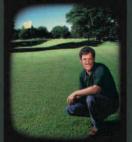
The Barenbrug Advantage

Creating new solutions in the quest for the highest quality turf seed.





Make your move to Barenbrug for service, delivery and products you can trust... we guarantee it.



With a commitment to supply world class turf seed...we're here to make you look good.



800 547-4101 BARENBRUG USA www.barusa.com • info@barusa.com

In & On the Ground

e try to paint the field at Ohio Stadium twice before each game," said Brian Gimble, supervisor of grounds at Ohio State University. "We paint it the first time around Tuesday and a second time as close to game time as possible. We do this so that we know we will have something on the field no matter how bad the weather is close to game time. This schedule has to be flexible based on weather, team practices and everything else."

According to Gimble, lines get painted first. Markers around the field indicate where the lines go, so the crew can skip the ordeal of measuring the field out each time. The crew uses a string line that is held or nailed at each end and then paints the line with a walk-behind, battery-powered paint machine called the EZ-100. This part takes a trained and steady hand and is usually done by Gimble's full time assistants instead of the students. The lines are allowed to dry before starting any thing else.

"Dependent upon the weather our paint dry time is about 20-30 minutes," said Gimble. "We then lay down string lines to mark out where the numbers and hash marks go. Then our team of student employees move the stencils around. The stencils are placed into position and painted in with a 12-foot hose and wand attachment from the paint machine using Pro-Stripe paint. On back-to-back games we usually paint them with 4-inch and 9-inch rollers, assuming they are visible enough."

According to Gimble, the end zones and the Block O are painted last. These are initially laid out with stencils, but are painted with 4-inch and 9inch rollers the rest of the season. When the team is away for two weeks or more, the crew paints the corners of the letters with spray paint and then remeasures them for accuracy before painting them out again.

"We have a lot of student help, so the rollers help the job to go really fast," Gimble added.



Compaction is a Leading Cause of Injuries on the Sports fields



- No Clean-up of Messy Cores
- No Disruption of Play
- Up to 7" of Deep Tine Compaction Relief
- Starting at under \$3,000.00

AerWay[®] offers low cost, low maintenance, long lasting options for more information call **1-800-457-8310**

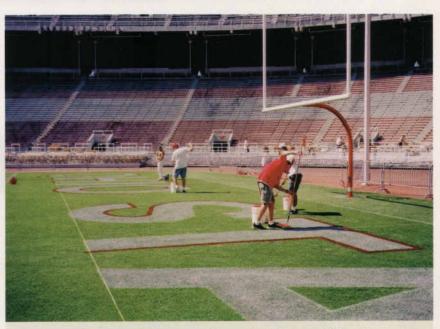
Advanced Aeration Systems

www.aerway.com aerway@thehollandgroupinc.com

Circle 111 on card or www.oners.ims.ca/2079-111



The crew at Ohio Stadium paints the second coat of the white border around Block O with a 4-inch roller using Pro-Stripe Super White.



The crew paints the end zones mid-season, being careful to keep straight lines. Photos courtesy of Whitlam Paint.



Mineral Water Bowl, Dec. 2002, NCAA Division II, Excelsior Springs, MO. ZAP field marking paint by Zeke's Paint, Independence, MO.

SYRINGING SYSTEM

Reelcraft offers a superintendent-invented syringing system for more efficient irrigation management. The DGM system makes labor efficiency by eliminating the dragging of hoses or piling of hoses around your grounds. Buried in the ground, the hose and reel also can be pressurized to act as a blower for debris. SPORT-STURF understands that Barney Lopas of the Anaheim Angels is installing multiple systems at Edison Field this spring.

Reelcraft/800-444-3134 For information, circle 169 or see www.oners.ims.ca/2079-169





FERTIGATION FOR SPORTS TURF

A totally enclosed and lockable fertigation unit designed for 3-30 acre applications that require a secured system to automatically feed the property is available. Fertigation offers quick recovery of turf damaged by play and other conditions by injecting liquid fertilizers through your irrigation system, which can reduce other costs.

Turf Feeding Systems, Inc/800-728-4504 For information, circle 163 or see www.oners.ims.ca/2079-163



Circle 119 on card or www.oners.ims.ca/2079-119

In & On the Ground

Seahawks Stadium a natural for soccer match

BY NATHAN ODGAARD

The United States' men's soccer "friendly" with Venezuela last March gave more than 17,000 spectators at Seahawks Stadium and a nationwide audience on ESPN2 a chance to see world-class soccer. But to Jay Warnick, the Seahawks' director of fields, the game's storyline was the performance of the natural grass playing surface and its improbable existence at the new stadium.

Less than 2 weeks before the exhibition soccer game, Seahawks Stadium was temporarily converted from an artificial to a natural grass field. West Coast Turf (WCT) installed 87,000 square feet of hybrid Bermuda sod over the stadium's FieldTurf. It was one of the few times that either Warnick or Greg Dunn of WCT knew of a natural grass field overlaying synthetic turf for an athletic event.

"I was very pleased," Warnick said following the game, a 2-0 USA victory. "Considering the weather, I think we did about all we could to effectively prepare and manage the field."

Frequent rain showers hampered the crew's ability to care for the newly laid turf as was planned, Warnick said. Tarps covered the field nine of the 12 days leading up to the game. As a result, Warnick noted, the field played a bit slick.

Overall, Warnick deemed the unique installation project a success in terms of safety, playability, and appearance of the field.

With the lack of "how to" information available on overlaying artificial turf with sod, Warniek turned to colleagues for input. At this year's annual meeting of the Sports Turf Managers Association, Warnick approached "anyone who would listen to me, and I asked them how they would do it and what issues would come to their mind," he said.

He also talked with Stephen Cockerham, a superintendent of agricultural operations at the University of California, Riverside, who consulted on a similar project at The Meadowlands, where sod was installed over the artificial surface for a 1994 World Cup soccer match. Warnick took the input, which he said closely matched his preconceived notions, and ran with it.

"We did everything based on hypothesis," Warnick said. "There's no textbook to tell someone how to put natural grass over an artificial field, and doing it in Seattle in March . . . we definitely learned as we went along."

The team foresaw numerous challenges so they conducted a litmus test in early March, installing a 3,000 square foot test plot of sod and studying the intricacies of the project. Many of Warnick's questions about the installation project were answered that day.

Among the challenges was selecting the right sod. The test plot helped determine the appropriate thickness of sod, which was laid in 42-inch wide strips. WCT installed strips of sod with three different thicknesses, 1 1/8 inch, 1 1/4 inch and 1 1/2 inch. Warnick and Dunn agreed that the 1 1/8-inch thick sod with a split 42-inch seam would be the most consistent, uniform, and stable for the game.

Based on WCT's recommendation, Tifway II Bermuda grass was chosen for its durability and rhizomes. The sod was overseeded with Chaparral ryegrass, which provides a deep green color and is highly tolerant of all weather conditions. Though a warm-season grass, the Bermuda performed well in the cool,



rainy climate.

"Bermuda grass is ideal for soccer matches," Dunn said. "Because of the tightly packed leaves near the soil surface and the incredibly dense root system, the sod provides excellent footing and a cushion-like feel." An initial post-game analysis showed that "the field played extremely tough," Warnick said.

Another challenge was protecting the FieldTurf. The test plot helped Warnick determine the best material for protecting the FieldTurf and holding the sod in place. Two layers of material were placed between the two to protect from soil and water contamination: a tarp and a geo-textile fabric. After a few crewmembers laced up cleats and simulated the stop-and-go action of a soccer player on the sod, they determined that the woven fabric better prevented shifting.

WCT installed the sod, which covered more than 78 x 123 yards, and finished March 20, giving the field's crew time to take care of any maintenance issues. The crew had to strike a balance by keeping tarps over the field to keep it dry, but also by pulling the tarps off to allow the field to breathe.

Drainage was another issue. The field could handle a slight amount of rain but without a soil base, there was nowhere for it to drain. The water would soak through the sod and sit on the fabric covering.

With the sod's saturation point only 1/2 inch, the frequent rain showers posed problems. While the field was covered most of the time, at every opportunity the maintenance crew uncovered the turf.

The maintenance crew for Safeco Field, the Mariners' home field that sits next to Seahawks Stadium, got into the act. Just 3 days before the game, Warnick decided to keep the tarps off overnight. Realizing that heavy rain was closing in, the Mariners crew helped Warnick's crew cover the field in the middle of the night.

While extensive rain posed a threat to the health of the sod, it also made it difficult for the stadium crew to maintain a mowing schedule and prepare the field for game day. The crew worked in between rain showers to mow and paint the parameters of the field.

So why go to the trouble of installing a natural grass field over a quality synthetic surface? Only 2 years old, Seahawks Stadium was built not only for the Seahawks, but also to serve as a world-class soccer facility. And such facilities must have natural turf to accommodate international soccer. The stadium is hosting a Manchester United-Celtic FC exhibition game July 22, though it hasn't been determined at press time whether sod or the FieldTurf will be used.

"We learned a lot from our experiences," he said. "There's not much you can do about the weather. Next time, I think we can make two or three small adjustments and take it to an even greater level."

Editor's note: After the game, First & Goal, owners of the Seahawks, donated the sod to the Mukilteo School District in the Seattle area, Warnick said. It will be used to renovate a multi-purpose athletic field and to replace worn hash marks and other areas on fields throughout the district.

Nathan Odgaard is a public relations associate with Swanson Russell Associates, Lincoln, NE, 402-437-6400. Photos courtesy of West Coast Turf. Make sure you Cut this out and Pin it up. You won't find a better LineMarker at this Price!

FASTER, STRONGER EASTER, STRONGER and, best of all, AFFORDABLE The Kombi Line Marking Machine

Save time and money! The Kombi's self mixing capabilities allow you to leave Fleet paint in the Kombi overnight and self mix the paint the next day directly in the machine. Simply put, it's the best line marker on the market.

Why it's the best

- Paint may be left in the Kombi overnight and
- remixed the next day
- Quick, simple "plug & go" overnight recharge facility
 Longlife battery will last 1 day's marking
- Longine barrery will last 1 day
- Easy to use and maintain
- High performance pump
- Self-cleaning

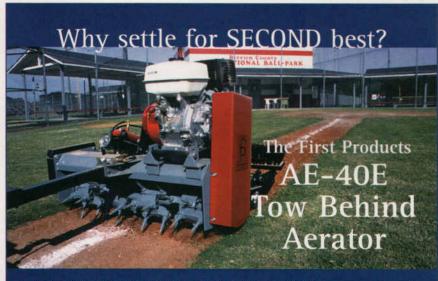


Circle 113 on card or www.oners.ims.ca/2079-113

Walk-behind mower buying considerations

B ecause today's walk-behind mowers can cost \$7,000 to \$11,000, it's prudent to have a list of buying considerations. Here are some thoughts to keep in mind while shopping: Does unit have good traction for hill climbing or performing in wet conditions? Is the fuel tank large enough to go 8 hours without re-filling? Is the deck heavy enough (10- or 11-gauge steel)? How does it feel to operate–can you feel potential for hand fatigue?

If your terrain is hilly, does the deck "float"? Is it easy to grease and maintain, including a low-maintenance blade spindle assembly? Is the blade engagement smooth? Any options available, like parking brake, hour meter, electric start, beverage holder, electric blade clutch, reinforced spindles and/or operator presence controls that bring the mower to neutral without shutting off the engine?



The AE-40E can be towed behind any lawn tractor, ATV, or any powered equipment with a 12 volt battery source. Using patented vibrating solid tines; the Aera-Vator will fracture the hardest soils without destroying established turf.

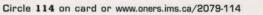
The AE-40E Aera-vator is the most reliable piece of equipment we own. It gives us great flexibility with ball fields as well as home lawns. We are in charge of the Little League Softball World Series held in Portland, OR every year. With ESPN game coverage, we have to keep the fields looking good and in excellent playing condition. The more we use the Aera-vator, the more we try to find other things to do with it. - MIKE HEBRAND, OWNERATHLETIC FIELD DESIGN, PORTLAND, OR

"Seeing is believing"

Call for a demonstration today

800-363-8780

www.1stproducts.com email sales@firstproducts.com First Products P.O. Box 1425 Tifton, GA 31973





WALK-BEHIND MOWER

Gravely introduces new GR1336FXP gear-drive, walk-behind mower. Features include ergonomic ground drive controls with intuitive action, a parking brake with a single point of operation, adjustable single tube handle bar that can be set to fit different operators, an hour meter and a heavy-duty electric clutch. It has a 13-hp Kawasaki engine and 36-in. fixed deck. Unit operates at speeds of up to 6.7 mph forward, has a 6.6 gal. fuel tank and 9 x 3.5-in. no-flat front caster wheels.

er wheels. Gravely/800-472-8359 For information, circle 140 or see www.oners.ims.ca/2079-140

DEERE WALK-BEHINDS

see www.oners.ims.ca/2079-147

John Deere's HD45 and HD75 hydrostatic walk-behinds come with OHV, 14- or 17-hp., 4-cycle gas engines. These mowers offer a choice of 36-, 48- or 54-in. mower decks. The 36-in. deck features fabricated deep-deck design and heavyduty 10-gauge welded-steel construction, with spring-loaded quick-pull pins for easy cutting-height adjustment. The stamped steel 48- and 54-in. decks have spring-loaded, quickpull pins for easy "no tools" cutting-height adjustment. Electric start is standard on the HD75 (pictured) and optional on the HD45. These mowers have pressurized lubrication and oil filter for durability and longer engine life. John Deere/800-537-8233 For information, circle 147 or

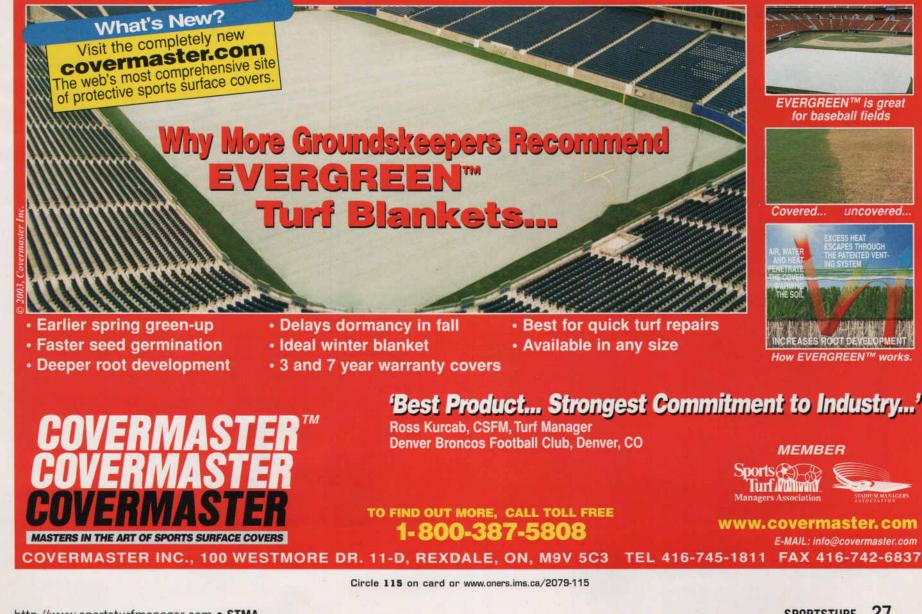


TORO MID-SIZE

Toro's ProLine Gear and Hydro Floating Deck mid-size mowers offer four different size engines: 15and 17-hp Kawasaki and the 13- and 15hp Kohler Command PRO. The units feature the patented Toro T-Bar Steering system, which is so easy to operate even a novice can quickly become productive with little effort. All the models have a forward ground speed of up to 6.5 mph to quickly cut through large projects.

These mowers feature fully floating Super Flow System (SFS) decks with blade tip speeds over 18,000 ft./min., height of cut from 1-4 1/2 in. with 1/4-in. increments.

Toro/800-476-9673 For information, circle 151 or see www.oners.ims.ca/2079-151



STRIPING SPECIALIST

National Mower's I-Stripe is a 22-in. walk-behind rotary mower with a powered rear roller for creating the classic striped finish. The machine also features a die-cast aluminum deck and a blade friction disc to limit the impact to the engine drive shaft. Powered by a Briggs & Stratton Intek OHV 5.5 engine with a finned deck for better cutting and collection. Cutting height set with a single lever adjustment.

> National Mower/888-907-3463 For information, circle 141 or see www.oners.ims.ca/2079-141

3-POINT HITCH SPREADER

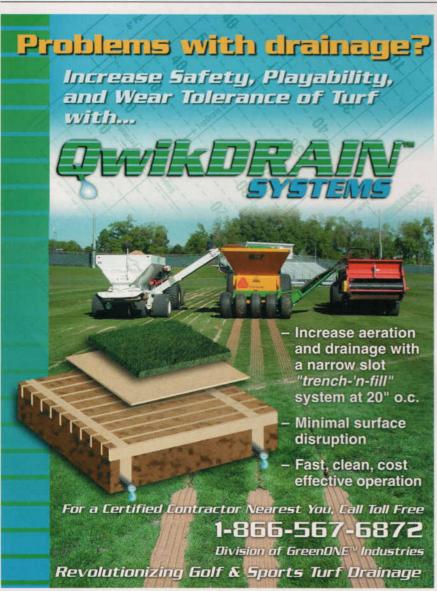
This new 3-point hitch spreader reduces time and effort by applying seed or fertilizer into square corners and dead end spots or applying salt on icy walks. Make short turns without danger of cramping the hitch, or convert the detachable, 3-point hitch to a pull-type spreader. This easily calibrated spreader allows even very small amounts of seed or fertilizer to be spread and can also be stored in minimal space while attached to the tractor.

Garber Seeder/800-613-4860 For information, circle 157 or see www.oners.ims.ca/2079-157



WALK-BEHINDS

Encore's Premier Pro-line walk-behinds are available in both gear-drive and hydrostatic models. The geardrive units are available with 32-, 36- and 48-in. decks and the hydrostatics with 36- and 48-in. decks. Engine power ranges from 12-17 hp. All units feature the convenience of an easy-to-fill, removable fuel tank. The decks have a reinforced 7-gauge support channel under the belt shield and a front-to-back, deck-stabilizing Zbar to minimize vibration and increase deck strength. A steel bumper adds more front-deck stability between the casters and protects the mower from front-end damage. Encore Mfg. Co., Inc/800-267-4255 For information, circle 145 or see www.oners.ims.ca/2079-145



Circle 116 on card or www.oners.ims.ca/2079-116



HYDROCUT

Ferris Industries' HydroCut has a 13-hp. Kawasaki V-twin engine, 32-in. cutting width, hydrostatic transmission, 10-gauge, double-top deck with double-reinforced side skirts and overlap welded corners, 4-gal. fuel tank with large filler neck, and a 2-year commercial warranty.

Ferris Industries/800-933-6175 For information, circle 146 or see www.oners.ims.ca/2079-146

WALKER BY WALKER

Walker's first walk-behind mower is compact, midsize, run by 15-hp Kawasaki engine with full-pressure lubrication. Decks are the same as Walker's full-floating decks on riders, including the deck tilt-up function. A castering tail wheel on the tractor allows the deck to move independently with flexible

move independently with flexible deck suspension and spring counterweights allow the deck to "float" and follow ground contour. Two HydroGear integrated, zero-turn transaxles give operators ability to maneuver into tight areas and trim close. Walker Manufacturing

800-279-8537 For information, circle 092 or see www.oners.ims.ca/2079-092



WALK OR RIDE

The Convertible mower from Rich Manufacturing can function as either a walk-behind or riding mower. As a hydraulic-drive walk-behind, it is maneuverable and flexible. As a zero-turn rider, it offers speed and comfort, says the manufacturer.

Engine choices are 17-25 hp Kawasaki and Kohler V-twins; deck choices are from 48-61 in. wide with manual or lift system height adjustments. A new raised control panel features ignition switch, PTO switch, operator presence, and hour meter.

Rich Manufacturing/765-436-2744 For information, circle 149 or see www.oners.ims.ca/2079-149

CUB CADET WALK-BEHIND

Cub Cadet Commercial's G1436 Gear-Driven widearea walk-behind mower features a 14-hp Kawasaki OHV engine and a 36-in. cutting deck. Other features include: steel fixed fabricated deck with 10-gauge top and 7-gauge skirts; 5-speed Peerless transmission with a durable,

greasable 9-spline shaft; patented Vari-Touch that allows you to quickly and easily adjust drive belt tension to maintain traction and keep working in damp conditions; and Crew Boss hourmeter/tachometer to help keep maintenance schedule.

> Cub Cadet Commercial For information, circle 195 or see www.oners.ims.ca/2079-195

LIVING COLOR!



Barney Lopas

Anaheim Angels Groundskeeper Barney Lopas designed and painted this colorful outfield salute to Old Glory in 2001 within days of the 9-11 attacks.

Barney Lopas, a major league groundskeeper since 1985, consistently provides Angels' fans a home field advantage a great looking playing field! His artistry with turf colorants and mowing patterns makes Anaheim's Edison Field a sight to behold on special occasions — such as the 2002 World Series!

"I've found Ferromec's color response to be rapid and consistent," he said. "It provides the green you want *naturally....*without unwanted, uneven spurts of topgrowth!"

Lopas has used Ferromec[®] for nearly two decades, since his days at the Florida Marlins' spring training complex.

Always read and follow label directions.



1-800-821-7925 ferromec.pbigordon.com



© 2003, PBI/GORDON CORPORATION. FeRROMEC is a registered trademark of PBI/Gordon Corporation.

5-2003/11206

Sportsturf Machines



QUADIVATOR

Swisher's multi-purpose Quadivator attaches easily to your ATV or tractor and comes standard with a cultivator attachment. It has switch-operated electric depth control and these available accessories: hilling model boards, potato digger, box scraper, lawn irrigation plow, dump box, tandem disc, barb wire dispenser, lawn roller and lawn aerator.

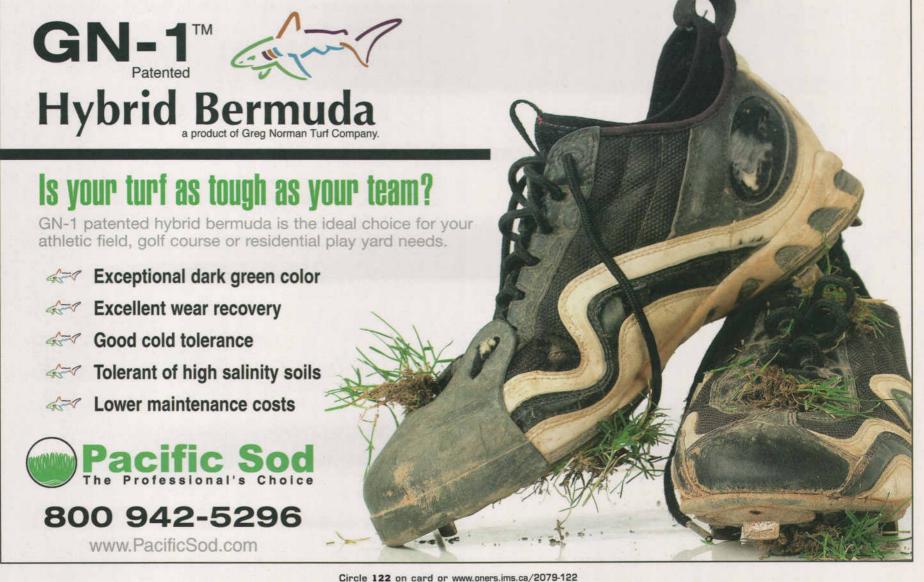
Swisher/800-222-8183 For information, circle 156 or see www.oners.ims.ca/2079-156



RIDING MOWER

Exmark has powered up its Lazer Z EPS mower line with the addition of an available fuel injected 28-hp Kohler Command Pro engine. "The Lazer Z EPS is our largest, most productive air-cooled riding mower," said John Cloutier, marketing communications manager. "This new Kohler 28-hp EFI engine option gives operators the increased power they desire, without adding the weight or added complexity of water cooling. When paired with our 72-inch Ultra Cut deck, the 28-hp Lazer Z EPS can cut up to 6.0 acres per hour."

Exmark Mfg. Co., Inc/402-223-6300 For information, circle 193 or see www.oners.ims.ca/2079-193



Circle 122 on card or www.oners.ims.ca/20/9-1