

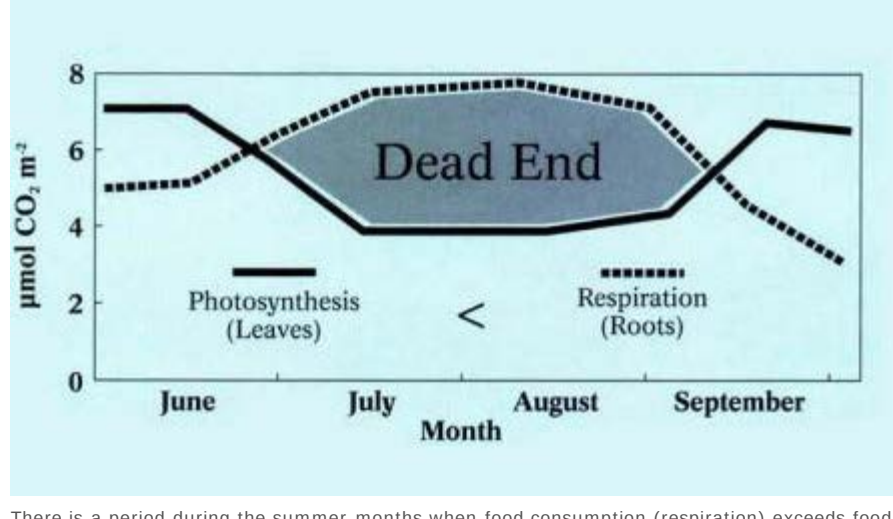


GREEN SECTION RECORD

VOLUME 51, NUMBER 13 | JUNE 28, 2013

QUESTION: WHY DO OUR BENTGRASS GREENS ALWAYS SLOW DOWN IN THE SUMMER?

ANSWER: TO KEEP THEM ALIVE



There is a period during the summer months when food consumption (respiration) exceeds food production (photosynthesis). It is during this time that putting greens are most susceptible to other climatic stresses and disease. Photo Credit: Bingru Huang, PH.D.

It is a fair question and one that is asked by many golfers as summer temperatures rise. Probably since the first bentgrass greens were planted, golf course superintendents have found that mowing the greens a little higher in the summer helped the grass better tolerate the combined stress of summer play and high temperatures. The trade-off is that mowing higher often results in slower greens. Amazingly, while superintendents and scientists have long agreed that the practice worked, until just a few years ago no one was sure why. Here is a very simplified explanation that golfers and superintendents should keep in mind as the summer wears on.

There are two very important processes turfgrass plants must perform to function. **Photosynthesis** is the process of converting light into energy. **Respiration** is the process of utilizing energy for growth. Normally, photosynthesis produces enough energy to meet all of the plant's needs, but during the high temperatures of summer the plant can actually use more energy than is being produced. This simple equation is not unlike your bank account. If you spend more than you make, eventually you will go broke. In the plant's case, if the plant uses more energy than it can produce for too long a time period, the plant will die as depicted in the graphic above.

So let's get back to why your greens are slower in the summer. Cutting the greens higher results in longer leaves. Longer leaves gather more light, which increases photosynthetic activity. This results in more energy being produced and keeps the plant from "going broke." Unfortunately, the longer leaves also result in slightly slower greens.

TAKE-HOME MESSAGE FOR GOLFERS

By tolerating slightly slower greens you greatly help your bentgrass greens get through the summer months.

TAKE-HOME MESSAGE FOR SUPERINTENDENTS

Monitor the temperature of the rootzone in your greens at a depth of 3 inches. When the temperature climbs above 85 F, it is time to raise cutting heights.

Of course, the entire process is more complex than described here. For those who want to learn more on how to help bentgrass greens survive the summer, the following articles are provided.

[Read More: Burning the candle at both ends: High temperatures and low cutting heights lead to a dead end!](#)

[Read More: Getting to the root of summer bentgrass decline: How summer heat affects creeping bentgrass roots](#)

[Read More: Low-carb diet: Rutgers University scientists demonstrate how the combination of high temperatures and low mowing leads to depletion of putting green carbohydrate turf](#)

[Read More: Some like it hot: Rutgers University scientists continue to unravel the mystery of creeping bentgrass heat tolerance in hopes of improving this vital turfgrass species](#)

USGA GREEN SECTION WEBCAST SERIES

VOLCANOED HOLES



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RENOVATING FAIRWAYS WITH NEW TURFGRASSES ELEVATES PLAYING CONDITIONS AND CREATES A MORE SUSTAINABLE GOLF OPERATION. BETTER GRASSES MAKE FOR BETTER FAIRWAYS



A fairway recently treated with glyphosate is overseeded with creeping bentgrass as part of the renovation process.

The golf industry is being pressured on multiple fronts, including heightened scrutiny over the use of water, pesticides, and other resources. A sluggish economy and stagnant growth in play have created a challenging business environment. The uphill road just got a little steeper with recent droughts and widely fluctuating weather conditions adding even more stress and challenge to golf course maintenance operations.

Turf managers are expected to produce quality course conditioning to satisfy golfer expectations in this changing environment and, to their credit, most do. However, continuing to do so only becomes more difficult and costly as pressures intensify. Therefore, isn't it critical that our industry take every available measure to enable continued success? I certainly think so. But where does one begin? Arguably the first step is for golf facilities to maintain course infrastructure and implement programs and maintenance practices that provide the best opportunity for success.

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CREATING WILDFLOWER AREAS AT ROCKLAND COUNTRY CLUB IS ONE EXAMPLE OF HOW GOLF COURSES CAN POSITIVELY IMPACT THE ENVIRONMENT.

LIKE A BUTTERFLY IN THE WIND



A tagged butterfly can be tracked easily to monitor its migration from Rockland CC.

Blue skies, fresh cut grass, a bird chirping—golf at its finest for many. Being outdoors is part of what makes golf great. Golf and the environment have always been deeply connected. Golf courses provide a unique link between golfers and their environment that is shared by few other sports. The course serves as both playing field and home to many forms of wildlife and plants.

It is often a key habitat oasis in more urban and suburban settings. Golf course superintendents play an important role in conserving and improving that habitat. Matt Ceplo, certified golf course superintendent (CGCS) at Rockland Country Club in Sparkill, NY, has been a long-time advocate for enhancing the wildlife habitat on his golf course. The environmental programs and projects that have been implemented have benefited wildlife habitat in many ways while helping to educate golfers and enhance the golf experience. This article highlights these programs and discusses how they could be implemented at your facility.

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REGIONAL UPDATES



MID-ATLANTIC

As is so often the case in the transition zone, some turfgrasses are flourishing while others are languishing. This update offers advice to help manage your course during this critical time of the year.

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SOUTHEAST

To help golf course superintendents keep their stress level low, we offer a few bentgrass stress management tips for creeping bentgrass putting greens. Course officials might find this information helpful to better understand why certain things are done on the golf course during the summer.

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NORTH-CENTRAL

Managing ultra-dense bentgrasses is a challenge that many struggle to meet. This update discusses the problem and offers a success story.

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NORTHEAST

The transition to an abrupt heat wave is never easy, especially when it occurs in the wake of the record precipitation and moderate temperatures experienced in recent weeks. Squeezes are put aside for moisture meters and hoses. Once promising root systems seem to vanish overnight. Ah yes, summer is finally here.

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FLORIDA

Summer has arrived and with it has come an explosion in bermudagrass growth rates. Excess clippings aggravate golfers and superintendents. Here is how to reduce the problem.

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SOUTHWEST

The strong lateral growth habit of hybrid bermudagrass and kikuyugrass is a great benefit that contributes to stronger recovery from divot and wear injury, but also causes wavy, bumpy surface conditions that can contribute to mower scalping. Here is a tip to manage the problem.

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NORTHWEST

Raking large areas with a hand rake takes time. The turf maintenance team at the Glencoe Golf and Country Club in Calgary, Alberta, came up with an effective and affordable way to cut down some of their time spent hand raking their new bunkers.

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MID-CONTINENT

The days of 100 degree temperatures are upon us – and so are a couple of serious pests. This update discusses these problems and the issues with controlling them.

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FORWARD TO A FRIEND

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