

As just about every turf professional knows, the Certified Golf Course Superintendent (CGCS) designation is the highest level of recognition a golf course superintendent can achieve. In the job market, it is a professional designation that sets you apart from others, especially when pursuing a higher-level position. Once hired, it shows your employer that you are continually striving to enhance your skills and remain on the pulse of the industry as you pursue the continuing education needed to maintain your certification.

Though earning this status has always meant satisfying a series of criteria, in 2001, GCSAA made the requirements for becoming certified considerably more stringent. About 25 percent of GCSAA Class A members currently hold the CGCS status, but, admittedly, the numbers pursuing certification seem to have fallen off. The word on the street is that many superintendents are discouraged by what now appears to be an overbearing and time-consuming amount of work.

Well, having recently gone through the new certification process, I can assure you that it's not all that bad—and actually well worth the effort. I feel that completing the process has made me a better manager and better superintendent, which in effect, has made me more valuable to my club. I learned more effective ways of managing my time and my staff. I discovered things that I could be doing better or that I should be doing but wasn't. And working through the program gave me the tools I've needed to enhance any areas of weakness and also capitalize on my strengths.

What follows is a rundown on what it takes to become a certified golf course superintendent—as well as a roundup of Met member sentiments on what earning CGCS status has meant to them. I hope that after reading this article, you'll be inspired to carve out the time to pursue your certification—and join the ranks of the 79 Met members who are certified golf course superintendents today.

First Things First: Becoming Eligible

Before you can begin the certification process, you have to be sure you meet the minimum requirements. These include years of experience as a superintendent and level of education. Your educational level will dictate how many years of experience as a superintendent you will need and how many education points you will have to complete before moving forward with the certification process. The chart on page 4 specifies these requirements.

The eligibility requirements don't stop there. You also must:

- Be currently employed as a golf course superintendent.
- Possess a pesticide applicators license or pass the GCSAA's IPM exam if your state or country does not have a pesticide license.
- Complete the online Self-Assessment Tool, which can be found on the GCSAA's website.
- Complete a certification portfolio.

About the Self-Assessment Tool

Working through the online self-assessment helps you identify how you measure up to the competencies needed to perform successfully as a superintendent—and on the exam. Under each competency, you'll find the education resources—seminars, books, or articles—available to help you strengthen any gaps you might uncover in your knowledge and abilities in all areas. Another bonus: You'll receive .5 CEUs for completing this assessment.

About the Portfolio

Here's where things get a little more challenging. The certification portfolio is a collection of 33 sections that have to be completed before you can submit your application for the program. These sections are divided into three parts: Work Samples, Skill Statements, and Case Studies. The portfolio was created to evaluate your understanding and application of the management and problem-solving skills needed

to run a successful golf course operation.

I know, right now you're thinking, "You have to be kidding me, right?" Admittedly, the portfolio is one of the biggest stumbling blocks in superintendents' motivation to become certified. I'm not going to say it's not a lot of work, but you can begin building a portfolio at any point in your career, even as an assistant, and if you're a superintendent, you're probably already doing what's required in some of the sections anyway. Take the Work Samples section. Here, you have to provide evidence of tools and documents that you use to manage staff. This might include employee reviews, employee training, job descriptions, or a meeting agenda ... things you have pretty readily available.

One thing that you should be sure to download from the GCSAA's website is the Portfolio Scoring Rubric. This is a great vehicle for helping you make sure that you do not leave any part of an answer out. It is what the judges use to grade your portfolio, so reviewing it can prove to be a great time-saver, particularly since any errors or omissions will require that your portfolio be returned to you for revision. Ugh.

I have judged six portfolios in the past three years, and the most common reason any section is sent back for a redo—believe it or not—is because of grammar, punctuation, or spelling errors. I strongly suggest having someone else proofread your work before sending it in. It will save you a lot of time and aggravation.

Right now, you have two options in putting together your portfolio: You can create an electronic portfolio, or you can submit a paper-based version. Regardless of which method you choose, GCSAA provides helpful templates on its website that are designed to guide you in the creation of your portfolio while ensuring that you include all the necessary information.

If you choose the paper-based portfolio, you have to download the templates onto your computer, type in the answers, and print three copies of everything. Then you have to put them into separate binders and

GCSAA Point Requirements

Level of Education	Superintendent Experience	Total Points
Bachelor's degree in turf or plant science	3 years	3 (2 edu)*
Other bachelor's degree plus associate's degree in turf/plant science, or equivalent two-year turf certificate (i.e., Michigan State, Penn State)	3 years	3 (2 edu)
Other bachelor's degree	4 years	5 (3 edu)
Associate's degree in turf/plant science, or equivalent two-year turf certificate (i.e., Michigan State, Penn State)	4 years	5 (3 edu)
Turf certificate/short courses (400-hour minimum) (i.e., Rutgers, Penn State World Campus)	5 years	10 (6 edu)
Other associate's degree	6 years	10 (6 edu)
No degree or recognized certificate	7 years	40 (32 edu)

*Points in parentheses represent the minimum education points required to reach total points.

mail two of the copies to GCSAA, where they would then be sent to two different judges to be graded.

The new-and-improved electronic option allows you to enter your information directly into your e-portfolio by copying and pasting your information from the templates or from something you might have already saved on your computer. Your portfolio will be accessible for five years from the last time you opened it. Another plus with this method is that you will receive your results from the judges more quickly because there is no time wasted waiting for items to be mailed back and forth.

Completing the Certification Eligibility Worksheet

You'll complete this worksheet, which you can find on the GCSAA website, to establish and document your eligibility requirements. Once you've met the requirements, GCSAA will send you a certification application form to complete and submit with an application fee and your portfolio.

The Application

When your eligibility is approved and you have your portfolio ready to go, you can submit your application. Once the applica-

tion is received, you will have one year to complete the remainder of the certification process, which includes the written exam, the attesting of your golf facility, and the evaluation of your portfolio. The exam and attesting can be completed in any order within the one-year period.

This means planning ahead is essential. You have to keep in mind that:

- The attesting of your course must be conducted during the growing season.
- A 60-day waiting period is required between exam retakes. So if for some reason you have to retake a section of the exam (you're allowed two retakes), you have to be sure there's ample time remaining in your one-year applicant period for completion. It really pays to wait until you're well prepared to take the exam before submitting your application.
- If any additional information or materials are needed for your portfolio, it must be returned for reevaluation during your applicant period.

I, personally, submitted my application in the early fall, which gave me the off-season to pass the exam and the whole summer to get my attesting done.

The Exam

The exam is a closed-book, multiple-choice test consisting of three parts with a total of 211 questions. You must pass each section of the exam with at least a 67 percent.

The Self-Assessment Tool mentioned earlier will identify for you the materials or seminars that will help you pass this exam, so it's important that you be honest with your-



To do today:
Register for ½ day GCSAA Seminar
Participate in GCSAA Webinar
Prepare for CGCS accreditation testing
Schedule GIS Show

self when you work through this online assessment.

On the test, there are some things that you're expected to know from memory, such as the volume of a cube, converting cubic feet to cubic yards, calculating the percent slope, USGA specifications for greens, the GCSAA's Code of Ethics, general knowledge about turf species from all geographical areas, and how to figure depreciation. You are also expected to have some general knowledge about the Audubon Sanctuary Program for Golf Courses. Formulas for other, more difficult math problems are provided.

As I noted earlier, you have one year to pass the exam, but there is a 60-day waiting period between retakes, so plan ahead!

The Attesting

Fulfilling the attesting requirement may be the easiest part of the program for some and the most nerve-racking for others. This is when your local chapter assigns two certified superintendents to come and evaluate your golf course operation. This evaluation is conducted during your course's growing season and covers four major areas: course conditions (based on your budget), maintenance facility, recordkeeping methods, and communication skills.

You can prepare for this visit by downloading the grading form that the attestors will use to evaluate your course. There is also the "Attestor Guidelines" booklet available as a PDF, and an "Attestor Training Video," which also covers everything the attestors will be looking for.

Maintaining CGCS Status

Once you become certified, you must maintain your CGCS status by obtaining 15 points every five years. (At least five of the points have to be education points; the remainder can be service points.) If 15 points are too much, you can retake the exam and obtain only 5 points. (At least two have to be education points, in this case.)

Maintaining CGCS Status When Retired

What about the people who have been certified but are now on to other things like sales or retirement? You may be eligible to maintain a "CGCS Retired" status, which means you no longer have to renew with CEUs. You simply have to meet the requirements for a retired membership classification in GCSAA, such as Class AA (Life Member), and you have to have maintained your certified status up to the point of retirement.

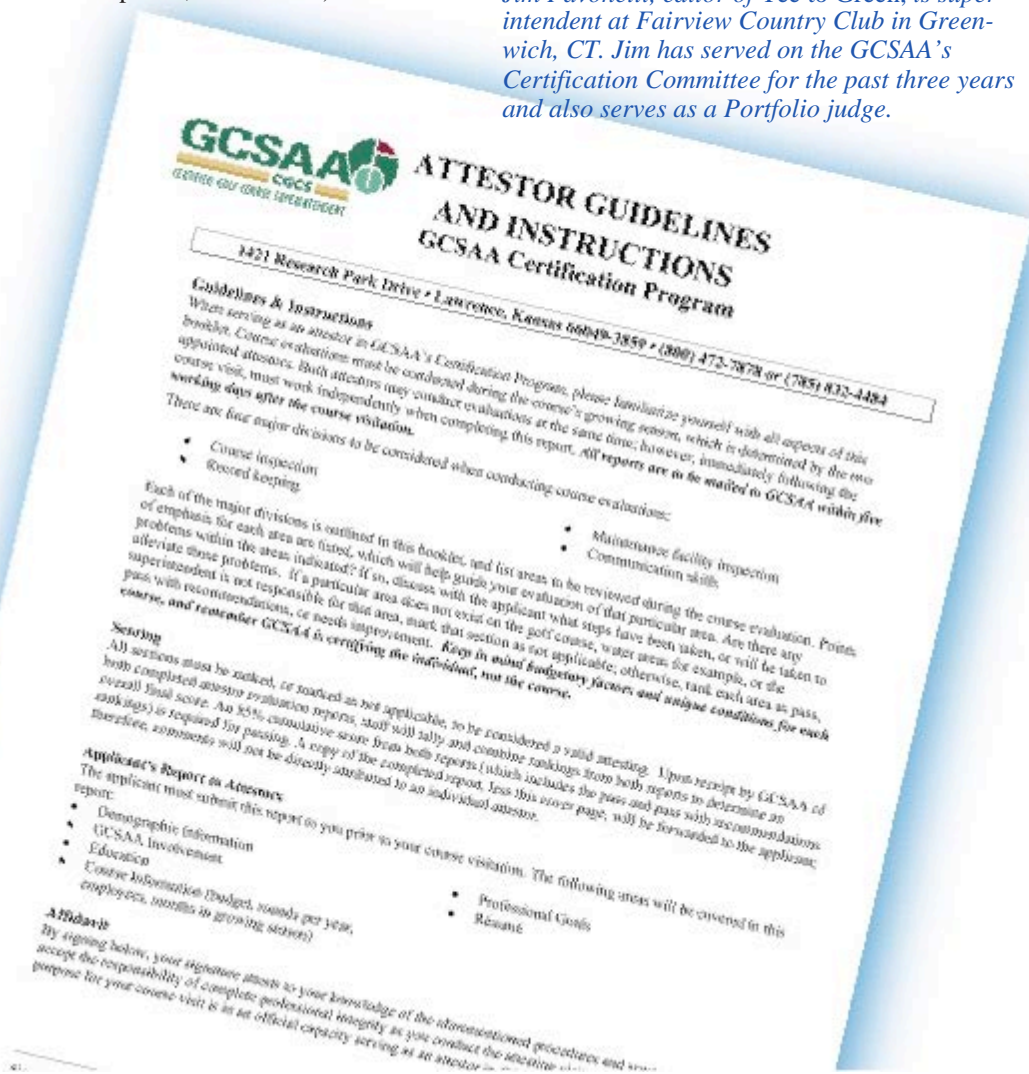
To be eligible for Class AA (Life Membership), one has to have retired as a golf course superintendent and been an assistant superintendent or golf course superintendent member of the GCSAA for 25 years, of which a minimum of 20 years has been spent as a golf course superintendent.

For Questions About the Certification Process

If you have any questions or concerns about the program, a great resource is Penny Mitchell, the program's Senior Manager of Certification. She can be reached at pmitchell@gcsaa.org or at 800-472-7878.

Good luck!

Jim Pavonetti, editor of Tee to Green, is superintendent at Fairview Country Club in Greenwich, CT. Jim has served on the GCSAA's Certification Committee for the past three years and also serves as a Portfolio judge.



Superintendents Talk Certification

We surveyed local certified superintendents to get a sense of how they feel about their certification. Most couldn't say enough about the value they've derived from earning—and maintaining—their CGCS status. Here are their insights:

Many enjoyed the “feel good” aspect of adding CGCS to the end of their names. . . .

“In my 25th year of certification,” notes Preakness Hills’ John O’Keefe, “I am confident that career advancement is just one of the benefits of certification. The CGCS designation is something that makes me feel proud and also gives me a feeling of significant accomplishment. I especially appreciate the distinction my club has enjoyed by having a certified superintendent. At the certification luncheon in San Diego in February, it was a great feeling to look around the room and see that I am among some of the best in our business.”

The Stanwich Club’s Scott Niven notes a similar sense of accomplishment: “I have always felt proud to be able to tell members of my club that I am certified as a relatively small percentage of individuals in our business can say that. The CGCS distinction is also a very prominent and valuable item on my resume and website.”

“For me,” says Country Club of New Canaan’s Mike Reeb, “it has been a professional qualification of intrinsic or core value, a goal that’s provided personal satisfaction throughout my career.”

To Larry Pakkala, superintendent at Silvermine Golf Club and superintendent-at-large for Plant Food Co., certification was a means to an end: “I always have looked for ways to improve my self-image, and certification was a means to do that. I didn’t do it for financial gain. It was a personal goal I set for myself. In our industry, unlike many others, certification isn’t required. It’s up to the individual. Many superintendents take the same number of GCSAA and other courses

as a CGCS without becoming certified. And there’s value to that too. I, personally, am proud that I went through the process of becoming certified—and that I’ve maintained that status for 30 years. I’m looking forward to remaining a CGCS well into retirement.”

For Bedford Golf & Tennis Club’s Bob Nielsen, it’s what certification stands for that’s important: “Certification is presently the highest standard by which an individual can be held in our organization. While I don’t believe certification increases an individual’s ability to become a better superintendent, I do believe it demonstrates a commitment to the profession. This is, and always has been, important to me.”

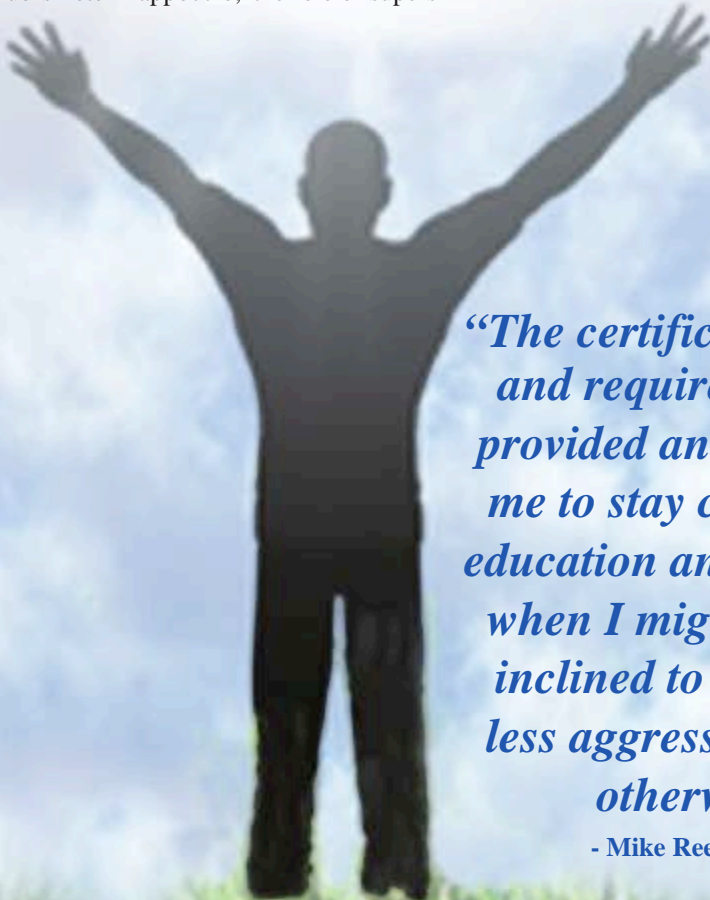
Others feel it has given them a leg up in a competitive industry. . . .

“Back in 1986,” says Silver Spring Country Club’s Peter Rappoccio, “the role of supers

and our status within our clubs was nowhere near what it is today. Many of us looked at certification as a way to distinguish ourselves within the industry and take our jobs to the next level. Though the industry has begun to change and the important role of the superintendent has become clearer to club members and others in the golf industry, I still feel that certification is a distinction that all superintendents should try to attain—and maintain. I have been certified for 27 years, and I already have enough points to be recertified in 2016!”

Emphasizing the importance of CGCS status, Scott Niven adds, “I have always been the kind of person who wants to climb as high in the industry as possible, so as soon as I heard about the certification program back in the early ’80s, I immediately went on a search to find out what I had to do to obtain that classification. Certification holds a certain amount of status in many industries, so whenever you tell a club member, golfer, etc., that you are a certified golf course superintendent, it always indicates to them that you are a professional in your field at the highest level and your work will be representative of what could be considered state-of-the-art in golf course management. I have never questioned my decision to be certified and feel that it has only helped me to achieve a fairly high level of success in this great business.”

Like Scott, Brae Burn Country Club’s Blake Halderman regarded earning CGCS status



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- Mike Reeb, CGCS

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- Tim O'Neill, CGCS

as a solid career move. "When I was a young superintendent, my entire goal was to put myself in the best possible position to get the job I truly wanted. I felt if I wanted to be viewed as one of the top 10 percent, then becoming certified was necessary."

Similarly, Meadow Brook Club's John Carlone felt becoming certified would set him apart from others in the industry. "When I earned my certification in 1991, I felt it would make a statement to my peers and potential employers that I desired to be the best I could be in my profession. I remember feeling, 'All good superintendents are certified.' Of course, I've long known that there are plenty of highly capable superintendents who are not certified. Yet I still think that every young superintendent should challenge themselves by pursuing their certification!"

Rockland Country Club's Matt Ceplo feels certification is all the more essential in an economy where job competition is fierce. "I would urge every superintendent to become certified. Completing your certification, in my opinion, demonstrates to current and prospective employers your commitment to the industry and to the profession of golf course management. And because you have to stay current with the latest developments and technology to maintain your certified status, employers know that they are hiring or employing someone who is on their game."

Echoing Matt's sentiments, Country Club of Darien's Tim O'Neill notes: "Although certification does not guarantee success, statistics show that it can enhance our career opportunities, job security, and lead to better managed facilities. Moreover, in this highly competitive industry, certification is a demonstration of a superintendent's passion for the profession, and it allows a superintendent to be recognized for meeting established levels of competency. It goes beyond 'growing grass' by requiring knowledge in business, communication, leadership, and the environment. It was a personal goal of mine when I started my career as a superintendent in 1981, and I believe it has been a sig-

nificant factor in my success as a golf course superintendent."

Still others enjoy the educational nudge the certification process provides. . . .

As Glen Arbor Golf Club's Ken Benoit notes: "I became certified in 2004, and my experience has been 100 percent positive. In studying for the certification exam, I rediscovered the joy of learning and take great pleasure in keeping up-to-date on turf-related science and participating in the continuing education process. My involvement in the GCSAA certification program has been nothing short of a wonderful experience."

John Carlone sings the praises of certification's educational requirements: "After 22 years, I still appreciate how being certified ensures that I stay current with every aspect of our changing profession through ongoing education."

"Truth be told," says Mike Reeb, "the certification process and requirements have provided an incentive for me to stay current with education and new trends, when I might have been inclined to settle into a less aggressive approach otherwise. I'm proud to be certified and intend to remain a CGCS for as long as I'm able to renew."

"No doubt," adds Blake Halderman, "the certification process forces you to stay current in the industry, which is a positive for both you and your club."

Peter Rappoccio is one who feels the educational benefits of the certification process far outweigh any potential for financial gain: "I didn't pursue certification with the goal of getting more pay. I viewed it as a means to take my status, through education, to the next level. Those who say becoming certified is not worth the effort because financially it means nothing, have their priorities out of whack. It was, and still should be, a means to continue to improve our knowledge of the business, which, in turn, makes us better supers."

And some feel there's just no good reason NOT to become certified. . . .

"A superintendent may or may not feel the need to become certified as it relates to his ability to do his job on a daily basis," says Ken Benoit, "but in my opinion, there is no good answer when asked by a current or potential employer why you are not certified."

Bob Nielsen echoes Ken's sentiments, saying, "One question I always asked myself when deciding whether or not to pursue certification was how I would explain, if it came down to me and another certified superintendent for a position, why I wasn't certified. I have never been able to come up with a good answer."

To Blake Halderman, becoming certified is one of those "why not?" things: "If all those around you are certified and your club finds out you're not, I don't think it will sit too well. You will have to play defense. With the ease of maintaining the certification these days with online courses, I don't see any reason not to get certified and keep it."

While many superintendents were pleased with the recognition and support they received from their clubs for earning and maintaining their CGCS status . . .

A number of respondents admitted their clubs have little idea what CGCS stands for. . . .

"I don't believe my employer gives me any more credit for being certified," says Bob Nielsen, "but that is as much my fault as anyone else's. I have not promoted it."

And according to Blake Halderman, "I don't think 99 percent of my club knows what CGCS stands for or what it takes to keep that status. While being a CGCS may not mean much on a daily basis, I still feel the long-term benefits make it worthwhile."

Larry Pakkala, on the other hand, felt more clubs are aware of the benefits of certification than most of us realize: "For many years, I've noticed that some job notices state that being a certified superintendent is a plus. So there are clubs out there that do know about it."

In the end, few certified superintendents would deny the many personal and professional rewards of earning—and maintaining—their CGCS status . . . even if no one knows it but themselves.

Be afraid of the dark

Paul Koch, Ph.D.

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The Editorial Staff and members of the MGCSA would like to recognize Dr. Koch for his supply of relevant material published in the Hole Notes magazine. David Brandenburg, CGCS, and Editor of Wisconsin's Grass Roots Magazine is also recognized for his support and sharing of material previously published in his magazine. Thank you Paul and David for your contributions.

The summer of 2012 was historically unpleasant for turfgrass managers, harkening comparisons to the infamously brutal summers of 1995 and 1988. Much of the region was mired in a severe drought, and record high temperatures ruined many July 4th festivities (and emptied tee sheets). While the record high temperatures certainly got the attention of the public at large, as turfgrass managers, what should have concerned us most were the nighttime temperatures.

There are a couple reasons for the importance of nighttime temperatures to turfgrass health. As any Turfgrass Diagnostic Lab contract member would know, I always harp on the forecasted nighttime lows when discussing potential diseases to watch out for. The primary reason is that higher nighttime temperatures nearly always equal higher humidity, due to the fact that moisture can hold heat better than air can. As we're well aware, higher humidity usually equals more disease. Sustained nighttime lows above 65°F often signal that dollar spot will become more active, and lows above 70°F for more than three days often signal that it's time to start worrying about Pythium blight and brown patch.

Warm nighttime temperatures go beyond just disease activity, though. As we all know, plants are unique in that they produce their own food. They accomplish this by using the sun's energy to power the conversion of carbon dioxide and water to sugars the plants can use, a process known as photosynthesis. Because the sun powers the photosynthetic production of food, photosynthesis only occurs during the daytime hours. As important as photosynthesis is, though, it only produces the food. To convert that food into energy, a second process called respiration occurs. Respiration is highly conserved amongst life on earth, and occurs in nearly the exact same manner in plants, animals, and other organisms. Respiration occurs 24 hours a day and breaks down the food produced through photosynthesis to energy the plants can use to survive. Since photosynthesis occurs only during the day, and respiration is occurring at all times, there is a period during the night where food is only being consumed and not produced.

What this means is that the plant needs to produce enough food during the daytime hours to sustain itself throughout the night as well. During sunny conditions with temperatures between 65-75°F, the plant produces enough food to sustain the plant through the night and also has extra left over to support plant growth (Figure 1). Different conditions can lower the amount of food available, either through reducing the amount of food produced or by using it up faster. Reduced sunlight due to shade or low mowing heights will lower photosynthetic production, resulting in a lack of food. Temperatures above 85°F begin to decrease the efficiency of photosynthesis through a process called photorespiration, a process that also decreases the amount of food produced. In addition, higher temperatures increase the rate of respiration in the plant cell, which can lead to faster utilization of resources.

This becomes especially problematic during periods with high

nighttime temperatures. Warm nighttime temperatures increase the rate of respiration, and there is no photosynthesis occurring to compensate with more food. This can lead to energy deficits, which if prolonged, can lead to poor rooting and eventually turfgrass death (Figure 2). This condition, when coupled with a multitude of other stressful summer conditions, has been referred to as summer stress syndrome.

Can anything be done to prevent summer stress syndrome? Well obviously you can't affect the nightly low temperatures, but there are a few things you can do to lessen the impact of a stressful summer similar to 2012. First, raise cutting heights to the absolute highest you can afford to. Even minor increases can help increase rates of photosynthesis, and research from Michigan State has shown that rolling can help maintain putting green speed. Second, syringing the turf in the late morning will cool the turf plants shortly before entering the warmest portion of the day. This can help to lower the canopy temperature, decreasing the rate of respiration. Third, ensure proper drainage by keeping the organic matter in the putting green rootzone below 4%. Excess water in the rootzone can prevent oxygen flow and hold more heat in the soil, which can increase respiration during the night.

Many superintendents have followed these recommendations and have still struggled to keep turfgrass alive in 2012. To be fair, little can be done when conditions are as extreme as they were last summer. This is especially true for facilities that can't dispatch small armies to hand water struggling areas throughout the day. But with every hot day that passes this summer, it's comforting to know we're one day closer to fall.



Figure 1. Hypothetical graph showing energy produced from photosynthesis and energy used from respiration at a daytime high of 75°F and a nighttime low of 55°F.

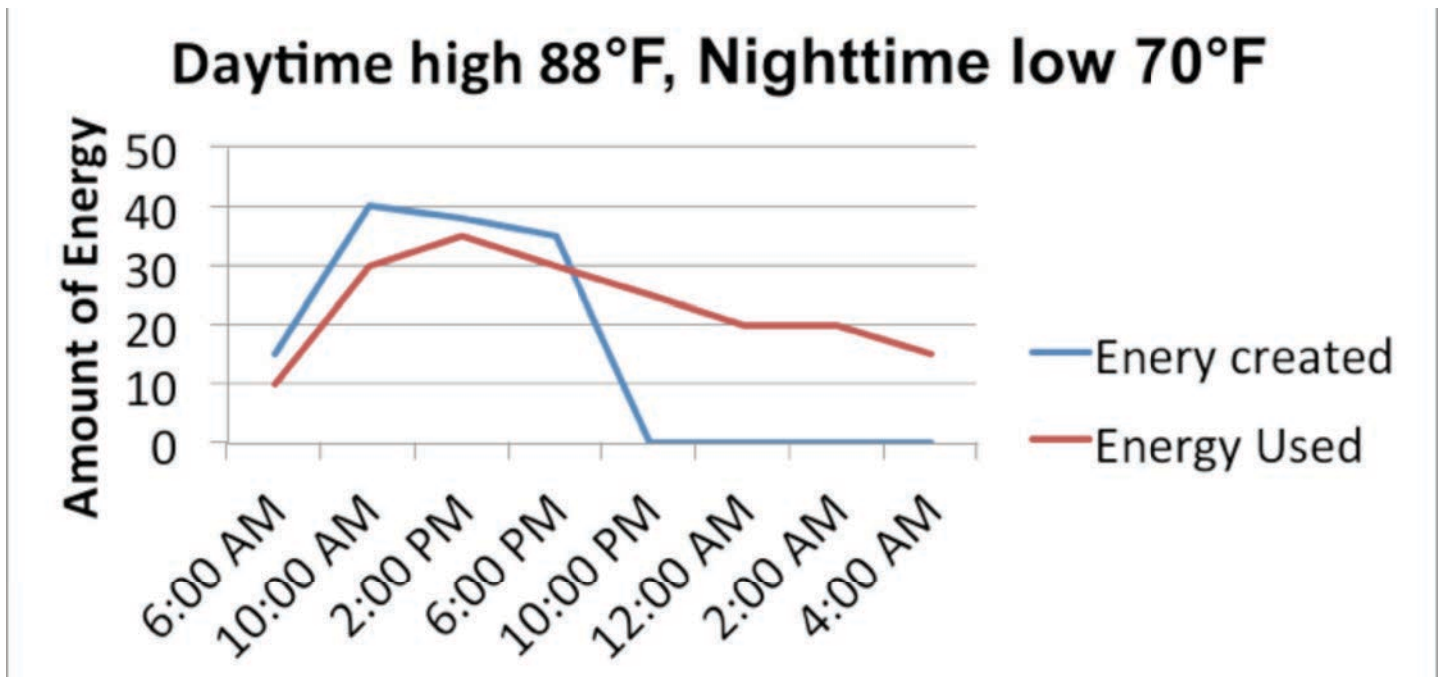
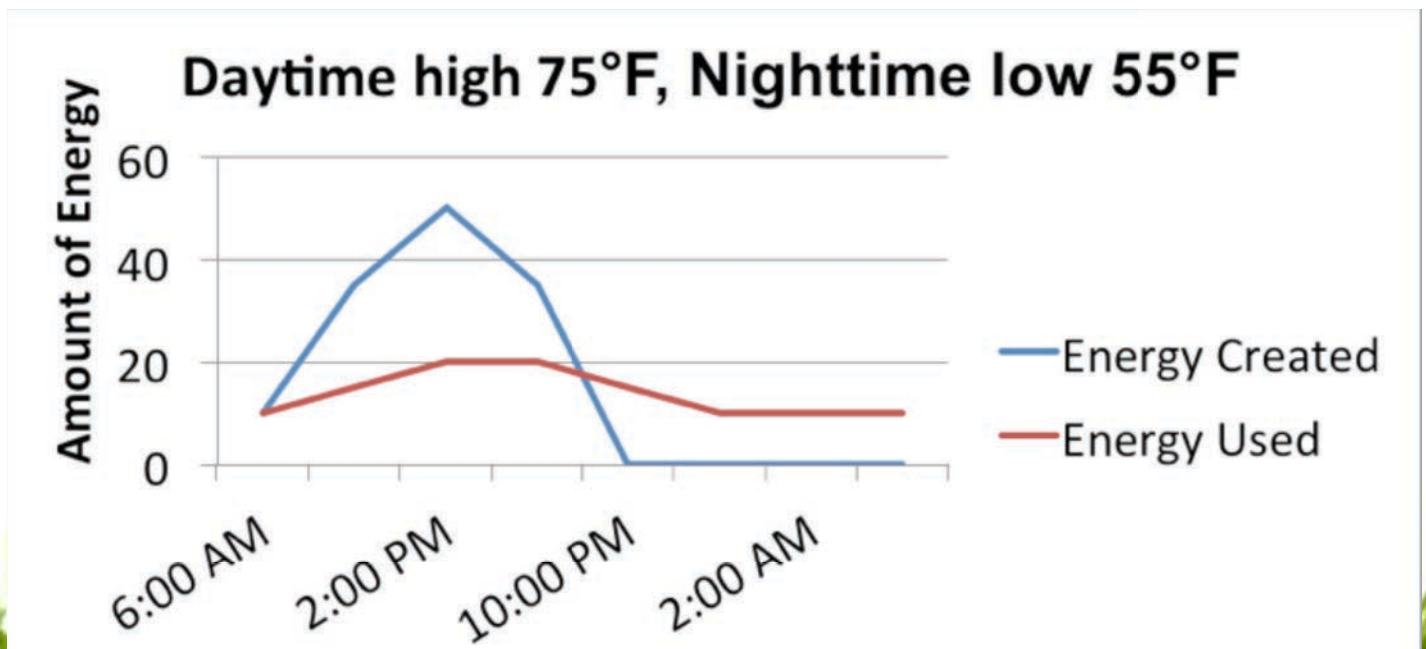


Figure 2. Hypothetical graph showing energy produced from photosynthesis and energy used from respiration at a daytime high of 85°F and a nighttime low of 70°F.



Emerald Ash Borer: Myths and Truths



Brandon M. Gallagher Watson

Director of Communications, ISA Certified Arborist MN-4086A Rainbow Treecare

Since its discovery in Michigan in 2002, emerald ash borer has killed an estimated 100 million ash tree across the United States. Here in Minnesota, the impact of emerald ash borer is just beginning to be felt. Hundreds of valuable ash trees have already been cut down in Minneapolis and St. Paul. There are an estimated 937 million ash trees throughout

forests, parks, and neighborhoods in Minnesota. Here in the Twin Cities, one in five trees are ash, so the loss of this species will have a significant impact on the look and feel of our community. Just look around – you are likely to see an ash tree.

Emerald ash borer has set a new bar in terms of media interest



in fact, almost **1 in 5** trees in the Twin Cities, are ash!