

Are Your Greens Running a Fever?

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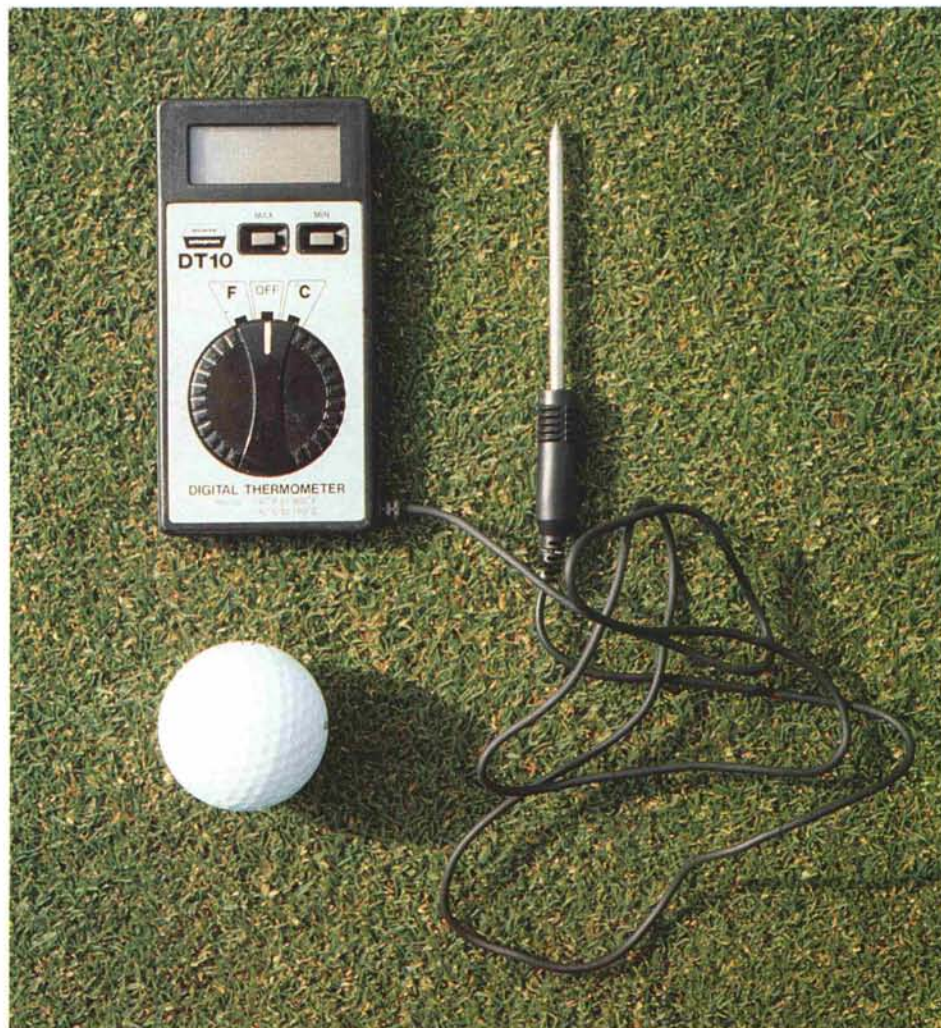
ONE OF THE FIRST questions a physician asks when examining an ill patient is, "Have you been running a fever?" Based on the patient's reply and the results of other tests, the physician can offer the patient appropriate medical advice. In the field of turfgrass science, a similar approach also can be used to help diagnose an ailing putting green during the summer season. Specifically, knowing whether the surface temperature of an ailing putting green is above normal can help superintendents determine if it will require additional ventilation for recovery.

To make an accurate determination of surface temperature, using the appropriate thermometer is essential. Conventional analog thermometers are acceptable for measuring soil temperature, but their poor accuracy and slow response are serious drawbacks when using them to measure the surface temperature of a putting green.

As an alternative, there are several models of digital thermometers available from specialty electronic stores throughout the country. The advantages of these thermometers include instantaneous readout to 0.1 degrees, accuracy to 0.01 degrees, and a separated probe that can be placed just above, yet level to the putting surface.

To determine whether the surface temperature of an ailing putting green is above normal, a reference temperature first must be calculated. This can be done by measuring the surface temperature of well-ventilated, healthy putting greens on the course and dividing the sum total of measurements by the number of putting greens measured. After calculating the reference temperature, it can then be used as a standard against which the ailing green can be compared.

For example, on a clear summer afternoon when the air temperature is reported at 96 degrees Fahrenheit, the reference temperature for several well-ventilated, healthy putting greens can



Digital thermometers, available through large electronic equipment suppliers, work well for monitoring surface temperatures because of their accuracy and mobile probe that can be placed directly on the surface.

be measured at about 106 degrees Fahrenheit. In comparison, the surface temperature of an unventilated, ailing putting green can be as high as 121 degrees Fahrenheit. Based on such comparisons, it would be reasonable to assume that the high surface temperature of the ailing putting green is the result of poor ventilation, and that this is contributing to poor turfgrass performance.

The next step is to install large fans around the perimeter of the green to

improve ventilation. Based on the available power supply, various stationary or oscillating models can be installed on either a temporary or permanent basis.

By collecting as much valuable information as possible, superintendents, like physicians, can then formulate a prescription to promote the recovery of an ailing "patient."

Are your greens running a fever? Measuring the surface temperature with a digital thermometer can provide some much-needed information.