

CALENDAR OF EVENTS

September 20 Shop Talk at Wolf Creek Golf Links

September 23 Vendor Appreciation at Sunflower Hills Golf Course

October 4-5 Fall Out Tournament at Osage National Golf Club

October 25 Battle of the Heart Tournament at Ironhorse Golf Course

November 3 Annual Meeting at 180 Room

December 13-14 Common Ground at Olathe Conference Center



Heart of America GCSA 10100 N Ambassador Dr Kansas City, MO 64153 816-561-5323 www.hagcsa.org

Click to Register

PPRECIATION COLORSE SUPERINTENDENTS ASSOCIATION OF AMERICA Since 193 More Mission Is to promote the welfare of the game of golf, the science and art of golf course management, the organizational and business effectiveness of the profession, the professional image and well-being of individual members, and to unite golf course superintendents in this area.

Heart of America Chapter

Come show your appreciation to our vendors that have supported HAGCSA throughout the year. We couldn't have done it without them! **This Event is Open to the Entire Membership**.

DATE: Thursday, September 23, 2021

VENDOR

SCHEDULE:

4:00pm – 6:00pm: Enter to Play in Horserace, Closest to the Pin Contest (\$5 per shot; unlimited), Food, Beverages, and Yard Games. 6:00pm: Horserace (Tep Three Venders vs Tep Three Others)

6:00pm: Horserace (Top Three Vendors vs Top Three Others)

LOCATION: Sunflower Hills Junior Golf Course (Adjacent to the George Meyn Building)

COST: Vendors - FREE of Charge

Superintendents, Assistants, Equipment Managers - \$20 per person (*Includes: food, drinks, yard game entry, prizes for top-three*)

RULES & INFORMATION:

- One Person will be eliminated every hole by either highest score or by losing chip off in a tie.
- Longest distance will be 100 yards.
- Balls Provided.
- Bring Your Own Clubs or they can be provided "if" needed.

REGISTER ONLINE: <u>https://web.hagcsa.org/events/Vendor-Appreciation-2053/details</u>

Questions: Call Kim Weitzel at 816-561-5323; kweitzel@westerneda.com



Dear Heart Members,

As I write this article, I think of our members and how the weather plays a huge role in our careers. This year has been a roller coaster of weather starting in June with what seemed like July weather, July started off good but finished with a tough hot dry stretch, now we are looking to August and hoping for good weather to prepare our courses for September, the best month of golf weather we have in this region.

Rounds 4 Research - Thank you to Matt Gourley and the course donations for successfully raising the most money ever in the 2021 HAGCSA Rounds 4 Research campaign. Thirty-nine rounds were donated raising \$7,411.20.

S&R - Thank you to Spencer Roberts, Host Superintendent, and Darin Pearson, Chairman, for another successful Scholarship and Research tournament at Canyon Farms Golf Club. The course was great and our members were able to enjoy some networking and fun while raising money for a great cause. We have a very busy fall in store for everyone. We are anticipating record turnouts and look forward to seeing all of you soon.

Tournaments and Programs - We are working hard to finalize details of our tournaments and programs lineup. Our director Chris Benisch stepped down as he accepted a position with BWI and was no longer eligible to serve our board. We thank Chris for helping us navigate the difficult covid era. His leadership offered the best events and programs possible given the difficult landscape. We are excited to have Mitch Bradberry from Falcon Lakes Golf Course, step in to help us finish the event lineup this year. Mitch is finalizing a vendor appreciation event at Sunflower Golf Course, where Jonathan Bennett, Host Superintendent, and Mitch have a fun event in the works. Also, Mitch is working with Bill Irving to offer a Shop Talk event at Wolf Creek Golf Links; where we can showcase a fall cultivation theme including equipment from many vendors. Stay tuned for details and we hope to see you there.

Battle of the Heart - We are excited for the Battle of the Heart event at Ironhorse Golf Club on October 25th. TJ Ridge, Chairman, has prepared another great event at one of Kansas City's best courses. This event has become one of our most popular events on the schedule and we expect to see a great turnout; where I am sure James Kennedy, Host Superintendent, will have the course in terrific condition.

Enhancing Communications – "OPT IN"

The Fall Out - Mark your calendars for the Fall Out event at the Lake of the Ozarks, October 4-5, 2021. Richard Shumate and Matt Delventhal continue the rich tradition of a great event offering at one of the top courses at the lake. Jeff Sommerer and the Osage National Golf Course staff are excited to host another event.

Common Ground - Spencer Roberts, Chairman, and the Common Ground committee have prepared a solid lineup for the education conference. This is one of the most important events of the year for the Heart. We put a lot of work into it and the profit goes to support our association. We were proud to be able to offer the virtual conference last year, but the feedback from our vendors and

Continued on next page

As a way to enhance our communication with members, we are introducing an optional text messaging program. Participants will receive key information about happenings at the association, deadline reminders, and possibly a survey or two. The program is completely optional and you may opt out at any time.

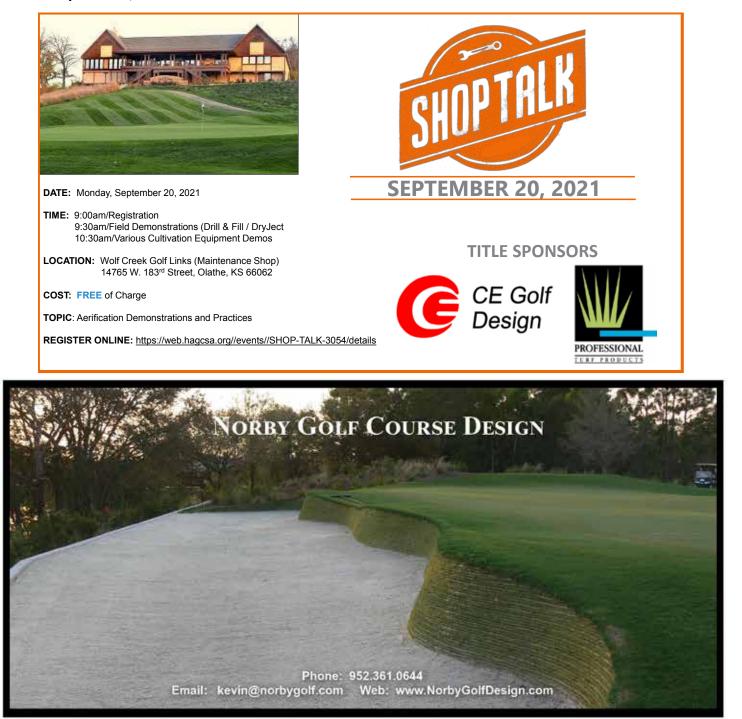




President's Message - cont.

members was to return to in-person networking and education if local regulations allow it. We are moving forward with a full in person conference and we are excited! I want to thank our HAGCSA board of directors. They have all worked especially hard this year to help the HAGCSA navigate the difficult challenges of the pandemic. We are committed to offering the best services to our members. We use our mission statement as our guiding light to make the best decisions for our association. HAGCSA mission statement, "To promote the welfare of the game of golf, the professional image & well-being of individual members & to unite industry professional in the area." We are steadily returning to normal and thinking of new ways to improve our events, services, and member satisfaction. Lastly, I want to thank each of our HAGCSA members for supporting us and the association. It is very satisfying to see our events full again and our members participating in the networking opportunities. We have a very strong association filled with the top professionals in the industry and it makes me proud to serve as your President.

Brent Stephenson, President HAGCSA



Member Profile Between the Tees With Shane Pokorney Equipment Manager, Colbert Hills Golf Course

• Briefly tell us about your family and where you are from? I grew up in Wellsville Kansas, lived there though high school. I lived in Manhattan Kansas for four years. After graduating college my wife and I bought a house in Rossville Kansas where we currently live.

• What are your hobbies and things you like to do away from work?

Hobbies that I enjoy are hunting, fishing and traveling to national parks and new places with my wife. I also spend time in the colder months milling wood and building furniture.

• How and why did you choose to get into the golf course equipment maintenance business?

While attending Kansas State University in 2013 I started working on the grounds crew at Colbert Hills. The current equipment manager was moving and they needed someone to fill his spot. With little knowledge of turf equipment maintenance at the time I decided to give it a shot and ended up really enjoying it. • Tell us about your education, where else you've worked and how long you've been in your current position. I attended Kansas State University from 2014-2017 receiving a bachelors degree in Wildlife and Outdoor Enterprise Management. In 2017 I accepted a six month internship at a hunting ranch near



Springfield Missouri. I started working at Colbert Hills in 2013 and have been there since with the exception of my six months in Missouri. I have worked at Colbert Hills for eight years. Through high school I worked for a landscape and lawn care company and also did farm work in the summer.

• If you could build a new maintenance building, what would you like included that you wish you had now?

I would build an indoor wash station with a heated pressure washer. Nobody likes dirty equipment.

Continued on next page



Between the Tees Continued from page 4

· What would be your dream job? Why?

One thing you wish you had more time to do. Wood working. There is a lot of things on my list of stuff to build but never enough time.

• If you could travel anywhere on vacation, where would it be?

My idea of a perfect vacation would be moose hunting in Alaska. I've been to over 40 states and the majority of the country and Alaska would be the first place I'd return to.

• Favorite adult beverage, college sport/team and pro team?

It's a toss up between a good bourbon and an ice cold Natural Light. Which is why I'd recommend to just drink them at the same time. K-State everything for college sports. Pro sports I am a life long New York Yankees and Dallas Cowboys fan. Lots of haters for my choice teams but I am used to it by now.



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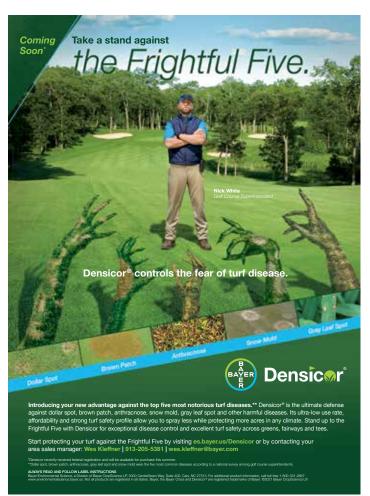
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Water in Turfgrass: Functions, Flow and Forms

By Tom Samples, Ph.D.; John Sorochan, Ph.D.; and Alan Windham, Ph.D. - May, 2021

Water is essential to growing high-quality turf, but how, exactly, does water "work" within turf? Here is an overview of the water-turf interplay that makes golf's playing surfaces possible.



Buffering the plant against temperature fluctuations, maintaining plant structure and facilitating photosynthesis are among the roles water plays in a single blade of turfgrass. Photo by Aaron Burden/Unsplash

Editor's note: A version of this article first appeared in Tennessee Turfgrass, the official publication of the Tennessee Turfgrass Association.

It is estimated that water makes up about 71% of the Earth's surface and that 96.5% of all the Earth's water is salt water contained in the oceans. Only an estimated 3.5% is fresh water, 69% of which occurs as ice in glaciers and ice caps. Slightly more than 0.7%, or 8.6 million acre-feet, of the Earth's fresh water occurs as groundwater and in rivers, lakes and streams.

What follows is a summary of how this valuable resource functions and flows within turfgrass, making recreational surfaces and the other functional, environmental and aesthetic benefits of turfgrass possible.

How Water Functions in Turf

Water is essential for seed germination and plant growth, and it usually makes up 75% or more of the fresh weight of actively

Continued on page 8



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For more information contact Heath Schesser at hschesser@pbigordon.com.



LEGACY SCHOLARSHIP

The Heart of America GCSA Legacy Scholarship Award offers educational aid to the *children and grandchildren of HAGCSA members*. An Award of \$2,000 is sponsored by the Scholarship & Research funds of the Heart of America GCSA. The award is administered by the Heart of America Board of Trustees. Applications will be reviewed by an independent committee consisting of three high school educators or three college administrators. All decision of the committee will be final. Applicants will be notified of their status by mail. All scholarship award checks will be made payable to the applicant and his/her educational institution. If you are interested, you may obtain



an application from the HAGCSA website: www.hagcsa.org/scholarships or by calling the Association Office at 816-561-5323. Deadline is October 31, 2021.

Previous Scholarship Recipients

YEAR	RECIPIENT	SON/DAUGHTER OF:
2020	CARTER MELCHIOR	Doug Melchior, City of Overland Park
2019	CAYLEE IRVING	Bill Irving, Wolf Creek Golf Link
2018	CARMAN STEPHENSON	Brent Stephenson, GreatLife Golf
2017	GRANT NAUDET	Paul Naudet, The Club of Porto Cima
2016	SEAN NAUDET	Paul Naudet, The Club of Porto Cima
2015	EMILY JOHNSON	Scott Johnson, CGCS, Shadow Glen, The Golf Club
2014	TESSA DAVIDS	Paul Davids, CGCS, Sycamore Ridge Golf Course
2013	BENJAMIN NAUDET	Paul Naudet, Club of Porta Cima
2012	CODY SANDER	Duane Sander, CGCS, Shoal Creek Golf Course
2011	ABIGAIL NAUDET	Paul Naudet, Club of Porta Cima
2010	LINDSEY NEIBLING	Tony Bertels, Swope Memorial Golf Course
2009	ARDEN DARNELL	Ron Darnell, Mozingo Lake Golf Course

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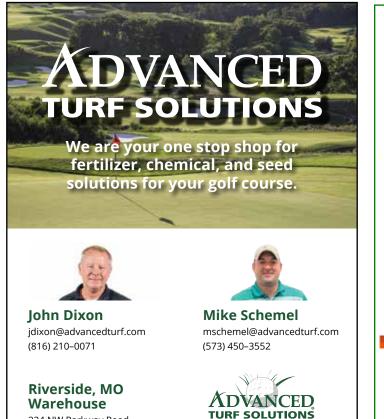
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growing turfgrasses. Roots contain the least amount of water, and stems the most.

Water moves by way of diffusion from the soil solution into root hairs. Once inside turfgrass plants, water helps protect them from sudden changes in temperature.

Both organic and inorganic molecules, including sugars and essential mineral nutrients, move to plant cells in water. An estimated 1% to 3% of the total amount of water taken up by turfgrasses every day is required to support internal biochemical reactions in plant cells as well as cell division and expansion.

Although this amount may appear small compared with the total amount of water turfgrasses use, it is vitally important for plant survival. Without water, turfgrasses would not be able to convert sunlight into chemical energy by way of photosynthesis ($6 \text{ CO2} + 6 \text{ H2O} \rightarrow \text{C6H12O6} + 6 \text{ O2}$). Warm-season turfgrasses have a more efficient photosynthetic system than cool-season turfgrasses do. Cool-season turfgrasses need about three times more water than warm-season turfgrasses to produce equal amounts of shoot and root tissue. As much as 600 pounds of water may be necessary to produce 1 pound of turfgrasses dry matter.

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The uptake of water is crucial for maintaining cell turgidity and tissue turgor pressure. Turgor pressure is pressure exerted by the fluid within a plant cell, pushing the cell membrane against the cell wall, and it plays a key role in processes such as growth, development and stress response. Water uptake is also essential to turf's ability to tolerate wear and recover from the compressive forces of foot and equipment traffic. Water is the source of the pressure responsible for the unfolding of leaves, the opening of stomates, and the movement of roots and rhizomes in soils.

How Water Flows in Turf

Absorption

Soil

The oxygen level in soil pore spaces generally ranges from 0% to 21%, while the level of carbon dioxide usually ranges from 0.03% to 20% or more. The water vapor content in soils may exceed 80%. A small amount of oxygen is dissolved in rain or irrigation water. Air is also drawn downward as water moves vertically through the soil profile.



Rain-spattered tall fescue. Photo courtesy of Tom Samples

As turfgrasses grow, the transfer of water within and among the soil, the plant and the atmosphere is continuous. Most water absorption from soil takes place in the root hair zone just behind the root apex. The presence of root hairs increases the absorptive surface of the plant's root system. The length of the root hair zone varies among turfgrass species, and it is affected by the age of the roots and the environmental conditions during root development. Root hairs live for only a few weeks before being replaced as roots expand and mature. Root hair numbers decrease with increasing soil moisture.

The amount of soil water absorbed by turfgrasses is influenced by rooting depth and root number; root extension rate; the amount of plant-available water; transpiration rate; and soil temperature. Water is first absorbed at a shallow level and then at successively greater depths as the water supply is depleted. Some water absorption and translocation can occur through a lifeless root system.

Foliage

Water in either liquid or vapor form and in some foliar-applied nutrients enters aerial shoots of turfgrasses through tiny (less than 1 nanometer in diameter) cracks or transcuticular pores. The absorption of water from leaf and stem surfaces does not generally occur by way of a series of openings, the stomates, in part because of the presence of waxes. Foliar water absorption is usually more rapid in young rather than old leaves. The size of water droplets may range from 50 (fog) to 500 (extremely coarse) microns. The amount of water absorbed by foliage under "normal" growing conditions is only a minor portion of the total amount of water absorbed by turfgrass plants.

Evapotranspiration

Evapotranspiration, or ET, is the process by which water is transferred from plants and their surfaces to the atmosphere. It consists of two actions: evaporation and transpiration. Evaporation is the physical process resulting in a change of water on a plant surface from liquid to vapor. Transpiration is the plant process during which water is evaporated through the stomates, which are pores on the epidermis of leaves and stems that open and close to control the rate of gas exchange. The amount of water lost by evaporation from the surface of plants is minimal compared with that lost by transpiration. The conversion of liquid water to water vapor requires 570 calories per gram of water (~259,000 calories per pound). Given that energy is consumed as water in liquid form vaporizes, evapotranspiration produces a cooling effect.

Editor's note: Follow the authors and other University of Tennessee turfgrass scientists on Twitter at @UTturfgrass for information on timely turf topics, the latest research on weed control in turf, and continuing education opportunities.

Environmental conditions — including soil moisture, wind, sunlight (radiant energy), relative humidity (atmospheric vapor pressure) and temperature — affect the rate at which moisture is lost from turf surfaces. The rate of ET is usually low during dark, cloudy days with high relative humidity, low air temperature and very little wind. Highest ET rates occur on hot, sunny days with low relative humidity and moderate to high winds.

Fans may be positioned around the perimeter of golf course greens located in areas with restricted airflow. Golf course superintendents may activate the fans and/or routinely syringe in an effort to cool air and soil temperatures and limit bentgrass stress during summer months. Under certain environmental conditions, the application of a light film of water on aerial shoots (syringing) may result in a cooling effect as water absorbs the heat energy necessary to change from liquid form to vapor. A two-year study conducted at Auburn University revealed that, when temperatures were 90 degrees F or higher, the combination of fans and

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syringing reduced air and soil temperatures, although plant rooting depth did not significantly increase (3).

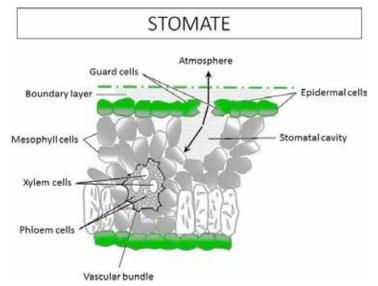
Transpiration

Transpiration is the release of water (evaporation) from leaves. A few definitions will be helpful for this discussion:

- Mesophyll cells make up most of the interior of the leaf between the upper and lower epidermal layers. These cells are relatively large and have vacuoles and many chloroplasts. As a result, they are specialized for photosynthesis.
- Root epidermal cells are very close and interlock, forming a layer that serves as a boundary between the plant root and the soil's "environment." One major role of the root epidermis is the absorption of water and mineral nutrients from the soil.

Stomatal transpiration

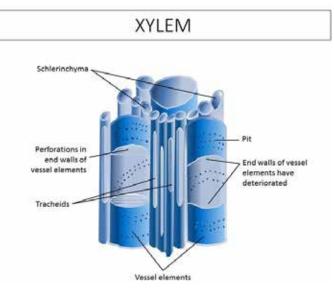
Depending on turfgrass species, the stomatal density most often ranges from 1,000 to 6,000 per square centimeter (about 155 to 930 per square inch) on the lower leaf surface, and from 4,000 to 10,000 per square centimeter (about 620 to 1,550 per square inch) on the upper surface. Although stomates make up only 2% to 3% of the total leaf area, they are often responsible for as much as 90% of the total water lost to the atmosphere by transpiration. The exchange of oxygen and carbon dioxide occurs through



open stomates. In stomatal transpiration, water evaporates from the moist surfaces of mesophyll cells. Water vapor then moves into intercellular spaces before diffusing along a vapor pressure gradient through the intercellular spaces into the stomatal cavity and eventually to the atmosphere. The extent of this vapor pressure gradient is often used to predict the evaporation rate from turfgrasses to the atmosphere, with more evaporation occurring at high air temperatures and low levels of relative humidity. The stomatal transpiration rate is a function of the vapor pressure gradient. A portion of the water being transported from root epidermal cells to mesophyll cells of the stomates is diverted from the main transpirational stream to several types of specialized tissues depending on where the water potential gradient exists.

Xylem

Xylem is nonliving conductive tissue responsible for the movement of water and essential mineral nutrients from roots up to rhizomes, stolons, tillers and leaves. Xylem is continuous from the root hair zone of the roots through the mesophyll cells of the leaves.



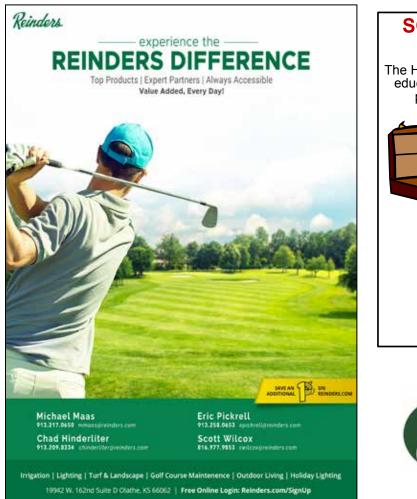
Water enters root hairs by osmosis and moves in xylem, diffusing through cross walls that may or may not be perforated. Eventually, much of the water moves from leaves to the atmosphere through stomates as water vapor. A hydrostatic gradient develops between the evaporation zone of leaves and the water absorption region of roots. Water evaporation results in a decrease in the water potential of the mesophyll cells. This causes water in xylem to move toward the mesophyll cells. This "siphoning" by which water in liquid form is pulled from an area where it is most plentiful to an area where it is less plentiful is referred to as transpiration "pull." Transpiration pull causes water to diffuse from adjacent root cells into the lower regions of the xylem.

Cuticular transpiration

Although the majority of transpirational water loss occurs through stomates, some is lost by evaporation through the cuticle of epidermal cells while stomates are closed. The cuticle serves as a protective film covering and consists of polymers of both lipids and hydrocarbons containing wax.

The thickness of the cuticular layer has a major impact on the amount of cuticular transpiration. Although cuticle width is largely

Continued on next page



controlled by genetics and varies among turfgrass species, research indicates that the plant cuticle is responsive to leaf age and environmental changes. For example, the mass of the cuticle and the amount of wax generally increase as leaf age increases, and shade results in a reduction in cuticle thickness.

Vascular Bundles

Vascular bundles are long strands of vascular tissue in leaves, stems and roots that contain xylem, phloem (more on phloem below) and supporting cells. The vascular bundles of the turfgrass leaf contain the same type of xylem and phloem structure as those of the stem. Most of the veins of a turfgrass leaf blade are made up of a single vascular bundle, while the leaf midrib may contain several vascular bundles. The arrangement of xylem and phloem elements in large veins resembles their arrangement in the stem.

Phloem

Part of vascular bundles, phloem is living tissue that transports soluble organic compounds made during photosynthesis, namely sugars, to where they're needed in the plant. Some water in turfgrasses is used by the phloem tissue to transport sugar in both





upward (acropetal) and downward (basipetal) directions. Phloem contains companion cells and sieve tubes. Glucose, sucrose and fructose move from "source" cells into companion cells, which are directly adjacent to phloem sieve tubes. The movement of sugars into sieve tubes reduces the water potential, and water is taken up from the xylem by osmosis, raising the pressure potential in the sieve tube. The differences in internal pressure drive the phloem sap along the sieve tube to "sink" cells. As sugars move into sink cells, the water potential in the sieve tube increases, and water moves by osmosis back into the xylem.

Water Forms

Snow

In addition to buffering turfgrasses from low temperature extremes and dehydration, a layer of snow also limits freezing and thawing of soils and soil heaving. Turfgrass plants may be lifted and roots exposed as soils heave.

Dew

Dew forms when the turf surface cools as a result of the loss of infrared radiation to a temperature lower than the dew point of the surrounding air. The relative humidity is 100% when the dew point and the temperature are the same. If the temperature drops any *Continued on next page*

lower, condensation will result, and water droplets will form. Dragging a hose over bentgrass turf on golf greens in the morning to remove dew is a cultural practice intended to help prevent dollar spot (Clarireedia spp.), but it can spread the disease if fungi are active.

Guttation fluid

Under certain environmental conditions, water containing plant exudates (guttation fluid) may move through very small openings called "hydathodes" located at the ends of uncut leaves. These exudates contain mineral salts, sugars, amino acids and other organic compounds.



Frozen guttation fluid on bentgrass. Photo courtesy of Alan Windham

Drops of guttation fluid may also be the direct result of exudation from freshly cut leaves. Exudation usually occurs when environmental conditions cause rapid water absorption by roots and, at the same time, restrict transpiration. These conditions produce a rise in root pressure and an elevated turgor pressure at the leaf tip. Leaf exudation occurs most often during the night or early morning hours and is promoted by routine irrigation, high nitrogen fertility and close, frequent mowing. Warm days followed by cool nights also favor leaf exudation. Tip burn of leaves from a high solute concentration may be visible when droplets of guttation water evaporate or are reabsorbed by the leaf.

References

Beard, J.B. 1973. Water (chapter 8). In: Turfgrass: Science and culture. Prentice Hall, Englewood Cliffs, N.J.

Turgeon, A.J. 1999. The turfgrass environment (chapter 4). In: Turfgrass Management, Fifth Edition. Prentice Hall, Upper Saddle River, N.J.

Guertal, E.A., E. van Stanten and D.Y. Han. 2005. Fan and syringe application for cooling bentgrass greens. Crop Science 45(1):245-250.

Tom Samples is a professor and turfgrass science Extension specialist at the University of Tennessee, Knoxville, Tenn. John Sorochan is a distinguished professor of turfgrass science at the University of Tennessee, Knoxville, Tenn. Alan Windham is a professor and University of Tennessee plant pathology Extension specialist whose focus includes the diagnosis and management of diseases of turfgrass and ornamental plants, mycology, microscopy, and macrophotography. He is based at the University of Tennessee Soil, Plant and Pest Center, Nashville, Tenn.



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Update from GCSAA

By Steve Randall, GCSAA Central Plains Regional Representative

As the summer season winds down, I hope you had a successful busy stretch. It was great seeing many of you at the S&R Tournament at Canyon Farms. A great day and excellent turnout!

Thank a Superintendent

With the great success of our worldwide efforts in 2020, GCSAA and allied superintendent groups will hold "Thank a Golf Course Superintendent" day Tuesday, September 14! Last year's campaign via social media reached nearly seven million individuals. There were over four million impressions on the Golf Channel's marketing platforms and nearly 30,000 individuals watched the efforts on the Golf Channel's "Morning Drive" program.

The U.S., Canada, Australia, Europe all participated in the effort to thank you, the superintendent, for your efforts! We hope to continue the positive momentum this year and expand on our efforts to promote your work for the game.

Member App

Don't forget to download the new GCSAA Member App! It's available on all platforms.

Complete Your Facility BMP Today!

Kudos to the Heart of America Chapter, Missouri and all states

for completing the 50 states by 2020 BMP state manual. Step-by-Step vidoes are available to assist in developing your own facility BMPs, using that manual. Please reach out with any questions! GCSAA is happy to assist.

2021 GCSAA Golf Championships

GCSAA will conduct the 2021 Golf Championships in the Palm

Springs area October 11-12. Please visit www.GCSAA. org for all the information.



Registration opened August 13. With a limited field size, we hope you enter early. Three different competitions will be held over two days. The National Championship, Golf Classic, and Three-Person Scramble will be conducted. The JW Marriott Desert Springs Resort will be the host. Don't miss out.

2022 Conference and Trade Show

Our staff continues to make preparations for the 2022 GCSAA Conference and Trade Show in San Diego February 5-10. We are ready to get back together in person. An excellent education and professional development line up will be available. Events and times continue to be inputted into the event schedule. Registration will open November 2. For the most up-to-date information, please visit www.gcsaaconference.com.









Each and every Heart member deserves credit for surviving a hectic spring and summer, but there are ones among us who deserve special recognition for the job they have done this year or over their careers. As a member, you know who these individuals are. **Now is the time** to send in your nominations.

Accepting nominations for:

- Brian Breedlove Equipment Manager of the Year
- Assistant Superintendent of the Year
- Superintendent of the Year
- > and the Chester Mendenhall Award

Review the criteria and complete the attached nomination form no later than **October 1, 2021**.

If you have any questions, please contact: Ethan Shamet, Membership Chairman: ethan.shamet@jocogov.org Kim Weitzel, Executive Director: kweitzel@westerneda.com

Reply to this email or complete attached form and fax to: 816-561-1991 or email to kweitzel@westerneda.com



RECOGNIZING OUTSTANDING MEMBERS

Each and every Heart member deserves credit for surviving a hectic spring and summer, but there are ones among us who deserve special recognition for the job they have done this year or over their careers.

As a member, you know who these individuals are. **Now is the time** to send your nominations for the Brian Breedlove Equipment Manager of the Year, The Assistant Superintendent of the Year, The Superintendent of the Year and The Chester H. Mendenhall Award. These prestigious awards will be given out at the Annual Meeting on November 3, 2021. Please submit your nominations by completing the reverse side and forwarding to the HAGCSA office no later than **October 1, 2021**.

Eligibility and Qualifications

Brian Breedlove Equipment Manager of the Year

This award will be presented annually to the equipment manager who has demonstrated dedication at their job over the past year. The guidelines are as follows:

- 1. Must be a member of the Heart of America GCSA (Class EM); an in good standings.
- 2. Represents organization to the highest degree professionally and individually.
- 3. This award shall be governed by the equipment manager's achievements in any of the following.
 - Competent in mechanical skills.
 - Utilizes problem solving in an effective and efficient manner.
 - Assists course preparations if needed
 - · Applies fiscal responsibility
 - Goes "Above and Beyond" to "Help the Cause."

4. These accomplishments must have occurred in the current year.

Assistant Superintendent of the Year

This award will be presented annually to the assistant who has demonstrated dedication and excellence at their job over the past year.

The guidelines are as follows:

- 1. Must be a member of the Heart of America GCSA (Class C); an in good standings.
- 2. Must be an assistant that represents their profession to the highest degree.
- 3. This award shall be governed by the assistant's achievements in any of the following.
 - Competency in agronomic skills
 - Ability to efficiently run the daily operations of the course
 - Effectively running course projects
 - Assisting in the preparation of their course for regional or national events
 - Involvement with local, regional, or national turf related associations
 - Strong involvement in course renovations and new course construction
 - · Goal oriented and striving to become a superintendent
 - Exceptional contributions to this association through involvement
- 4. These accomplishments must have occurred in the current year.

Superintendent of the Year

This award, established in 1970, has been presented annually to the golf course superintendent who has demonstrated dedication and outstanding service to his or her profession.

The guidelines are as follows:

- 1. Must be a member of the Heart of America GCSA (Class A or Class B) in good standing.
- 2. Must be a superintendent that represents the organization and himself to the highest degree.
- 3. This award shall be governed by the superintendents achievements in either:
 - Excellence in golf course management
 - · Preparation of his or her course for regional or national golf tournaments
 - Achievements for renovation or new golf course construction
 - Involvement with local, regional, or national turf related associations
 - Exceptional contributions to this association through involvement
- 4. These accomplishments must have occurred in the current year.

Chester Mendenhall Award

This award has been established to honor an individual who has devoted extensive time and effort to the promotion of golf, the art of greens-keeping and other related fields. Begun in 1983, this award is named after a golf course superintendent who dedicated his life to his profession.

The guidelines are as follows:

- 1. Must be a member of the Heart of America GCSA and in good standing.
- 2. Must be an individual that represents the organization and him or herself to the highest degree.
- 3. This award shall be governed by the individual's achievements over an extended period of time:
 - Outstanding service to this organization
 - Involvement with local, regional, or national turf related organizations
 - · Continued support and service to the golf industry or his/her community



AWARD WINNERS

Brian Breedlove Equipment Manager of the Year Award

Daniel Heinze Mark Price Curtis Reinke 2018 2019

Assistant Superintendent

of the Year Award

- Greg Milligan John Sheehe Jeff Stoecklein 2006 2007 2008 Johnny Brockus Matthew Delventhal Andrew Jones Andy Klein Randy Heinz & Brad Lackey 2009 2012 2013 Mitch Bradbury 2014 Nick Krav Chad Gilkison Marc Szablewski Derek Banwart Javier Aguilar & David Davied 2015 2015 2016 2017 2018
- 2019 Grant Sherwood
- 2020 Tom Baier

Superintendent of the Year Award

- 1982 Carl Beer 1983 Chet Mendenhall 1984 Jack and Bill Robison 1985 Del King 1987 Duane Patton, CGCS Nels Lindgren, CGCS Cary Tegtmeyer, CGCS Ed Huggins Loren Breedlove 1988 1988 1989 1990 1992 1993 Jeff Eldridge, CGCS Pat Finlen, CGCS 1994 1995 Pat Finlen, CGCS Jon Francis Chuck Hybl, CGCS Jeff Elmer, CGCS Jim Naudet Mark Pierce 1995 1996 1997 1998 1999 2000 Paul Tormanen Tony Bertels Duane Sander, CGCS Brian Ruder 2001 2002 2003 2004 Rusty Hamman 2005 limmy Angelotti 2003 2006 2007 2008 Doug Melchior Brad Minnick, CGCS Terry Rodenberg Daryl Pearson 2009 2010 Scott Cummins 2011 Steve Wilson, CGCS 2011 2012 2013 2014 Eric Bickel Scott Johnson, CGCS Duane Sander, CGCS 2015 Mike Lazar 2016 Sam Bailey 2017 2018 2019 Brien Agler Gary Sailer, CGCS Tom Storey 2020 Tyler Anderson **Chester Mendenhall Award** 1987 Gil Collins Sandy Queen, CGCS 1988 1989 Tom Kohout Dave Fearis, CGCS Duane Patton, CGCS Dick Stuntz, CGCS 1000 1991 1992 1994 Meril Vanderpool 1995 Jud Coester 1996 Jim Shields Pat Finlen, CGCS Dave Fearis, CGCS 1997 1999 Gene Eldridae Nels Lindgren, CGCS Dick Stuntz, CGCS Jeff Elmer, CGCS 2000 2001 2002 2003 Melvin Anderson 2004 Loren Breedlove, CGCS 2005 Gary Higbie
- 2006 2007
- Tony Bertels Bill Maynard, CGCS Jeff Eldridge, CGCS 2008 2009 Woody Moriarty Jeff White, CGCS
- 2010 Scott Johnson, CGCS 2011 2012 Jim Naudet
- 2012 2013 2014 Terry Rodenberg Sandy Queen, CGCS
- 2015 Tim Nielsen Richard Shumate 2016
- Steve Wilson, CGCS 2017
- 2018 Brent Stephenson
- 2019 2020 Duane Sander, CGCS Doug Melchior

AWARD NOMINATION FORM

Please use this form to nominate individuals for the Brian Breedlove Equipment Manager of the Year, Assistant Superintendent of Year, Superintendent of the Year and the Chester H. Mendenhall Award. Qualifications and criteria for each award are listed on the back of this form. Please feel free to add sheets if additional room is needed.

Brian Breedlove Equipment Manager of the Year Award

Individual Nominated: _____

Reasons for Nominating:

Assistant Superintendent of the Year Award

Individual Nominated: Reasons for Nominating: Superintendent of the Year Award Individual Nominated: Reasons for Nominating:

Chester Mendenhall Award

Individual Nominated:

Reasons for Nominating: ____

Please submit your nomination to HAGCSA by October 1, 2021. 816-561-5323 . 816-561-1991 (fax) . kweitzel@westerneda.com (scan)



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mprice11m@yahoo.com Class EM • Term Expires: 2021

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Doug Melchior Overland Park Golf Club 8500 Santa Fe Drive Overland Park, KS 66212 913.238.9889 melchiordouglas@gmail.com Class A

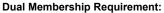
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MEMBERSHIP APPLICATION



All Class A and Class B membership applicants must submit an application for membership or evidence of membership with the Golf Course Superintendents Association of America (GCSAA Membership #) and must maintain that membership thereafter.

GCSA

Name	GCSAA M	GCSAA Membership #:		
Club or Company				
Address				
City		Zip		
Phone	Fax			
E-mail	Spouse's Name	Spouse's Name		
Check here if you wish to receive your	mailings at home.			
Home Address:	City	St Zip		

JOB INFORMATION: LIST CURRENT EMPLOYMENT FIRST

DATES EMPLOYED		EMPLOYER NAME & CITY/STATE	TITLE
From	То		
From	То		
From	To		
year. If ac	cepted, I agree to uphold th d by members of our Assoc Every member shall take I Realizing that the best ass knowledge and effectivend improvement. He/she shall endeavor to I pride in doing their work w In accomplishing his/her of Seeking Employme GCSAA members; 3 who last held or now Visiting: 1. Annound	ership in the Heart of America Golf Course Superintendents Association and attach he he by-laws of this Association and subscribe to the following code of ethics. To the en hation, the code of ethics is promulgated and observation of its provisions required. bride in his/her work and regard it as a profession in which all members strive to main set that a member can have is thorough knowledge of his/her business, he/she shall c ass by freely exchanging experiences and ideas with fellow members and take advan maintain courteous relations with his/her employer and his/her associates and endeav rell. wn and the Association's best interest, observance of the following suggestions are n nt: 1. Seek counsel of local associations when applying for a position in a new distric 3. Ascertain the wage scale in the district in which you are seeking employment, then v holds the position of Golf Course Superintendent. we your HAGCSA or GCSAA membership when visiting; 2. Always contact the Superint quests for technical help from golf courses only when channeled through the Superint	d that confidence and respect may tain its good name. constantly try to improve his/her tage of all opportunities for vor to have his/her employees take ecommended. t; 2. Recommend only qualified uphold that talk with the person intendent of the course you are
Superinte	ndents of America via facsi	o receive notices, advertisements, announcements, brochures, and other information mile, telephone or e-mail. I further agree that my express permission to fax, telephone ave no date of expiration, unless a written request is received indicating a change in p	e or e-mail me such notices and
Applicant's	Signature	Date	
		Il Membership Dues with Application (Term: Janua at Superintendents/\$70 - Supplier/\$130 - Facility/\$50 - Equipment N	
P.O. Box 4'		of America Golf Course Superintendents Associat IO 64141-6264 • 816-561-5323 • Fax 816-561-1991 • www.hagcsa.org	

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Bayer Environmental Science Wes Kleffner 913-205-5381

Commercial Turf Services Bryan Wood 660-646-6207

Heartland Golf & Turf Jim Naudet 913-927-9738

Norby Golf Course Design Kevin Norby 952-361-0644

PBI Gordon Heath Schesser 913-626-5463



Professional Turf Products Brad Gray 913-915-6783

Reinders Mike Maas 913-217-0650

Syngenta Paul Carlson 314-308-0330

Turfwerks Brian Freeman 913-530-3903

Williams Lawn Seed Josh Williams 816-682-8794

Winfield United Ken Harding 785-521-8006





Heart of America Chapter Act Course Superintendents Association Theart of America Golf Course Superintendents Association P.O. Box 419264 Kansas City, MO 64141

September 2021