

Published by the Metropolitan Golf Course Superintendents Association



Board of Directors



President DAVID DUDONES Westchester Country Club

Vice President KENNETH BENOIT JR., CGCS GlenArbor Golf Club

> Treasurer ROBERT B. ALONZI JR. Fenway Golf Club

Secretary BRETT CHAPIN Redding Country Club

Past President GLEN DUBE, CGCS Centennial Golf Club

Directors MICHAEL BRUNELLE, CGCS Upper Montclair Country Club

> STEVEN LOUGHRAN Rock Ridge Country Club

VINCENT PAVONETTI, CGCS Fairview Country Club

> DANIEL ROGERS Wykagyl Country Club

JESSE SHANNON, CGCS Manhattan Woods Golf Club

STEPHEN WICKSTROM Burning Tree Country Club

Class "C" Rep DAVE PETERSON Brae Burn Country Club

Class "AF" Rep SCOTT TRETERA Harrell's LLC

Executive Director MIKE McCALL, CGCS

Executive Secretary SUSAN O'DOWD

Tee to Green Staff

Editor JIM PAVONETTI 203-531-8910

Managing Editor PANDORA C. WOJICK

Editorial Committee TODD APGAR MATT CEPLO **KEVIN COLLINS** ANDY DROHEN CHIP LAFFERTY

STEVEN McGLONE ANTHONY MINNITI **BOB NIELSEN** SCOTT NIVEN TOM REYES **GREG WOJICK**

Designer TERRIE YOUNG

Advertising Manager MIKE BRUNELLE, 973-777-6710

TEE TO GREEN is published bimonthly by the Metropolitan Golf Course Superintendents Association 49 Knollwood Road, Elmsford, NY 10523-2819 914-347-4653, FAX: 914-347-3437, METGCSA.ORG Copyright © 2018



Cover: Preakness Hills Country Club

s Issue

Feature

Two Fairway Management Programs

Departments

Member News	7
Scorecard	8
Summer Sensations	9
Spotlight	10
Upcoming Events	12



SERIALS

SEP 11 2018

MICHIGAN STATE UNIVERSITY

Prevention Measures: A Necessary Defense

MetGCSA

ugust 15 is usually the magical date when the days start to get shorter, and there is a hint of fall in the air with temps generally reaching only a high in the upper 70s to low 80s and nighttime temps dipping into the 60s.

Unfortunately, this hasn't been the scenario for 2018. As I write this, it's August 16 and a stifling 92 degrees with humidity off the charts and a dew point of 74. Somehow, mid-July showed up in mid-August.

If you look back at the last 30 days, we have received more than three times the normal rainfall, and the humidity has been almost oppressive at times. In the month of July, alone, at Westchester we had a total of 19 days of rain and nine washouts (no golf each of those days). I keep thinking I'm in South Florida.

Thunderstorms every day followed by sun, heat, and humidity can be a recipe for disaster with poorly drained soils on coolseason grasses.

It Pays to Be on the Defensive

If we describe our maintenance philosophy in terms of football strategy, we would say, "A good offense is to have a better defense." In the superintendent world, establishing a good defense requires that we be proactive in guarding against potential damage from periods of unforeseen severe weather.

This, admittedly, requires money. Unfortunately, in recent years, many superintendents have had to work with increasingly tighter budgets that limit their flexibility in carrying out the unplanned, but necessary, preventive measures (a necessary defense) to combat the immense disease pressure caused by our unpredictable weather patterns.

To attack turf issues before they become prohibitively costly problems, a club's budget must, at the least, support annual aerification (preferably two times/year), proper amounts of topdressing, a yearly drainage allotment, development and maintenance of sod nurseries, preventive fungicide applications, and the ability to limit/restrict carts. David Dudones MetGCSA President

Too often, however, these types of cultural and preventive measures, which are critical to surviving the type of hot, wet weather we've had from the end of July and into August, are cut from the budget in the name of boosting revenue (an offense lacking the allimportant defense).

Sure, some line items can be cut from budgets with little short-term effect: landscaping (flowers and tree trimming/removals), golf course accessory maintenance, equipment purchases/repairs, and other items that won't be immediately apparent to members or guests. But the reality is that cutting or greatly reducing these line items for the *long term* will eventually have a negative impact on revenue.

Neglected plantings around the clubhouse, unmaintained trees throughout the course, malfunctioning equipment or areas where worker safety is in jeopardy (OSHA issues), shabby-looking accessories (benches, tee markers, water coolers), or delayed drainage improvements will begin to cause everything from costly injuries to poor conditions and golfer dissatisfaction. It's only a matter of time that skipping those maintenance necessities and preventive measures will greatly exceed the cost of budgeting for them on an annual basis.

With budget time fast approaching, clubs can't lose sight of the fact that there is nothing better for revenue *(offense)* than a finely maintained golf course. Let's hope we all are allowed to build in a *"defense"* plan this budget season.

David Dudones MetGCSA President



Rolling vs. Topdressing? The Ins and Outs of Two Fairway Management Programs

Researchers and Members Share the Pros and Cons of Fairway Topdressing and Rolling

by Scott Niven, CGCS

hether you call it the "Augusta Effect" or just "the American Way," golf course superintendents have been steadily trying to achieve perfection on their golf course turf. In recent years, that quest has extended to fairways, requiring that the same labor-intensive management practices for putting greens be brought out onto fairway turf.

Supporting this drive to perfect the golfer experience are the many high-level clubs who are willing to boost maintenance budgets, sometimes to the point of being unlimited, to ensure flawless playing surfaces that extend to their fairways. In response, superintendents have dropped fairway mowing heights, at some clubs to as low as 1/4"; they've swapped the nine-gang mowers for the more precise triplex greens mowers and, at times, a walk mower; chemical applications and aeration practices are similar to those once applied solely on greens; and even drainage is catching up.

Taking fairway maintenance to even greater heights are those clubs willing to invest in the equipment and labor required to support fairway topdressing and/or rolling programs, which were once reserved mainly for greens. Superintendents have used topdressing on greens for well over a century, and the practice of rolling, though far newer, has been used on greens in the U.S. since 1992.

With these cutting-edge maintenance practices gaining a foothold in the Met area, we decided to survey our members to get a sense of just how prevalent fairway topdressing and rolling actually are in our area, as well as whether these practices are truly worth the time, money, and considerable effort.

As part of that process, we delved into some of the facts and figures and benefits and downsides research has brought to light on each of these maintenance practices. Are fairway topdressing and rolling worth the hefty price tag? Only you can decide.

Fairway Rolling: Research Points to the Pluses

Since clubs have begun fairway rolling, many equipment options have emerged. In fact, there are probably close to a half-dozen currently on the market.

Though clearly up-and-coming in the Met area, fairway rolling is almost where greens rolling was in 1992: still not without its skeptics. There have been two major studies conducted on fairway rolling, however, that may help turn the tide: There was a three-year study at the University of Massachusetts (UMass)-Amherst's Stockbridge School of Agriculture and another threeyear study at Michigan State University (MSU). Though these researchers have made great strides in confirming fairway rolling as a worthy practice in enhancing fairway playability, they admit there are still questions about how to derive the greatest agronomic benefit from the equipment and resources required.

The study results that follow will no doubt pique your interest. If you have the budget and staffing to do the job, there seems to be no downside to giving this practice a whirl on your course.

At the University of Massachusetts. UMass's Dr. Geunhwa Jung and Jay Popko were among the first to examine fairway rolling. Their research involved incorporating various combinations of rolling and mowing on plots three, four, and six times a week, and one plot not at all. They used a Smithco Ultra 10 fairway roller without any water added to the 100-gallon tank and a Tru-Turf FR-108 roller.

Dr. Jung felt the results of the field studies were promising. The researchers found that rolling seemed to promote physical changes in the grass plants, thatch and soils, and the microbial composition associated with them. These changes, he felt, could justify reevaluating currently used cultural practices and chemicals.

More specifically, the study revealed that rolling:

- reduced clipping yield and turf puffiness
- resulted in earlier spring green-up
- pushed the thatch layer into the soil

• created firmer surfaces with higher resistance to penetration

• resulted in a lower incidence of dollar spot, by 20 to 60 percent

Together, these benefits contribute to better quality fairways with more bounce and roll for golfers, and while further research is underway, it also appears that rolling may allow superintendents to cut back on fungicide inputs and mowing practices. In addition to sparing both the turf and mowing equipment from excessive wear-and-tear, reducing cultural and chemical practices can also save clubs significant labor and material costs down the road. This would, no doubt, help balance the high cost associated with maintaining a fairway rolling program.

The researchers are delving deeper into the effects of rolling fairways, hoping to quantify many of their initial observations.

At Michigan State University. Dr. Thomas Nikolai and Thomas Greene have also been evaluating the effects of rolling. Their work began as far back as the early '90s. But their studies were focused primarily on rolling greens, not fairways—until about five years ago when they set out to determine whether rolling fairways could help control dollar spot, as they had discovered it did on greens.

Paul Giordano, also from MSU, had run trials that showed greens rolling creates a change in the soil's microbial population. Because rolling increases moisture retention in the soil, bacteria populations are able to thrive that benefit the turf plant but are antagonistic to fungi like dollar spot.

Attempting to create the same effect in fairway turf, Dr. Nikolai and Greene conducted a fairway rolling trial. The outcome, however, was not what they expected: Rolling did little to control dollar spot on fairways. The researchers suspected that the results might have been skewed by the fact that they used rollers appropriate for greens, not the heavier rollers developed for fairway use. They felt that a roller heavy enough to compress the greater levels of organic matter on higher-cut fairway turf might just be the key to reducing the disease, as it had on greens.



With these results in mind, another study was launched at MSU in 2017 using a Smithco Ultra 15 fairway roller with the roller's 150-gallon water tank filled with water. This added 1,251 pounds to the overall weight and maximized the pressure applied to the turf.

The researchers varied their fairway rolling practices, alternating rolling with mowing from three times per week to none at all. The results of this study showed:

• a decrease in clipping yield and turf puffiness

- an increase in firmness
- improved ball-roll distances

The study, which has continued this year, is now focusing on fairway rolling's influence on disease reduction. This aspect of the research, unfortunately, had to be omitted in 2017 because weather conditions did not produce the disease pressure needed for the study.

The Takeaway on Rolling Research

Fairway rolling research is ongoing at both universities, with one of the focuses now being to quantify the pounds per square inch of each roller to determine exactly how much pressure is required on the turf to achieve the positive outcomes demonstrated by the research.

While the researchers are clearly making strides in determining fairway rolling's benefits, Dr. Nikolai doesn't hesitate to admit that when it comes to some of the agronomic benefits, the jury's still out—until more research is done.

What Survey Respondents Say About Rolling

So how widespread is fairway rolling in the Met area? Of the 25 clubs who responded to

our survey (see sidebar on page 7), 9 or a little more than one-third are currently using rollers on their fairways.

These clubs are using three types of rollers: the Salsco Tranz-Former, the Smithco Ultra 10 or 15, and the Sisis Flexi400. Clubs that own the Salsco Tranz-Former find one unit sufficient for the job. Clubs that own the Smithco or Sisis models typically own two units. And it's no wonder: The Salsco unit carries a price tag of \$40,000, while the Sisis and Smithco rollers run about \$14,000.

On average, survey respondents report rolling three times per week, though there were clubs that rolled as little as once a week and as much as four times. And rolling is not a snap. The total man-hours respondents spent rolling their fairways ranged from 3.5 hours up to 6, with the average roll requiring 5 hours. Despite the investment of time and money, survey respondents felt that rolling their fairways paid off by resulting in:

- lower incidence of dollar spot
- improved earthworm control
- dew removal
- reduced thatch thickness
- increased firmness
- improved ball bounce and roll
- reduced mowing frequency
- reduced clipping yield and turf puffiness
- smoother fairway surface
- faster divot recovery
- improved turf quality after aeration

Here at Stanwich, we have been using two Sisis Flexi400 rollers on our fairways, rolling the four days we don't mow. This gives the fairways a smooth, clean finish, just as if we had mowed. Members have frequently noted how much they appreciate the extra roll they're getting now that we've begun rolling on a regular basis.

I'm a fan of this process over topdressing fairways, not just because members are

Smithco tow-behind fairway roller complete with a water tank that allows superintendents to adjust the psi applied to turf.

pleased with the outcome, but also because I feel it does a better job in improving the playability of our fairways. To justify my fairway grooming preference to members, I've done a little demonstration. First, I bounce a golf ball on one of our tees that is regularly topdressed. Then I bounce the ball on a fairway that we've rolled and is firm. On the tee, the ball, invariably, rebounds only a few inches, no matter how hard I throw it. By contrast, the ball bounced on the fairway rebounds to about waist height. And in the end, the proof is watching players' drives bounce many feet into the air and roll out well down the fairways. Why wouldn't I choose rolling over topdressing fairways?

Another advocate of rolling, Wykagl Country Club's Dan Rogers eased into rolling with Smithco's Ultra 10. Quickly seeing the agronomic benefits, he found himself with the Ultra 15 just a month later.

"The turf was tighter and disease pressure was definitely reduced," says Dan, noting that he was also able to save on labor by cutting the number of times he mowed per week from five days to three.

"It takes only 3.5 hours to roll 27 acres of fairway," Dan explains. "That means instead of having three or more guys mow fairways on the weekend, I can have them use that time to do other projects."

GlenArbor's Ken Benoit began rolling fairways in 2017. Beyond the proven agronomic benefits, he also finds the rollers useful in knocking the morning dew off the fairways on the days he doesn't mow. Aside from having his fairways look picture-perfect, he feels rolling offers environmental benefits, as well.

"Research has indicated that rolling will reduce the incidence of dollar spot, and maybe other diseases," says Ken, "which, over time, should allow us to reduce the amount of fungicides we're applying."

Ken emphasizes just how important it is that superintendents take advantage of every opportunity to reduce their chemical use. "This is the beginning of the next big movement in golf, Environmentalism," explains Ken. "That means it will be up to us to use our BMPs to minimize the impact we have on the environment. Lawmakers will continue to pass restrictions, and we'll be forced to find ways to abide by them while still meeting golfer expectations," he adds. "So why not stay ahead of the game?"

Tim O'Neill of the Country Club of Darien makes the most of his Salsco Tranz-Former, which he's had for about five years. Toro MH400 material handler topdressing the 17th fairway at Fairview Country Club.

In addition to rolling his fairways with the Salsco, he's put the machine to work on his greens from time to time, as well as on his approaches.

"We originally intended to use the roller on fairways following aeration to help speed the smoothing process," says Tim. "The roller is also helpful in repairing ruts from heavy equipment or trucks being used on the golf course."

Having a roller has also allowed Tim to skip a mowing from time to time during summer heat stress, which he says can save turf and mower wear-and-tear.

Like Tim, Steven McGlone of Siwanoy Country Club in Bronxville, NY, found he's able to skip a mow on his fairways since he began rolling.

"This gives 18 reels a break," explains Steven, "which, in turn, helps the equipment manager stay ahead of the game with the other equipment."

Steven also finds rolling useful after aerifying and topdressing fairways. "The roller helps keep the sand in the canopy, and it helps minimize the aftereffects of aerifying," explains Steven.

In addition to benefiting fairway conditions and playability, rolling with the brightly colored Salsco Tranz-Former often attracts the attention of Siwanoy members.

"I've been approached by a number of members curious about the roller and what we're doing with it," says Steven, pleased to have the opportunity to enlighten members on their practices."The more we have these kinds of opportunities, the better," he adds.

Though the survey respondents who have initiated fairway rolling programs on their courses are pleased with the results they've seen so far, a number of them felt, as the researches did, that there were still some unanswered questions worthy of further investigation. Two of the most pressing questions in respondents' minds:

• What roller weight level and frequency of rolling might create too much wear and compaction on the turf?

• How much rolling does it take to create just-the-right ball roll and bounce for golfers' enjoyment? On steep hills, getting the ball roll right is a priority. The last thing you want is to have your fairways roll so fast that balls roll backwards down a hill for what can be many yards. That, alone, could cause your rolling practices to lose favor among your golfers.



Fairway Topdressing: The Research Behind the Practice

Unlike rolling, fairway topdressing is not new. This practice emerged about 25 years ago on golf courses in the Northwest, where clay soils coupled with rainy winters rendered the fairways unplayable. At these courses, topdressing was not just a nice addon to their maintenance practices; it was a necessity. With a few inches of sand on the turf, these golf courses become firmer and drier, allowing play even during some of their wettest winters.

Other benefits observed from topdressing have included a reduction in earthworm castings, improved rooting, earlier spring green-up, and a possible reduction in water use. Golf courses across North America have turned to fairway topdressing in hope of achieving similar benefits.

But although the program is increasingly gaining favor, particularly among upscale clubs with healthy budgets, there remain some uncertainties, such as the effects of sand type and application rates on the success of the program.

Much of the research surrounding topdressing and its benefits was done on putting greens—until about 10 years ago, when a three-year study solely on fairway topdressing was initiated on bentgrass fairway plots at the University of Connecticut (UConn). Conducted by Dr. Jason Henderson and Nathaniel Miller, the study's intent was to shed light on the impact of sand type and application rates on fairways' soil physical properties, turfgrass quality, earthworm castings, and turf disease.

In addition, it analyzed the effects of particle size and topdressing depth on soil moisture retention, temperature, and firmness. If you are topdressing your fairways or on the verge of launching a program —their findings will help you make the most of your topdressing effort. What follows is a quick take on what the researchers discovered.

Turfgrass Quality, Density, and Color. The researchers looked at coarse, medium, fine, and USGA sands applied monthly at various rates (4, 8, and 12 ft.³/1,000 ft.²). A control plot that received no topdressing applications also was included.

The results showed that turfgrass quality and color improved as the application rates increased with the highest rates giving the best color and density regardless of the particle size used.

Soil Moisture. As expected, soil moisture content in the top two inches of the root zone profile was affected by both sand type and application rate. Generally, the coarser the sand and the higher the application rate, the less water was retained in the upper profile.

Surface Firmness. A primary reason fairway topdressing programs are implemented is to firm the surfaces, improve playability by encouraging more bounce and roll for golfers, and to minimize course closure following heavy rains. Needless to say, the firmness results, measured using a ring penetrometer, were of prime importance.

The results varied depending on the time of year. In the spring (April/May), both sand type and application rate affected firmness. Sand type continued to have an effect through June, with the fine sand and USGA sands showing greater firmness than the coarse sand treatments. The sand type effect from July and August showed that the fine and USGA sands were not significantly different from the control. Surprisingly, the coarse sand treatment was less firm than the control, fine sand, and USGA sand treatments from July through October. Not the best outcome if you are topdressing fairways to increase ball bounce and roll.

Earthworm Castings and Disease Incidence.

Topdressing treatments helped to reduce the incidence of both earthworm castings and dollar spot. The highest treatment rate, 12 ft. $^3/1,000$ ft. 2 , provided significantly better control for both of these turf issues than the lower application rates and the control.

The Takeaway on Topdressing Research

Though the results of this study support the benefits of fairway topdressing programs, Dr. Henderson is quick to point out that fairway topdressing is not for every golf course. Despite evidence that, over time, fairway topdressing can improve playing conditions, superintendents and their clubs must be willing to accept that improvements don't happen overnight. It requires a long-term commitment and an investment of not just money, but also time and labor.

But according to Dr. Henderson, there is hope that, over time, the process won't break the bank: "The majority of our results appear to be related to application rate rather than sand type," notes Dr. Henderson, "which could result in a significant cost savings associated with sand purchases." He also mentioned that after the initial applications, the benefits could be maintained long-term with reduced additions of sand.

Nonetheless, the cost of fairway topdressing programs remains a stumbling block for many golf course facilities. The price people pay throughout the country, depending on the rate and frequency of sand applications, can run between \$10 and \$25 a ton with annual requirements of about 30 to 60 tons per acre. That means the total cost of sand for a course with about 25 acres of fairways would be between \$7,500 and \$37,500.

And then you have to be sure you have the room to store the sizable quantities of sand required to support the process, as well as the \$20,000 to \$35,000 required to purchase the machine needed to spread the sand. Though this process can be contracted out to a company that will do all the work—from start to finish—over time, it may end up costing you more money than if you had invested in your own equipment.

Another caveat to be aware of before you make the leap is that once you've begun a sand fairway topdressing program there's no going back. Starting and stopping the process could result in layering that will disrupt water movement into the soil profile. Instead, a steady application rate annually, for a minimum of five years, is required to build up two to three inches of sand that can then be core aerated and recycled as the topdressing application for the future dilution of the thatch.

What Survey Respondents Say About Topdressing

Our survey showed that nearly half, or 12 of the 25 member clubs that responded to our survey (see sidebar on page 7), are topdressing fairways in some fashion. As you might expect, the dollars spent coincided with the extent of their topdressing effort. Similar to the spending across the country, topdressing expenses in our area varied significantly. Survey participants reported spending from \$10,000, for a few courses that topdress only a few of their wettest fairways, all the way up to \$50,000, for those that do all 18 holes. On average, however, clubs seemed to spend closer to \$27,000 per year.

Three clubs reported topdressing 6 times per year, while the other six are making applications 3 times or less, which includes spring, fall, and perhaps once during the summer months.

Surprising was just how long some of these clubs have had fairway topdressing programs in place. The range: three years all the way up to 20, with the average number of years being 10.

Though trying to achieve a two-inch to three-inch layer of sand, they reported depths that ranged from as little as a quarter inch all the way up to four inches, with the average being about two inches. No matter what depths were achieved, all of the 12 respondents reported that the addition of topdressing benefited their fairways by increasing ball bounce and roll.

Some other benefits reported by survey respondents:

- Firmer fairways
- Thatch reduction/dilution
- Drier fairways after rainfall
- Less cart damage and quicker return to cart use after rain
- · Reduced earthworm casting

• Low spots filled, resulting in smoother fairways

- Mowing allowed under wet conditions
- Increased turf density
- Improved drainage/infiltration
- Shallow rocks covered

Jim Pavonetti of the Fairview Country Club in Greenwich, CT, is one survey respondent who is pleased to have initiated a fairway topdressing program seven years ago. "The members feel that the ball 'rolls out' farther with the topdressing," he says. "But one of the more significant benefits I've seen is that with the topdressing creating firmer, smoother surfaces and eliminating the ruts, carts can travel at a more normal pace, which keeps play moving."

True to Dr. Henderson's research, Jim also reported fewer earthworm castings and notable thatch dilution, which were among his prime reasons for topdressing fairways. Before initiating a fairway topdressing program, Jim has a few words to the wise: Spend the extra money and buy pebble-free sand and determine the proper sand source.

"We are using fairway topdressing from Delea," says Jim, "and we had ISTRC look at several fairway profiles on the course and analyze a few different sources of sand to make sure that we weren't going to cause a problem with our profiles down the road."

John Carlone of the Meadow Brook Club in Jericho, NY, hasn't made the leap to fairway rolling yet, but he, too, is a fan of topdressing fairways. "Two of the biggest benefits I've seen from fairway topdressing," says John, "is increased ball roll and fast drying after a rain event—both, beneficial results for our golfers."

Steven McGlone, noted previously for his affinity for rolling, is one superintendent who both rolls and topdresses his fairways. Like John, he too finds topdressing has helped him reach his goals of improving playability and speeding up drying time after a heavy rainfall.

Dan Rogers, another rolling advocate, echoes Steven's sentiments. "At Wykagyl," he says, "we topdress not only for improved playability, but also as a necessity to keep our low-lying wet fairways in play."

Survey Respondents

Brian Benedict, *The Seawane Club* Ken Benoit, *GlenArbor GC* Peter Bly, *Brooklawn CC* John Carlone, *Meadow Brook Club* Jon Ferrucio, *Mahopac Golf & Beach Club*

Steve Finamore, Alpine CC Sean Foley, Round Hill Club Mark Fuller, The Connecticut GC Tim Garceau, Haworth CC Blake Halderman, Brae Burn CC David Kerr, Ridgewood CC Tom Leahy, Sleepy Hollow CC Ken Lochridge, Glen Head CC David McCaffrey, Metropolis CC Steven McGlone, Siwanoy CC Bob Nielsen, Bedford Golf & Tennis Scott Niven, The Stanwich Club Tim O'Neill, CC of Darien Larry Pakkala, Silvermine GC Jim Pavonetti, Fairview CC Dan Rogers, Wykagyl CC Todd Raisch, Ridgewood CC Bill Salinetti, National Golf Links of America

Steve Turchick, *Somers Point CC* Steve Wickstrom, *Burning Tree CC* Ken Benoit also sees the benefit of both topdressing and rolling fairways. "I have been topdressing one of my fairways for five years now, and it has gone from an agronomic challenge to an agronomic dream," he says.

Before Ken began topdressing this fairway, the soils were poor. He attacked the problem by aerifying with 5/8" hollow tines, distributing the topdressing on top of the plugs, and then dragging it in.

"I was hoping to mix the old soil with the new sand to help avoid a bridge, and it worked," says Ken. "Now, after having put 60 tons of sand per acre every year for five years, the soils are spectacular. I don't think there's any question about the high value of topdressing fairways under certain circumstances."

Tim O'Neill has been topdressing fairways at the Country Club of Darien for about six years. "The twice-a-year heavy applications have helped smooth fairways and reduce low areas that tend to hold water after rain events," says Tim, adding, "Though fairway topdressing requires a

Pictorial View of 25 Survey Respondents

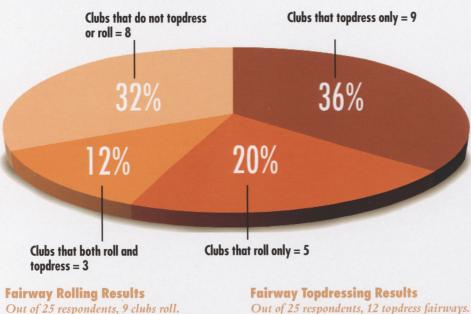
long-term commitment, over time it does increase turf quality by improving soil drainage."

Final Analysis

If you compare the two practices, you'll find a number of overlapping benefits; although some are yet to be proven by scientific research. Clearly, by initiating both topdressing and rolling programs on your fairways, you will realize the greatest agronomic benefits and improvements in playability.

If budget and resources limit you to only one of the two fairway grooming practices, your choice will, no doubt, have to be guided by the turf issues you are most interested in resolving. On putting greens, nearly all golf courses do both topdressing and rolling. Will that be the future of fairway turf? Only time will tell!

Scott Niven, a member of the Tee to Green *Editorial Committee, is property manager of The Stanwich Club in Greenwich, CT.*



How many times do you roll per week? Average = 3 Range = 1 - 4

How many man-hours does it take per roll? Average = 5 Range = 3.5 - 6

How many rollers do you own? 1-2 (All clubs with Salsco Tranz-Formers have only 1 unit.)

What type of grass do you have? Bentgrass ~ 3 Poa/Bent/Mix ~ 6 How many times do you topdress per year? 6 times = 3 3 times or less = 9 (5 of the 9 clubs topdress 2 times per year.) How long have you been topdressing? Average = 10 yrs. Range = 3 - 20 yrs. What is the total depth of sand built up? Average = 2" Range = .25" - 4"

Does topdressing increase bounce and roll? All respondents said yes.

How much do you spend on topdressing? Average = \$27,000 Range = \$10,000 - \$50,000

Member News

Members on the Move

• **Rob Capecelatro** is the new superintendent at The Golf Club at Mansion Ridge in Monroe, NY. Previous position: Assistant superintendent at The Stanwich Club in Greenwich, CT.

• Nicholas DeBellis is the new superintendent at Doral Arrowwood in Rye Brook, NY. Previous position: Assistant superintendent at Bonnie Briar Country Club in Larchmont, NY.

• **Pat Hagan** is the new superintendent at Waccabuc Country Club in Waccabuc, NY. Previous position: Assistant superintendent at Waccabuc Country Club.

• **Tyler Otero** is a new sales representative at Harrell's in Danbury, CT. Previous position: Superintendent at North Jersey Country Club in Wayne, NJ.

In Sympathy

Our condolences to **Mike McCall** and his family on the loss of his mother, Drulain "Dudy" McCall, on July 22 at age 80. A long-time resident of Greentree, PA, Dudy was a loving wife, mother, grandmother, and cat lover who spent her working career with the U.S. Steel Workers of America. She is survived by her husband of 59 years, Jack McCall; Mike and his brother Matthew, and granddaughters Madeleine Jane and Sarah Ann McCall. Our deepest sympathy to Mike and his entire family.

It is with great sorrow that we announce the passing of **Tim McAvoy, CGCS,** on August 17. He was 64. A Class AS member since 1989, Tim was superintendent of Fox Hollow Golf Club in Branchburg, NJ, for the past 37 years. A Scranton, PA, native, Tim received his turfgrass management degree from Penn State University in 1980 and later completed the coursework required to earn his CGCS status from GCSAA. We would like to extend our sincere condolences to Tim's family. Donations may be made in Tim's memory to St. Jude Children's Research Hospital at www.stjude.org.

Scorecard

Brae Burn Shines for Invitational

by Steve Loughran

his year's Invitational Tournament was hosted by Brae Burn Country Club and Superintendent Blake Halderman on June 11. From the moment the day began, everyone at Brae Burn went out of their way to make this an all-star event and day to remember.

Blake and his staff had the golf course in ideal tournament condition, and the attention to detail, from the clubhouse grounds to the 18th green, was impeccable. He was even able to dial up some picture-perfect weather for the day. Thank you, Blake, for all the hard work leading up to this event!

Steven McGlone and his team from Siwanoy were very close to defending last year's title, but with a sizzling 59 posted by Matt Neus and the team from Knollwood, they were able to take home the hardware. Congratulations to one and all!

Thank you to all our affiliate sponsors who helped round out the field. The head professional, Nick Yaun, and his staff ran a great event.



Important Two-Ball Match Reminder!

Two-Ball contestants are entering the Final Four: Semis Round, which should be wrapped up by September 8. The Final Round should be completed by October 6. Be sure to check the spreadsheet bracket on the website, www.metgcsa.org, for the most up-to-date results.

AND AN IMPORTANT REMINDER! Remember to share photos of your matches, along with your stories and results to Steve Loughran. Your tales will be told in an upcoming issue of *Tee to Green*! Good luck to our remaining teams coming down the backside of the brackets!

Here are the day's top winners:

Low Net Team Winners

- 59 Knollwood Country Club Matt Neus, Rob Armino, Brian Howley, Nick Greto
- 61 Trump National Golf Club ~ Westchester Dan Coughlin, Chris Marinaro, Greg Moss, Anthony Domino

First Place Gross Team Winners

67 Siwanoy Country Club Steven McGlone, Pat O'Brien, James Steube, Grant Turner

Closest to the Pin

#5	Jim Devaney, Superintendent/	8'5'
	Vendor, Grass Roots	
#11	Brian Howely, Club Official	3

- #11 Brian Howely, Club Official*Knollwood CC*#16 Tim Edwards, All Players
- #16 Tim Edwards, All Players 4'3" Shorehaven CC

Longest Drive

- #9 Dan Coughlin, Superintendent/Vendor Trump National ~ Westchester
- #9 Chris Marinaro, Golf Professional Trump National ~ Westchester
- #9 Eric Hanson, Club Official Rock Ridge CC

Steve Loughran is Tournament Committee chair and director of facilities at Rock Ridge Country Club in Newtown, CT.

Knollwood Superintendent Matt Neus proudly displays the trophy he and teammates (left to right) Brian Howley, Robert Arminio, and Nick Greto claimed at this year's Invitational Tournament.

8

Summer Searchions

Summer Picnic

Met families, assistants, superintendents, and vendors—young and old—enjoyed a great time at the annual MetGCSA Summer Picnic, held July 18 at the Bedford Village Memorial Park in Bedford, NY. Complete with the customary barbecue, rides, and fun and games, the picnic offered a welcome break from daily routines and a much-needed opportunity to catch up with friends and colleagues during a particularly challenging season! If you weren't able to make it this year, be sure to carve out time next summer. You won't regret it!

Summer Social

On Monday, July 9, the annual Met Summer Social made a return trip to the Orienta Beach Club in Mamaroneck, NY. This "shore" club offered the perfect venue for supers, assistants, and their significant others looking for a midsummer break from the grind of the season! The weather was perfect—and the waterfront buffet was, as always, superb. If you missed this year's event, be sure to join us next year for one of the highlights of the Met social calendar.

Spotlight

Preakness Hills to Host Annual 'Battle of the Bridges'

by Jim Pavonetti, CGCS

n October 30, Preakness Hills Country Club will host the 2018 Assistants Championship, now an annual opportunity for assistant superintendents from around the area to enjoy a day of golf and the camaraderie of peers after a long and challenging season.

Better known as the Battle of the Bridges, this low-gross, team event pits MetGCSA assistants against GCSA New Jersey assistants in an all-out battle on the links. This will mark the third year that this joint event will take place, with this year's tournament a highly competitive rubber-match. Met assistants won the championship the first year in 2016, and New Jersey took home the trophy last year.

Assistant hosts Tony Espe and Miguel Ortega, along with Director of Golf Course Management John O'Keefe, couldn't be more pleased to provide area assistants with the playing field for what promises to be a friendly, but heated, battle. John has been the superintendent of Preakness Hills since 1986, and while he is delighted to have this great assistant's event coming to his home course, it also couldn't be more appropriate. John, after all, was not only a past-president of the MetGCSA, but also of the GCSA of New Jersey!

What to Expect on the Links

Before contestants come out with their clubs swinging, here's some of what you need to know about the playing field.

The course is set on moderately hilly terrain with tight, tree-lined fairways. Water comes into play on seven holes. Greens are on the large side and individually shaped; many pitch from back to front.

The course is best known for its par threes. Six is the centerpiece, extremely narrow, 224 yards long, with a row of tall trees overhanging the right side, out-ofbounds and a creek bed in their shadows. The putting surface is punctuated by a "burial mound" center rear.

The club's signature hole, number 18, is a par three. It plays across a pond to a twotiered, back-to-front sloped green, with one bunker on the left side and a horseshoe bunker extending from the back to the right Hosting this year's Assistants Championship are Assistant Superintendents Tony Espe (left) and Miguel Ortega (right) and Director of Golf Course Management John O'Keefe.

side. The putting surface is set in a natural amphitheater in front of the clubhouse.

Built originally by golf course architect William Henry "Willie" Tucker, the Preakness Hills course was open to play in 1929. It changed little until the 1950s when the nines were reversed and tees extended to lengthen the course.

Throughout the 1970s and '80s, the face of the golf course began to change with the work of architects Geoffrey Cornish and Brian Silva. In an extensive refurbishing program, the club renovated many of the greens and bunkers.

From 2005 to 2006, the golf course underwent a rebirth of sorts. With the expertise of golf course architect Ron Forse, a complete restoration of its original design was achieved.

Recently, Preakness Hills lengthened the course, and it now plays from the back tees at just under 6,800 yards, carrying a slope of 134. It won't be the length of the course, however, that will challenge you, but rather the demand for accuracy on all strokes. The greens have subtle breaks that often aren't obvious to most golfers, so those who are familiar with the lay of the links will clearly have a leg up in scoring low during the competition.

Tony and Miguel are looking forward to showcasing the course and its fine restoration.

About Tony Espe

Tony Espe is Preakness Hills' senior assistant superintendent and has been working with John since 2011. Tony grew up in Urbandale, IA, a suburb of Des Moines, where he began his journey into the world of golf at the unusually young age of 6.

"My parents joined the Urbandale Golf & Country Club, a private club with a nine-

hole course just four miles from our house," says Tony. "I was just 6 and I'd go out with my Dad and play at least three times a week.

"By the time I was in middle school and high school, our level of play reached five or six times a week. I loved the time I got to spend with him on the course."

By the time Tony graduated high school, there were two things he knew for sure: "I loved the game of golf and the challenge of producing a high-quality playing surface. And I could never see myself in a career that involved working only inside."

It's no surprise, then, that Tony set his sights on a career in turfgrass management. Tony completed a B.S. in Horticulture at Iowa State University in 2001 and landed a job at Cannon Ridge Golf Club in Fredericksburg, VA. Over the course of his eightyear tenure at the club, he made an impressive and rapid climb up the career ladder from spray tech to assistant and, last but not least, to superintendent after only three seasons at the club.

But in 2008, Tony was willing to trade in his superintendent title for a first assistant's position at TPC Jasna Polana, where he was enticed by the opportunity to become involved in a complete bunker restoration, among other improvement projects.

Not letting any grass grow under his feet, Tony left TPC in 2011 to accept his current position with John O'Keefe at Preakness. Tony happened to sign on in time to put his management skills to work in covering for John on the many occasions he was traveling and tending to his various roles on the GCSAA Board of Directors—from director on up through president and past-president. Despite the added responsibility Tony shouldered in John's absence, he has nothing but high praise for John and the job: "Working with John has been one of the best experiences of my life," says Tony. "I've learned so much, and that learning was, no doubt, accelerated by my having to assume added responsibilities when John was involved with GCSAA.

"There were several years," adds Tony, "that John had to travel more than 100 days, and I would run the show in his absence. He has great confidence in my ability to do the job, and that is a great feeling," says Tony.

In his downtime, of which there is little this season, Tony enjoys spending time with his wife of nine years, Erica, and their two children, SJ, who is 6 years old, and Emma, who is 4. Tony's years in Fredericksburg did more than just allow him to grow professionally; they offered him the opportunity to meet Erica.

Tony's other pastimes include camping, fishing, and just about any sport you can think of, winter or summer. "I had to put most of my favorite activities on hold while the kids were younger," says Tony. "But now they're getting to an age where I can get them involved in the types of activities I enjoyed as a kid."

Tony's newest hobby is one the entire family can partake in: cooking. "I do most of the cooking and enjoy finding new foods that we all can enjoy. (My wife might say differently, LOL.)"

About Miguel Ortega

Miguel Ortega was born in Lompoc, CA, and raised by a single mother until 8, when his mom married a career military man with the Marine Corps. Miguel's world suddenly expanded, as his stepfather's line of work took them all over the U.S. and as far as Korea and Japan.

Though his home base changed often, one thing didn't: his passion for lawn and landscaping work, which he began doing for neighbors from the time he was 11 years old. When asked what drove him to a golf turf management career, he said, "I have always enjoyed and had a talent for landscape work, partly because I'm such a perfectionist when it comes to managing any kind of turf."

"In 2006, I was lucky enough to find a job advertised in the newspaper at Castle Pines Golf Club in Castle Rock, CO. I fell in love with the job."

Looking to pursue golf course management as a career, he accepted an internship at La Paloma Country Club in Tuscon, AZ. When the internship was over, he returned to Colorado, accepting an equipment operator's position at The Ridge at Castle Pines.

While at The Ridge at Castle Pines, at the "young" age of 30, the club's superintendent at the time, David Soltvedt, encouraged Miguel to attend the Rutgers program to broaden his horizons and advance his career path toward one day becoming a superintendent. "It was the best decision that I have ever made, career-wise," says Miguel.

In 2014, a position as second assistant at Navesink Country Club in Middletown, NJ, drew him to the East Coast. Soon after, in 2016, Miguel signed on at Preakness Hills.

Though Miguel's responsibilities have included those typical of most assistant superintendents—daily course setup, chemical and fertilizer applications, irrigation management—his proficiency in Spanish added a new dimension, and level of satisfaction, to his job: "As the only Spanishspeaking manager, I interact with the crew daily, whether it be about pay, job assignments, sick days, or any other complaints or questions the crew may have."

While speaking about his responsibilities, Miguel couldn't help but credit John for a good part of his job satisfaction: "John is a great superintendent. He gives Tony and me the freedom to make decisions on our own, and he welcomes our suggestions on anything and everything involving the course.

"Teamwork is an important part of the job here," notes Miguel. "We all have different personalities and strengths, and John knows how to make the best use of each of our talents. As a result, he's got our entire staff running pretty darn smoothly."

In his free time, Miguel enjoys, first and foremost, spending time with his kids. He is a single father of two: a daughter named Brooklynn, who's 15, and a 13-year-old son named Angell. He is dating an amazing woman, Jaime, who has added three sons to the mix: Antonio, Alex, and Adrian.

Miguel is a diehard Raiders fan, so during football season, you know how the family's Sundays are spent! He also enjoys skiing in the off-season and, when time permits, working on his Dodge Charger.

Come, All Ye Assistants!

Preakness Hills is a true test for players of all abilities. Their facilities include, of course, an expertly maintained championship 18hole golf course, short-game practice area, putting green, chipping green, and driving range.

While Preakness Hills has always been regarded as one of the most beautifully maintained courses in their area, the newly restored course is one that everyone will want to see and experience. So assistants! Make sure you bring your "A" game to Preakness Hills on October 30 and bring back the trophy to the eastside of the Hudson!

Jim Pavonetti, editor of the Tee to Green, is superintendent of Fairview Country Club in Greenwich, CT.

The Super Behind the Assistants Championship

ohn O'Keefe, Preakness Hills' director of golf course management for the past 30-plus years, was quick to agree to host this year's annual Assistants Championship. "I'm a big believer in giving back," says John. "Hosting this event was the least I could do for the assistant superintendents who offer us such invaluable support throughout the year."

John grew up in the Berkshires in Lenox, MA, where he first gained the appreciation for the outdoors and nature that led him to a career in golf course management.

While in high school, John worked for a landscape company and then after graduating accepted a position as property manager for a luxury condo complex, which boasted many of the amenities of a golf club, including a 15,000-square-foot putting green.

On his way to work, John would pass and admire—Pittsfield Country Club. "A golfer, myself," says John, "I was always impressed by the beauty of golf courses and all that went into maintaining them."

Finally, after three years at the condo complex, John decided to stop just admiring golf courses and actually pursue the formal training required to launch a career in turfgrass management.

Entre Into Turfgrass Management

At 21, John enrolled in the UMass Stockbridge School of Agriculture and launched his career with an internship with Mark Fuller, who at the time, was superintendent of the Longshore Club Park in Westport, CT. Mark thought so highly of John's work that he offered him the position of assistant superintendent when he graduated in 1979.

In 1981, John landed his first superintendent's job at Westchester Hills Country Club in White Plains, NY.

During that first year at Westchester Hills, John joined the MetGCSA, marking the start of a long line of volunteer work for local chapters, industry organizations, and finally, the national.

John was elected to the MetGCSA board in 1985 and worked his way through the board chairs, serving as association president 1996-'97. When John talks about his time on the Met board, he can't say enough about the close friendships he developed and the respect he had for his peers and fellow board members.

After five years at Westchester Hills, John accepted the superintendent's position at Preakness Hills where he has been ever since. "I want to thank the members of Preakness Hills for their support and understanding," says John, adding, "They have not only supported me in my service efforts, but they have also appreciated the pride and distinction it has brought to the club."

Giving Back

John's noteworthy service to the industry extends well beyond the Met. He's also been actively involved in the GCSA of New Jersey, a member of the association since 1986 and its president in 2003 and 2004. A true believer in giving back to the profession, John has also served as president of the Tri-State Research Foundation, guest lectured at Rutgers University, and served on numerous local and regional pesticide counsels.

For his above-and-beyond contributions to the profession and industry, the MetGCSA recognized John with its coveted Sherwood A. Moore Award in 2008. This was also the year he decided to pursue a position on the GCSAA Board of Directors.

We all know how that turned out. John became not only a director, but also rose through the GCSAA chairs to serve as president in 2015.

Beyond Industry Commitments

Despite his many commitments outside the job, John always managed time for family. John married his wife, Margaret, almost 40 years ago when he was working at Longshore. The two completed their family with two daughters, Adrienne and Maureen, during John's term at Westchester Hills.

Adrienne now lives in Morristown, NJ, with her husband, Dale, and Maureen and her husband, Tom, live in Branchburg, NJ, with their two sons, JT, who is 4, and Luke, who is 18 months. Maureen, like her parents, is involved in the world of golf, having been named the executive director of the GCSANJ this past February.

"I couldn't be more pleased to welcome Met-area assistant superintendents to Preakness Hills for some much-needed time away from the daily grind and some friendly competition and camaraderie," says John. "It's these kinds of events that have offered me the opportunity to build lasting relationships with colleagues—so invaluable in an intense industry like ours."

Upcoming Events

Upcoming Events for the Fall and Beyond

Nine & Dine Event

Tuesday, September 25 Rock Ridge Country Club, Newtown, CT Host: Steve Loughran

The Poa/Met Championship/Met Team Qualifier

Tuesday, October 9 Old Oaks Country Club, Purchase, NY Host: Jason Anderson

Met Area Team Championship

Tuesday, October 22 Hamilton Farm Golf Club Gladstone, NJ Host: Jason Harrison

Regional Events

2018 GREEN EXPO Conference and Trade Show

Tuesday – Thursday, December 4 – 6 The Borgata Hotel, Atlantic City, NJ

The New Jersey Green Expo offers a comprehensive educational program providing cutting-edge applications and tactics to guarantee green industry professionals' success on the job.

For further information, call 973-812-6467 or visit www.njturfgrass.org.

Long Island Regional Conference

Thursday, December 6

Radisson Hotel Hauppauge-Long Island Hauppauge, NY

The Long Island Regional Conference offers a variety of educational sessions with leading turfgrass educators and industry professionals. For further information, visit www.nysta.org or contact the NYSTA office at 518-783-1229.

Assistants Championship

Tuesday, October 30 Preakness Hills Country Club, Wayne, NJ Assistant Hosts: Tony Espe, Miguel Ortega Superintendent: John O'Keefe, CGCS

Annual Meeting

November Date and Place TBA

MetGCSA/CAGCS Fall Seminar

Thursday, November 8 The Patterson Club, Fairfield, CT Host: Jason Meersman

MetGCSA Winter Seminar

Wednesday, January 16, 2019 Westchester Country Club, Rye, NY Host: David Dudones

2019 Turfgrass Advocacy Day – NYSTA'S Lobby Day

Wednesday, February 13 Empire State Plaza Albany, NY

NYSTA welcomes all green industry professionals to attend this event. The Turfgrass Advocacy Day offers the opportunity to attend a priority issue briefing session on current legislation that could affect the turfgrass and green industry, as well as a chance to meet with your local elected officials and later discuss issues over lunch with a government official.

For further information, contact the NYSTA office at 518-783-1229 or visit www.nysta.org.

atron Directory

Patrons listed on this page are supporting our association. You are encouraged to support them.

A.G. Enterprises

Rick Gordon ~ Staff Uniforms 201-488-1276 / Fax: 201-489-5830 merrick160@gmail.com www.AGEnterprisesonline.com

0 All Pro Horticulture, Inc. 80 East Gates Avenue Lindenhurst, NY 11757 John Seib: 631-789-6680 Fax: 631-789-5711 john@allprohort.com

> Aquatrols Corp. of America "The World Leader in Soil Surfactants & Wetting Agents" 1273 Imperial Way Paulsboro, NJ 08066 Tom Valentine: 610-299-4470 tvalentine@aquatrols.com

0 Atlantic Golf & Turf 9 Industrial Boulevard Turner Falls, MA 01376 John Garcia: 203-996-6267 john@atlanticgolfturf.com

BASF Corporation "Professional & Specialty Solutions" Paul Ramina: 908-413-2944 paul.ramina@basf.com

0 Bayer U.S. "Backed by Bayer" Dave Sylvester: 860-841-3173

0 Blue Ridge Peat Farms 133 Peat Moss Road White Haven, PA 18661 Gene Evans / Chuck Evans 570-443-9596 / 570-947-5888

0

Carriere Materials, LLC U.S. Silica Topdressing & Bunker Sand, VFB Bunker Sand & Partac Topdressing Bill Carriere: 914-939-4884 bc1000@verizon.net

Club Car CT / Metropolitan NY 72 Grays Bridge Road Brookfield, CT 06804 Paul Schwab: 203-943-6898 Ofc: 203-740-1458 Paul_Schwab@clubcar.com

Cushman ~ E-Z-GO Nick Roberto: 845-637-7641 Reed Williams: 516–662–3554 Chris Larizza: 203–605–0554

DeLea Sod Farms Turf, Topdressing & Root Zone Scott Geiser: 631-484-1211 sgeiser@deleasod.com Dylan Wyatt: 631-796-6757 dwatt@deleasod.com

C Emerald Tree & Shrub Care Co. 146 Summerfield Street Scarsdale, NY 10583 Steve Farrelly: 914-725-0441 Kevin Wyatt: 203-422-2441 William Demarest: 914-725-0441

Evergreen Organic Recycling 1160 Mamaroneck Avenue White Plains, NY 10605 James Amodio / Raymond Colasacco 914-949-9030 Ray@EvergreenOrganicRecycling.com

Executive Turf / Synergy Turf & Pocono Turf Supply "Micro Carbon Technology" Ken Gentile: 203-496-0891 executiveturfproducts@gmail.com humagroturf.com

S Finch Services Inc. 522 Edwards Avenue Calverton, NY 11933 George Corgan: 914-893-0868 Ofc: 631-727-8700 gcorgan@finchinc.com / www.Finchinc.com

Fisher and Son Company "Green Industry Professionals Since 1928" Mike Weber: 347-486-0480 mweber@fisherandson.com

Grass Roots Turf Products, Inc. 'Serving Turfgrass Professionals Since 1978" 😒 Ryan Avery / Keith Kubik / Nick Alley Ofc: 973-252-6634 www.GRIturf.com / sales@GRIturf.com

Greenacres Company "Irrigation Contractor" Dave Pijnenburg: 203-948-5103 Dave@greenacrescompany.com

GreenSight Agronomics "Automated Daily Drone Mapping of Stress & Moisture Matthew Lapinski / Justin McClellan sale@greensightag.com

Growth Products, LTD Fertilizers, Organics, & Fungicide Products

80 Lafayette Avenue White Plains, NY 10603 Howie Gold: 917-559-4425 Ofc: 800-648-7626 hgold@growthproducts.com

Harrell's "Growing a Better World. Partners for Success Scott Tretera: 914-262-8638 stretera@harrells.com Fred Montgomery: 518-813-7814 fmontgomery@harrells.com

Helena Chemical

"People, Products, Knowledge" Tim Gerzabek: 609-221-9240 Sean Kennedy: 802-558-4009

LaBar Golf Renovations 170 Mount Airy Road, Suite A1

Basking Ridge, NJ 07920 Rich LaBar: 908-502-5253 rich@labargolf.com Mark Eliot Design

Mark Sosnowitz, ASLA, LLC 914-318-4476 msosnowitz@aol.com

Metro Turf Specialists "Customers, Our TOP Priority" Scott / Matt / Jake / Rich / Todd 203-748-GOLF (4653) www.metroturfspecialists.com

MTE Turf Equipment Solutions, Inc. 3 The Cardinals, Inc. 115 Franklin Street Ext., Derry, NH 03038 Ben Mancuso Ofc: 585-356-2770 bmancuso@mte.us.com

0 Noble Turf Brian Bontemps: 845-239-7959 Brian Gjelsvik: 973-670-7139 Zach Brooks: 914-309-2373 Bill Cimochowski: 609-923-4045

Northwestern Mutual Joseph A. Small: 845-224-0015 Joshua Weinerman: 845-224-0027 Justin Copeland: 845-224-0017 Kristine K Bargo: 845-224-0004 Stephen Henry Lynch: 845-224-0005 Ashley Smith: 845-224-0002 joe.small@nm.com

NuFarm Americas, Inc. "Helping the World to Grow a Better Tomorrow Jim Santoro: 518-207-2094 jim.santoro@nufarm.com

Palisades Fuel, Inc. "Gasoline ~ Diesel ~ Heating Oil" Frank Muggeo: 914-945-0645 fmuggeo@palisadesfuel.com

Pinnacle Turf, Inc. 40 Skyview Lane New Rochelle, NY 10804 Steven Renzetti, CGCS 914-384-9227 srenzetti@verizon.net www.Pinnacleturf.net

Plant Food Company, Inc. The Liquid Fertilizer Experts" Tom Weinert: 914-262-0111 Dick Neufeld: 973-945-6318 Tom Pepe: 609-751-1372 David Conrad: 914-263-3244

•

0

Playbooks for Golf Mobile Coverage System, Conditions App, Golf Course Field Guides, ezPins, Consulting, Career Development, Professional Search Services Greg Wojick: 203-219-0254 Matt Leverich: 913-221-8052 www.goplaybooks.com

SiteOne Landscape Supply "Stronger Together" Chad Mathieu: 914-539-5675 cmathieu@siteone.com

Soil Solutions, LLC Drill & Fill / Aerification Professionals Anthony Decicco / John Decicco 7 Whittemore Place, Ryebrook, NY 10573 914-393-0659 soilsolutionsllc369@gmail.com

Sygenta "Manufacturer of Plant Protection Products' John Bresnahan: 413-333-9914 John.bresnahan@syngenta.com

Tanto Irrigation, LLC "Golf Course Irrigation Specialists" Steve Kubicki / Paul Guillaro info@tantoirrigation.com

Complete Distributor of Golf Course Accessories & Turf Maintenance Supplies John Callahan: 860-673-3699 Fax: 860-673-8443 jcalcardinal@aol.com

The Care of Trees Mike Cook: 914-345-8733 Jeremiah Green: 914-241-8110 Ken Clear: 203-863-0900 Greg Gutter: 914-241-8110

O Tom Irwin Inc. "With Tom Irwin, You're Not Alone" 13 A Street, Burlington, MA 01803 Jeff Houde: 203-731-1776 800-582-5959 jeff@tomirwin.com

Turf Products LLC ~ TORO Irrigation & Equipment "Servicing Our Customers Since 1970' Pat Cragin: 860-874-2812 Bill Conley: 860-360-0503 Shawn Donovan: 203-910-9114 Peter Hull: 860-305-2525 Jim Staszowski: 413-237-1467

Valley Green, Inc. 0 "Serving the Industry since 1990" 205 Wilson Avenue Norwalk, CT 06854 Greg Moran: 845-901-1358 Ofc: 203-831-9748 g.moran@valleygreenusa.com

✤ Westchester Tractor, Inc. 60 International Boulevard Brewster, NY 10509 John Apple: 845-278-7766 www.wtractor.com

Westchester Turf Supply, Inc. "Proudly Serving the MetGCSA Since 1976" Bob Lippman: 914-447-6257 Dave Lippman: 914-447-5192 info@westchesterturf.com

0 Wickes Arborists 11 McNamara Road Spring Valley, NY 10977 John Wickes: 914-906-3264 Ofc: 845-354-3400 Fax: 845-254-3475 john@irawickes.com

Wilfred MacDonald, Inc. "Turf Equipment Specialists" Glenn Gallion Ofc: 888-831-0891 Fax: 973-487-1333 Sales@wilfredmacdonald.com

Winfield Solutions, Inc. 'Service, Solutions, Insight" Rob Saunders: 203-249-5059 Jim Masone: 516-818-9852 www.winfieldpro.com

W & B Golf Carts / Yamaha 3391 Route 9, Hudson, NY 12534 Jason Hommel / Michael Behan Ofc: 518-851-2266 pgagolfcar@gmail.com

