



Overseeders



Precision Seeding Technology



Ground Quake Sand Injector



RotaDairon™ Soil Renovator



Turf Surgeon Verticuts and Collects



Trenchers



Vacuums



Topdressers and Spreaders



Verticutters

Welcome to our Newest Dealers!

- » A-OK Turf Equipment, Coventry RI
- » Bonneville County Implement, Idaho Falls ID
- » Commercial Turf and Tractor, Chillicothe MO
- » Show Turf, Boynton Beach FL
- » Turf and Industrial, Santa Clara CA
- » G.C. Duke, Ontario Canada
- » Storr Tractor, New Jersey & Long Island



864.225.3666
www.stecelequipment.com

Celebrating 20 Years of Affordable and Effective
Plant Nutrient Technology and Innovation



A COMPLETE AND ADVANCED LINE
OF FOLIAR FERTILIZERS CONTAINING

cytogro® SEAWEED-DERIVED
HORMONE ROOT
BIOSTIMULANT
EPA REGISTERED

FOR
SUPERIOR RESULTS THROUGH SCIENCE

Call Toll Free 352-390-6502 or visit
bioprotechnologiesllc.com

CONSTRUCTION



In this photo, green sod has been removed.

Every superintendent knows that deep-tine aeration can remediate drainage issues somewhat by breaking through layering problems, giving water and air an avenue to penetrate the rootzone. But this can often take years to make modest gains, and golfers will quickly tire of the continual punching of deep holes in their greens.

Really poor percolation caused by heavy soil profiles often requires a more radical step: We've recommended "slit draining" to many supers struggling with excess saturation, and we've been very impressed with the results.

There are several vendors who specialize in this sort of service, but here's the basic premise: First, the green sod is removed in 5-inch to 7-inch widths at about 6 to 8-foot intervals in a modified herringbone design. The sod is set aside in the order it is removed, so that it goes back in exactly the same spots (to avoid mixing up color patterns... usually of *Poa annua*). Then a 16-inch-deep drainage trench is cut into the stripped areas, a 2-inch drainage tile system is placed in the bottom of the trenches, and they are refilled with a heavy mix of sand, soil and peat such as a 6:3:1 – heavy enough to retain moisture so the drainage lines don't show up during dry times. The sod is then re-laid.

Golfers are usually back on these greens shortly after completion, and I can't think of an example where this didn't radically improve drainage. Think about it: You're not just creating a new drainage profile – you're actually adding a drainage system inside the green, and you're not rebuilding. It's rather brilliant, really.

TURF TURNOVER. Sometimes the problem isn't the drainage capability but the turf itself. It's either outdated or *Poa* infested and beyond repair. We're planning a greens re-grassing project this summer at a private course in Indiana where the superintendent told me he had finally had enough. He just didn't think his old *Poa* greens could compete anymore with the

SUPERthrive®
1940 WORLD'S FAIR
Gold Medal
The Original Vitamin Solution



Apply **SUPERthrive**®
on Mondays to revive
weekend-stressed turf

Free Trial Available at
www.SUPERthrive.com

Vitamin Institute® - 12610 Saticoy St. South, N. Hollywood, CA 91605

It's all teed up and ready to go.



INTRODUCING CIVITAS ONE

AN EASIER WAY

TO TRY CIVITAS

CIVITAS
PAR 3
GUARANTEE

Try CIVITAS
with a No-Risk,
Money-Back
Guarantee.†

† Conditions apply. Visit
civitasturf.com/par3guarantee
for program details.

All the benefits of CIVITAS in an easy-to-use, pre-mixed formulation.*

Now it's even easier to empower turf to reach its full potential. CIVITAS ONE provides **effective disease control** and insect suppression, while helping to **maximize turf quality**, wear resistance and appearance. Plus, it **enhances plant efficiencies** meaning less inputs are required to achieve picture perfect turf. CIVITAS ONE is the **Total Turf Health Solution**.

For all of this and more visit civitasturf.com

™ Trademark of Suncor Energy Inc. Used under licence.

* Shake well before using.

new courses in town that were maintaining A1 and A4 bentgrass putting surfaces. He's been pushing them hard for years to provide the performance his members expect, often edging on the brink of disaster. With the extremes in weather that seem to be the norm these days, he's finally convinced the club to invest in a re-grassing program, which they've embraced as a very worthy insurance policy.

As a firm, we have overseen the re-grassing of greens at dozens of golf courses across the upper Midwest, with nary a dissatisfied client. It's hard to argue the value of the new bents on the market these days and the benefits they provide in terms of drought and disease control, not to mention playing performance.

Of course, the re-grassing process is not all grins and giggles. While the actual expense



JRM Inc.
Innovative Turf Technology

Made in America for America
"Quality Matters"

NEW PRODUCT
"The Vulcan"
Fits Anglemaster, Foley,
Peerless and Neary



Tines • Bedknives • Blades
Blocks • Bedknife Grinding Wheels

JRM Inc. • Clemmons, NC
(888) 576-7007
www.jrmonline.com

of re-grassing is reasonable (roughly \$5,000 to \$6,000 per green), it's the downtime that makes clubs hesitate. But it pales in comparison to rebuilding those greens (and re-grassing them) or doing nothing as the old greens eat away at your budget, your nerves, and the patience of golfers.

One last note on re-grassing: we often recommend a slit-drainage and tree removal regimen in concert with re-grassing, to provide the best possible long-term growing environment. To be honest, I'm not sure which of the two is more important. Drainage and sunlight are always critical, no matter what type of grass you're trying to nurture.

MATERIAL MATTERS. Think back 10 years and consider how certain we all were about the materials you needed to effectively topdress a green. We knew just the type and size of sand to use, because the conventional wisdom (the USGA recommendations) seemed so strong and unimpeachable.

In short, the USGA published a study in their Green Section Record by turf specialist Dr. James Murphy of Rutgers University, who cites example after example where coarse



The stripping of the existing topsoil. Inset: A pile of existing mix salvage to be used later on.

sand shouldn't work but it does, where fine sand doesn't work – in situations where you'd have sworn it would.

The takeaway is this: The sand you deploy in your greens maintenance and/or construction is vital to maintaining good drainage conditions, and identifying that sand depends on half a dozen factors that are particular to your climate, your turf, the soil profile on that particular green, and wet/dry nature of the green's micro-climate. All of these angles should be fully explored and tested with a certified lab before you outline a renovation program of any sort.

Think about it: You're not just creating a new drainage profile – you're actually adding a drainage system inside the green, and you're not rebuilding. **It's rather brilliant, really.**

ALTERNATIVE METHODS. One of the big arguments that we've heard – and even used – in the past for implementing an 18-hole green reconstruction program was consistency. Any superintendent who has maintained a US-GA-profile green side by side with an old push-up green knows that each behaves, maintains and generally performs completely differently. The only way to have consistency, then, is to have all your greens the same.

So what do you do when you have a golf course with 18 push-up greens and only one or two greens are in dire need of renovation – or, more



KPHITE® 7LP

SYSTEMIC FUNGICIDE BACTERICIDE

KPHITE 7LP Systemic Fungicide Bactericide is proven effective against pythium, dollar spot, brown patch and fungal diseases. KPHITE is EPA labeled, pH neutral and is uniquely formulated to increase plant health and vigor.



TO FIND A DISTRIBUTOR
OR LEARN MORE
WWW.PLANTFOODSYSTEMS.COM
800.343.7775



Syngenta Business Institute™

ALUMNI UPDATE

I try to participate in every continuing educational event available to me; the Syngenta Business Institute was by far the best educational event that I have ever participated in. The meeting was knowledgeable and inspiring. The instructors from Wake Forest University at the Graylyn Conference Center were first-class. My favorite part was networking with fellow superintendents.

We learned about financial management, leadership, negotiating and bridging generation gaps. Particularly valuable was the session on the difference between the values of leadership and management. I learned that leadership deals with communication, setting a direction, motivating, and taking risk, while management deals with planning, budgeting, problem solving and reducing risk.

I have incorporated many principles that I have learned at the Syngenta Business Institute at my own course since then. I have used Blanchard's Four Leadership Styles to direct different behaviors of crew members: delegating, supporting, coaching and directing. The results have been good. I recommend this educational opportunity to any superintendent that wants to learn from the best in our industry.



Mike McNamara
Palma Ceia Golf and
Country Club
Tampa, Fla.



Exclusively Sponsored by

To learn more or to apply for the Syngenta Business Institute, visit greencastonline.com/SBI



© 2013 Syngenta. Syngenta Business Institute™ and the Syngenta logo are trademarks of a Syngenta Group Company.

CONSTRUCTION



The re-grassing process is not all grins and giggles. While the cost of re-grassing is reasonable, it's the downtime that makes clubs hesitate.

apropos today, you can only afford to rebuild one or two?

In years past, many superintendents and architects would have chosen to build those two greens with USGA recommended profiles, despite the fact that they were destined to behave, maintain and perform differently from their other 16 – likely for many, many years. Why? Because the USGA-profile was and remains the standard, scientifically proven method, and very few decision-makers were willing to take the agronomic risk of an alternative approach.

Well, we've discovered that there are ways to rebuild greens and achieve consistency with those old push-up models. The method we prefer uses a profile we've dubbed the "modified push-up."

We begin by taking core samples of a few existing greens on the course, which we send to a testing lab for profile analysis. Often that analysis will indicate a layer of sand/organic mix on the upper several inches (from top-dressing accumulation) over some type of silty loam. The lab then gives recommendations for creating a rootzone/layering that closely matches those results.

We always recommend adding a slit-drainage regimen to the green profile to ensure adequate drainage (can't stress enough the importance of drainage)

Architects are a resource just like your fellow superintendents, Green Section agronomists and certain vendors are resources. Put them to work as your brain trust.

WHY IS LYNX® THE EASIEST IRRIGATION CONTROL SYSTEM IN THE INDUSTRY?

Simple. You helped design it. The Toro® Lynx® Control System delivers Precision™ Irrigation easier and more intuitively than ever before. But don't take our word for it. See what superintendents are saying at toro.com/leaderboard.

The Leader in Golf.

Simplified decision making with Dynamic Drilldown.

With NSN Connect, Lynx is with you when and where you want.

Integrated Turf Guard soil sensor helps you save water.



Flexible and editable map simplifies irrigation control.



Lynx® Control System
toro.com/leaderboard

©2013 The Toro Company. All rights reserved.



Count on it.



Boards put down for sod replacement help protect the turf.

and then choose a bentgrass that will perform well under the super's existing cultural practices and performance standards. That may not always mean the latest and greatest bentgrass varieties, though we always strive to maximize disease-resistance and drought tolerance.

While the performance of the modified push-up method has yet to be validated by scientific testing, we are proud to say that it has the endorsement of numerous superintendents in our region. Each reports that their "new" greens perform and maintain almost identically to their old greens. As an added bonus, most were able to save a bit of money on their material budgets.

Of course, pricing will always vary depending on location, availability of material and the results of testing, which will indicate material depths. Indeed, we've got three projects this summer where we'll be deploying this method and each of them is pricing out a bit differently. Even so, we're always glad to share data with anyone who's considering a project or presenting a budget to their decision makers.

Big-picture take-away: I'm not sure any of these alternatives would have been developed in a boom market. I guess we should step back and appreciate the fact that necessity is and always will be the mother of invention. **GCI**

Bob Lohmann is founder, president, and principal architect of Lohmann Golf Designs and a frequent GCI contributor. Check out his blog at lohmanncompanies.blogspot.com



To learn more...

Looking for a golf course architect, or have you lost touch with your course architect? Enter asgca.org/ members into your web browser for a comprehensive list of golf architects working in your region courtesy of the American Society of Golf Course Architects.



It's here!



- NEW Products for 2013
- Underhill Bestselling Products
- Handy 20-page Reference

– GOLF MASTER STOCKING DISTRIBUTORS – NATIONAL CATALOGS



eagleonegolf.com rproducts.com precisionusa.com

LOCAL DISTRIBUTORS



Atlantic Irrigation (CT/DE/NJ/NY/PA/VA) atlanticirrigation.com
 Bisco (MA/CT/NH) gobisco.com
 Colorado Golf & Turf (CO) 303-917-4141
 Jerry Pate (GA/AL/TN/FL) jerry pate.com
 Matrix (NY) matrixturf.com
 Progressive Grower (MA) myturfsupply.com
 Sierra Pacific (No. CA) sierrapacificturf.com
 Smith Turf (VA/NC/SC/TN) smithturf.com
 Spartan (MI) 1-800-822-2216
 Sports Turf (So. CA) sportsturfirrigation.com
 Turf Equipment (DE/MD/PA/VA) turf-equipment.com

Products that work...smart.™ • www.underhill.us



Underhill[®]

PROFESSIONAL WATERING PRODUCTS 2013

When a product does its job day in and day out - **it works.**

When it saves you time, money, or water - **it's smart.**

When it does both - **it's from Underhill.**

Products that work...smart.[™]



Magnum™ UltraMAX



PREMIUM HOSE-END NOZZLES & ACCESSORIES

Step up to the most professional nozzle you can buy - MAGNUM™ UltraMax. Firefighter quality for professionals in any field, these variable flow, multi-function nozzles are virtually indestructible and leak proof. The innovative TURBO SHIFT models provide two distinct GPM ranges. And the outstanding distribution patterns of all MAGNUM UltraMAX nozzles make them excel in high demand areas like greens/tees, infield conditioning and equipment and stadium washdowns.



features / specifications

- Multi-Pattern Spray: Fog, Jet Stream, Fan
- Built for 1" and ¾" Hose Flow Rates (range: 7-43 GPM)
- Materials: Aircraft Aluminum, Stainless Steel, TPR Rubber

FULL THROTTLE

Single Variable Flow: Delivers steady, maximum volume fog, jet stream and fan patterns.

Low Flow (Residential Use) Model:
12-19 GPM (45-72 L/min)

High Flow Model:
15-40 GPM (57-151 L/min)

Super High Flow Model:
39-100 GPM (148-379 L/min)



NEW!

**Super High Flow
UP TO 100 GPM!**

TURBO SHIFT

Dual Variable Flow: Delivers light fog and low volume jet stream patterns before shifting to high volume jet stream and fan patterns.

Low Flow (Residential Use) Model:
Opens with 7-12 GPM (27-45 L/min)
Turbo Shifts to 14-17 GPM (53-64 L/min)

High Flow Model:
Opens with 12-17 GPM (45-64 L/min)
Turbo Shifts to 20-43 GPM (76-163 L/min)

Super High Flow Model:
34-104 GPM (129-394 L/min)



Pistol Grip

Firefighter Grip

UltraMAX Valves

Heavy duty ball valve, push-pull on/off control handle and exceptional build quality for long life under demanding use. Available in Firefighter Grip for two-handed operation or ergonomic Pistol Grip for comfortable, extended use. **Nozzles sold separately.**

ordering

All flow rates based on 80 psi (5,5 bar)

- | | |
|----------------------------------|--|
| Part # NG550-DFH-75 | Turbo Shift 12-43 GPM (45-163 L/min) - ¾" FHT inlet |
| Part # NG550-DFH-10 | Turbo Shift 12-43 GPM (45-163 L/min) - 1" FHT inlet |
| NEW! Part # NG550-DFSH-10 | Turbo Shift 34-104 GPM (129-394 L/min) - 1" FHT inlet |
| Part # NG550-DFL-75 | Turbo Shift 7-17 GPM (27-64 L/min) - ¾" FHT inlet |
| Part # NG550-DFL-10 | Turbo Shift 7-17 GPM (27-64 L/min) - 1" FHT inlet |
| Part # NG500-SFH-75 | Full Throttle 15-40 GPM (57-151 L/min) - ¾" FHT inlet |
| Part # NG500-SFH-10 | Full Throttle 15-40 GPM (57-151 L/min) - 1" FHT inlet |
| Part # NG500-SFL-75 | Full Throttle 12-19 GPM (45-72 L/min) - ¾" FHT inlet |
| Part # NG500-SFL-10 | Full Throttle 12-19 GPM (45-72 L/min) - 1" FHT inlet |
| NEW! Part # NG500-SFSH-10 | Full Throttle 39-100 GPM (148-379 L/min) - 1" FHT inlet |
| Part # SVPG-75 | Pistol Grip Valve - ¾" FHT inlet |
| Part # SVPG-10 | Pistol Grip Valve - 1" FHT inlet |
| Part # SV-75 | Firefighter Grip Valve - ¾" FHT inlet |
| Part # SV-10 | Firefighter Grip Valve - 1" FHT inlet |