



The Green Sheet

Central Pennsylvania Golf Course Superintendents Association

Volume 28 Issue 2

Founded ~ April 11, 1939

May 2021

May Meeting

Bon Air Country Club

2287 Club House Road
Glen Rock, PA 17327

Host - Doug Hall

Tuesday, May 18, 2021

Registration - 11:00 AM

Boxed Lunch on Cart - 11:30 AM

Golf - 11:30 AM Shotgun

Cocktails - Following Golf

Superintendent Profile

Doug Hall spent his early career at Baltimore Country Club as an assistant then as the superintendent of the west golf course. During his time at BCC he was fortunate enough to work several high profile events such as the PGA Championship at Oak Hill CC in 2003, the U.S. Open at Oakmont CC in 2007, and later that year in 2007, BCC hosted the Senior Players Championship. In 2008, Doug accepted the position of head superintendent at Eagles Nest CC in Phoenix, Md, where he had a fantastic 11 years. When the position at Bon Air became available in 2019 he was very excited because this area is his home. Doug grew up 5 minutes from the course and went to elementary, middle and high school right across the street. He still lives close by and now his children are at school right across the street from him. Needless to say, he was happy for the opportunity to come back to the hometown course and make a difference.

Host Course Profile

Bon Air Country Club was established in the rolling hills of southern York county in 1954 as a nine hole golf course, the back nine was added in the late 70's. The serene setting and surrounding farm land makes Bon Air more of a club in the country than a country club. In 2020, we hosted the York County Amateur Championship, and Bon Air has also been named host course for the York Open for years to come.

Complete! Golf Course Environmental BMPs Established for all 50 States

From sea to shining sea, golf courses can look to the state-specific resources for making environmentally sound decisions and demonstrating stewardship. .

January 12, 2021 | GCM staff

Three years after launching the initiative to establish golf course best management practices (BMPs) for all 50 states by the end of 2020, GCSAA has announced the project's successful completion. As of Dec. 31, 2020, each state has published its own BMP guide that outlines golf course maintenance practices that protect and enhance the environment and are tailored to the state's unique geographic conditions and regulatory climate.

"Our goal to develop BMP manuals across the nation in such a short time frame was ambitious, but we knew these documents were a must as we work proactively with legislators, regulators and communities to demonstrate how superintendents are dedicated environmental stewards," says GCSAA CEO Rhett Evans. "This is truly a watershed moment for our members, the game of golf, and the people and wildlife who benefit from the agronomic and environmental practices superintendents engage in every day."

While the steering committees that led each state's efforts were made up primarily of GCSAA members, the groups worked closely with others in the golf industry, university faculty and officials from various state agencies to author the BMPs.

To aid the efforts, GCSAA created the [BMP Planning Guide and Template](#) to offer a blueprint for the state documents, which address topics such as water conservation and management, nutrient management, waste disposal, integrated pest management, and pollinator protection. The USGA provided funding for the BMP Planning Guide and Template.

GCSAA further assisted the state BMP projects via grants, which were funded in part by the PGA Tour through GCSAA's philanthropic organization, the Environmental Institute for Golf. The PGA of America, Jack Harrell Jr., and Herbert V. Kohler Jr. also contributed financial support for the creation of the state BMP manuals.

"We are extremely proud of the GCSAA members who gave of their time and talents to spearhead the effort, but it's a testament to the collaborative nature of the golf industry and the widespread understanding that the benefits of our environmental practices go well beyond the golf course that so many individuals and organizations were involved," Evans says. "We

.....continued on page 13

President's Message

Golf's New Normal

Is it possible to sustain the unprecedented growth we have seen in golf as the pandemic wanes in North America? I believe so especially for the 2021 season. Rounds of golf continue to be more than expected. Some facilities have held firm to reduced accessories and amenities during this growth to further improve their bottom line. If there were ever a time to convince decision makers to reallocate resources from accessories to playing surfaces its now. Less ball washers, water coolers, divot boxes and signs would more than pay for a light topdressing program. Hopefully you have someone willing to listen to reason.

CPGCSA board is excited for our first meeting of 2021 at Bon Air! For some reason we haven't been there for at least 30 years but are glad to be back. Our board is making an effort to reach out to courses we have never been to or haven't for a long time. We look forward to reconnecting with these facilities and their superintendents. If you have ideas of courses we have not been to over the years or new superintendents to connect with please reach out to us.

I am also honored to formally announce the 2021 recipient of the Dave Rafferty Distinguished Service Award is Wanda Fry. Wanda has faithfully served Central Penn for 28 years. She has helped the association grow to meet the needs of our members and guided us through some difficult times. Much like many of us as superintendents she is comfortable remaining behind the scenes but is most deserving of this honor. She is the essence of service to our industry and association. Join us to celebrate her achievement at the October 27th meeting at Bent Creek Country Club.

See you next week!

Pete Ramsey
Central Penn President

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Verdure: An Ode to Tom Watschke

The turfgrass scientist's early work helped shape our understanding of turf physiology and tolerance to high temperature stress.

May 2021 | Mike Fidanza, Ph.D.

The idea for this column came from Cale Bigelow, Ph.D., of Purdue University, and it's a tribute to Thomas (Tom) Watschke, Ph.D., the longtime professor of turfgrass science at Penn State who died in November of last year.

Watschke's youth was spent in Charles City, Iowa, and his original career track led to him becoming a dentist. Perhaps his future was redirected while working for his older brother at a local golf course. He earned a Bachelor of Science in horticulture from Iowa State and a master's and doctorate in agronomy from Virginia Tech. His graduate studies were guided by Richard Schmidt, Ph.D., a Penn State alum. Upon graduation in 1970, Watschke joined the turfgrass science faculty at Penn State. He retired in 2005.

His early research published in 1970 is worth revisiting, because it helped pave the way for future studies that increased our understanding of turfgrass physiology.

In controlled greenhouse experiments, five Kentucky bluegrass cultivars were grown in solution culture (~hydroponics). The Kentucky bluegrass cultivars were three commercially available ones of the time — Pennstar (improved selection from Merion), Kenblue (a common type), Nugget (a selection from the cold climate of Alaska) — and two experimentals selected from the warmer climate near Virginia's coast. Ten weeks after seeding, turf was clipped in each pot to 2.5 inches (6.3 centimeters), and roots trimmed to 1 inch (2.5 centimeters), so that all turf started the experiment on equal status.

The Kentucky bluegrass cultivars were subjected to two nitrate (NO₃-N) fertility levels of a low versus

.....Continued on Page 10.....

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Membership News

The following individual has applied for membership into our association. If there are no written objections within the next seven days, he will be accepted into CPGCSA at the next meeting.

Geoff Kazee Class AF
Irrigation Territory Manager, Turf Equipment and Supply Company

We would like to welcome the following individuals into our association.

Andrew Swigert Class C
Assistant Superintendent, Royal Manchester Golf Links

Trace Wilson Class C
Assistant Superintendent, Country Club of Harrisburg

Chuck Zaranec Class A
Superintendent, Country Club of York

If you know of anyone who is interested in membership into the association, please have them contact Wanda at 717-279-0368 or cpgcsa@hotmail.com.

There are a few outstanding 2021 Membership Dues, please contact Wanda if you have any questions about your dues.

Please see a list of our Association Sponsors on Page 15. Please Support Them as they Support Us!

Membership information is also available on the Central Penn website at: www.cpgcsa.org

2022 DOG DAYS OF GOLF CALENDAR

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Submissions for the 2022 Dog Days of Golf Calendar will be accepted through **Aug. 1, 2021**.

From the submissions, 14 dogs will be selected. Owners of the selected dogs will be notified in September, and the calendar will be distributed with the November issue of *GCM* magazine.

Plan now to stop by the Lebanon Turf booth at the Golf Industry Show in February to place your vote for the 2022 Dog of the Year. The winner's owner will receive a \$500 prize and \$3,000 for his or her GCSAA-affiliated chapter. A \$2,000 charitable donation will also be made to K9's for Warriors by GCSAA and Lebanon Turf in honor of the winner.

Lebanon Turf has been supporting golf course superintendents and their chapters through the Dog Days of Golf Calendar for more than a decade.

Questions?

Contact Cynthia Spondello at Lebanon Turf at 800-532-0090, ext. 253.

2021 Meeting Schedule

June 9

Lebanon Country Club

September

TBD

October 27

Bent Creek Country Club
DSL Award Presentation

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10 Functions of Golf Course Trees

A guide to trees' many roles in the golfscape,
from marking direction to masking eyesores to making a statement.

March 2021 | John C. Fech

It's a common tendency to regard trees and shrubs as aesthetic features, but there's much, much more to them than just their good looks. Sure, trees add color, texture, verticality, depth and appeal in all seasons, but there's also a functional dimension to tree placement on a golf course.

Perhaps the best way to consider the functionality of a golf course tree is to ask yourself, "What is it there for?" Golf course architects can usually cite two or three reasons why a tree is placed in a certain location, and at least one will be how it functions.

Generally, there are 10 categories of functional uses for trees on golf courses:

- Trees that serve as backdrops for greens.
- Trees that help identify doglegs.
- Trees that screen undesirable views and reduce noise.
- Trees that are signature features.
- Trees that provide protection and safety separation.
- Trees that are obstacles/increase difficulty.
- Trees that are directional.
- Trees that provide shade for clubhouses/refreshment stands.
- Trees that help with framing.
- Habitat trees.



A better understanding of trees' utility can help golf course superintendents produce a quality golf experience. Here, backdrop trees offer important depth clarity for the golfer.
Photos by John C. Fech

Editor's note: Removing trees from your course? Dealing with tree damage or disease? [GCM's collection of "tree-sources"](#) can help.

1. Trees as backdrops for greens

As approach shots in the fairway are lined up or tee shots on a par 3 are struck, a need exists for golfers to visualize the distance from their ball to the flag. Trees alongside and behind a green provide this special assistance. This benefit is manifested in terms of greater clarity regarding the difference in turfgrass height and color from fairway to green and the waving of the flag in the wind when viewed against the tree's leaves, trunk and overall silhouette.

With regard to backdrop trees, the question often arises, "Just how close to the playing surface should the tree be located?" Considering the sensitivity of bentgrass and bermudagrass to increased levels of shade, the answer is: close enough to provide the benefit, but far enough away to minimize excessive shade stress on the putting surface, which can be a delicate balance, to say the least. The density of the tree canopy, debris droppage potential of the specimens, and the evergreen/deciduous nature of the species are all considerations in making species choices.

2. Trees that identify doglegs

Trees placed to identify where the direction of a hole shifts from straight to curved are similar to backdrop trees, providing distance guidance, yet they add another dimension — a directional purpose. These trees provide the golfer with the added benefit of being able to identify whether a hole plays to the right or left, as well as a target zone, especially when a grouping or massing of trees is implemented. In fact, if the desire is for the dogleg to be strongly identified, a massing of trees is recommended. If the intent is for the benefit to be more subtle, single specimens are often used.

Common locations for dogleg trees to be placed include the beginning of the curve or angle in the layout and the opposite side of the fairway where the hole turns.

3. Screening trees

Screening trees can supply both functional and aesthetic benefits, especially coniferous species. A specimen with a thick, dense canopy will greatly reduce unwanted noise from busy roadways or manufacturing plants. While not all noise-producing entities are unattractive, many are, and the benefit of blocking undesirable views is certainly a bonus.



Greater awareness of the dogleg direction can be provided with a well-placed tree.

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Well-established trees can conceal undesirable views and decrease noise.



Given that unattractive vistas such as factories and junkyards are present 365 days a year, the use of evergreens for this purpose is especially appropriate. When deciding upon plant spacing and placement, it's helpful to take some cues from the foresters who design windbreaks for farmsteads. The general recommendations include at least two rows of trees, spaced 20 to 25 feet apart, with individual specimens located 15 to 20 feet apart in the rows, depending on the expected height and width of the species. Woody plants can also be used to screen less-than-appealing aspects of the golf course itself, such as pump houses and restrooms.

4. Signature trees

A person's signature is unique — a special scratching out of their name, as only they can do. In some scenarios, a signature tree is appropriate for a golf course. Sometimes, history calls for it if a certain tree was notable when the course was being built or was designated for continuance after a renovation. In other situations, it may be more reputational or symbolic, such as when the name of a tree species is in the name of a course, such as Quarry Oaks or Sycamore Hills. Of course, in these cases, at least a few trees of that species are expected to be in the tree inventory.

A common location for these trees is at the entrance road or the clubhouse, where the association can be easily noted. Signature trees can also simply be an element of the course that makes a statement — a stunning piece of the golfscape.

5. Trees for protection

Some courses are laid out with great distances between where shots are struck and where they can possibly land, and some are not. For the latter, the "tighter" layouts, protection trees are especially important.

Often planted between adjacent fairways and between tees and nearby non-golf



The risk of errant golf balls striking unsuspecting people can be greatly diminished via good tree placement.

properties, these specimens serve to prevent balls from striking otherwise preoccupied people. Common examples include trees that protect residential properties, swimming pools, parks and hotels. Installation of trees for this purpose provides greatly reduced liability and a degree of safety separation for a golf course. As with screening trees, a dense canopy usually helps to provide maximum benefit.

6 and 7. Obstacle and directional trees

A certain degree of difficulty is inherent in all golf holes, the exact nature of which greatly depends on the type of course and can vary widely across a continuum of sites — practice facilities, municipal courses, public daily-fee and membership-exclusive clubs. In the hands and mind of a savvy golf course architect, a well-placed tree can produce an appropriately challenging obstacle as golfers line up an approach shot or strive to keep a drive in the fairway.

Whenever a modification of direction is desired — some subtle, others more overt — the two main factors involved are the size/shape of the tree species and the placement in the rough.

Because obstacle and directional trees are by default in close proximity to golfers, it’s crucial that they be regularly inspected by an arborist certified by the International Society of Arboriculture (ISA) for safety, stability and overall health.

Editor’s note: Looking for outside help managing and maintaining the trees on your golf course? Intent on tackling the task in-house? See [Tree care: In good company](#) for points to consider, including information on ISA-certified arborists.



Strategic tree placement can increase or decrease a hole’s degree of difficulty.

8. Shade trees

One of the most basic tree functions is shade, especially for non-turf areas such as clubhouses, outdoor dining areas, refreshment stands and restroom facilities. The temperature reduction and glare relief provided in these locations are great benefits and should not be taken lightly.

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Of course, if shade is excessive, and it often is, it is important to be intentional about the density of the canopy of the chosen tree species and to implement a regular tree-removal plan as light intensity decreases over time. Regular monitoring of [photosynthetically active radiation \(PAR\)](#) will provide useful management information. It can also be helpful to use shade-tolerant turf species in these locations, such as centipede grass, St. Augustine grass, or fine or tall fescues.



A reprieve from the sun can be welcome during a round of golf, and what better to furnish it than a stately tree?



9. Framing trees

Family portraits and great works of art usually have a substantial frame surrounding them. Depending on the nature of various golf course features, it may be appropriate to incorporate framing trees at these locations as well.

Specifically, clubhouses, reception facilities and welcome areas often benefit from the special definition provided by framing trees. A common framing arrangement is the placement of large specimens of the same species on both sides of the feature that is to be emphasized. If the need to draw attention to a particular element is greater, more trees can be used in an effort to frame the space, as in a portrait.

10. Habitat trees

Perhaps the most benevolent of all tree functions are trees that have been allowed to remain on a course for many years after they have died. Even though these specimens have ceased to provide much in the way of shade, screening, protection, shot clarity or aesthetic appeal, they still have value as habitat trees. Throughout the year, various species of raptors and songbirds can use such trees for perching and harborage as well as or better than they can use more desirable varieties.



If they pose no threat of striking a golfer or valuable piece of property, consider leaving some dead trees standing to benefit birds.

The key to using habitat trees is to be certain of their stability and to locate them where they do not detract from the overall aesthetic appeal of the course. As mentioned earlier, consultation with an ISA-certified arborist is im-

portant for these and other trees on the course. Experienced and well-trained tree professionals will be certain to provide guidance as to the likelihood of a tree striking a person or valuable piece of property.

Final evaluations

As you ponder each of these purposes, consider that some trees will serve several functions and others just one or two. And, as you reevaluate the status of other features or pests or problems on the course, it just makes sense to give a second thought to the purpose of the trees nearby.

Whether it's done hole by hole or randomly, it creates valuable insights that can be used in many proactive ways, including avoiding the removal of trees that provide invaluable benefits and bolstering the defense of your retain-or-remove decisions to various golf course stakeholders.

John C. Fech is a horticulturist and Extension educator with the University of Nebraska-Lincoln. He is a frequent and award-winning contributor to GCM.

[10 functions of golf course trees - GCMOnline.com](#)

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Verdure: An Ode to Tom Watschke.....continued from Page 2

high amount at 15 or 150 parts per million (15 or 150 milligrams per kilogram), and three day/night temperature regimes of 64/50 F (18/10 C), 81/64 F (27/18 C) or 95/68 (35/20 C). All treatment combinations of Kentucky bluegrass and NO₃-N and temperature were replicated and randomized, and all received 18 hours of light and six hours of dark every day for the duration of the 10-week experiment. Items measured were shoot growth, root growth, NO₃-N uptake, carbohydrate content (using a hot water extraction method, the latest technology at the time) and leaf NO₃-N content.

What were the results? Let's start with the interaction of temperature and N. Not surprising for cool-season Kentucky bluegrass, all cultivars performed poorly at 95/68 F with low or high NO₃-N. Best shoot growth across all cultivars was observed with high N at 64/50 F or 81/64 F, and best root growth across all cultivars was measured at 81/64 F and least at 95/68 F with low or high NO₃-N.

Let's look at how those cultivars responded to temperature. Kentucky bluegrasses originating from warm climates were more tolerant of high temperature because they had higher carbohydrate levels, lower NO₃-N uptake and lower foliar NO₃-N content than Kentucky bluegrasses from cold climates. Therefore, Kentucky bluegrasses from warm ecological regions are better adapted to high temperature stress because of low NO₃-N absorption, which limits stimulation of NO₃-N metabolism, thus conserving carbohydrates.

But wait, there's more.

In a "preconditioning" follow-up experiment, all Kentucky bluegrass and NO₃-N treatment combinations were subjected to 95/68 F for 30 days, to compare measurements with the first part of the experiment. Watschke found that all Kentucky bluegrasses preconditioned at cooler temperatures produced more shoot growth but had lower N absorption and higher carbohydrates compared to all Kentucky bluegrasses maintained at the continuously higher temperature. So, turf with high carbohydrates best supports growth at high temperature. Watschke stated, "Apparently grasses with reasonably high carbohydrate contents, whether induced by fertility, management, or genetic composition, enhance Kentucky bluegrass tolerance to high temperature stress."



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Editor's note: Research on 14 cool- and warm-season grasses — including Kentucky bluegrass — offers greater guidance on selecting surfaces to withstand extended periods of heat. Read the findings in [Turfgrass responses to prolonged heat stress](#).

Watschke's research from the 1970s guided future investigations into summer stress physiology and performance of cool-season turfgrasses by many faculty and graduate students. Also of note: While at Penn State, he established the first formal turfgrass science baccalaureate degree program, with "Turfgrass Science" printed on the diploma. Prior to that, students majored in agronomy or horticulture. He was a fellow in the Agronomy Society of America and the Crop Science Society of America. In 1990, he received GCSAA's Col. John Morley Distinguished Service Award. Thank you, Dr. Tom Watschke, for your contributions to turfgrass science.

*Source: Watschke, T.L., R.E. Schmidt and R.E. Blaser. 1970. Responses of some Kentucky bluegrass to high temperature and nitrogen fertility. *Crop Science* 10:372-376.*

Mike Fidanza is a professor of plant and soil science in the Division of Science at the Penn State University Berks Campus in Reading, Pa. He is a 19-year member of GCSAA.

[Verdure: An ode to Tom Watschke - GCMOnline.com](#)

GCSAA Survey Shows Increase in Golf Course Superintendent Salaries

*Average salary up 4.5% for superintendents, 7.5% for Certified Golf Course Superintendents.
May 11, 2021 | GCM staff*

The average annual salary for golf course superintendents has climbed to \$97,354 in 2021.

This and additional data come from the latest biennial Compensation and Benefits Report from GCSAA. The \$97,354 average salary represents an increase of 4.5% compared with the average salary in 2019, continuing the trend of increases in every two-year period since GCSAA began tracking the data in 1993. Superintendents' salaries have more than doubled in the three decades since the first report, when the average salary was \$44,500.

Certified Golf Course Superintendents — those who have achieved the highest level of recognition through education, experience and service — have seen a 7.5% salary increase compared with 2019. Their average salary has risen to \$119,558, an increase of \$8,308 over 2019.

Editor's note: Regional agronomist Dave Waymire, CGCS, shares wisdom from several tenured turf managers to help fellow superintendents get to the top of their game in [The 10 commandments of successful golf course superintendents](#).

Assistant superintendents and golf course equipment managers have also seen increases in their incomes. Assistant salaries have grown 5.6%, and equipment manager salaries 5% compared with two years ago.

"As golf has risen in popularity in the past year, it's clear that employers understand the value of these highly educated professionals who oversee the golf facility's top asset," says Rhett Evans, GCSAA CEO. "In particular, they see the positive impact of rewarding those who seek the highest level of knowledge, as Certified Golf Course Superintendents do."

The report also offers a profile of GCSAA superintendents and their operations. The average age of a superintendent is 47.3 years, and he or she has spent 16.7 years in the profession. The average number of years a superintendent has spent in his or her current position has stayed steady at 10.4 years.

In December 2020 and January 2021, the association research firm Industry Insights sent the 2021 Compensation and Benefits survey to all GCSAA Class A and Class B members, and the response rate was 43%, with a margin of error of plus or minus 1.3% and a 95% level of confidence.

Get more information about [GCSAA's 2021 Compensation and Benefits Report](#).

[GCSAA survey shows increase in golf course superintendent salaries - GCMOnline.com](#)

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Increase to Indoor and Outdoor Events on May 17

The Wolf Administration announced that event and gathering maximum occupancy limits will be increased to 50 percent for indoor events and gatherings and 75 percent for outdoor events and gatherings effective Monday, May 17 at 12:01 AM.

“As more Pennsylvania adults get vaccinated and guidance from the CDC evolves, we can continue to move forward with the commonwealth’s reopening efforts,” said Governor Wolf. “We recognize the significant strain businesses have faced during COVID-19 mitigation efforts. Throughout the last year and half, we have seen businesses continue to put the safety of their patrons first and I believe they will continue to do so even with this capacity increase.”

This update will not prevent municipalities, school districts, restaurants and venues from continuing and implementing stricter mitigation efforts. Based on current [CDC guidance](#), social distancing is strongly recommended for municipalities, school districts, restaurants, and venues.

An event or gathering is defined as a temporary grouping of individuals for defined purposes that takes place over a limited timeframe, such as hours or days. For example, events and gatherings include fairs, festivals, concerts or shows and

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groupings that occur within larger, more permanent businesses, such as shows or performances within amusement parks, individual showings of movies on a single screen/auditorium within a multiplex, business meetings or conferences, or each party or reception within a multiroom venue.

Face coverings are still to be worn indoors and outdoors if you are away from your home. In accordance with the latest Centers for Disease Control and Prevention (CDC) guidance, fully vaccinated Pennsylvanians are not required to wear a mask during certain activities. The current order requiring Pennsylvanians to wear masks will be lifted when 70 percent of Pennsylvanians age 18 and older are fully vaccinated.

“As we continue implementing our reopening plan as quickly as possible, the safety of Pennsylvanians remains at the forefront of our decision making,” said Gov. Wolf. “During the pandemic, all Pennsylvanians have worked collaboratively to stop the spread of COVID-19. We must continue that same mindset during our reopening efforts. I urge each eligible Pennsylvanians to get vaccinated to help protect your neighbors and loved ones as we work to safely reopen our beloved commonwealth communities.”

Currently, maximum occupancy is 25 percent for indoor events and gatherings and 50 percent for outdoor events and gatherings, regardless of venue size and only if attendees and workers are able to comply with the 6-foot physical distancing requirement.

Making the Case For (Temporarily) Higher Rough

May 07, 2021

Elliott Dowling, Agronomist, Northeast Region

Temporarily raising the height of the rough will lead to less grass being removed with each mow and less mess afterward.



Rough height, density, difficulty and appearance are all grumbles that superintendents hear in the spring. It is inevitable that as the soil temperature warms, grass reacts by growing more aggressively. This is enhanced by fertility that is often applied at this time of year.

One of the more prevalent criticisms is the messy appearance of the rough for a few weeks to a month in the spring. At this time of the year, grass growth rate often eclipses how often the rough is mowed. Consequently, more grass is removed than normal, which leaves a mess of excessive clippings behind.

One strategy that I have seen recently is raising the height of the rough above 3 inches, sometimes to as tall as 4 inches. This is a substantial increase from the typical height of 2.25-3.0 inches often found on golf courses in the Northeast, but higher rough also means that less grass is cut each time and there is less mess afterward. The finished product is much cleaner than it would be otherwise. Once the grass naturally slows its growth rate and superintendents have a chance to get caught up in the spring, the height of cut can be returned to normal.

My feeling is that superintendents know there are going to be conversations about the rough every spring. The conversation may differ slightly, but grass clippings and messy appearance are usually part of the discussion. Knowing that you could hear complaints anyway, why not raise the height to reduce the mess and subsequent cleanup?

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[Making the Case For \(Temporarily\) Higher Rough
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BMP's ...continued from Page 1

thank the many volunteers and supporters who helped make this vision a reality.”

Prior to the launch of the initiative in 2017, seven states — Florida, Michigan, New York, Oregon, Pennsylvania, Virginia and Washington — had already developed comprehensive golf course BMPs. These states updated their documents using GCSAA's new resources.

With the establishment of state BMPs, the initiative will now move on to its next phase: facility BMP manuals. Using the BMP Planning Guide and Template and their state guide, individual golf facilities can create a course-specific BMP manual to direct and document agronomic and environmental practices. Such handbooks also provide an easy, detailed reference to help golfers, lawmakers and community members better understand the operations behind the maintenance of one of their local green spaces.

Pennsylvania

[Best Management Practices for Pennsylvania Golf Courses](#)

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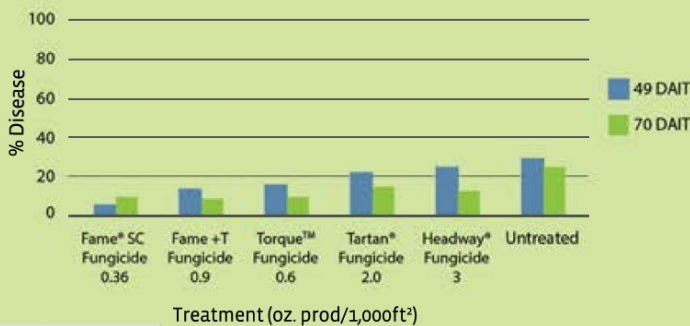
PLANT HEALTH

- Root mass
- Root length
- Consistent chlorophyll production

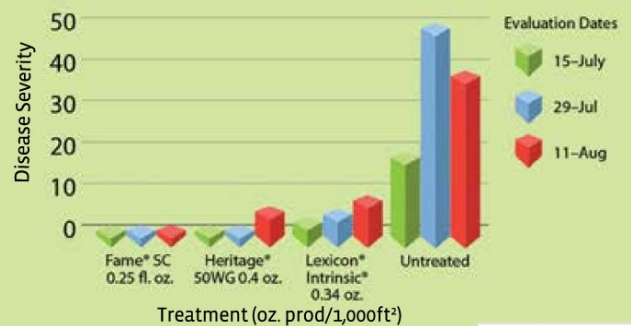
DISEASES CONTROLLED

- Brown Patch
- Fairy Ring
- Leaf Spot
- Necrotic Ring Spot
- Pink Patch
- Pythium Blight
- Pythium Root Dysfunction
- Pythium Root Rot
- Red Thread
- Rust
- Southern Blight
- Spring Dead Spot
- Summer Patch
- Take-All Patch
- Yellow Patch

Fairy Ring Control



Brown Patch Control in Tall Fescue



Source: Penn State University, 2016

Source: North Carolina State University, 2014



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