

OVERSEEDING BERMUDAGRASS FAIRWAYS IN THE TRANSITION ZONE

David Williams and A. J. Powell, Jr.

Overseeding with a cool season grass can temporarily enhance the aesthetics of bermuda fairways. Overseeding is normally accomplished during mid to late September by:

- 1) roughing the bermuda surface with a chain drag or tine rake
- 2) broadcasting from 200 to 600 lbs/acre of perennial ryegrass
- 3) irrigating frequently to germinate the newly seeded grass
- 4) after germination, fertilizing with nitrogen to encourage seedling development

Before choosing to overseed however, consider the following:

- 1) Although bermuda usually goes dormant (brown) in October or early November most golfers never object to the color of non-overseeded fairways in the fall or winter. The playing surface of dormant bermuda is not compromised except in color. Golfers most often object, frequently believing the bermuda to be dead, in late March through late April. Depending upon how much *Poa* and winter broadleaves are present, the fairways can lack uniformity in color, texture and growth. If contaminated with cool season species, the fairways are not uniformly brown but are a mixture of brown and green, and just plain ugly. However, the ugliness lasts for only about one month and a lot of the contamination can be eliminated by a properly timed, inexpensive herbicide applied in late February or early March. Although overseeding does give improved aesthetics for one important golfing month, it does not improve bermuda winter hardiness.
- 2) Overseeding can, and usually will, decrease the quality of the bermuda, especially over time. Because ryegrass is very competitive it tends to dominate the bermuda immediately in semi-shaded areas, golf cart traffic areas, mower turn patterns, etc. – any place where bermuda is struggling to survive. Weak bermuda will get weaker with overseeding.
- 3) There is no such thing as natural summer transition from overseeded perennial ryegrass back to bermudagrass. No amount of nitrogen fertilizer, verticutting, scalping, burning, etc. will ever kill perennial ryegrass. It only takes one or two years of consecutive overseeding for the ryegrass to dominate the bermuda. This is true with the older perennial ryegrasses and it is even a greater problem with the newer, more heat tolerant perennial ryegrasses. This also seems to be true with the annual ryegrasses in that they naturally die out so late into June or July that it is almost too late to get the bermuda to recover. We only have about three months (June, July, and August) of great bermuda growing weather, and any competition greatly shortens that period. Therefore, with overseeded bermuda, we are forced to chemically remove the ryegrass in May or June. Currently the best product for ryegrass removal is Manor (metsulfuron) and this product will cost approximately \$1500 for one application on an average 18 hole course.
- 4) *Poa annua* normally invades bermuda in the winter, even if perennial ryegrass overseeding has been accomplished. The Manor mentioned above will not kill *Poa* and in some areas, the *Poa* will also compete with the bermuda. Although *Poa* will usually die during the summer, it greatly reduces the growth season for the bermuda.

- 5) Although some other grasses are often used for overseeding in the South, perennial ryegrass is about the only choice in the transition zone. It germinates and develops relatively quick whereas other grasses such as *Poa trivialis* are very slow. The color and texture of the perennial ryegrasses are excellent, even the older cultivars. None of them, however, will transition out without chemical treatment. The cost of the ryegrass seed alone will be between \$6,000 and \$18,000 for 30 acres of fairways.
- 6) It is difficult to get uniform establishment of the perennial ryegrasses. You cannot slit-seed the ryegrass into the bermuda because the mechanical disruption of bermuda stolons will increase the potential for winter-kill. Therefore, you must fluff the bermuda with a chain harrow or tine-harrow, broadcast the seed, and chain harrow again – all to help get soil seed contact. After germination, you often have to come back to weak areas and repeat the process. Frequent irrigation is necessary to get germination and seedling vigor. This disruption of the golf course also comes in an important golfing month (September).
- 7) Overseeding does not protect bermuda from winterkill. In fact, it frequently increases winterkill because of the extra competition (shading) that occurs in fall when bermuda is normally accumulating energy needed for winter survival. Also, because the ryegrass masks the bermuda, it is almost impossible to determine the extent of winterkill until mid-June and by that time it is getting almost too late to contract for resprigging or seeding.
- 8) Even if overseeding is successful, skipping every 2 or 3 years is a common practice because it allows one to use Round Up to clean up the *Poa* and other cool season grasses, and it helps to extend the bermuda growing season to a full summer.

In summary, overseeding bermuda fairways is a very expensive course disruption that is only going to improve fairway quality for about one important golfing month. On the other hand, overseeding will likely reduce summer bermuda quality, even if weeds and ryegrass are removed. Non-overseeded bermuda fairways, even in April, will hold the ball up, although the lie might be a little tighter than it is when overseeded. Non-overseeded fairways do offer a sharp contrast between the green rough and dormant fairways. This certainly gives each hole a contrast from the normal summer appearance.