

The Moorings Club - Vero Beach FL  
Craig Weyandt, Golf Course Superintendent



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What unfolded next was what I consider the sage advice of someone who has been there and done that.

Tatum is passionate about the golf industry, his job at Grey Oaks and his role as a superintendent. Essentially, he says that managing these new grasses takes a new approach that becomes prescription management directed at each green and what it needs. Performing the identical regimen on all 18 greens no longer applies. Each green has to be evaluated and handled individually for successful performance.

“Knock wood – I haven’t lost a square inch of TifEagle so far in five years at Grey Oaks. We have shade issues on a couple of greens and so we manage them differently. Everything you do on ultradwarfs is “as needed.” Take verticutting for example. You can’t get locked into verticutting every green once a week just because that’s “the program.” We have some greens we verticut “harder” than others and some that we only verticut portions of. Those two shady greens may not get verticut at all sometimes. The same goes for fertility. Two greens get more than others. Some greens we mow with Flex mowers and some with GR1000’s.

“Comparing nitrogen levels, I used to put 26 lbs. of nitrogen on TifDwarf per year. Now I only apply 9 lbs. of nitrogen per year on TifEagle. We maintain a 1-2 ratio of nitrogen to potassium and proper calcium levels are also important. We apply Gary’s Green on a 7-10 day schedule or about 2-4 gallons which yields around 1/8 lb of nitrogen. We will alternate Sul-Po-Mag and 0-0-28. We also apply liquid calcium carbonate to help improve our cation exchange capacity.”

We use Primo on the greens because we have to. The expectations of our members, and the competition to have the “best” greens drive up the ante. No more slow greens allowed. Done properly you can have good greens rolling 10-11 every day by balancing Primo and nitrogen applications. However, I don’t think Primo performs as well on Champion. There is more grass per square inch and the Primo tends to make it rigid and reduces ball speed. Our height of cut right now (mid May) is .095, but you really don’t need to go below .100. In fact some of this height-of-cut talk is bogus when you factor in type of mower, bedknife setting and micrometer calibration. One man’s .090 is another man’s .100.

“The reality is that most average-handicap golfers can’t really handle fast greens. You have to know your clientele and give them what they want and you can do it with double cutting, rolling, managing the fertilizer and verticutting; whatever it takes. It is a challenge to satisfy everyone when the average handicap is 25, but we certainly pull out all the stops

for the member/guest tournaments and other special event requirements.

“A superintendent is generally his own worst critic and knows when the greens aren’t up to snuff. He doesn’t need people nitpicking conditions. Sometimes you have to filter out the noise and figure out what it is they really want. The biggest challenge for us is keeping three entirely different golf courses playing consistently with one another so our members can have a seamless experience across the property.

“I’ve talked about low heights of cut and fast greens, but just as important is never going above .130. That’s the magic number, guiding light, whatever. I think if you go above .130 you will be battling them coming back down. You may think you are doing the grass a favor, but not really as far as conditioning goes. If you have to take them to .140 to .150 to survive, then something is wrong. To get back down to .110 and a good, smooth green speed is going to be a long, hard road when you let that biomass thicken up.

“I never look hard at the roots. It doesn’t matter. The game is played on the top. Sometimes people can get caught up chasing the roots and lose the top and that’s when they can get into trouble. It’s a fine line. The same thing goes for trying to ‘change the soil.’ I’m just not going to do that. If you are applying water with a pH of 8 with every irrigation, that is going to be a limiting factor. Focus on the performance and appearance of the playing surface and what you can do every day to make it as good as you can.

“We try to keep the greens between .120 and .110 in the summer to keep thatch levels lower. In addition we groom and verticut as needed, but only when the grass is growing aggressively. We do not lock ourselves into a one-size-fits-all regimen of so many times per week or month. In the summer when the weather is favorable and the grass is growing we do average a verticut every one-two weeks, but it depends on the plant, not the calendar. In the winter, I monitor the weather forecast very closely and lightly groom or verticut when the conditions are favorable.

“Top dressing is another good tool for managing the thatch. The dry, green, bagged sand is necessary in the winter and you can give them a nice dusting, but I fear over-use of the finer bagged sand could cause layering, which is a no-no on the greens profile. In the summer we use Terra-Toppers and spread No. 305 DOT sand as needed when the grass is growing aggressively. Whenever we are top dressing, we are also opening up the turf with verticutting or spiking to help get the sand into that dense turf.

“Opening up this turf is critical since the grass is so dense it can even repel water. In the winter with all the traffic, we aerify with a Hydroject month-

ly to keep breaking up that organic layer. We monitor that layer and try to keep it between 5/8 – 3/4 inches thick.

“I know there is a lot of talk about disease on ultradwarf, but my first-hand experience is some outbreaks of *helminthosporium* (leaf spot). We spray Heritage once a year for leaf spot, and if some algae pops up we treat with Fore. I can only think that if there are disease problems, they are resulting from other stresses like fertility levels, water quality, thatch, etc.”

What I learned from this interview with Rick was that ultradwarf greens need to be managed individually and the old one-size-fits-all programs just won’t work anymore.

## Tim Cann, CGCS Answers a Florida Green Questionnaire

Tim couldn’t do the live interview in Naples, but he volunteered to submit answers to a questionnaire on ultradwarf management. I’ve known Tim since he had bentgrass greens seeded into TifDwarf at the Reserve Golf Club. He’s been at Harbour Ridge GC for sometime and recently he’s joined the gowing ranks of



Tim Cann, CGCS

TifEagle managers.

**FG: What ultradwarf varieties are you managing and how long have you worked with it?**

We have TifEagle on 36 holes. The Golden Marsh course was planted in 2001 and the River Ridge course was planted in 2003.

**FG: Knowing that you were going to go to change to a new grass what did you do to prepare?**

Prior to planting, I visited Jupiter Island where Rob Kloska had test plots, Johns Island West and courses in Naples to play on the Champion variety as well. I did attend some seminars after planting. There is a learning curve to understanding the growth and management characteristics of ultradwarfs.

**FG: What are some of the basic differences that you have noticed?**

In general I think TifDwarf is a little



more forgiving than TifEagle. TifDwarf will respond to TLC (tender loving care) while TifEagle can be slower to respond. The key is to not allow the TifEagle to get weak.

I find TifEagle tends to be shorter rooted than TifDwarf and it develops a fibrous mat (thatch, biomass) quickly. We hollow-tine (aerify) a minimum of three times in the summer to manage the mat. Sisis- or Graden-type verticut units are necessary.

Fertility requirements can be different. TifEagle fertilized to TifDwarf levels can overgrow quickly and aggravate thatch problems. The secret is finding out a fertility program that works for your location.

**FG: What are some of advantages of TifEagle that you have noticed?**

Well it definitely tolerates shorter heights of cut. It is a monostand with cool-weather tolerance that we don't feel we have to overseed. With no overseed it has greater density than TifDwarf and is currently very popular among our players.

**FG: If there are pros there must be some cons. What are they?**

As I mentioned before, it seems to be less tolerant to stress. It is a thatch producer which requires constant or special attention. Low mowing can be a problem when the turf is over fertilized. It does require more topdressing with dry sand for the winter applications. We are rolling and double cutting as often as possible to maintain desired greens speeds.

**FG: Give me a quick rundown of your programs.**

Mowing: HOC .110-.125 with Flex 21 hand mowers. Wintertime: single mowing and rolling while it is cool. Summer: frequent double mowing and rolling as often as crew is available. Rolling: as often as possible, can be daily

Verticutting: Weekly during the growing season in two directions typically at zero or 1/32-1/16 depth, brushing with the Flex attachment when topdressing won't be disturbed also helps.

Topdressing: Dry silo-stored sand and spread with hand spreaders in the winter and regular topdressing spread with a Terra -Topper in the summer.

Aerification: Three times minimum. This year 5/8-inch tines in May; 3/8-inch in July and 1/2-inch in August. Hydroject four times in the winter: December, January, February, March. Spiking only during the growing months as necessary.

Fertility: Light nitrogen granular

applications in the winter with 2 lbs. potassium and weekly foliar sprays. Increased nitrogen in the summer when we need to recover from renovation and 4 lbs. potassium with foliar as needed. 36 lbs. potassium and 8 lbs. nitrogen per year.

Growth regulators - Primo: Have used them on TifEagle with good response with higher nitrogen applications. Began at 1oz rate and increased to as high as 3 oz rate.

Pest control: Disease is the number-one

problem. Perhaps the higher potassium applications will help control disease outbreak. Separate rotational applications of Daconil ZN and Clearys 3336 have been in our program.

Advice: Almost everyone who is renovating is doing so because of contamination problems. It's great to get an ultradwarf and maintain a monostand. I would promote the use of these grasses with the understanding there will be a learning curve and extra time, labor and expense dealing with it.



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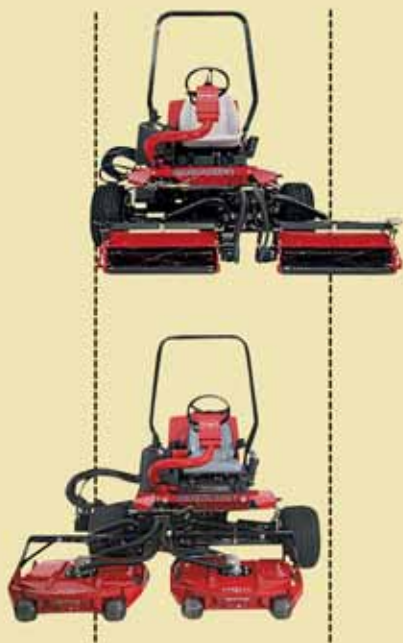
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## Ken Glover Takes a Different Approach at Windsor Club

Ken is at the Windsor Club in Vero Beach. They have TifEagle greens, but this is Ken's third ultradwarf course and he knew thatch control was the key to success, so he tried a different approach and he feels that it paid off in the end. Previously he had two courses with FloraDwarf and he knew that ultradwarf grasses comprised a different breed compared with TifDwarf.

"Grow-ins are stressful. You have a finite window to get the course up and operating quickly. Typically we push the grass hard to get it to fill in and cover to make opening day. But since I knew that ultradwarfs were aggressive thatch producers, I wanted to nip future problems in the bud, so I did something different that did extend the grow-in time a little but I think helped me get a head start on managing the TifEagle biomass. I grew it in "organically" and did not use any synthetic nitrogen on the greens and that decision is reaping benefits now. I use Soil Sanctuary and apply only 4-5 lbs of nitrogen per year. Potassium and calcium also are important parts of the program. Right now I'm also dealing with sodium issues brought on by the two hurricanes of last September.

"We've been mowing at .090 or since January. I do use Primo, but mainly when we aerify to help heal the holes. We put it out a few days before we punch the holes so it helps push the grass and speeds up recovery. In the winter we just mow to achieve desired greens speeds. Traditionally we are a low-play golf course in the summer, but we get lots of play in a short time in season and it is not always possible to double cut. I hate to put a spray tank on the greens unless absolutely necessary, but you do what you have to do. Still, I prefer to manage green speeds with the mowers and not Primo."

"Vero Beach is a competitive area with members belonging to several area clubs so there are always comparisons being made. That's what drives some of the programs we have to do to meet expectations. It can get a little crazy. But I have to say right now that, after four years, the greens have improved each year. Our height of cut is generally between .110 when we overseed and down to .100 — whatever the greens will take to give the desired results.

At this point Ken offered an observation that is probably on the minds of superintendents everywhere especially if there is pressure to change

to one of the newer grasses.

He said, "TifEagle is a good darn good grass, but I'm not sure it is for every course. The TifEagle greens we played today at Naples Grande were as good as any bentgrass greens I've ever played. They were great. Managing ultradwarf greens to that caliber is basically following a bentgrass playbook. And yes you do have to micromanage ultradwarf greens. If the superintendent — or more importantly, the membership — doesn't really understand the level of management that will be required to produce the desired product, then you may have some disappointed people.

"If my club and my job depended on a good overseeding program to be successful and deliver the desired results in season, then I would sure like to have a good TifDwarf surface to man-



Ken Glover

age. Or if water quality was a serious consideration, then I would have to be looking at one of the seashore paspalum varieties. I think you have to very seriously consider the qualities and requirements of all three of these grass types before jumping on a popularity bandwagon. Location, performance requirements and management resources all need to be factored in when deciding which grass to use.

"I verticut our TifEagle greens often. In the winter it's more of a grooming depth because you don't want to get aggressive with this turf unless it is actively growing so it can recover. Since it is so dense we added 30 percent more blades to our verticut reels. There are more aggressive machines, but I am never doing corrective verticutting; always only grooming depth. I have to use triplexes to verticut or groom our greens. The attachments on the walk mowers create a gap between the groomer and the reel and they will cause scalping."

Ken wasn't sitting in on Rick's interview, so his next comment really drove home the concept of individual greens management.

"We take a prescription approach to our greens-management program. We have two greens surrounded by trees, so we have to treat them separately and do only what they can tolerate. For instance, No. 7 green is my nutrient barometer, when it starts looking hungry then they all basically need feeding.

"I have definitely seen some weird things happen on the TifEagle. There have been



some blotchy patches from time to time. I've had tests run but they come back with a smorgasbord of pathogens and no one definitive cause. I think it is a reaction to a particular stress factor which gives one of the pathogens that are always present a chance to get a foothold, so managing stress factors is key to avoiding diseases.

"Toward that end, I am a big believer in using a Hydroject and I contract out 10 procedures a year. We deep-tine aerify in May and September now, thanks to the sodium levels from the hurricanes last year, and then use the Hydroject the other months. We also topdress regularly and in season — October through May — we use dry, bagged sand. There is virtually no waste and very little mower damage, so the extra cost for the sand is justified by the lack of repairs and replacement to reel parts. And you have to topdress to help control the thatch, so it's worth the cost.

"I mentioned earlier that I didn't like to put a spray rig on the greens unless absolutely necessary. I would love to use a spray hawk for accuracy but that means also using a hose man and we might spray one to two times every week to ten days depending on what's going on with our nutrient or pest-management programs. But the labor market is very tight post-hurricane and finding qualified people to handle such an important function is difficult much less the labor cost itself. We apply Green Way, foliar minors, amino acids, humic acid, urea after aerifying and a 12-0-20, which is a great product, two weeks before the member/guest tournament.

"I change cups six days a week. This is my quiet time to evaluate the course during set up and really look at the course and evaluate turf needs and diagnose problem areas. The hurricanes last September threw a lot of programs out the window as we have had to deal with high sodium levels.

"We do overseed here because we are on that temperature-dividing line from Tampa to Vero Beach that arbitrarily divides north and south Florida, and I like the insurance of having some cool-season grass growing when it gets cooler. We throw down a little bentgrass and it does what it is supposed to. Because we overseed, we do have to plan our fall renovation early enough so the holes are healed up. Aerification is the most traumatic thing we do to TifEagle and I use a roller a lot to smooth them out and firm them up. There's nothing worse than walking on a freshly punched green and get that mushy feeling underfoot."

So Ken believes that the ultradwarfs are good grasses and do take extra care, but they aren't necessarily the only choice depending on your particular situation or location.



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# Sometimes Being a Drag Can Be a Good Thing

By Darren Davis

Recently my assistant, Brett Howell, approached me with an idea that resulted in the design of a terrific new tool. The tool is a “drag” that, when pulled behind a utility vehicle, does a terrific job of breaking up aerification cores. In addition to its intended use, we have found that it’s excellent at breaking up clippings after mowing, and also removing early morning dew from turf. The tool is the subject of this Super Tip. However, in order to give credit where credit is due, I need to provide you with some background information that led to the design of this new tool.

A few years back I was in search of a tool that would be used to remove early morning dew on the golf course, thus providing a finishing touch for tournaments and special events. As we are always busy on the morning of a special event, I desired something that could be operated by one person and pulled with any utility vehicle. My search led to the purchase of a “Dew Draggin’” from Miltona, which performed exactly as promised in the company’s catalog. The 25-foot wide “Dew Draggin’” is made of PVC and rope and effectively removes early morning dew over large areas in a short period of time.

Then when aerification season arrived, we began investigating alternative methods to break up aerification cores in fairways. We desired something that was less damaging to the turf than a steel drag mat and did not tie up a tractor. Our goal was to break up the cores so the thatch could be removed more quickly by our Rak-o-vac, or blower. So, we hooked up the “Dew Draggin’” and gave it a try. However, we quickly realized why breaking up aerification cores was not an advertised feature of the “Dew



*Top: This heavy-duty, yet simple-to-construct, drag not only eliminates dew for special early morning events it also busts up aerification cores during renovation. Photo by Darren Davis*

*Inset: Four 1/2-inch bolts through the 1-1/2-inch electrical conduit pipe connect swivels to the 5/16-inch chain which does the actual dragging on the turf. Photo by Darren Davis.*

Draggin’.” Unfortunately, the tool was not aggressive enough to be effective.

We liked the concept of pulling something behind a utility vehicle for this task, and we liked the design of the “Dew Draggin’.” This is what originated the development of our new “drag” which essentially is a beefed-up, homemade mini “Dew Draggin’.” The tool we designed is made of metal and chain, instead of PVC and rope. The new tool is very effective at its intended use of loosening up aerification cores, and, like the “Dew Draggin’,” it is excellent at breaking up clippings and removing early morning dew.

The tool is made from a 10-foot piece of medium-strength metal pipe. The pipe we chose is 1-1/2-inch electrical metal tubing (EMT). We found the thickness of the metal to be durable, but significantly lighter weight than

galvanized pipe. Attached to the pipe is a 22-foot section of 5/16-inch coil chain.

The chain is the part of the tool that touches the ground, and does the actual work. In order to get the necessary “movement” of the chain when pulled across turf, the chain is attached to two, 3/8-inch swivels. These swivels are then affixed to the metal pipe with two, 4-inch eye bolts.

The final step was to attach a pull harness to the metal pipe so it can be fastened to — and pulled by — a utility vehicle. The harness is an 8-foot section of 5/16-inch coil chain that is bolted to the pipe 3 feet from each end (4 feet apart), and is attached to the pipe by two, 4-inch eye bolts.

My equipment manager was able to construct the drag in less than an hour, and excluding labor, the total cost was \$115.15.



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Seashore Paspalum Management in Florida

# Should you change grasses on your golf course?

By R.R. Duncan, Ph.D. and R. N. Carrow, Ph.D.

## Reality Check

Since water issues (quality, quantity, conservation) are and will continue to drive the Florida golf course industry and will dictate turf management strategies in the future, understanding the entire turf ecosystem is becoming more and more important.



The Crown Colony Golf Club in Fort Myers used *SealSle1* on its tees and fairways. Photo courtesy Sam Williams Advertising.

As alternative non-potable water is increasingly being used for irrigation on golf courses, water-quality challenges increase, either from escalating salinity and/or from nutrient load in effluent. Site-specific variability and interactions among the water, the soil, the turf species/cultivar, and the climatic conditions make management both confusing and complicated. The fact that you can grow and manage a salt-tolerant turf grass does not mean that you should be using ocean water for irrigation.

Each acre-inch of irrigation water containing 500 ppm salts will deposit 113 lbs of salt over the irrigated turf area per application; an acre-foot of water at the same salt load will deposit 1352 lbs of salt over the same area with one application. For ocean

water at 34,500 ppm salinity, you would deposit 7776 lbs salt per acre-inch and 93,307 lbs salt per acre-foot of irrigation water per application.

You must manage the salts before, during, and after managing the grass; otherwise, salt loading in the soil will overwhelm the tolerance of the grass and turf performance will decrease. Managing salt buildup in the soil is expensive and time consuming.

## Seashore Paspalum as a Turf Consideration

*Paspalum vaginatum* Swartz is the most salt-tolerant (true halophyte) warm-season turfgrass in the world, but all cultivars vary in level of salinity tolerance from hybrid bermudagrass levels to near ocean-water levels.

The grass is native to moist, saline habitats, and the turf ecotypes originated in South Africa. The grass evolved on sand dunes exposed to ocean water and rainfall for moisture and nutrients. Seashore paspalum developed a rapid rooting capability as well as an extremely efficient nutrient uptake system while evolving on those beach sands. The grass is one of, if not the most environmentally friendly turfgrasses that can be grown.

Why is it an environmental turfgrass? It possesses five major inherent abiotic stress tolerances: salinity, drought, waterlogging/low oxygen, low light intensity (not tree shade), traffic/wear/compaction. The grass has reduced nitrogen requirements (30-50 percent less) compared to hybrid bermudagrasses, and has developed very sophisticated nutrient uptake and utilization mechanisms. It harbors high populations of beneficial predator insect populations (such as wasps), especially against the worm complex; this trait can be readily utilized in integrated pest management programs.

It has tremendous flexibility in utilization of alternative and variable quality irrigation water resources, ranging from effluent or recycled water to brackish sources. The grass has excellent environmental bioremediation/land reclamation/dune stabilization capabilities. Marketed cultivars vary in their response to these traits.

## The Rumors are Rampant

One of the challenges for any grass is dispelling the rumors that surround the turf. Some of the attributes are embellished and most of the limitations never seem to surface. There is no perfect grass. Seashore paspalum is not a utopian grass or a miracle grass because of its high salt tolerance. It is a good grass that, if managed properly, has tournament quality and playability.

No, turf-type seashore paspalum is not invasive. Coarse-leaf-textured ecotypes of this grass have been in Florida for centuries. The turf ecotypes have been in the state since the 1950s with no invasive tendencies. An entire herbicide arsenal is available to take the grass out of bermudagrass or other grasses quite effectively.

Yes, seashore paspalum can be grown on non-salt-affected sites and you can use fresh water for irrigation. No, it is not just another warm-season grass like the hybrid bermudagrasses or St. Augustinegrasses. Management is totally different and unique to this species. Not all cultivars are created equal.

Yes, you will use less nitrogen fertilizer, but you may use additional amendments (Ca, K, Mn)