

## Overseeding blues?

*Will overseeding bermudagrass with perennial ryegrass cause damage to the bermudagrass the following year, even in late summer/fall? The question arose due to our football surface falling apart in extremely raining conditions and normal playing schedule. School maintenance officials say that it is due to overseeding for soccer season. Could this be the case?*  
Texas Coast

Sure, overseeding bermudagrass with ryegrass can be detrimental to bermudagrass the following year. There are a number of contributing factors that may influence the surface condition of a field following overseeding. Some of them may be the result of an interaction with overseeding perennial ryegrass; whereas others may be totally independent of this issue.

The first factor is the health of the bermudagrass at the time of overseeding. If the bermudagrass stand is weak in the late summer to early fall, it is not likely to be any better in the spring. While I am sure this is not the case with you, I have known turf managers that have forgotten how their fields looked before overseeding. Often with a weak bermudagrass stand in the fall, the overseed get better than normal soil-to-seed contact so it comes up nice and thick. If it stays looking good through the winter and spring, it is easy to forget how bad it was in the fall. The contrasted appearance from overseeded beauty in the spring to splotchy bare ground in the summer can be a heartbreaker.

A second factor can be how a field is managed in the late spring. Bermudagrass hates shade, even shade from another grass. Ryegrass performs best when mowed at a higher height of cut than we normally use with bermudagrass. So, keeping ryegrass up around 2 inches or higher will shade the bermudagrass. If the ryegrass remains somewhat healthy, especially with cooler temperatures and no moisture stress in late spring and mowed at a high height of cut, then bermudagrass may never get a chance to start growing and it may die in large patches. This is why on golf courses we commonly see overseeding damage in the rough, whereas the fairway may transition without turf loss.

If overseeding is done in the Deep South, warm weather combined with traditional cultural practices that facilitate transition—reduced mowing height, increased fertility, verticutting, moderate irrigation amounts—may provide a smooth transition from ryegrass to bermudagrass. But in the transition zone (or other cooler climatic region) these cultural practices are

not typically sufficient for a timely transition. The improved perennial ryegrasses that are more heat and disease resistant can hang around well into the summer months, competing with bermudagrass. Our college baseball teams and other spring sports often enjoy lush overseeded surfaces in March through May. But beautiful overseeded surfaces may not always transition back to beautiful bermudagrass surfaces.

Transition research indicates you want at least 100 days of bermudagrass growth without any competition with ryegrass. In order to achieve this goal, turf managers often resort to chemically removing the ryegrass with a sulfonylurea herbicide. Though transition performance from these products is dependent on application rate and temperature at time of application, these products usually result in perennial ryegrass death in 2-3 weeks. The bermudagrass will grow and mature much better without the ryegrass.

Bermudagrass may suffer from addition play damage due to winter conditions. Normally, overseeding a field can protect the bermudagrass turf and the field's integrity from damage by providing a wearable playing surface. Since the ryegrass is living it provides a wearable surface that can prevent some damage from reaching the bermudagrass and the soil profile. But events played during severe cold and wet conditions, even on an overseeded field, can weaken bermudagrass with damage to plant crowns, stolons, and rhizomes.

When you have a cool and rainy fall the ryegrass may never have a good chance to get established. The tendency is to keep adding seed each week because the field is not very green and the ryegrass is thin. But games are still played so the bermudagrass is getting pounded. By spring some of that extra ryegrass seed germinates and the field may look pretty good. But the bermudagrass has suffered and the competition from the ryegrass is high. So, you replay a slightly different version of the scenario previously mentioned.

A good field surface requires year-round management. This is the case if one overseeds or plays on dormant turf without overseeding. The goal should be to enter fall with healthy bermudagrass. If the field is overseeded, then manage the overseed during the winter, but be prepared to begin managing the field to benefit bermudagrass in mid- to late-spring. By summer, you want to be managing bermudagrass, with no overseeding grass. This will bring the field full circle, maximizing the health and condition of the turfgrass. ■

**BY DR. GRADY MILLER**

Professor, North  
Carolina State University

### Questions?

Send them to  
Grady Miller at  
North Carolina State University,  
Box 7620, Raleigh, NC 27695-  
7620, or email  
grady\_miller@ncsu.edu

Or, send your  
question to  
David Minner at  
Iowa State University, 106  
Horticulture Hall, Ames, IA 50011  
or email  
dminner@iastate.edu.