



## SOIL MOISTURE METERS

BY BOB VAVREK AND TY MCCLELLAN

USGA WEBCAST

THREE TOOLS TO HAVE YOU ON YOUR WAY TO CREATIVE, FAIR AND FUN PLAYING CONDITIONS

### THE BIG THREE OF PUTTING GREEN SETUP: FIRMNESS, SLOPE AND SPEED



The USGA Stimp meter measures green speed and provides valuable information to assist golf course superintendents.

Golf is an outdoor game played on finely maintained turf. Every golf course has a unique "game board," and golfers, armed with up to 14 clubs and a golf ball, attempt to negotiate varied terrain in as few strokes as possible. Most of the strokes and much of the time in a round of golf involve the putting greens. As a result, the decisions made by the golf course superintendent related to the daily setup of the putting greens influence difficulty, pace of play and the enjoyment of the golfer.

Firmness, green speed and the amount of slope around the hole location are three variables managed by the superintendent. This article identifies three principles associated with each of these variables and demonstrates how they impact the golfer's experience.

Three tools will be reviewed that can be used to quantify or measure these variables, and three applications for use at golf courses are offered.

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HIGH-QUALITY TREES ARE AN ASSET TO A GOLF COURSE

### THE VALUE OF A TREE SURVEY



A comprehensive tree survey can provide valuable information on the proper way to brace and cable key trees as they age and which trees are good candidates for preventative maintenance procedures.

Sage advice from Green Section agronomists is to avoid planting additional trees on a course until the trees already on the property are properly maintained. However, it is impossible to determine a suitable budget for annual tree care when the maintenance staff is unaware of the number of trees, species of trees or the health of the trees scattered throughout the course. A professional tree survey provides the solid foundation needed to develop a sound tree-management program.

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The [USGA Course Consulting Service](#) now offers a Tree Evaluation. The objective of this specialized visit is to examine golf course tree plantings as they relate to the turfgrass health, playability, tree quality and aesthetics. A USGA agronomist will evaluate tree placements, types and conditions and make specific short- and long-term tree recommendations to improve turfgrass health, playability,

tree quality and aesthetics.

The Tree Evaluation is one of five diagnostic visit types offered by the [USGA Course Consulting Service](#).

## FORE THE GOLFER

### SNOW COVERAGE ON PUTTING GREENS

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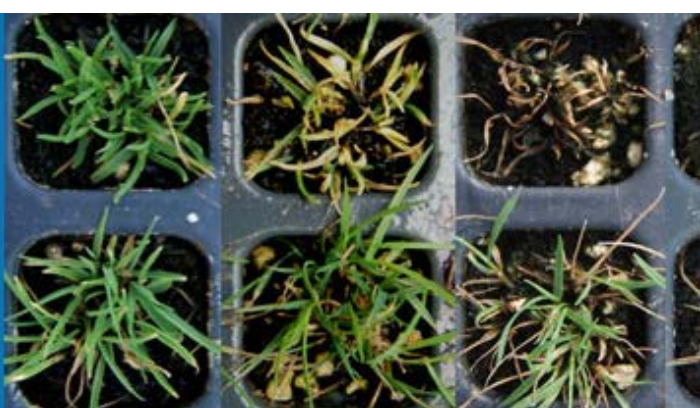


How long can putting greens survive beneath snow? The winter of 2013-14 has brought about polar vortexes and a series of snowfall events that have buried many Northern states for more than a month. Should you be concerned?

## RESEARCH THAT MATTERS

### ANNUAL BLUEGRASS IS PRONE TO WINTER INJURY

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We all have friends that love the snow while others thrive in the 100 degree temperature of the desert. With that in mind, it should come as no surprise to find out that turfgrass plants also have their preferences for climate and vary in their ability to tolerate extremes. This is the time of the year that two of golf's most important grasses, *Poa annua* and creeping bentgrass, are subjected to conditions that can threaten their survival. Scientists are studying why, when it comes to freezing conditions, bentgrass has the edge over *Poa annua*.

## FROM THE ARCHIVES

### PRODUCING TURF ON POOR LAND AT PINEHURST, NORTH CAROLINA

DECEMBER, 1921

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Golf history will be made this June when the U.S. Open and U.S. Women's Open Championships will be held back-to-back at the Pinehurst Resort & Country Club. Viewers, spectators and players will enjoy one of the most beautiful and well-maintained courses found anywhere. It might come as a surprise to many that when James Walker Tufts first purchased 5,800 acres of land in the Sandhills region of North Carolina in 1895, some considered the purchase foolish, even at the cost of \$1 per acre. With fertilizer products limited mainly to manure, establishing grass on the sandy soil proved extremely difficult. Tufts' son, Leonard, led many experiments to determine how to establish and maintain grass on a site considered by many to be unsuitable for a golf course. Fortunately, Leonard Tufts documented these efforts in an article he wrote in 1921, which was published in the USGA's Bulletin of the Green Section. Take a few minutes to read the article, "Producing Turf on Poor Land at Pinehurst, North Carolina." It might make you appreciate this year's national championships that much more.

## REGIONAL UPDATES



### REGIONAL UPDATES

The USGA Green Section is broken into eight regions with each staffed by Green Section agronomists who work with golf facilities on care of the golf course. Every two weeks USGA agronomists provide updates outlining current issues of what they are observing in the field. Be sure to view updates from other regions and not just your own because featured ideas, techniques and solutions to problems often apply to other parts of the country.



### NORTHEAST REGION

It's cabin fever in the Northeast with snowpack of nearly three feet over much of New England and ice coverage pushing 40 days in some locations. The snowpack is beneficial because it insulates the turf, but it is also a good time to think about sampling turf plugs for potential damage and to ensure that melting snow can drain from greens.

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### MID-ATLANTIC REGION

Whether or not to remove snow and ice from greens is a bit of a catch-22 for golf facilities every winter. While there's no guarantee that a decision made now won't backfire later, removing turf plugs for evaluation can make for more educated decisions.

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### SOUTHEAST REGION

USGA-funded research at Clemson University and North Carolina State University is underway to investigate bentgrass etiolation and decline on putting greens during the summer months. If solutions can be found, golfers will enjoy better summer playing conditions on bentgrass greens.

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### FLORIDA REGION

Calling all course officials, owners, superintendents, club managers, golf professionals and golfers. USGA agronomists are bringing four Green Committee University seminars to Florida with topics designed just for you.

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### NORTH-CENTRAL REGION

With plenty of winter weather still ahead, now is not the time to overreact by prematurely removing snow cover as it buffers the turf from wind desiccation and rapid temperature fluctuations.

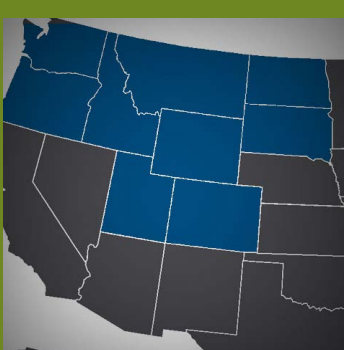
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### MID-CONTINENT REGION

Bermudagrass or zoysiagrass fairways that go dormant, don't miss your opportunity to easily control winter weeds with non-selective herbicide applications.

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### NORTHWEST REGION

Interested in a simple, humane method to remove Canada geese from your golf facility? Player complaints are down and revenues are up for this Portland, Ore., golf facility as Canada geese have been effectively controlled simply by arming a part-time staff person with a powerful laser during evening hours.

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### SOUTHWESTERN REGION

It's officially serious. The state of California recently declared an official drought emergency. Although the implications of such a declaration are not completely understood at this time, everyone is urged to do their part to conserve water.

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