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What we have done for this issue is to reach out to the rank and file superintendents across the state to get their programs to let them tell you in their own words how and why they do what they

### A Change of Pace

In the past I have overseeded with 80% Gator ryegrass and Sabre poa trivialis with excellent results.

However, I was looking for an alternative to the disruptive overseeding procedures at the start of our golf season. Researching alternatives via fellow superintendents and various seed suppliers, I decided to give 40% Cobra creeping bentgrass and 60% Sabre poa trivialis a try. Last year this proved to be an excellent blend providing truer and faster putting surfaces while not creating as much stress at or slightly below 1/8 inch height of cut. This blend also held up well to the heavy play during the season (45,000 mostly inseason rounds last year).

Our preparations at The Venice Golf and Country Club consisted of verticutting and applying a preplant fertilizer one week prior and top dressing four days prior to overseeding.

Following this, we allowed the greens to grow for two days so the seed would have a place to settle in case of rain. October 27th we applied two pounds of bentgrass and three pounds of poa trivialis per 1,000 square feet. Three weeks later we applied a second application of seed to complete our overseeding.

Each time following seed application, we syringed for about five days. After this period the moisture level during the day was adequate with only an early-morning syringe ahead of the mowers. Mowing was delayed for two days after seeding and then without baskets for another week at 5/32-inch. We lowered our height of cut to 1/8 inch three weeks after the second seed application.

Our maintenance program consisted of 1/2 pound of nitrogen every other week, groomers twice a week (after establishment), spiking once a week and a light topdressing every three-four weeks. Insecticide and fungicide applications were made if "favorable conditions" existed.

This year I will seed a little earlier to



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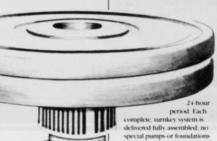
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### Troubled waters?



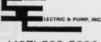






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So instead of trying to talk them into overseeding, I accepted the challenge of that first year to go through the winter without the protection of seed on the greens.

allow for slightly earlier coverage (mid-December last year).

Our membership was completely satisfied with our overseeded greens last year and it seemed to require less work than in the past.

Troy Smith, Golf Course Superintendent The Venice Golf and Country Club Venice/Suncoast Chapter

### Why we don't overseed

What makes being a golf course superintendent so interesting is that each course is unique and the members, owners, or players all have their own ideas of what they would like their golf course to look like and how it should play to make the game more pleasurable for them.

When I first came to the Bradenton Country Club the greens committee chairman told me that they did not overseed their greens and the membership wanted it to stay that way. I had come from a course that overseeded every year and as far as I knew everyone else in our area at that time overseeded as well.

This for me was a new challenge.

When I asked why the members didn't want the greens overseeded, their first answer was the puttability of the greens. In those days common rye was the seed of



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# We put the poa trivialis down with a walking rotary spreader and let Mother Nature dictate whether the Tifdwarf bermudagrass or poa trivialis will dominate.

choice.

Next there was no disruption in their play, no grow-in time, no spring transition.

And finally, there was the cost.

These were the basic reasons I was given and they all were valid in their own way. So instead of trying to talk them into overseeding, I accepted the challenge of that first year to go through the winter without the protection of seed on the greens.

Well, it was one of the warmest winters that we had seen in a long time and everything went really well. But not every year was as good as that one and over the years we have developed a program to get us through those tough winter months.

We begin in September by cutting back on our verticutting program. This allows the turf to develop a thin thatch layer which protects the grass by making it more wear tolerant and helps keep it a little warmer on those cold nights and the grass doesn't spike up as much.

We do continue our light topdressing on a biweekly schedule. Our fertilizing program changes in what material we use. We go from using slow-release nitrogen sources to the quicker, more readily available nitrogens which help give us color and growth.

However what really helps us maintain our color through those cold winter days is green dye. For no matter how well they roll or how quick they are, if your greens do not have that color, the members are not satisfied. The secret is to put color on them, but make it look natural.

What works best for us is applying light amounts of dye and doing it more frequently; that way you can maintain a more constant color. We use one to one and one-half gallons per acre and always apply it while the turf has its own natural

color, of course being a private club and not having members play on those really bad days is a big help. Also, I know not overseeding wouldn't work for everyone, but for us the members are happy.

> Jim Svabek Golf Course Superintendent Bradenton Country Club

### Try not to overseed, but...

Although the overseeding of greens has proven to be a controversial issue over the years in South Florida, the bottom line to me is that each superintendent must do what is in the best interest for the particular club. At Seminole Golf Club, our main goal is not to overseed the greens each year.

In that Seminole is a Donald Ross-designed seaside links-style golf course, the membership feels the greens should be maintained as natural as possible with only the perennial warmseason Tifdwarf bermudagrass. Donald Ross intended for Seminole to be a bump-and-run, shot-making-type golf course requiring firm approaches that usually are not consistent with overseeded greens.

On the other hand, severe weather the past two winter seasons has convinced us that an alternate plan of "interseeding" poa trivialis will be used if needed.

By "interseeding", we put the *poa trivialis* down with a walking rotary spreader and let Mother Nature dictate whether the Tifdwarf bermudagrass or *poa trivialis* will dominate.

We do not perform any preplant maintenance practice or raise the mower height to favor the *poa trivialis*. If the weather is abnormally cool and/or wet, the *poa trivialis* will dominate. Warm and dry weather will favor the more dominant Tifdwarf bermudagrass.

Again, our main goal has been to favor

the Tifdwarf bermudagrass as the dominant putting surface.

We keep *poa trivialis* on hand because of its quick germination, ability to tolerate low mowing heights and, most importantly, its quick transition out in warm weather which allows the Tifdwarf bermudagrass to dominate.

In terms of fertility, due to the fact that we want the Tifdwarf bermudagrass to be healthy and aggressive going into the winter months, we apply a balanced N-to-K fertilizer with intervals based on weather conditions. For example, the frequency will be longer during warm weather and shorter during cooler weather with normal applications of 1 pound N and K per 1,000 square feet.

As you know, fertility has a definite impact on the speed of the greens. For this reason, we are evaluating the greens daily to consider fertility, disease, irrigation, mowing height, topdressing and any other maintenance practice which hopefully will give the members the best greens possible based on weather conditions.

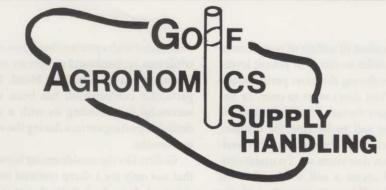
We overseed all our tees during late November/early December with *poa trivialis*. Again, we simply put the *poa trivialis* down with a walking rotary spreader on an as-needed basis to fill in any weak or shaded areas and in particular on all par 3 tees to allow for good turf during the winter months. As warm weather returns, we strongly promote bermuda 419 recovery as the dominant turf on the tees.

Hal Hicks Golf Course Superintendent Seminole Golf Club

### Water is critical

Being in Palm Beach County, we have the option of seeding or not seeding our golf course. However we take the prudent approach and seed both our tees and our greens. On our tees we use a blend of ryes which hold up to the high traffic and on the greens we will use a bentgrass variety.

The first step in our overseeding procedure is to cut back on the nitrogen in our fertilizer program some three - four weeks prior to overseeding. However, during this period we will put out one



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application of sulfate of potash magnesia in order to raise our potash levels.

Water during this time period is also critical. You don't want to over- or under-irrigate the turf. To over-irrigate will allow the soil to be ripe for diseases, which could hurt the young, tender seedlings when they come up. To under-irrigate will create a soil so dry that the seedlings will have to compete with the base grass for the water applied. Soil moisture is a big key to success.

Days before overseeding we will verticut the greens until we remove approximately 50% of the leaf mass. This will have two effects. It will slow down the aggressive base grass and it will allow the seeds to fall into the mat area where it will be safe from possible washing away by rainfalls.

Before putting down the seed we apply at a curative rate Chipco 26019 for the various leaf diseases which are in the soil and waiting for conditions to get right before exploding. Trust me: with the warm, humid weather and lots of water on the turf, the conditions will get right.

Next, we apply a preplant fertilizer of 5-30-20 to assure adequate phosphorus at the rooting zone. Then the big event — applying Penneagle bentgrass seed in two directions at 4.5 pounds per 1,000 square feet. We immediately topdress and carpet drag in the soil to insure good seed-to-soil contact.

At this point we simply baby-sit them. Water them lightly and frequently for the next five days. Once they start popping up we will turn down the water frequency until eventually we are syringing just hot spots.

Remember the old saying, "Put them to bed dry and wash them in the morning" and disease should be of little problem.

Jerry Redden, CGCS Greenview Cove Country Club

### Everything but the fairways

Overseeding time is just around the corner and it seems as if it was just yester-day that the golf course finally had a good and healthy stand of bermudagrass.

At Tampa Palms G&CC, we overseed everything but the fairways. Greens are

overseeded with a poa triv/bentgrass mix, while tees, tee banks and roughs are over-seeded with a perennial rye blend. This particular combination has been very successful in providing us with a very desirable putting surface during the winter months.

Golfers like the semidormant fairways that not only are a sharp contrast to the overseeded roughs, but also do not create the so-called "flyer lie."

The overseeded roughs help high traffic areas maintain their playability during the winter and also help to contain the golf ball on the course. Anyone who has played The Palms knows how important that is!

In preparation for overseeding, we make our final application of nitrogen approximately 30 days prior to our overseeding date. Fairways are sprayed with a pre-emergent herbicide to prevent germination of ryegrass in these areas. Also all trap faces are sprayed with a pre-emergent product. This procedure gives us some contrast and it also greatly reduces our labor over the winter months by not having to Flymo these areas.

Height of cut in the rough areas is gradually lowered to 1 inch and at this height we can get a good stand of ryegrass to germinate. Roughs are overseeded using a Lely spreader calibrated to 300 pounds of seed to the acre. Tees are done with hand spreaders that are calibrated to 20 pounds per 1,000 square feet. The areas are double verticut and scalped prior to throwing the seed.

Greens are lightly verticut and topdressed prior to overseeding. The sand on the greens allows the applicators to see where they are going and avoid getting lost. Seeding rates are 4 pounds of bentgrass and 8 pounds of poa triv per 1,000 square feet. After the seed is down, a starter fertilizer is applied and then the greens are watered.

During the germination period, syringe cycles are done throughout the day, Notices are posted informing the golfers as to why this needs to be done. We also try to let them know when the syringing will be going on.

All golf carts are kept on the cart paths for approximately two weeks following

Golfers like the semidormant fairways that not only are a sharp contrast to the overseeded roughs, but also do not create the 'flyer' lie.

overseeding. This allows us to syringe as needed without carts damaging the newly overseeded areas.

After the two-week period of all carts staying on the paths and frequent light cycles, the overseed is weaned off the syringing and carts are allowed to return to the playing areas.

Mowing heights are raised and the cutting units are checked daily to ensure that a sharp edge is being maintained. As the overseeding matures, an application of nitrogen is applied to improved color and density. Eventually the turf is mature enough to mow at a lower and more desirable height of cut.

Overseeding is not an easy job, but an essential part of a good turf management program. One must find what works the best in his or her particular region as there are many different methods when it comes to the overseeding process. With a plan of action and a little good luck, your overseeding will be a success.

Greg A. Plotner, CGCS Tampa Palms G&CC

As you can see, there are many and varied opinions on the present state of overseeding. It also is evident that we as golf course managers are getting more pressure to have great greens year round but especially during the winter. The use of bentgrass and poa trivs are replacing the ryes on the greens surfaces as superintendents try to obtain that superior putting surface his members can be proud of.

One thing is for sure as our members get better educated on the coolseason grasses and what their limitations are, the golfing public is the winner.

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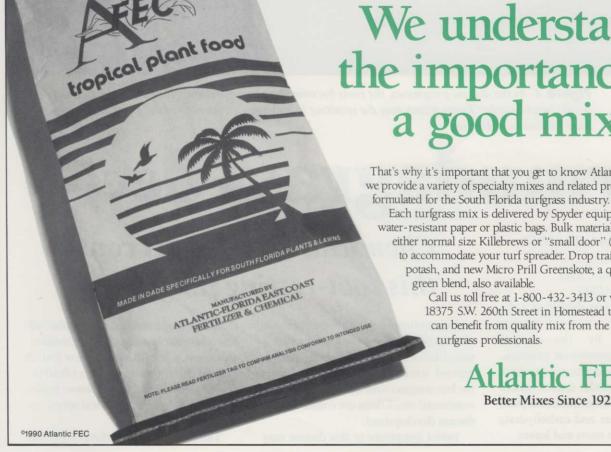
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**Figure 1**. As the disease progresses, the roots become short and completely rotted and may appear totally black in color. Entire plants may die resulting in an irregular thinning of the grass and eventually bare patches may develop.

### Bermudagrass decline

BY DR. MONICA L. ELLIOTT

Plant pathologist University of Florida, IFAS Fort Lauderdale AREC

Bermudagrass decline is a destructive root rot disease caused by the fungus Gaeumannomyces graminis var. graminis. This fungus grows on the root system, invades the root vascular system (xylem and phloem) and thus debilitates the plant due to lack of water and carbohydrate movement between roots and leaves.

### Chemicals alone won't control this root-rotting fungus

In combination with other stresses (for example, low mowing height, nutritional deficiencies or imbalances), aboveground symptoms will develop during the late summer and fall months if environmental conditions are conducive for disease development.

Initial symptoms of this disease may

include the appearance of irregular yellow (chlorotic) patches ranging in diameter from a few inches to a few feet. A general chlorosis and necrosis (dead tissue) are first observed on the lower leaves.

Foliar lesions, such as leaf spots, are absent.

The root systems of these plants are

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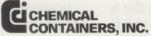
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discolored with dark-colored lesions present on the roots. Associated rhizomes and stolons may have lesions also.

As the disease progresses, the roots become short and completely rotted and may appear totally black in color. Entire plants may die resulting in an irregular thinning of the grass (Figure 1) and eventually bare patches may develop.

As a general rule, the outer margins (clean-up pass) of a putting green exhibit the disease symptoms first (Figure 2). Correct diagnosis of the problem will require having a sample analyzed by a plant diagnostic clinic such as the Florida Extension Plant Disease Clinic in Gainesville (904-392-1994) since severe nematodes or Pythium species may cause similar damage.

I have been examining cultural and chemical methods for controlling this disease using the portion of the FCGSA Otto Schmeisser Research Green that is planted with Tifgreen 328. This area is maintained as a "normal" putting green mowed at <sup>3</sup>/<sub>16</sub> inch six times each week during the summer.

Fertility during the summer months (May through October) is 6 pounds each of nitrogen and potash per 1000 square feet with <sup>1</sup>/<sub>2</sub> pound of each applied every two weeks. Phosphorus is applied twice each year in May and October. Micronutrients are applied with each nitrogen application as they are a component of the fertilizer blend currently used (Harrell's 12-0-12 with Polyon TM polymer coated urea). The area is verticut and topdressed with an 80/20 mix

approximateley once each month.

Experiments conducted in 1991 were initiated after moderate to severe aboveground disease sysmptoms were apparent (Figure 1). These experiments indicated that fungicides alone had no curative effect on this disease and that the best cultural treatment was simply to raise the height of cut.

In other words, once the above-ground symptoms are observed, it is too late to apply fungicides to control *G. q.* graminis, as the fungus has been attacking the root system for weeks or even months.

Contact fungicides may be useful to prevent secondary leaf diseases and to control the algae that usually develops in the areas where the grass thins and/or dies.

Experiments conducted in 1992 and 1993 were designed to examine preventive controls of this disease.

In one experiment, I evaluated all currently registered systemic fungicides and fungicides expected to be registered shortly for bermudagrass. Three preventive rate applications were made at 28-30 day intervals beginning the end of April.

In another experiment, fertility (N, P, K and Mn—individually and combined) was increased.

In addition, a 6-foot wide strip of the area was cut at <sup>1</sup>/<sub>4</sub> inch rather than 3/16 inch for the entire summer. The primary discernable difference among all treatments (fertilizers and fungicides) throughout the duration of the experiment was the better quality associated with the grass strip cut at <sup>1</sup>/<sub>4</sub> inch rather

I realize that superintendents cannot maintain their Tifgreen putting greens at 1/4 inch all summer and early fall, but fungicides alone will not stop the disease from developing.

than <sup>3</sup>/<sub>16</sub> inch (Figure 3). No symptoms were ever observed on this higher cut of grass. Thus, as was observed in 1991, the higher height of cut is extremely important in preventing and eliminating the disease.

I realize that superintendents cannot maintain their Tifgreen putting greens at <sup>1</sup>/<sub>4</sub> inch all summer and early fall, but fungicides alone will not stop the disease from developing.

If you have Tifdwarf putting greens, the same priciples apply in terms of raising the height at least 1/32 inch greater than your normal mowing height.

Cultural practices must be used in addition to any preventive fungicides. As soon as you observe any stress or initial symptoms, raise the height for a few days. There are ways to maintain speed — double cut, topdress, roll.

Explain to the members and players why you feel it is important to increase mowing height. Stress the need to raise the height off and on throughout the summer so the grass will not decline.

Bermudagrass Decline is a root rot disease and not a leaf disease. Grass can easily recover from a leaf disease. However, once the crown and root system of the plant dies, the plant will not recover, resulting in the bare patches of soil often

Correct diagnosis of the problem will require having a sample analyzed by a plant diagnostic clinic such as the Florida Extension Plant Disease Clinic in Gainesville (904-392-1994) since severe nematodes or Pythium species may cause similar damage.