

# Bermudagrass and Bentgrass - Draw The Line!

by CHARLES B. WHITE  
Agronomist, Southeastern Region, USGA Green Section

**O**VER THE LAST several years, bentgrass has slowly made its way onto the putting greens of golf courses deeper and deeper in the Southeast. Although the problems associated with maintaining bentgrass during the summer in the Southeast have caused superintendents many sleepless nights, there is also one problem adjacent to the bentgrass putting surfaces that continues to persist — the choice of bentgrass or bermudagrass for the collar adjoining bentgrass greens.

Each grass has its advantages; therefore, it is best to consider the advantages and disadvantages for each before deciding which would be the most feasible for your specific golf course. A collar ranging from 1 foot to 4 feet wide, depending on individual preference, greatly enhances the aesthetics and playing quality of the putting green area. An attractive collar not only sets off the putting surface itself, but also

provides an intermediate, uniform step between fairway and putting green heights. It also serves as a buffer between the fairway and the putting green grasses and helps deter encroachment of the more aggressive fairway turf.

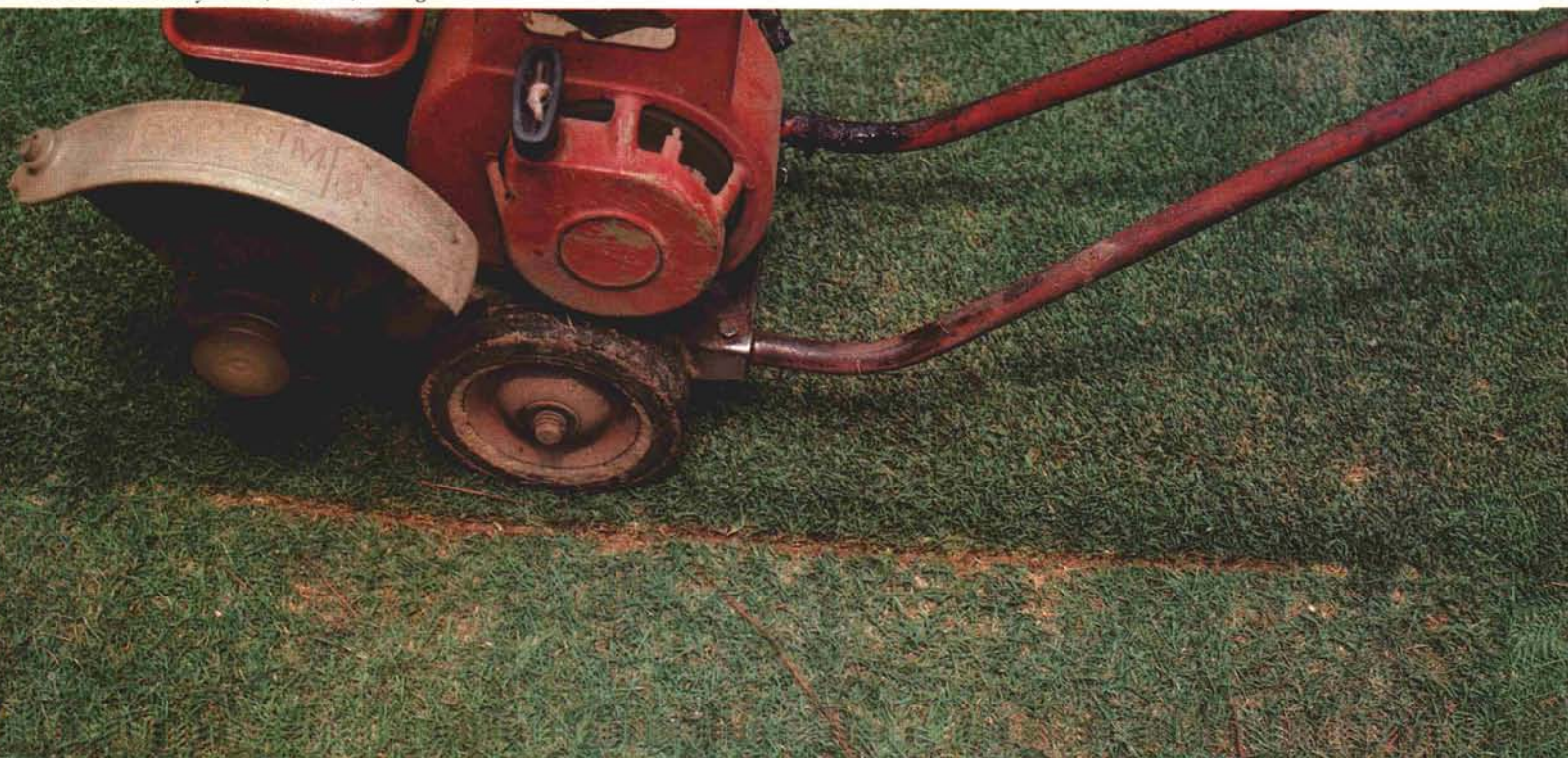
The upper South, sometimes referred to as the transition zone, is a region where warm-season and cool-season grasses can be grown. Unfortunately, neither does as well there as they do in their normal habitat. It also leads some to believe that a good bermudagrass collar cannot be maintained in conjunction with a bentgrass putting green in this zone. This is by no means true. The following will describe a way to establish and maintain a bentgrass putting green and a bermudagrass collar without significant encroachment in either direction.

The best bermudagrass varieties to use for collars in the Southeast are Tifgreen or Tifdwarf. These hybrids

provide excellent collars because they are used for putting greens also. Their physical characteristics are similar to and very compatible with the bentgrasses. These two elite varieties are also more susceptible to the effects of the herbicide siduron and therefore can be easily controlled when grown adjacent to the bentgrass putting green surfaces.

A spring and fall application of siduron at the recommended rates in a band around the edge of the bentgrass putting green maintains a clear and definite line between the bermudagrass and bentgrass without injury to the bentgrass putting green. In addition, a thin-bladed edger, carefully guided around the outside perimeter of the putting surface, severs the bermudagrass stolons and rhizomes. The siduron is then banded around the green perimeter (about 18 inches wide) to aid in a more complete kill of the bermudagrass stolons and rhizomes in the putting

*Edging machines are used to deter bermudagrass invasion into the bentgrass putting surface. Athens Country Club, Athens, Georgia.*





surface. The edger should be set to penetrate one to two inches. This late spring and early fall control program maintains a precise line of demarcation between the bermudagrass collar and the bentgrass putting surface the year around.

**B**ERMUDAGRASS collars provide their best playing conditions during a time when the bentgrass is under heat stress in summer. Maintaining a healthy collar can be helpful in reducing some of the headaches associated with bentgrass putting surfaces. A good program of summer aerification and topdressing helps produce excellent bermudagrass collars. Spring aerification of the bentgrass greens extends over the bermudagrass collars as well. If the bermudagrass and bentgrass are aerified at the same time, the cores should be removed in a manner that prevents some bermudagrass cores from accidentally contaminating the green by being plugged or raked into the aerifier holes. When removing the cores, extreme care should be exercised to rake the cores towards the outer perimeter of the collar so that the bermudagrass does not infest the bentgrass turf.

Vertical mowing on a three- to four-week basis through the summer followed up by a light topdressing further encourages a uniform surface. Bermudagrass collars in this region should receive between four and five pounds of nitrogen per 1,000 square feet per year.

Bermudagrass collars are normally overseeded in the fall to provide a uniform surface as well as an aesthetically pleasing green color in the fall and winter. Overseeding effectively complements the color of the thriving bentgrass putting green in appearance and playability. Overseeding rates should not exceed 18 pounds of perennial ryegrass per 1,000 square feet, or 1½ pounds of bentgrass per 1,000 square feet. These amounts of seed provide a dense stand of cool-season grass without retarding the bermudagrass regrowth in spring.

**B**ENTGRASS collars, on the other hand, are advantageous in the northern extremities of the Southeast where extended periods of intense heat and humidity are not prevalent. Bentgrass collars maintained in the hotter humid areas of the Southeast can cause severe problems to the superintendent because the thatch and disease problems are multiplied by the higher height of cut. Insects also tend to thrive in the



*Spraying siduron around the perimeter of bentgrass putting green. Athens Country Club, Athens, Georgia.*

collar area. When the bentgrasses come under stress in summer, a bentgrass collar is usually a good indicator as to what is in store for the shorter cut putting surface. Localized dry spots and silt also tend to be more severe in the bentgrass collars when heat builds up and restricted air movement at the soil surface occurs.

**T**HE PROBLEMS associated with bentgrass collar management are further aggravated when collars are established on poor soil. Such is often the case when greens are rebuilt. The newly prepared soil mixture is usually spread within the boundary of the putting surface only while collars are expected to produce excellent playing surfaces on inadequate soil. Then during periods of summer stress, when collars cannot be watered separately, significant grass is lost. When the soil is heavier in the collars, it remains constantly wet and disease proliferates. When collar soils are sandier than the greens mix, then the collars tend to remain on the dry side. Remember that

water must be applied according to the needs of the putting green, and not the collar.

Bentgrass collars in this region should never be fertilized heavier than 1½ to 1¾ pounds nitrogen per 1,000 square feet per year, due to their tendency to thatch. Bentgrass collars will provide the best playing conditions by receiving the same cultural programs as the bentgrass putting surfaces.

One final but important consideration in making the collar grass choice concerns the presence of the more aggressive fairway bermudagrasses, such as Tifway or common. These are not readily controlled by siduron. In such cases the strong growing bermudagrasses would quickly invade collars established to bentgrass. Therefore, a buffer of Tifgreen or Tifdwarf between the bentgrass putting surface and the aggressive Tifway and common bermudagrasses is essential. To co-exist, it is essential to draw the line between bentgrass and bermudagrass, in order to provide the best of both worlds — bentgrass putting greens and bermudagrass fairways!