Routines Help Isolate Turf Troubles

BY KARL DANNEBERGER

Field diagnosis — like other rituals — varies among golf course superintendents, consultants and university personnel. Although I do not have a magical way to solve problems, I try to keep a few things in mind. Two keys in plant diagnosis are developing a routine and never assuming anything. Similar to a pre-shot routine in golf, successful diagnoses requires following an orderly process, and then practicing it so that it becomes second nature. This increases confidence in one's abilities and reduces the likelihood of panic when facing turf injury or loss.

Just as a golfer visualizes a shot in a pre-shot routine, an diagnostician must be aware of the entire landscape surrounding the damaged turf area. The initial viewing process should be telescopic in nature. In other words, take a broad look, almost panoramic, for the purpose of characterizing the turf injury in the broadest view. Ask questions like: Is the injury limited to a particular green or fairway? What makes the area different from the others?

Now as your focus becomes more directed to the injured area, what is the turfgrass species? Knowing the species is often assumed — incorrectly. Knowing the species, along with the weather conditions or time of the year helps eliminate several extraneous possibilities. Once the turfgrass is identified, mentally characterize the symptoms. Are they diffuse or in a definite pattern? A general rule I keep in mind is if the turf is dying in straight lines, then it is most likely caused by human error.

As you compress down from a panoramic or global view, what do the overall symptoms look like? Nondescript or definite patterns can be caused by abiotic or biotic stresses. But turf that dies in straight lines is likely a result of management error. One common diagnostic error at this point is assuming you know the problem without examining the turf closely.

As an example, during hot, dry periods of summer, moisture stress on fairways can occur, and at first glance, the symptoms might be evaluated as inadequate sprinkler head coverage. However, upon further examination (this might require getting down and pulling back the turf) the problem might actually be an insect pest. A common mistake is that black turfgrass *Ataenius* produces symptoms similar to moisture stress that will be misdiagnosed without closer examination.

DIAGNOSTIC SUCCESS REQUIRES A PANORAMIC VIEW AND A CLOSE-UP, TOO

As an analogy, how many of us would be comfortable going to the hospital with an illness and have the doctor pass by the examination room and make a diagnosis from the hallway? If your turfgrass plants could talk, how many of them would feel comfortable with you driving by in a golf car and making at 10-mph diagnosis?

Documentation of the site is critical. Besides close examination and storing historical information — such as soil and water quality reports — on-site information can be gathered rather quickly. First, capturing and describing symptoms requires a digital camera and the ability to use it. Digital photos that document the site should follow the telescoping idea of broad general pictures followed by close-ups of the symptoms.

Photographs can lead to rapid diagnoses. Digital photographs sent via e-mail can be disseminated rapidly to diagnostic labs, extension specialists or trusted fellow superintendents who might be able to provide insight into the problem.

Finally, if you are in a position to help a client or a friend or trying to gain an employee's perspective, an important trait is the ability to listen. By listening, the person will tell you what might have caused the problem. I try to remind myself that I have never learned anything when I was doing all the talking.

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