

**One nozzle for all
your wildest dreams.**



©2003 The Toro Company



Introducing the Toro® 570 Variable Arc Nozzle. There's nothing quite like seeing your vision become reality. And to make sure you get exactly the right arc to match your terrain, use the Toro VAN. It's easily adjustable from 0° to 360°, comes in 5 sizes and fits every sprinkler body in the reliable 570Z Series. To help your dreams come to life, specify the Toro VAN. For more information, contact your Toro distributor or visit us at toro.com.

Circle 159 on card or www.oners.ims.ca/2906-159

TORO.

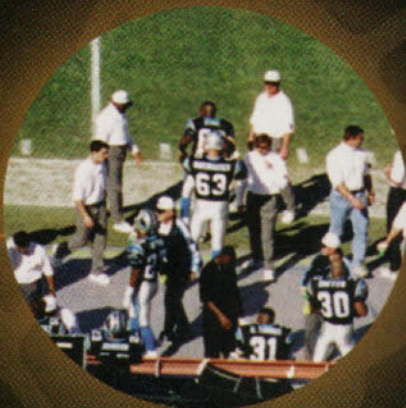
Count on it.

EnkamatPlus®

Natural Turf Sideline Protection



- The best sideline protection for your natural turf athletic field.
- Three-dimensional matrix will not crush beneath your heaviest linemen.
- Heavy duty fabric lets field breathe and water penetrate through.
- Perfect for multi-use fields.
- Reusable season after season.
- One time investment saves big bucks in grass repair.
- Just the right size for your sideline: 16'x150'.



We're The Thin Line Between
Comfort and Catastrophe

COLBOND

1.800.365.7391

www.colbond-usa.com

Circle 114 on card or www.oners.ims.ca/2906-114

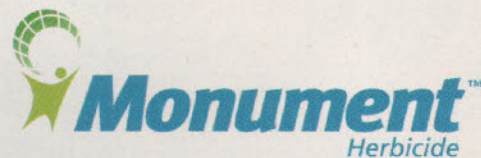
in & on the ground

TRAVELLING SPRINKLER

The Rain Train traveling sprinkler from Pioneer is for maintenance departments that don't have time to move sprinklers or don't have underground systems. Water pressure powers the unit down the field up to 200 ft. Once set, the adjustable travel speed allows you to evenly



apply light, moderate, or heavy applications in a single pass, says Pioneer. The sprinkler automatically turns off at the end of the pass. Pioneer Manufacturing/800-877-1500
For information, circle 097 or see www.oners.ims.ca/2906-097



NEW HERBICIDE

Syngenta Professional Products announces the EPA has granted registration of Monument herbicide for post-emergence weed control use in commercial turf markets, including golf courses, sod farms and commercial property management. The active ingredient in Monument, trifloxy-sulfuron sodium, provides control of sedges and green kylling in the warm season turfgrass species, including Bermudagrass and Zoysiagrass. Syngenta Professional Products/866-SYNGENTA
For information, circle 093 or see www.oners.ims.ca/2906-093

CUSTOM COLORS

World Class Athletic Surfaces manufactures bulk and aerosol paints and custom stencils. Made of 100% acrylic, these super concentrate paints are guaranteed to be brighter, last longer and are kind to turf. The company creates custom colors. World Class Athletic Surfaces
800-748-9649
For information, circle 087 or see www.oners.ims.ca/2906-087

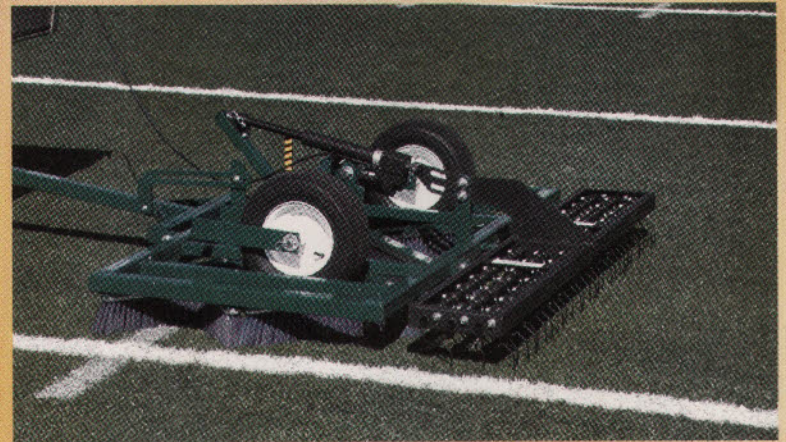
FIELD MARKING MACHINE

Newstripe has added the NewRider 1000 to its line of field marking equipment. The unit's 30-gal. tank can paint up to 12,000 ft. of 4-in. line and up to 23,000 ft. per hour. Features all welded steel chassis, 6.5-hp commercial engine, and the easy-to-see front-center mounted spray head. Newstripe/800-624-6706
For information, circle 090 or see www.oners.ims.ca/2906-090



**Synthetic Turf Groomer
with GreensSlicer®
Spring Tine Rake.**

**Fast, Efficient Grooming
of all filled synthetic
sports fields!**

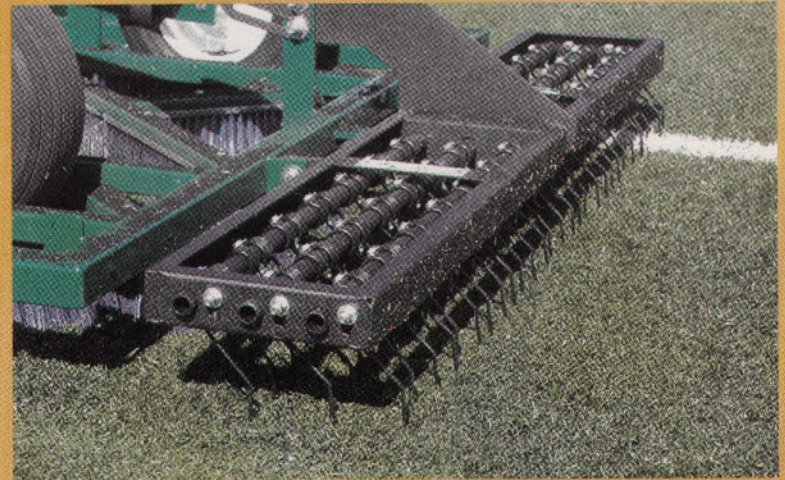


FEATURES and BENEFITS

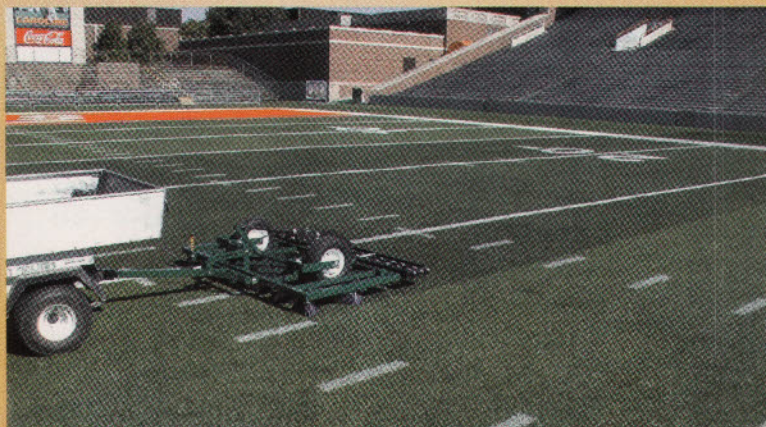
- Synthetic Sports Turf Groomer works with all fill material currently used, in both wet and dry conditions.
- Patented brush design lifts turf fibers leaving them in a plush, upright position. Brushes move fill to low spots or depressions left after play.
- Synthetic Super Duty Blue Brushes retain their original shape, resist wear, and will not rot.
- GreensSlicer Spring Tine Rake consists of 3 rows of 28 tines spaced 7/8 inch apart for thorough coverage.
- Each row of tines may be adjusted to the desired level of aggressiveness.
- The GreensSlicer combs through the fill material, relieving compaction and assuring a soft, level playing surface.



Synthetic Super Duty Blue Brushes
Resist wear and will not deteriorate from moisture.



GreensSlicer Spring Tine Rake
3 rows of 28 tines.



**Call for additional information on our line of Synthetic Turf,
Natural Turf, and Clay surface Groomers**

888-298-8852 Fax 317-298-8852

www.greensgroomer.com

GreensGroomer WorldWide, Inc., Indianapolis, IN

Copyright © 2003 GreensGroomer WorldWide, Inc. All rights reserved.
U.S. Patent No. 5833013. Other Patents Pending.

Circle 115 on card or
www.oners.ims.ca/2906-115



FEATURES ASTROPLAY

Superdome management in New Orleans replaced its 7-year-old artificial turf last fall with AstroPlay synthetic turf from SRI Sports. Saints RB Deuce McAllister said, "The new field is definitely going to prolong some guys' careers."

SRI Sports, Inc/512-259-0080
For information, circle 091 or
see www.oners.ims.ca/2906-091

NEW FUNGICIDE

BASF says its Insignia fungicide has received registration from the EPA. Insignia gives spray technicians broad spectrum, extended control of more than 15 major turfgrass diseases as well as dollar spot suppression. Compared to some older strobilurin chemistries in the market, Insignia suppresses dollar spot, instead of flaring it.



BASF Turf & Ornamental/919-547-2829
For information, circle 096 or
see www.oners.ims.ca/2906-096



POROUS CERAMIC IN SOLDIER FIELD

Soldier Field in Chicago's reconstructed field features the addition of Profile Products' porous ceramic soil amendment to the root-zone. The inorganic soil amendment helps enhance strong root growth, prevent compaction, provide permanent air porosity and improve drainage. Profile particles are equally balanced between water- and air-holding pores to achieve uniform balance in a root-zone mix.

Profile Products LLC/800-207-6457
For information, circle 095 or
see www.oners.ims.ca/2906-095

SPECIALTY HERBICIDE

Dow AgroSciences LLC has received registration from EPA for Spotlight specialty herbicide, a postemergence herbicide for improved clover control and control of other annual and perennial broadleaf weeds. Spotlight is labeled for use on established turf, including golf courses, parks, sport fields, and other commercial turf areas.



Dow AgroSciences LLC/317-337-3000
For information, circle 094 or
see www.oners.ims.ca/2906-094

Specialty Herbicide
*Trademark of Dow AgroSciences LLC



Because *their* definition of "playable" will never be the same as yours.

Most sport facilities are often faced with very short periods of time between sport seasons to get their fields "playable".

DuPont™ Turf Blankets™ will enhance germination and root growth, allowing for earlier usage and greater survival through seasons.

For more information call:
1-800-289-2448

DuPont™
Turf Blanket™
with Xavan®



The miracles of science®

Spread any material wet or dry.



The new Turf Tiger™ lets you topdress anytime.



Powerful SaberTooth™ technology

The new Millcreek Turf Tiger lets you spread any material, from wet sand to heavy topsoil mixtures, from sand/peat topdressing to compost... anytime you need regardless of weather or material moisture conditions. The exclusive SaberTooth™ attachment handles

wet or clumpy material like a dream. There's nothing else like it.

For under \$13K, the Turf Tiger is a rugged, reliable, 7,500 pound capacity topdresser for all types of sports turf, golf course, and park and rec maintenance applications.

The Turf Tiger is supremely versatile. Add the brush for drop spreading, or the spinner attachment for light, wide area topdressing. Pros who use it say, "It's the best topdresser I've ever used. The price makes it even better." Put the Turf Tiger on your maintenance team. Call today.



Spinner Attachment



Brush Attachment



1-800-311-1323
www.MillcreekMfg.com

*The tiger is the only big
cat that loves the water.*

PERRY BELIEVES IN INNOVATIVE THINKING

Floyd Perry, director of GMS (Grounds Maintenance Services) for Sports Fields, presented a series of workshops in the Midwest last summer, sponsored by Conserv FS. The workshops were held at different locations in Illinois and Wisconsin.

During the morning sessions, Perry presented a series of slideshows. In one, highlighted some innovative equipment that sports turf professionals on low budgets have created on their own to save time, labor, and money. The slides underscored his message of "Work smarter, not harder."

Perry also presented a series of slides that showcased field designs that are aesthetically pleasing, and easier to maintain. "Do something creative," Perry said. Perry told attendees to write down the good things that they do, and also the things that they would like to improve upon. He urged them to tap into their creative side, because there is a "genius" in everyone.

From a business standpoint, Perry said that a sports turf manager's most important

tool is a camera. It is easier to get funding if you can show your boss any concerns you would like addressed. A camera also comes in handy for capturing creative ideas you see being implemented at other fields.

The afternoon sessions were devoted to pitcher's mound, home plate, and lip maintenance. There were also equipment demonstrations of drill-and-fill technology, line marking machines, and other equipment.

Perry is the author of three groundskeeping pictorial guides: "Covering All the Bases," "There Ain't No Rules!" and "Softball Facilities Maintenance - Maintain It Easy - Keep It Safe." He also produced a three-part video presentation entitled "The ABC's of Grounds Maintenance," which highlights timesaving maintenance techniques for baseball, softball, soccer, and football field maintenance.

The event sponsor, Conserv FS, has developed alliances with certain vendors to provide a multitude of options for athletic field renovations. The Certified Turf Specialists at Conserv FS work closely with turf managers from professional teams, colleges, and high schools.

ST

PROFESSIONAL GROUNDSKEEPING PRODUCTS

Infield Conditioner

Calcined Clay

Professional, Top Dressing, Drying Agent

Athletic Field Marking Dust

Mound & Home Plate Clay & Bricks



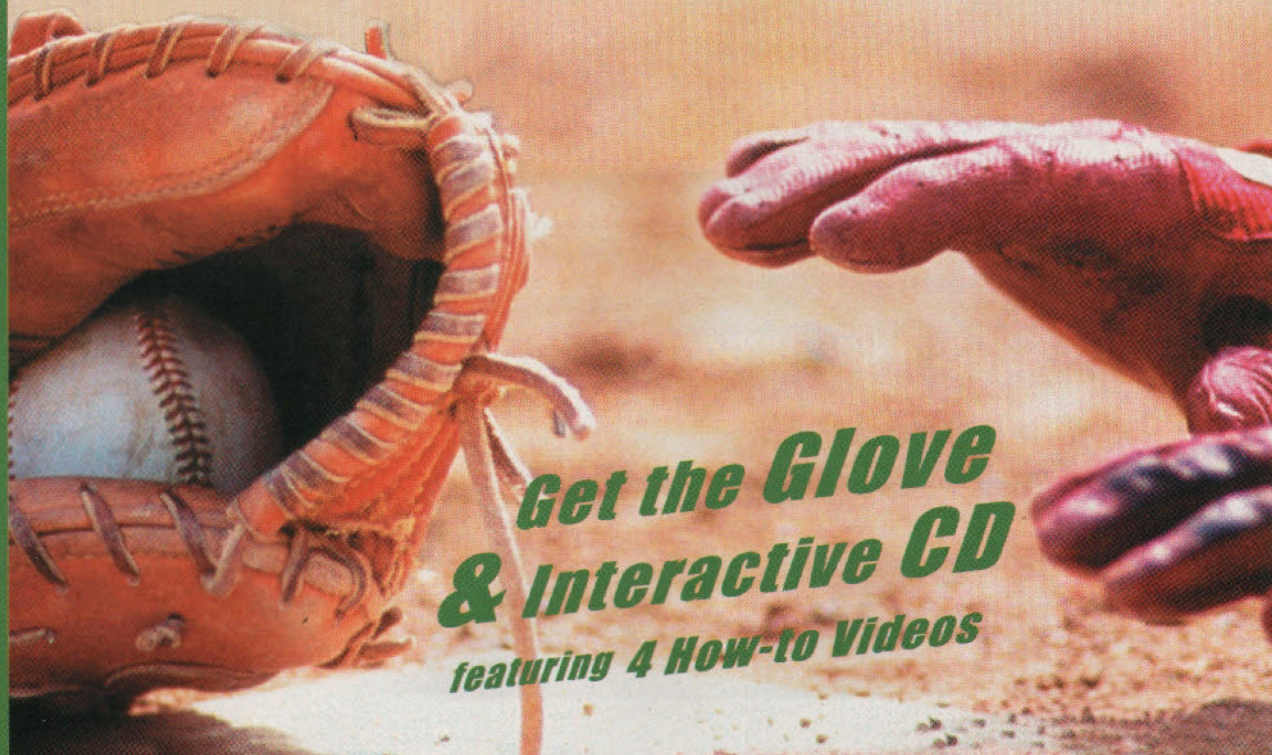
DIAMOND PRO

800 228 2987

www.diamondpro.com

SLIDE INTO A BETTER PLAYING FIELD

We'll show you how!



*Get the Glove
& Interactive CD
featuring 4 How-to Videos*

Circle 118 on card or www.oners.ims.ca/2906-118

HAZARDOUS TURF SEAMS

History - Synthetic turf technology has greatly improved over the past three decades. It is called "progress" and the word is synonymous with change and improvements. It's the case with modern synthetic turf systems in which rubber and/or sand granules are both sprinkled and combed into the face of the turf. While better in many ways over the old ones, these new turf systems have added to existing seam problems.

New Seaming Woes - Seams historically are the weakest link in an artificial turf installation whether they be from rolls that go the width of the field, insert lines, logos, numbers or different color turfs. However, securely bonded seams are essential to avoid hazards like a loose field; tripping or injury due to an open seam; or other dangers.

.....good short term results may become long term "time bombs"

From a seam standpoint, total gluedowns are the best because stress from athletic activities and weather changes are distributed over the entire field instead of concentrating it only at the joined seams. Total glue downs also prevent game line movement ("dancing lines" in trade jargon).

Most (but not all) of the newer type fields which fill the turf matrix with sand and/or rubber granules are not glued to a solid base but instead rely only on joined seams to hold it together. Hence, instead of a localized and easily fixable seam problem of a total gluedown, it is often a major problem when there is an accidental seam break or an intentionally cut seam caused by vandals.

Seaming Methods - The two most widely used and acceptable methods of joining seams are to sew them together and/or glue them together on top of a wide-width, adhesive-coated fabric or other adhesive-coated subsurfaces. Benefits more than double when both are done. However, it's often either sewing or adhesive but not both.

The adhesive must also have three key handling properties

Adhesive bonding is usually better. If the bond is just to the seaming tape, instead of a total gluedown, at least the stress is distributed over the width of the adhesive on the tape. Conversely, just mechanically sewing seams, concentrates stress at localized thread points.

Special Outdoor Adhesives Required - Because of seam stress and outdoor conditions, short-term lab tests and a few field tests cannot always be relied upon to predict an adhesive's worldwide, long-term exterior durability. The good short term results may become long term "time bombs".

Also, there is more to a good outdoor adhesive than just durability.


Installation - The adhesive must also have three key handling properties for economical installations. It must be usable under widely variable weather conditions; have high grab due to its tacky, tenacious gripping properties (high green strength) to overcome wind, rain and turf curl during installation; and a "wide outdoor working-time window". That's some reasons why for over 25 years, a family of one-part, high green strength urethane adhesives have been used worldwide more than epoxy, hot-melt, or both one and two-part, oily, slippery low-grab urethane adhesives. While progress has added some

new high green strength adhesives, they still fall within the same family.


Cost - Adhesive price is a minute part of the total field cost but a gambling type company that is content to sometimes lose, may try a low cost adhesive that is worth their gamble. However, often neither the contractor nor customer benefits from the "savings" if it results in a seam problem or if it lengthens installation time.

In summary, gluing plus sewing seams is best. If only one must be chosen, go with gluing. Select a proven one-part, high grab urethane adhesive with handling properties designed to fit the system being installed.

by Norris Legue



NORDOT® High Grab Urethane Adhesives



An artificial turf playground, landscape, putting green or athletic field surface is only as good as its adhesive-bonded seams. Hence, it pays to use NORDOT® Seam Adhesives because they're the best.

◀ **SEAM AND REPAIR ADHESIVES** ▶


NORDOT® Adhesive #34N-2 - Our most widely used seam and repair adhesive for *smooth* surfaces.

NORDOT® Adhesive #34G - Great for *rough* surfaces because it "stands-up" when applied with a notched trowel.

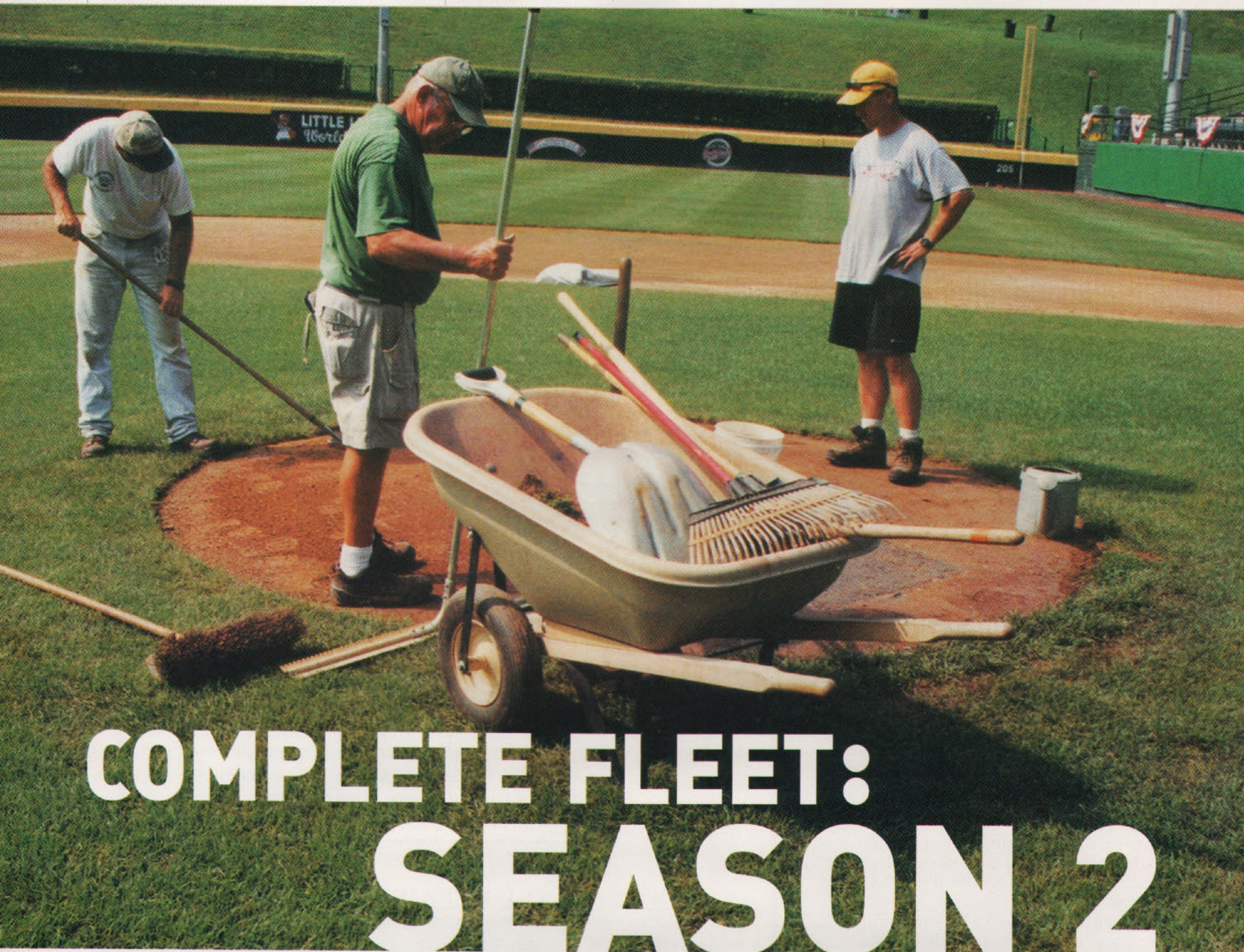
NORDOT® Adhesive #34S-3 (Plus) - Because of its easy airless spray properties and fast grab, its our most widely used adhesive for spray bonding of seams and inserts.

NORDOT® Adhesive #49P - Booster for "must do" installations in harsh cold and/or low humidity weather.

WANT THE FACTS? - Write, Call or Visit our Website:



P.O. Box 241
Scotch Plains, NJ 07076 U.S.A.
Tel: (908) 233-6803
Fax: (908) 233-6844
E-mail: info@nordot.com
Web: www.nordot.com



COMPLETE FLEET: SEASON 2

To determine what type of equipment should be in any sports turf manager's equipment fleet *SPORTSTURF* magazine asked several industry experts the following two-part question about what constitutes a complete fleet:

What pieces (and brands) of equipment and tools do you feel are essential to your job, and why is each piece important?

Eric Fasbender, head groundskeeper, Schaumburg Flyers

Baseball field maintenance is unique in that only about 30 percent of a turf manager's time is spent on the turf areas. The infield skin, the mounds and the plate area are what my crew and I concentrate on the most. For that reason, some of my most valued pieces have to do with the clay, but all of the machines that I have play a role.

We use a Toro 3100D Sidewinder to mow the outfield and foul territory. I love this piece because it has a single point adjustment for my reels. This makes adjustments quick and easy. It also covers a lot of ground and provides the high-quality cut that I am looking for.

The infield is mowed with a Toro 1600 walk-behind greens mower. This is a great machine because mowing takes half the time when compared with other mowers, and it has no problem cutting at a height of 1 inch. The finished cut that the walk-behind provides helps to maintain the playing surface that the players want.

Every other month we aerate with a John Deere 1500 aerator and in the spring and fall we topdress using a Dakota 400 topdresser. These pieces are borrowed from a local

dealer, which has worked out well because normally I would not be able to afford these great machines.

Our infield skin and clay areas are the most important part of the playing surface here at Alexian Field. The maintenance of those areas starts with the Toro Infield Pro 3020. I can move material around, take down high spots, fill in low spots, nail drag and finish drag all with the same machine. It is versatile and durable, which saves time and money.

I use a Brouwer one-ton roller and a Craftsman hand roller to add stability to the infield skin and to firm up the players' positions before games. Both pieces are also useful in the spring to roll the infield turf area. They work well in getting rid of those little imperfections that can create inconsistency.

No fleet is complete without a utility vehicle of some kind. The Toro Workman 2100 is just the thing that gets us through each day. There are times when I wish I had three of them, they are that useful and important. We use the Workman to haul sand, grass clippings and clay as well as garbage cans, hoses and tools. It is probably the most important piece of equipment in my fleet.

Finally, there are some pieces that may not fit into the fleet category, but that does not mean they are any less valuable or important to me. These items are a rake, a tamp, and a one-inch braided hose. The rakes and tamps are important for fixing the mounds and plate area and the braided hose is used all over the field. We use hoses to hand-water the turf and they provide the moisture content that we are looking for in the clay. These are the tools my crew uses to make the finishing touches.

These pieces of equipment help me to provide a great playing surface that players love to play on and fans love to look at. While some pieces get more use than others do, they are all important to my crew and myself. Each one brings a different function and use to the trade, but if I had to do without any of them my field would suffer.

Tony Leonard, sports and landscape manager, Philadelphia Eagles

I feel every piece of equipment in our fleet is essential, or else we would not have it. We have had a great relationship with Textron over the years, so just about all of our equipment is Jacobsen and Cushman. However, outside of our mower, sprayer, and aerifier, there are a few pieces that help us really strengthen the plant to get us through the season.

Like Denver and Pittsburgh, we have the DD GrassMaster system at Lincoln Financial Field. This makes maintenance a little different than what we would typically do at our practice facility. Core aerifying the field is restricted, but other cultural practices can be used. One of the essential pieces in our fleet is a spring tine harrow. This is a rake used to "scratch" the surface to break up any organic matter that would build up over time and to stand the GrassMaster fiber to a more upright position. Over the course of the season, many cleat marks drive the fiber into the ground, thus burying it below the playing surface. Our spring tine harrow pulls these fibers up, allowing the fiber to protect the crown and aid in the stability of the field. In addition to using the rake to pull the fiber up at the stadium, it's a great tool for our Sprinturf field in our indoor practice fieldhouse. This will groom the field and keep the rubber from settling.

We also have a verticutter, which is more aggressive than the rake. We have been using the verticutter more often at both facilities than in the past after seeing better results each year. We used the verticutter at our NovaCare Complex three times this year and twice at Lincoln Financial Field. This process stimulates new growth by dividing the plant into two. It also reduces any thatch build up that may result from the more aggressive bluegrass used on both sites.

Once we do the raking and verticutting, we always sweep with a Smithco Sweeper Vac. We purchased this sweeper about a year ago, and it has worked well for us. The Smithco does a clean job in

one pass, which allows the plant to recover sooner, and aesthetically makes the field much more appealing after verticutting or raking.

Another piece we use often is a spiker. The spiker hooks onto our Cushman Truckster in about 2 minutes, and does a nice job on the fields. Each spike is about 5-6 inches long and spaced 6 inches apart. The point of doing this is to open up the soil a bit for air flow and water infiltration. It is also an easy way to promote new roots and shoots



The smartest land maintenance move you'll ever make

"Get a VersaGrader and you'll wonder how you ever got along without one."

— Richard Confoey, Inventor

Like the fax machine, the cell phone and the Internet, once you start using it, the VersaGrader will soon become vital to your work. And it's such a great value — buying a VersaGrader will be the smartest land maintenance move you'll ever make.

NOTHING LEVELS YOUR PLAYING FIELD LIKE A VERSAGRADER

Our exclusive, patent-pending Balance Equalizer System keeps VersaGrader parallel to the ground even when the pulling vehicle goes over a bump. Level the entire field faster than you ever thought possible. Then easily maintain it with the optional rake, broom and sod cutter attachments. Keep your playing fields, lots, landscape and roadways in peak condition with one super-efficient piece of equipment. VersaGrader replaces power rakes, rollers, old levelers and more.



- MAKES EVERY JOB GO FASTER**
- IT'S SO VERSATILE**
- IT'S INCREDIBLY WELL-BUILT**
- IT'S A GREAT VALUE!**



VERSAGRADER™
The smartest move in land maintenance

Call (330) 337-3439 or visit VersaGrader.com



Circle 160 on card or www.oners.ims.ca/2906-160

to form a much more stable playing surface in the upper 2 inches of the soil. And the beauty of the spiker is that no one can tell it was done.

Again, all of our equipment is essential, but the pieces of equipment listed above help us get over the hump in the latter part of the season. The agronomic value far outweighs the economic investment of these pieces of equipment.

Jeff Salmond, CSFM, Northwestern University

The John Deere 1500 Aercore is an important tool in our field maintenance program. With it we are able to hollow and solid tine aerify with 1/4-inch to 5/8-inch diameter tines. The 5/8-inch hollow tines allow us to pull soil/sand cores and remove a large amount of material, whereas the 1/4-inch solid tines permit us to poke needle-sized holes before an athletic event to help in the removal of excess water. The Aercore can be aggressive, which is why we also use the Renovator (Cushman/Ryan) for less destructive

measures. A tractor pulls the Renovator, and its depth is determined by the amount of weight added to the machine. The Renovator can be equipped with coring tines or slicing knives. We particularly like to use it with the slicing knives. The slicing knives are useful not only for moderate aerification, but also to sever the rhizomes of our Kentucky bluegrass in helping make the turf dense.

A roller (any kind above 5-ton, pull behind or smooth double drum) is good to have for just about any athletic field operation. We use a roller to smooth out irregularities in the turf and to roll the baseball infield skin and lips when needed. We may be apt to roll some of our soil-based fields before a heavy rain to aid in rapid water run-off. The roller also helps define our mowing/stripping pattern on our football fields.

The Goossen Versa-Vac turf sweeper is valuable in cleaning up an athletic field after a game, especially football. We try and sweep up as much loose grass and pulled out divots as we can. We feel that picking up this extra material allows the underlying hearty grass to breathe and continue to grow, rather than be smothered out and deteriorate. The Versa-Vac is resourceful in that it is interchangeable with rotating rubber fingers, polyvinyl brush, or verticutter attachment. We use each attachment depending on a particular application. We use the Versa-Vac to pick up cores after aerification and to sweep up those pesky leaves in the fall.

We use a Toro verticutter/seeders to cut in new grass seed in multiple directions in our worn areas. When using it without the seeder box attachment, our main purpose is to slice grooves into the turf and soil in assisting Kentucky bluegrass to become more aggressive, to cut out any unwanted perennial ryegrass, and to add some additional aeration benefits. We may also use it to chop up soil cores if we do not wish to pick them up. When using the machine with the seeder box attachment, our goal is to use it in combi-

Dive Into The Sea



- Most Salt Tolerant Turfgrass • Darker Green Color Than Bermudagrass
- Tolerates Gray Water, Effluent and Many Medium-to-Poor Quality Water Sources
- Low Fertilization Requirements • Handles Wide Range of Soil pH Levels: 4.0-9.8
- Minimal Pesticide Requirements • High Tolerance to Salt Spray, Water Logging and Periodic Inundations • Good Rooting in Sandy, Clay or Muck-Type Soils
 - Can Be Overseeded with Bentgrass-Ryegrass- Alkaligrass Blends
- Root Growth & Functionality Still Maintained in 40-55°F Soil Temperature Range
 - Excellent Low Light Intensity Tolerance

Providing Excellent Footing & Soft Landings for Professionals, Amateurs and Beginners

SeaIsle¹

Certified Seashore Paspalum
www.seaisle1.com

Circle 121 on card or www.oners.ims.ca/2906-121