Temporary winter covers for bermudagrass greens

Mike Goatley, Ph.D., is a professor of turfgrass science at Virginia Tech University and devotes part of his research effort to developing management programs for ultradwarf bermudagrass greens in the transition zone, including winter covers for bermudagrass turf. Mike can be reached at goatley@vt.edu.

Q What is the temperature threshold that triggers temporary covering of bermudagrass greens?

A turf-friendly, conservative approach is to cover bermudagrass greens when the weather forecast predicts lows of 25 degrees F or lower for two or more consecutive nights, along with a prediction of daily high temperatures of 50 degrees F or less during the same time period.

The key to deciding whether or not to cover is soil temperature. In early winter, when soil temperatures are still well above freezing, covering is often not necessary unless extreme cold temperatures are in the forecast. The covers should remain in place as long as the daily low temperature is 25 degrees F or lower and the daily high temperature is less than 50 degrees F.

All 18 greens do not have to be covered. Some superintendents only cover greens in shade, those that face north or are weak for some other reason. Experience will help determine which greens need to be covered and under what conditions.

Q What have been the results of covering bermudagrass greens using the threshold described above?

The conservative approach has worked well for superintendents. To my knowledge, there has not been a massive loss of ultradwarf bermudagrass greens under covers. Ultradwarf bermudagrass should not be planted in the transition zone or in the upper portion of the warm-season turfgrass zone unless it can be covered during cold periods in winter.

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> **MIKE GOATLEY, PH.D.**

That said, there has not been a large loss of bermudagrass turf due to winterkill in the South in many years. If we experience a period of extremely cold weather, winterkill on covered greens is still possible. Keep in mind that winterkill is a complex physiological process that encompasses more than just cold temperatures. Shade, aspect, traffic and other things also influence winterkill.

Q When should the covers be removed?

Several factors need to be considered when removing covers. One is play. In some cases there is a need to remove the covers to accommodate golfers and generate revenue. The other is weather. Covers left on for extended periods during warm weather can trigger unwanted dormancy break of the bermudagrass. Prompt removal of the covers on a sunny, warm day is essential so the bermudagrass does not lose its cold tolerance.

Q What type of covers do you recommend?

Most covers are effective for temporary covering, so select covers that are easy to install and easy to remove. The easier the covers are to install and remove, the more likely they will be used.

Superintendents report that covers with handles stitched into the covers make covering greens go faster. Also, labeling each cover with the number of the green it covers and marking the covers with the proper orientation makes the covering process go faster. Securing the covers to hold against the wind is the biggest challenge. Fellow superintendents are a good resource for advice on this.

Q How long does it take to cover and uncover greens?

Mike consulted longtime superintendent friend Jim Kwasinski, CGCS, of Tupelo (Miss.) Country Club for this information. Kwasinski reports that at TCC it takes six people (three on each side of the cover) approximately two to two-and-a-half hours to cover or uncover 18 greens. If the wind is blowing, the process always takes a little longer.

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