

Covering Bermuda Greens for Winter Protection

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Our experience during the past 10 years at the Capital City Club has led to the conclusion that the only grass that will come through our summer months with a vigorous growth and furnish a fairly good putting green, at a maintenance cost that is not prohibitive, is Bermuda grass. It is a hot-weather grass, making its greatest growth from June until October. Its care over winter, however, presents a problem. It is very sensitive to cold, being killed to its roots with the first severe frost, which occurs here about November 10, and if unprotected during severe freezes being so severely injured that about 95 per cent of the grass is killed out entirely. This severe winterkilling of Bermuda greens is doubtless due to the fact that under putting green conditions the grass becomes shallow-rooted, on account of constant close cutting, the roots being only from $\frac{1}{2}$ to $\frac{3}{4}$ inch below the surface of the soil. During the winter these greens are nearly covered by an abundance of annual bluegrass (*Poa annua*). This has generally been allowed to grow unchecked on the dormant Bermuda turf during winter, to be scraped off in the spring when new growth from the Bermuda grass could be expected. This practice has not proved satisfactory, as much reseeding is necessitated and frequently the season for Bermuda grass is nearly half over before a suitable turf can be produced. Besides, with the scraping off of the annual bluegrass in the spring a great deal of the fine soil and fertilizer that had been applied to the greens the preceding season is removed.

Here in the South, where the temperature during winter is subject to sudden and at times extreme variation, and where a great deal of winter play is still demanded, it is almost impossible to play the same green the year round and have good greens. We have consequently installed double greens on all our holes. The winter greens are planted with winter grass in September and are ready for play by the time our summer greens must be abandoned, which is about the middle of December. This gives us an opportunity to protect the Bermuda greens when they are out of play during the winter, and at the same time to keep the annual bluegrass from invading them.

We have a great many pine trees on our course, which shed their needles in the fall. Most of these needles have been lying on the ground for years. We gathered enough needles in the first year of our experiment to cover one green about 6 inches. When this covering was removed the following spring the green was entirely free from annual bluegrass and the Bermuda grass runners were in excellent condition. The green was then given a heavy raking and some commercial fertilizer was applied, and was ready for play sooner and was in much better shape than the other greens on our course. We have accordingly been covering all our greens for the past three winters. During the past summer our Bermuda greens were in wonderful condition, the texture of the turf being finer than heretofore and the subsoil being as soft as a cushion. We have thus been enabled to play our regular summer course weeks in advance of the time that was possible during seasons when we had left the greens uncovered.