN GRIGG, Sales Representative • 208-520-9030 • rdgrigg@landolakes.com

adjuvants • dyes/wetting agents
herbicides • insecticides • fungicides
fertilizers • micronutrients

winfieldpro.com



EVALUATING BIOLOGICAL THATCH CONTROL IN TURFGRASS

Some biostimulants may reduce thatch without the disruption to play that occurs with aerification or other intensive practices.

December 2020 | Josh Weaver, Ph.D., and Bert McCarty, Ph.D. **GCM**

Filed to: [Biostimulants](#), [Soil](#)



The site for this research was a Diamond zoysiagrass nursery green at Clemson University's Walker Golf Course in Clemson, S.C. Photos by Josh Weaver

Thatch is a layer of living and dead plant material (mostly shoots, stems and roots) between turfgrass leaf tissue and the soil surface (3). Moderate levels of thatch provide desirable surface resiliency and nutrient retention, but excessive levels can decrease playability of turf surfaces, increase disease pressure and mower scalping, and

CONTINUED...



EVALUATING BIOLOGICAL THATCH CONTROL (CONT'D)

reduce pesticide efficacy and water infiltration (4). In a high-maintenance turf setting such as a golf green, plant tissue is often produced faster than it is decomposed, resulting in thatch accumulation.

In recent years, considerable attention has been focused on controlling thatch/organic material buildup in golf greens without using traditional methods such as aerification, verticutting, grooming and topdressing, which disrupt play. Previous studies have investigated biological thatch control options such as biostimulants, which are organic materials that, when applied in small quantities, enhance plant growth and development (6). Most biostimulants contain an array of sucrose, glucose or other sugar sources; plant nutrients at low rates; and various acids, wetting agents/surfactants and inoculated microorganisms (5).

The objective of this research was to evaluate two biostimulant products, Worm Power Turf and EarthMax, and their impacts on thatch and rooting depth. In addition to the biostimulants, two industry standards, blackstrap molasses and sand topdressing, were included in the research.

Materials and methods

Two 16-week field studies were conducted from May to September 2018 and replicated from May to September 2019 on a Diamond zoysiagrass [*Zoysia matrella* (L.) Merr.] nursery green at the Walker Golf Course at Clemson University in Clemson, S.C. The same location on the nursery green was used in both years of the study. The objectives of this study were to measure surface firmness within the treated areas and to determine the effects of biostimulants and cultural practices on turfgrass rooting length and mass, turfgrass thatch thickness and weight, turf quality, and normalized difference vegetation index (NDVI).

The zoysiagrass green was established in June 2013 via sod in a former creeping bentgrass green constructed with USGA soil mix in 1995. The experiment was arranged with 6.5- × 9.8-foot (2- × 3-meter) plots as a randomized complete block design with four replicates.

Treatments were applied using a pressurized CO₂ backpack boom sprayer with a carrier volume of 20.3 gallons/acre (190 liters/hectare) through TeeJet 8003 flat-fan nozzles. Treatments and application frequencies are presented in [Table 1](#). Maintenance overhead irrigation equivalent to 0.5 inch (1.25 centimeters) was applied as needed, but all treatments were watered immediately after application with this rate.

Plots were mowed daily by Walker Golf Course staff from 0.1 to 0.125 inch (2.54 to 3.175 millimeters). Solid-tine aerification, vertical mower grooming and topdressing were all performed uniformly throughout the study. Core aeration was performed using 1.27-centimeter tines with 1- × 1-inch (2.54- × 2.54-centimeter) spacing on June 25, 2018, and June 21, 2019.

Fertilization was applied via foliar application equivalent to 32.1 ounces nitrogen/1,000 square feet (9.8 grams/square meter) per month during rating dates. Fall fungicide applications were applied uniformly across plots, but no additional biostimulant products were applied by the golf course staff.

CONTINUED...



EVALUATING BIOLOGICAL THATCH CONTROL (CONT'D)

Application rates for the two biostimulants, Worm Power Turf (Aqua-Aid Solutions) and EarthMax (Harrell's), were taken from product labels (see [Table 1](#)). Rates for the molasses treatment, a commercial formulation of blackstrap molasses (The Plant Food Co.), and sand topdressing are also shown in [Table 1](#).

Measurements

Treatment effects were assessed by measuring turf quality, normalized difference vegetation index, surface firmness, turfgrass rooting length, rooting weight, thatch thickness and thatch weight. Turf quality ratings included color, density and vigor (2). No statistical differences were found among any treatments for turf quality, NDVI or surface firmness in either year of the study, and all treatments provided satisfactory turf (data not shown).

At study initiation and completion, thatch thickness (the distance between living green tissue and soil surface) was measured with a ruler in millimeters. At study completion, rooting mass measurements were taken. Roots were washed to remove soil, dried at 80 degrees C for 72 hours (1), weighed, and then ashed in a muffle furnace for three hours at 550 degrees C. Remaining contents were reweighed. Total rooting weight was the difference between the weight of the oven-dried roots and the ashed roots. Determined by the same method, thatch weight was the difference between the weight of the oven-dried thatch and the ashed thatch.

Results and discussion

Products were evaluated for their ability to increase root length and weight and decrease thatch weight and thickness.

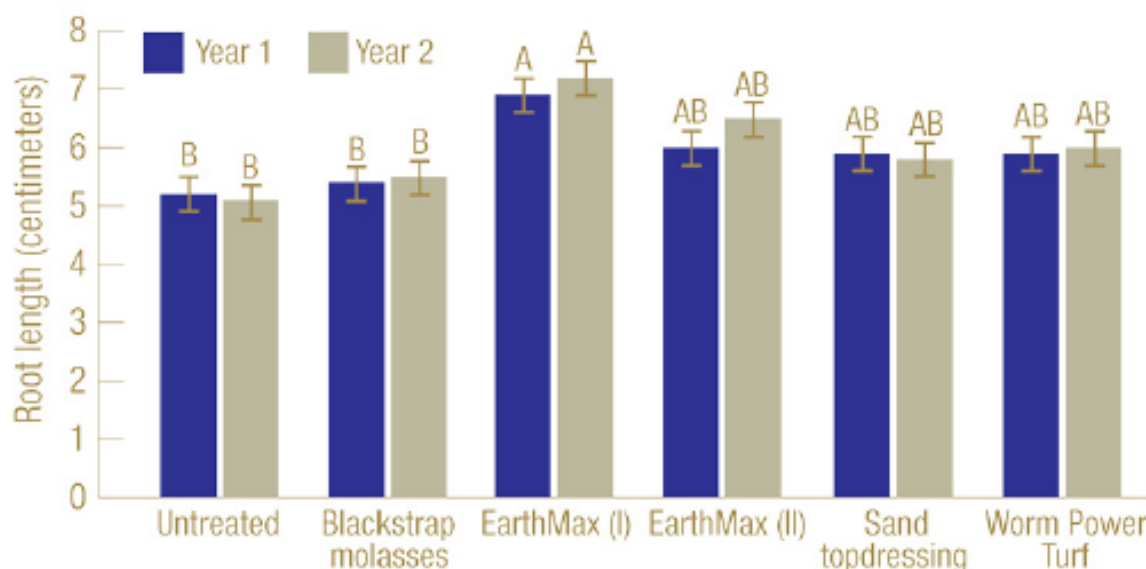


Figure 1. Turfgrass rooting length for two 16-week thatch control field studies at the Walker Golf Course at Clemson University. Means followed by the same letter are not significantly different.

CONTINUED...



ACCELERATE AERIFICATION RECOVERY WITH

GenesisRx®

Applying fertilizer before, during and after mechanical aerification all provide unique options for ensuring your turf recovers quickly. The Genesis Rx line of products is designed to help you determine the right fertility approach for your aerification program. These blends represent the most comprehensive fertilizers we have ever produced, offering single-product solutions designed to simplify aerification fertility and accelerate turfgrass recovery.

NEW!

GenesisRx Zeolite+ 3-4-3

- A 50/50 physical blend of Genesis Rx 5-7-5 and Zeolite DG
- Delivers balanced NPK, secondary and minor elements plus Humic acid and Zeolite
- SmartPhos DG provides plant available P over an extended period of time, resulting in superior availability and lower use rates than traditional sources
- Zeolite improves soil CEC levels and improves water retention
- Includes a full spectrum of more than two dozen beneficial soil microorganisms
- Contains MUTECH® slow release nitrogen, Mg, Fe, and Mn

GenesisRx 5-7-5

- Comprehensive fertility + soil amendment
- All-in-one product solution
- Ideal for construction, renovation, aerification, and seeding
- Simplifies fertility program complexity
- SmartPhos DG provides plant available P over an extended period of time, resulting in superior availability and lower use rates than traditional sources
- Reduces application time and effort
- Soil/USGA Specified Media Amendment



GREENSOURCE LLC SPECIALISTS

Troy Johnson Ozzie Johnson Eric Allred
801-560-6346 801-528-2008 801-540-5241
GreenSourceLLC.com

THE ANDERSONS TERRITORY MANAGER

Ed Price, CGCS
509-981-9077
AndersonsPlantNutrient.com



EVALUATING BIOLOGICAL THATCH CONTROL (CONT'D)

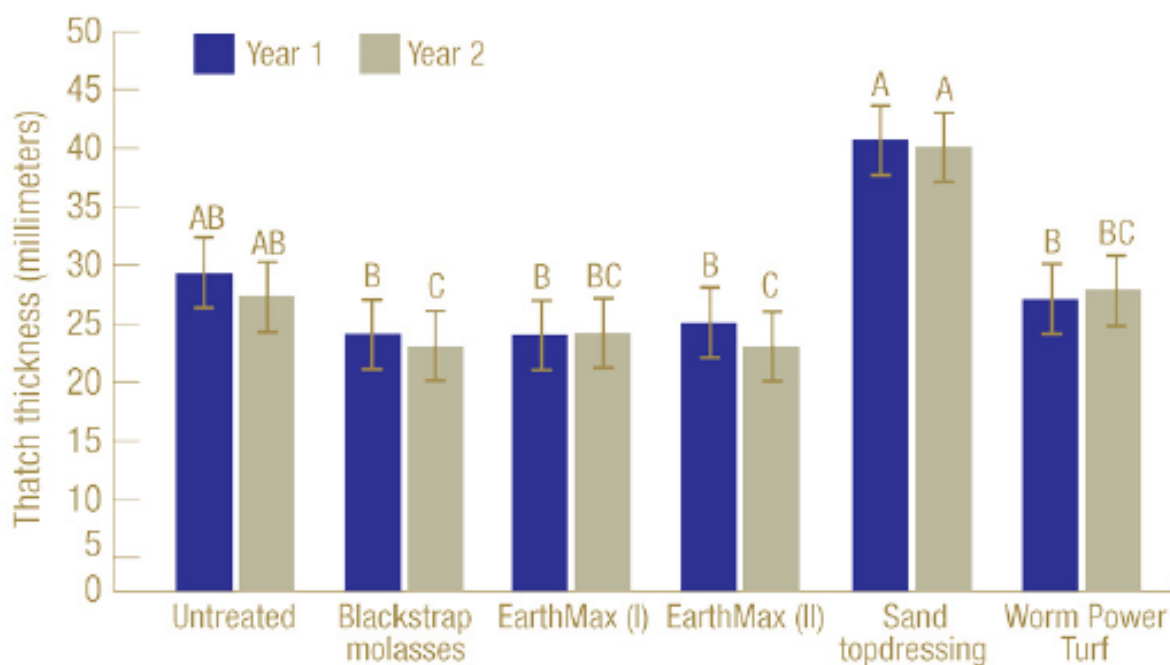


Figure 2. Turfgrass thatch thickness for two 16-week thatch control field studies at the Walker Golf Course at Clemson University. Means followed by the same letter are not significantly different.

Root length. In year one, EarthMax (I) increased root length $\geq 28\%$ over blackstrap molasses and the untreated control. This also held true in year two, as EarthMax (I) provided $\geq 30\%$ greater root length than blackstrap molasses and the untreated control. No other differences were observed between treatments (Figure 1, [Table 2](#)).

Root weight. In year one, treatment with blackstrap molasses resulted in a 501% increase in root weight compared with the untreated control. Blackstrap molasses also provided root weight $\geq 133\%$ greater than all other treatments. No other differences were observed between treatments. In year two, blackstrap molasses provided an increase in root weight $\geq 529\%$ greater than the untreated control and sand topdressing. In contrast, Worm Power Turf, EarthMax (I) and EarthMax (II) resulted in root weight $\geq 97\%$ greater than the untreated control and sand topdressing ([Table 2](#)).

CONTINUED...

WHERE
TO FIND
US!



www.utahgcsa.org



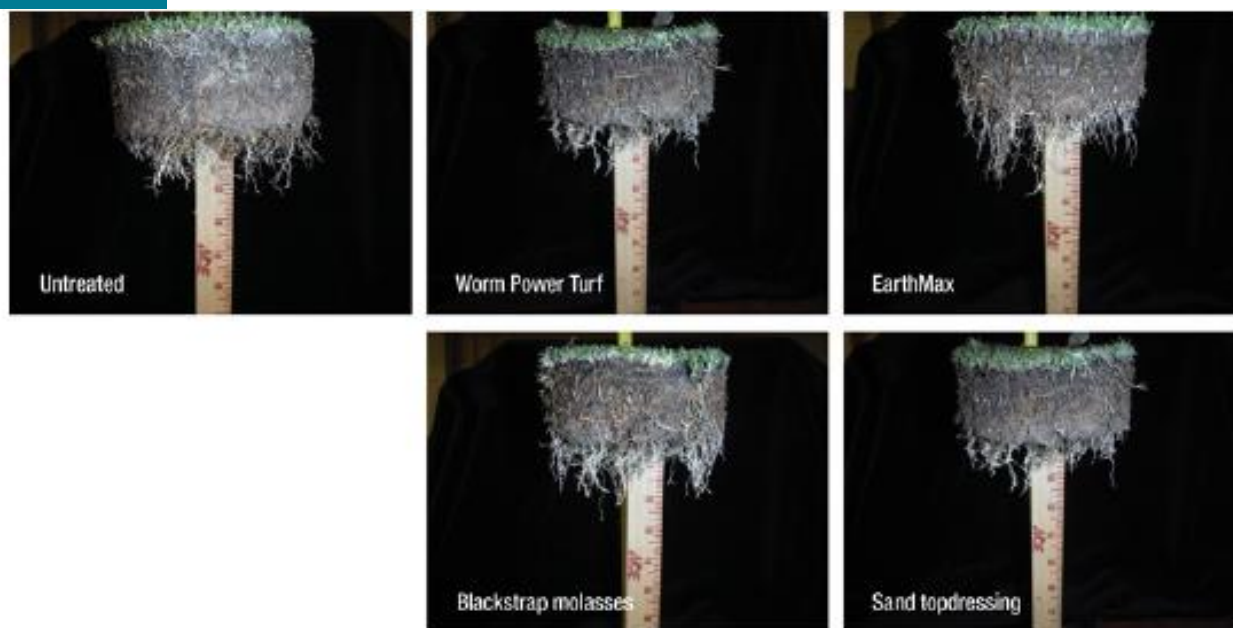
@UtahGCSA



<https://www.facebook.com/UtahGCSA>



EVALUATING BIOLOGICAL THATCH CONTROL (CONT'D)



In comparison with the untreated control, Worm Power Turf, EarthMax and sand topdressing provided an average 18% greater rooting length. EarthMax reduced thatch thickness by an average of 29%, blackstrap molasses did so by 30%, and Worm Power Turf did so by 17%.

Thatch weight. In year one, all treatments were statistically similar in thatch weight compared with the untreated control, but differences were observed between treated plots. Treatments of Worm Power Turf and EarthMax (I) resulted in $\geq 16\%$ greater thatch weight than treatment with blackstrap molasses. In year two, Worm Power Turf and sand topdressing provided $\geq 29\%$ greater thatch weight than blackstrap molasses. Thus, blackstrap molasses provided statistically lower thatch weight than Worm Power Turf in both years. As in year one, there were no statistical differences between treated plots and the untreated control in year two ([Table 2](#)).

Thatch thickness. In year one, as with thatch weights, no differences were observed between the treatments and the untreated control. Sand topdressing provided $\geq 53\%$ greater thatch thickness than all other treated plots. At the completion of year two, the untreated plots provided $\geq 42\%$ greater thatch thickness than EarthMax (II) and blackstrap molasses (Figure 2). No other treatments provided differences from the untreated control. Overall, sand topdressing provided $\geq 48\%$ greater thatch thickness than all other treated plots in both years of the study (Figure 2, [Table 2](#)).

Conclusions

Data from this two-year study warrants further investigation of both biostimulants (Worm Power Turf and EarthMax) and sand topdressing and their effects on rooting length. In addition, Worm Power Turf, EarthMax and blackstrap molasses should be examined further in regard to rooting weight, because those treatments

CONTINUED...



**PROVIDING SOLUTIONS FOR YOUR
EVERYDAY GOLF COURSE
CHALLENGES**

- True Plant Health and Nutrition
- Green Speed Management
- Compaction and Thatch Management
- Traffic and Wear Tolerance

NEW

SOIL MECHANIX TESTING

**Helping managers find solutions
with soil and turf health**



Brandon Haddick

Brandon@MileHighTurfGrass.com

801.910.0552

WWW.MILEHIGHTURFGRASS.COM



EVALUATING BIOLOGICAL THATCH CONTROL (CONT'D)

resulted in greater rooting weight than the untreated control. Blackstrap molasses did so in both years, whereas the biostimulants only did so in year two. All treatments for thatch weight produced results similar to those of the untreated control, but blackstrap molasses performed better than a number of other treatments. In year two, blackstrap molasses and EarthMax (II) showed a reduction in thatch depth compared with the untreated control.

An interesting observation from this study is that blackstrap molasses provided the greatest root weight in both years, but was one of the statistically lowest in root length. This indicated roots being generated in plots treated with blackstrap molasses were growing abundantly but were not growing to a great depth. Furthermore, blackstrap molasses was among the treatments producing the lowest values in both thatch weight and thickness. This indicates increased root mass was not added to the thatch. Thus, blackstrap molasses presents a potentially cost-effective biostimulant for golf course putting green use. This could prove significant, as zoysiagrass contains more lignin than most turfgrasses, and lignin contains phenolic and alcoholic characteristics that are resistant to decomposition by soil organisms (3). Turfgrasses containing less lignin theoretically could experience greater thatch reduction with these and similar materials.

From the second author's years of experience, turfgrasses grown in sand-based soils typically respond more positively to biostimulant use than those grown in heavier soils. Sandy soils generally have a low cation-exchange capacity (CEC), which can be increased by humic and/or fulvic acids, a major component of most biostimulants. To be effective, biostimulants typically must be applied in more than one growing season, because they generally stimulate soil microorganisms that require an extended time to naturally decompose excessive thatch, especially thatch containing higher levels of lignin.

Future research should build on data from the current study by examining different turfgrass types, rates and soil profiles and other cultural practices, such as various aeration and verticutting schedules.

Funding

This research was funded through Bert McCarty's lab and was completed in fulfillment of Josh Weaver's Ph.D. degree at Clemson University in May 2020.

Acknowledgments

The authors thank Donald Garrett, CGCS, and the staff at the Walker Golf Course at Clemson University for their helpful cooperation and insight with this project.

The research says ...

- EarthMax I increased root length in both years of the study.
- All treatments for thatch weight produced results similar to those of the control, but blackstrap molasses performed better than a number of other treatments.
- Blackstrap molasses provided the greatest root weight in both years, but was one of the statistically lowest in root length.

CONTINUED...



EVALUATING BIOLOGICAL THATCH CONTROL (CONT'D)

- Over the two-year study, EarthMax reduced thatch thickness by an average of 29%, and blackstrap molasses reduced it by 30% when compared with the control.

Literature cited

1. Carrow, R.N., B.J. Johnson and R.E. Burns. 1987. Thatch and quality of Tifway bermudagrass turf in relation to fertility and cultivation. *Agronomy Journal* 79(3):524-530 (<https://doi.org/10.2134/agronj1987.00021962007900030025x>).
2. Johnson, B.J., R.N. Carrow and R.E. Burns. 1987. Bermudagrass turf response to mowing practices and fertilizer. *Agronomy Journal* 79(4):677-680 (<https://doi.org/10.2134/agronj1987.00021962007900040019x>).
3. McCarty, L.B. 2018. Golf turf management. CRC Press, Taylor & Francis Group, Boca Raton, Fla.
4. McCarty, L.B., R.B. Cross and S.C. Green. 2016. Evaluation of Bio-Enzyme and other chemical thatch control products. (<https://www.earthfort.com/portfolio-items/clemson-university-study/>). Accessed Jan. 27, 2020.
5. McCarty, L.B., M.F. Gregg and J.E. Toler. 2007. Thatch and mat management in an established creeping bentgrass golf green. *Agronomy Journal* 99(6):1530-1537 (<https://doi.org/10.2134/agronj2006.0361>).
6. Schmidt, R.E., E.H. Ervin and X. Zhang. 2003. Questions and answers about biostimulants. *Golf Course Management* 71(6):91-94.

Josh Weaver was a graduate student at Clemson University and is currently an assistant professor of horticulture at Auburn University, Auburn, Ala. Bert McCarty is a professor of turfgrass science in the Department of Plant and Environmental Sciences at Clemson University, Clemson, S.C.

**TEXT
UGCSA
to 71441**

to sign-up for Utah Chapter
GCSA mobile alerts.





WILBUR-ELLIS®
Ideas to Grow With®

FROM PEOPLE TO PRODUCTS, WE ARE YOUR PREMIER PROVIDER

When you're short of help, our products won't let you down.
From fertilizers to equipment, Wilbur-Ellis has what you need
for your business to GROW.

pro.wilburellis.com

Find your local specialist at locations.wilburellis.com



For information only. Not a label. Prior to use, always read and follow the product label directions.
WILBUR-ELLIS logo, Ideas to Grow With, LINK, and WIL-GRO are registered trademarks, and NUTRIO, NUTRIO logo, PURIC, and PURIC logo are trademarks of Wilbur-Ellis Company LLC. K-0217-666



2021 Utah GCSA Sponsors

Platinum
Level



TURF EQUIPMENT
& IRRIGATION INC.



Gold
Level



Silver
Level



Bronze
Level

