Stressed Out!

An emerging technique we call selective replacement is giving welcome relief to stressed turf.

By Chris Hartwiger and Patrick O’Brien, USGA SE Region Agronomists

Life on the road as an agronomist can be stressful at times. When we get worn down and stressed out near the end of the year, one of our favorite past times is to trade our soil probe for a set of golf clubs and play golf. In a few of our casual rounds of golf recently, we observed a technique superintendents are using to deal with chronically stressed turf on putting greens. These superintendents are foregoing the traditional model of using one turf species on the surface and are planting different turf species in areas that perform poorly year after year. This observation served as a great reminder that there is more than one way to meet an objective on a golf course. The remainder of this update will detail what we have seen, comment on how it’s working, and speculate about future applications.

Selective Replacement

Pictures 1 and 2 provide excellent examples of what we term selective replacement. In Picture 1, the back corner of an ultradwarf putting green has been replaced with Diamond zoysiagrass. Why? There is a large oak tree that cannot and will not be taken down. After multiple years battling the cycle of resod, decline, resod, decline, the superintendent decided to install a turf that is more tolerable to a shade environment. This portion of the putting green is now sustainable.

Diamond zoysiagrass was sodded on the back right of this ultradwarf bermudagrass putting green due to extensive shade caused by a large tree. The Diamond has much better shade tolerance than an ultradwarf and putting quality has improved greatly in this area.
Picture 2 shows a creeping bentgrass putting green where a portion of the perimeter has been resodded with an ultradwarf bermudagrass. Why? The ultradwarf is better able to tolerate walk on/off traffic and mower stress in the clean up cut. The result is an area on the perimeter that has sustainable turf and playability far superior to thin or dead bentgrass.

A small section of the clean up lap on this bentgrass putting green was resodded with an ultradwarf bermudagrass. The ultradwarf handles on/off traffic and mower stress in the clean up better and playing quality has improved greatly in this area.

How is Selective Replacement Working?

It does not take golfers long to let course officials or superintendents know their opinion on different aspects of a golf course. While golfers may not have much expertise at all in agronomy, they will fill you in on certain basic precepts like, “Grass on the greens is good, dirt on the greens is not good.” In a difficult golf economy where options are limited, the superintendents employing selective replacement are providing sustainable turf and eliminating unsightly and difficult to play from dirt spots while meeting the expectations of golfers. At the courses we have visited that have used selective replacement, these solutions are working well agronomically and are being accepted by golfers.

Is Selective Replacement for Everyone?

Selective replacement is not necessarily for everyone who struggles with weak turf. Usually there are solutions other than turf replacement that can be implemented to help improve an area that remains
under chronic stress. Items such as increasing sunlight, managing traffic flow, mower type and set up, water management and more can all be addressed, too, in hopes of reducing turf stress.

The Future of Selective Replacement

We believe this technique will be adopted by superintendents throughout the region. Questions about how much selective replacement is acceptable before it becomes intrusive on overall playing quality will remain cloudy. Ultimately, questions of how much is too much will be answered at the local level as we move forward.

The bottom line is that creative superintendents stressed out about stressed out turf have taken advantage of newer developments in putting green grasses in the southeast. Selective replacement is yet another way that superintendents are working to improve golfing conditions.

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