WINTER OVERSEEDING:

Can It Still Be Justified?

By John H Foy

Winter overseeding has long been considered a necessary and routine practice on golf courses in Florida because of peak seasonal play during the fall, winter, and spring when the base bermudagrass is semi- to fully dormant.

Overseeding provides a lush green, actively growing turf cover, and the playing and aesthetic characteristics golfers expect. The real estate and resort golf boom of the past 20 years was a driving force in the increase in overseeding at all courses. However, times have changed; and today the question becomes, "Can the agronomic consequences and cost of overseeding still be justified?"

Compared to Tifdwarf putting greens, the increased density, greater cool-temperature growth and color retention of the newer ultradwarf bermudagrass and seashore paspalum cultivars has resulted in discontinuation of overseeding programs at most courses in the central and southern parts of the state. From Jacksonville across the Panhandle, there are also numerous examples of courses that are successful with not overseeding ultradwarf bermudagrass putting surfaces. In the upper south, painting ultradwarf putting greens has become common; yet based on experiences to date, this is really not needed in North Florida.

From the agronomic standpoint, not overseeding ultradwarf putting greens is absolutely the best year-round strategy. There has been some decline in overseeding Tifdwarf putting greens; however at courses in the central to northern part of the state, where moderate to heavy play is hosted daily through the winter months, there is legitimate concern about being able to maintain full turf coverage when Tifdwarf completely stops growing for thee to four months. In lieu of traditional overseeding, "interseeding" of Tifdwarf putting surfaces is a strategy that can be successfully employed.

AGRONOMIC CONSEQUENCES

When discussing overseeding with golfers and course officials during TAS visits, I often use the analogy that it is best thought of as growing two different plants in the same pot. Thus when management practices are geared to establishing and then maintaining an overseeding cover for five to six months, the health and quality of the base bermuda is negatively affected.

The overseeding grasses also directly compete with the base turf for sunlight, nutrients, and water.

The combination of these factors results in the potential for areas of weak thin bermudagrass turf coverage to be exposed in the late spring to early summer when the overseeding cover begins to die out in response to increasing temperatures and humidity.

The employment of a proactive transition management program is recommended to minimize the potential for transition problems. However, environmental conditions will always be a primary controlling factors, and thus there are no guarantees that problems will not be experienced.

When a hard transition is experienced, additional work, money, and time is then required for reestablishing full turf coverage and acceptable playing conditions. Typically, six weeks is required for completion of the transition from the overseeding cover; and there is also a period of time in the fall when the establishment process is underway that it is simply not possible to maintain consistent good quality conditioning. Some additional consequences of overseeding are:

• **Increased weed pressure** – This is true for both winter and summer annual weeds that are introduced and because of limitations in herbicide treatment options.

• **Increased thatch/organic matter** – With maintaining an actively growing turf cover on a year-round basis, there

is a significant additional contribution of organic matter that must be taken into consideration with the cultural management programs.

• **Increased nematode pressure** – Research conducted at the University of Florida has documented that the additional root mass of an overseeding cover further favors proliferation of nematodes, which have become the number-one pest problem of Florida golf courses.

COST CONSIDERATIONS

In difficult economic times, every facet of course maintenance is scrutinized in an effort to reduce and control expenditures. In addition to the cost of the seed, ranging from \$300 to \$600 per acre for fairways, the cost of ongoing maintenance must be considered. Other key items would be:

• Labor – The additional work associated with seedbed preparation and the actual overseeding process; once established and continuing for the next four to five months, overseeded fairways must be mowed a minimum of three times per week. By not overseeding fairways, this labor cost is not totally eliminated, but it is drastically reduced.

• Water – Establishing and maintaining an overseeding cover requires a lot more irrigation. Even if there is not a direct water cost, there is the cost of the electricity required for pumping every gallon of water that goes out onto the golf course.

• Fuel and Equipment Maintenance – By having to routinely mow overseeded fairways, there are additional fuel costs and increased equipment maintenance required for maintaining an acceptable quality of cut, and the life expectancy of the mowing equipment is also further reduced.

When you add everything up, the cost of large-acreage overseeding can easily run in the range of \$75,000 to more than \$100,000. When the agro-

nomic consequences are also taken into consideration, I believe that it has become very difficult to fully justify the short-term benefits of overseeding at a large number of Florida golf courses.

Based on our TAS visits to courses throughout the state over the past two to three years, there has been a reversal in the overseeding trend due to concerns over water-use restrictions and because of the downturn in the economy.

The early onset and persistence of cool to cold temperatures during the 2008/2009 winter was a worst-case scenario; yet time and again it was found that it was possible to survive and provide appropriate, good-quality playing surfaces without overseeding. While there will still be situations where overseeding is felt to be necessary, hopefully more golfers can be educated to understand and accept that this is really not an economically or environmentally sustainable management practice. It should be stressed that traffic management is absolutely essential and needs to be viewed as a key component of the wintertime course management programs. Besides being an important revenue source at most facilities, golf carts have become an integral part of the American game. This is especially true in Florida because of the large number of senior golfers and course routings that are not conducive to walking.

Most golfers have a limited appreciation of the significant negative impact cart traffic has on course conditioning and quality. The negative impact of cart traffic is further increased in Florida because the heaviest play is hosted when the base turf is not actively growing and able to recover from traffic wear and damage. Thus, along with strict enforcement of cart usage policies that distribute traffic and wear over as much area as possible, in locations where concentrated traffic patterns occur, directional control devices need to be put into place to regularly redirect flow patterns before the turf becomes totally worn out.

If you don't overseed, don't forget about the benefits of spray applications of micro-nutrients, especially iron, for maintaining a greener color with bermudagrass fairways during the late fall, winter, and early spring.

Every facility has unique characteristics that must be considered in individual management programs. Space is not available here to review in detail wintertime management practices and strategies for providing appropriate and acceptable play and aesthetic characteristics when overseeding is not conducted. In addition to providing site-specific recommendations and suggestions, the USGA's Turf Advisory Service can be a great tool for educating golfers and course officials on what is needed to survive the winter months, as well as what are realistic expectations for course conditioning and quality.



HANDS ON

OVERSEEDING

To Seed or Not To Seed

There are risks, rewards, responsibilites and requirements for every turfgrass management program on a golf course. One of the most timehonored programs – overseeding – has been undergoing gradual change as new strains of hybrid bermudagrass and seashore paspalum show more cold tolerance and quick green-up after cold snaps.

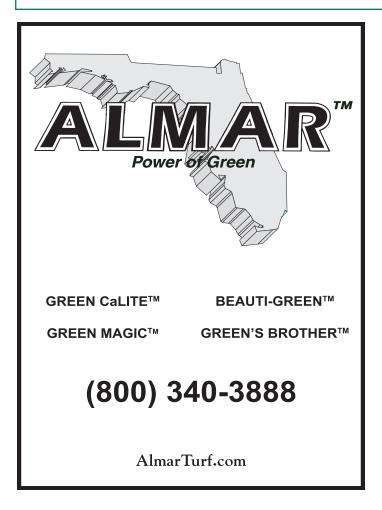
While overseeding in the winter provides aesthetically pleasing stripe patterns, recent drought periods and subsequent watering restrictions of up to 45 percent cuts in allotments have superintendents and clubs taking a harder look at their programs. Appearance isn't the only reason a course overseeds. Heavy winter play can wear out the



Pleasing stripes and protecting dormant turf are two reason for overseeding, but new grasses and milder winters are changing programs. Photo by Joel Jackson.

turf in regions where cold temperatures shut down the active growth of bermudagrass. In these areas overseeding is a necessity not a niceity to produce a viable playing surface so the golf course can remain profitable in the winter.

Here are some comments from your peers as they consider how to modify overseeding programs to balance battered budgets and still provide good



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HANDS ON

SUPER TIP Pick a card! Any card!

By Darren J. Davis

Like many golf courses, the order in which we cut our greens is well defined with only a few exceptions. For

us, the practice green is always first and then, depending on whether we are trying to get both sides ready at once or just the front nine, we have a set route we want the operators to follow. The only additional variable that comes into play is how many employees we have available based on the schedule for that particular morning.

With rare exception, we utilize from three to six people each morning to cut greens. Rather than writing the desired route on the assignment board, or hand writing a note each day, we have prepared "semi-permanent" cards that dictate the order in which we want the operators to cut.

playing conditions during the all-important golf season.

ARLINGTON RIDGE GC, LEESBURG

Last year we were one of the courses in central Florida that decided not to overseed. We had two reasons – economic and agronomic. We realized a cost saving of more than \$40,000 as the economy was in a serious downfall.

I don't think we lost much play because of it, but on the down side we did hear more complaints about divots and bad lies. We were dormant from December to February due to a higher number of days with below freezing temperatures.

On the plus side, the fairways rebounded quicker than normal when the warmer weather returned and filled in more quickly without the transistion competition with the ryegrass. With signs of a stablizing economy emerging, we are going to overseed this year to enhance appearance and playing conditions during our in-seaon play, hoping to promote membership and real estate sales. We will overseed the greens with Poa trivialis at 6-8 lbs per 1,000 sq.ft., the tees with perennial ryegrass at 15 lbs per We have separate sets of cards for three, four, five, or six mowers.

The benefits of the cards are that we leave nothing to chance (either due to the fault of the supervisor or the employee) and we are saving time and materials by not producing a hand written note each morning.

> To produce the cards my office manager created a template in Microsoft Word. After printing a sheet of the cards we use a laminating machine to seal the paper. The cards measure two by three inches so the final step is to cut the cards to size with a paper cutter. Our only significant cost was the initial purchase of a small laminating machine and a paper cutter.

> While we feel the routes provide a consistent workload for each operator, in an attempt to provide variety and have a little fun with the crew, we often allow the operators "to pick a card" without seeing the route they are choosing. Between uses, the cards are stored in an index card storage box.

1,000 sq.ft and the fairways with a 3-way ryegrass blend at 400 lbs per acre.

Laminated mowing assignment

cards save time and provide clear

directions. Photo by Darren Davis.

We have used an outside contracting service for our overseeding in the past, but this year we will do it in-house using a three-point hitch Gandy spreader for the fairways and Lesco walking drop spreaders for the greens and teees.

We will prep the greens for seeding by verticutting two ways followed by lightly topdressing, then apply the seed. We will verticut the tees two weeks prior, apply the seed and wait. The fairways will receive a light verticuting two weeks prior, then we spread the seed in two directions to avoid skips.

Once established we lightly topdress and fertilize the overseeding with a granular and liquid rotation. We will punch the greens one time during the overseeded months, usually with 1/4-inch solid tines to relieve compaction from the heavy winter play and allow air to the root zone.

When it's time for transition in the spring, I prefer to let the overseeding die out naturally on the tees and fairways. I will start to push the bermuda with fertilizer during March, when temps reach 85 degrees, and cut back a little on watering. In April I will start verticutting lightly to help remove the rye and to promote bermuda growth. This will open up the canopy to allow more sunlight to the bermuda. By May we should be hot enough (approaching the 90s) and we can mow lower and verticut more heavily to allow the bermuda to overtake the rye.

On the greens, we follow mostly the same program, except we will aerify in April with /4-inch hollow tines to help remove the Poa trivialis. Frequent light verticutting and topdressing at this time will help the bermuda transistion and cutting back on the water slightly will help gradually remove the overseeding.

> *Ron Hibbard, CGCs* Seven Rivers GCSA

JULIETTE FALLS GC, DUNELLON

We did not overseed last winter and recorded 33 heavy frost and one day below 32 degrees for at least 15 hours, which burned everything back. On the bright side, we also estimated saving upwards of \$100,000 and nearly 25 million gallons of water.

> Steve Keller, Class A Seven Rivers GCSA

