

Nothing Done, Something Gained?

When environmental conditions overwhelm, sometimes the best decision is to do nothing.

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This turf tip is about making difficult decisions. Many decisions in golf course maintenance and agronomy involve weather and environment, which are nearly impossible to predict accurately. When faced with a difficult situation, it is human nature to take action . . . to do something . . . anything! Sometimes this makes matters even worse. Most commonly, this occurs on putting greens. This turf tip will discuss a couple of examples, one hot and one cold, when it may be best to resist temptation and do nothing.

HOT

Extreme summer heat stress in 2010 wreaked havoc on bentgrass and *Poa annua* putting greens at golf courses throughout much of the country. The impacts of mowing, rolling, and cultivation practices were felt by many, especially if those practices were not modified or suspended during the most stressful periods. Raising the height of cut, equipping mowers with smooth rollers, and skipping cleanup passes are all common strategies for managing weakened turf on greens. Another approach is to temporarily suspend mowing during extreme weather periods. Lightweight rolling is often a suitable alternative to daily mowing because it maintains surface smoothness without being as injurious to the turf.

Mowing wet and heat-stressed turf can be the final nail in the coffin that sends turf down the path to ruin. The same is especially true for cultivating weak turfgrass. Vertical mowing and sand topdressing are best put on hold until the turf is healthy enough to endure either operation. Venting and spiking practices can be invaluable to alleviate compacted or anaerobic soils, but the practice may be too severe for shallow-rooted turf growing under severe stress. Completing the practice



When covered in frost or suffering from heat stress, turf is quite susceptible to damage from traffic of any kind, whether it be maintenance equipment, golf carts, or even foot traffic.



Failing to restrict even tried and true cultural practices like verticutting, venting, or aeration of putting greens during extremely stressful periods can lead to turf loss. Wait until the weather is more conducive to plant recovery before instituting these practices.

may make you a hero or may just write your ticket out of a job if the practice itself damages the grass. Resisting the urge is difficult, but it may be better to wait a day or two (or longer) until more favorable conditions return.

There is no doubt that it is often necessary to tighten spray intervals when disease pressure is especially high. Furthermore, there is often an urge to apply something, anything, to help a severely stressed turf. But this

extreme heat create the perfect storm for cool-season turfgrass decline. While there are certainly times when heat-stressed turf requires additional water, the opposite is generally true. This goes against the conventional

wisdom of most golfers and course officials. Overhead irrigation systems are sure to over-water certain areas of greens, so, when the mercury rises, resort to hand-watering to the extent possible so that no more water is applied than is absolutely necessary.

COLD

Managing turfgrass in colder temperatures can bring about a number of challenging decisions as to when to take action or when to wait and allow nature to take its course. When cold temperatures



This putting green damage is from a front-end loader driving over two-plus inches of ice in winter. The superintendent tried to remove the snow as he always has, but this time it resulted in turf damage.

When to initiate recovery of damaged putting greens in the summer season presents another dilemma that falls into the “do we?” or “don’t we?” category of decision-making. Frequently, this is the case when turf loss occurs in early summer, i.e., June or July, depending on geographic region, because heat stress is far from over and may persist for several weeks or more. Initiating aggressive cultivation practices for seeding and recovery purposes may be what everyone wants at the time, but bentgrass seeding efforts in July have little chance of success in most parts of the U.S., especially if the greens remain open to play. Doing so prematurely only disrupts the playing surface further. Rather, delaying recovery efforts until weather conditions become more favorable will at least allow the golfers to continue to play the normal surfaces and will increase the success of your recovery program.

is not the time to spray for the sake of spraying. If a decision is made to spray, it is essential to know what potential impacts the products you are using may have during unusually hot weather conditions. Are you comfortable with the products and formulations you have chosen? Are they proven effective and safe under a wide range of conditions? As many superintendents learned this summer, waterlogged conditions combined with high soil temperatures can cause even some of the most popular pesticides, biostimulants, and fertilizers to have a phytotoxic effect on stressed turf. This is not the time to try new products or any unproven chemistry, no matter how benign it may seem. Keep it simple and don’t complicate matters with exotic tank-mixtures.

Green Section agronomists see far more turf loss due to overwatering than underwatering. High moisture and

descend and heavy frost sets in on a golf course, quick fixes are often created to help facilitate getting onto the golf course as soon as possible. Unfortunately, these efforts may actually delay opening and in turn damage the turfgrass. Nearly everyone is familiar with the after-effects of turf that received foot or cart traffic when covered with frost. Let’s face it, off-colored or dead turf is hard to ignore. When frost is present, ice crystals on and within leaf blades can puncture plant cells when trafficked. This leads to death of plant tissue and off-colored turf. Lingering effects from frost damage and winter traffic are less obvious, but often they show up in the form of a slower green-up in the spring. Subsequently, the turf then enters the summer in a weakened state and is also predisposed to further damage when summer stress periods begin. Rather than forcing the frost issue, waiting for

Sometimes the physical act of removing ice and snow causes turf damage. It may be better to wait for warmer temperatures for best results.



it to melt on its own is almost always the best alternative.

Northern golf courses often are faced with the dilemma of snow and ice removal. Although snow removal may be the norm in some areas that experience exceptional snow loads, it might not be the best option at all locations. Green Section agronomists frequently observe problems when action is taken to prematurely remove snow and ice layers, but generally there is little good reason to take action. This is especially true in early and midwinter when the uncovered annual bluegrass will be exposed to the coldest temperatures of the year. Even ice sheets may be better left in place until weather conditions become more favorable for removing or melting. The exception is if anoxia (i.e. lack of oxygen) is a concern for turf buried beneath ice. The threshold for *Poa annua* survival beneath continuous ice coverage is assumed to be somewhere near 50 days, whereas creeping bentgrass can survive much longer, perhaps up to 120 days or longer without oxygen. So, if either threshold is being

approached, it makes sense to take action to provide some degree of relief by facilitating gas diffusion. Better yet, begin drilling or sawing through ice layers and check for signs of anoxia to help determine if action is required. The pressure to do something will be felt and heard, but the wisest first step may be to determine if there is a problem looming below the snow and ice. The right decision will not always be made, but at least it puts the odds in your favor.

CONCLUSION

All told, when the pressure is on and the turf is feeling the heat (or cold), implementing a conservative approach until more favorable conditions arrive is not likely the popular choice, but it is probably the right choice. The exciting approach that some may want to see from their superintendent includes throwing the kitchen sink at the situation. After all, it is in crunch times like these that superintendents are expected to demonstrate their expertise, education, and intuition. As hard as it may be, however, doing as little as possible

may just be the perfect prescription. Remember, when times are unusually tough, the primary emphasis should be managing for plant health until the stress has been reduced.

Mother Nature will continue to make a challenge for golf course maintenance programs and the job of the golf course superintendent. We can't control what comes our way; we can only react. But sometimes the most gains occur when we do nothing.

ADDITIONAL INFORMATION

"Sometimes We Just Need Handcuffs," USGA Green Section Record, David A. Oatis, March/April 2007. ([TGIF Record 122777](#))

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