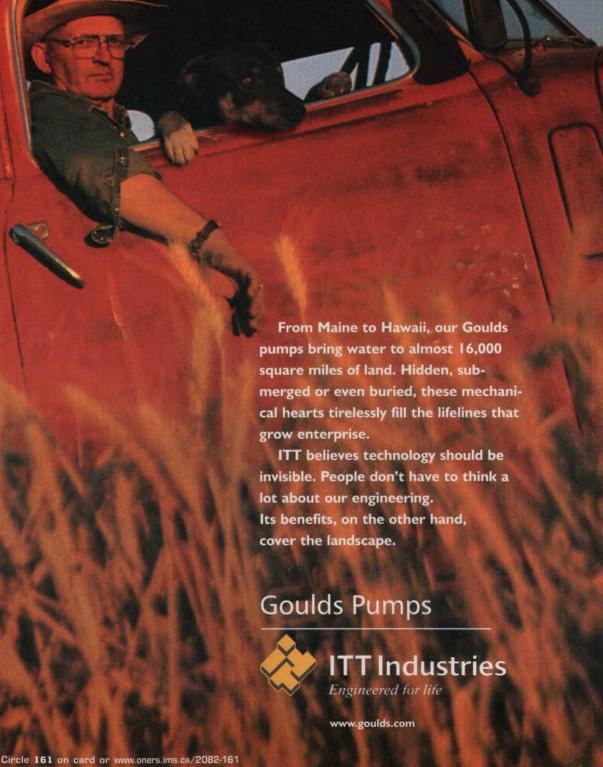
ITT Industries irrigates
over 10,000,000 acres of land in the U.S.
Meanwhile, Ben Paulsen has 150 acres
of wheat to harvest.



# In & On the Ground

#### SOIL AMENDMENT

Caltrisal soil amendment overcomes salinity issues in soils by solubilizing calcium in the soil and moving dessicating salts away from the rootzone quickly and efficiently. Caltrisal

can be sprayed or injected, and can be applied in conjunction with liquid fertilizers, making application a snap.

Aquatrols/856-751-0309 For information, circle 096 or see www.oners.ims.ca/2082-096

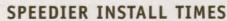




#### GLOBAL IRRIGATION SYSTEM

Sentinel offers field satellites that operate in standalone mode with flow monitoring and sensor capability as standard features. You can use a hand-held radio and satellite in stand-alone mode, without additional hardware. Exclusive to Toro, the hand-held can be used for voice and data commands. Or, you can upgrade to a central system without adding a middle manager or additional field controller hardware.

Toro Irrigation/800-664-4740 For information, circle 131 or see www.oners.ims.ca/2082-131



The new SnapTap saddles from King speed install times for swing joints, drains, and sprinkler heads by eliminating need for glue and tools. SnapTap allows the saddles to cut efficiently through polyethylene pipe with a patented "cutting tip" for a tight seal every time. The installer will see side location of the latch and hear it"snap" into place to visibly and audibly confirm the connection is secure.

King Innovation/800-633-0232 For information, circle 103 or see www.oners.ims.ca/2082-103



#### FIRE ANT BAIT

Amdro Pro fire ant bait is the fastest, most effective professional product for the control of import-

ed and native fire ants, and a variety of other ants. Mound treatments or broadcast applications of Amdro Pro eliminate the queen and her colony in 3-7 days.

BASF/919-547-2000 For information, circle 072 or see www.oners.ims.ca/2082-072



# 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".

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

Call 800-455-3392





Circle 162 on card or www.oners.ims.ca/2082-162

Circle 193 on card or www.oners.ims.ca/2082-193

# **Utility Player**

The Toolcat 5600 plays every position like an all-around pro. It has the agility and strength of a loader, the speed and capacity of a pickup truck, the versatility of an attachment carrier. Put this major league machine in your lineup and have a winning season all year long.



Angle broom attachment



Mower attachment



Cargo box with hydraulic dump



# Toolcat 5600 Utility Work Machine

1,500 .. 2,000

Rated Operating Cargo Capacity Capacity

4,000<sub>lb.</sub>

Trailer Capacity

Travel Speed

## Your most valuable player!

- Soil cleanup
- Sweep
- Mow
- Remove snow
- Grade and level
- Lift pallets
- Plant trees and shrubs
- Drill fence posts
- Pull trailers and implements
- Till



Call toll-free 1-866-823-7898 ext. 0246 for a FREE Video Catalog and 2003 Buyer's Guide. Or visit our website www.bobcat.com/0246

Circle 163 on card or www.oners.ims.ca/2082-163

Bobcat Company • P.O. Box 6000 • West Fargo, ND 58078

Bobcata One Tough Animal

An **(IR)** Ingersoll Rand business

## In & On the Ground

#### LONG BATTERY LIFE KIT

Using the dependable technology of the SoloRain 8014 valve actuator, Nelson Turf introduces the 8096 PG Long Battery Life Kit for the SoloRain

PG multi-station actuator line. Compatible with any SoloRain PG unit, this kit extends the normal battery life up to 5 years.

Nelson Turf/800-622-8024 For information, circle 075 or see www.oners.ims.ca/2082-075





#### FIX DRAINAGE PROBLEMS

Using the non-invasive WaterWick sand injection technique, TRW Enterprises can tailor a specific solution to your drainage problems. The three-blade vibratory system injects a custom-blended sand-based vein from 5/8- to 1-in. wide and up to 12 in. deep. Play can resume immediately after the process is complete.

TRW Enterprises/800-877-7103 For information, circle 058

#### **NEW ROTOR**

K-Rain has introduced the ProSportRotor, capable of covering a 43-67-ft. area.

The unit, available in heavy-duty plastic or stainless steel, is packed with features: partial to a full 360 degree coverage; a triple port nozzle; patented Easy Arc Set allowing for easy adjustment from the top with a flat bade screwdriver; Arc Memory Clutch returns the rotor to its preset position automatically even after being tampered with; patented Reversing Mechanism has more than a 20 year history of uninterrupted reverse and return; and more.

K-Rain/561-775-9607 For information, circle 068 or see www.oners.ims.ca/2082-068





# Good things happen to those who Verti-Drain® more often.

Of course, we know that life isn't always fair. But sometimes if you do one thing right you gain great rewards. Sometimes more than you deserve. We like that when it happens to us. The converse, unfortunately, isn't so much fun. And so it is with those who aerate only once a year. That one little oversight can cost them, especially when turf conditions get tough.

Aerating with a Verti-Drain 2, 3 or 4 times a year using various methods works a little like insurance for your turf. You know, you don't always have to pull plugs and fill every time you aerate. There are

lots of options - solid tining, hollow coring, needle tining - to name a few.

It's all based on releasing the soil and getting more air and water to the roots. That's how you get root growth past 6" deep. As far as compaction is concerned, it's an ongoing effort. The more you break it up, the better off you are 'cause you know it's coming back if you have any traffic at all.

So give yourself a chance, enjoy the rewards. Give your soil a chance - the paybacks are great. Get a Verti-Drain. Take control.





Breaking barriers to better turf.

Redexim Charterhouse Inc. 950 Sathers Drive Pittston Township, PA 18640 1-800-597-5664

Tel: 570-602-3058 Fax: 570-602-3060 www.redexim.com

# Anticipating autumn

# Field prep for the fall season

ong before the shift from hot summer days to cool autumn breezes begins, sports turf managers begin planning for the challenges the change of seasons will bring. SPORTSTURF recently asked several industry experts to share their insights on preparing football and soccer fields for the fall season.

#### Tim White, Fairfax County director of park operations, Fairfax, VA

To prepare a natural turf rectangular athletic field for a fall season, take these steps. Hopefully when your spring season was over you inspected the field, amenities, and all support systems. Walk the entire field and make notes of any areas of special concern, such as overly wet, rutted or heavily damaged areas. These areas may require additional seed and topdressing to have maximum turf cover by fall. Also, make note of any weed or pest problems. Install "field closed" signage at strategic points of access. If possible, remove the goals to further discourage use of the field during the turf grow-in. To further discourage play,

remove goals from the

After the spring season, the irrigation system (pump station, sprinklers, valves, lines and controllers) should be thoroughly inspected and tested. Inspect all main and lateral lines for leaks. Ensure all sprinklers are at grade, are turning properly, and are distributing water to specification. Ensure all valve boxes have lids and are at grade. Run an automatic cycle and ensure the proper operation of the controller and valves. Make all necessary repairs before implementing the turf program. The irrigation system is the key to a successful grow-in.

Playing surface

Planning for a post spring season turf renovation begins before the start of the spring season. To determine the amount of limestone, potassium, phosphorous and other secondary and minor nutrients the soil requires, soil samples should be taken at least every 2 years. If you have not sampled the field in a couple of years, take samples early in the spring so you will be able to act upon the soil report during renovation. Ensure all sources of potassium are sulfate. The maintenance turf program must be managed accordingly: knowing that there will be a late spring seeding/sprigging and a summer grow-in dictates the general spring turf program, especially weed control. Post-emergent strategies need be used to control both grassy and broadleaf weeds. As always, refer to the herbicide product labels for the safe reseeding interval.

Deep tine aerate the field. Core aerate two directions. Fill in low areas, depressions and divots with topdressing/rootzone to bring back the original grade.

> For cool-season turf (Kentucky bluegrass/perennial ryegrass/tall fescue) powerseed the entire field one direction, and a second direction down the "center third" of the field where the heaviest wear typically is. Sodding goalmouths and other worn to bare ground areas is an option worth considering. Your budget and the amount of time between the end of the spring season and the start of fall will help determine the type of seed to use and if sod is the best option. After seeding, bare areas should be mulched to help retain moisture and stabilize the area. For warm-season turf



# welcome to the future of green replication



When it comes to green replication, not much has changed over the past several years...until now.

Introducing the entirely new GradeMaster 3D Grading System. This box scraper automatically restores greens and other contoured areas to their original state, allowing you to maintain and refinish with unparalleled accuracy and efficiency.

Using Trimble machine control technology, the GradeMaster 3D allows contractors to topo the existing surface and recreate the original design once work is completed.

The GradeMaster 3D offers a comprehensive, automated process to return greens to their original design specs.

If you would like to learn more about this revolutionary grading system, click on www.laserleveling.com for more information.

# **Sportsturf Machines**

(Bermudagrass), re-establishing it in heavily worn areas is best accomplished vegetatively with sprigs or sod, but seeding may be an option for you depending on your region. Proper turf management of Bermudagrass in between spring and fall seasons will allow moderately worn areas to heal completely. If your Bermudagrass field will be over-seeded in the fall with a cool-season turfgrass, fit that step into your schedule now as well.

Topdress the entire field, and lightly roll. Apply limestone(s) and other nutrients in accordance to the soil report. Make split applications during the grow-in if large quantities are called for. Be sure to account for the amount of nutrients that will be applied with the maintenance applications of fertilizer during the grow-in.

Apply a composted, natural organic fertilizer to help stimulate soil biological activity. Apply light, frequent applications of a readily available starter-type fertilizer throughout the grow-in process. Water in all fertilizer applications.

Irrigate as often as necessary to maintain soil moisture. Depending on natural rainfall and daily environmental conditions, light, frequent irrigation may be necessary to optimize germination and establishment of the seed, sod or sprigs. Sod and sprigs may be more effectively hand watered supplementally, depending on the size of the area. Inspect the irrigation system at least weekly during the grow-in, as it cycles through a syringe cycle, and repair any problems immediate-

Frequently scout the field and monitor for weeds, insects and fungal diseases, and implement control strategies accordingly. Weeds and insect control should be part of an on going program and have been largely addressed during the spring season, as touched on above. Additional broadleaf and grassy weed control may be necessary during the grow-in and prior to fall play. Refer to product labels for safe application interval after seeding. The control of fungal diseases such as Pythium and Ryzoctonia is critical. Preventive applications of fungicides

are often the best approach to minimize their potential damage.

Applications of other turf management materials such as wetting agents, sprayable nutrients and biostimulants will aid the turf grow-in and rooting, and should be considered as budget allows.

Continue mowing on regular cycles. The height of cut can be raised slightly during the grow-in. Maintain at least a twice-per-week frequency and be flexible with the schedule to account for the field conditions of the day and what turf management practices are scheduled.

Before the start of the fall season, inspect, test and repair the lighting system (controls, lamps, timers and the standards themselves). Inspect and repair all amenities, such as spectator bleachers and player benches. Tighten all fasteners, inspect planks and hand rails for sharp edges and cracks, inspect framing for bent components and welds for cracks, and ensure mounting is solid and stable. Inspect goals and repair any defects noted. If removed, re-install goals or uprights just prior to the start of the fall season. Ensure they are mounted and installed to manufacturer's specifications. Inspect and repair walkways, fencing and parking areas. Inspect refuse containers and ensure there are no sharp edges and are properly secured. Replace or repair as necessary.

The field should be re-measured and surveyed to ensure proper dimensions for the fall season, and must be done if transitioning from spring soccer to fall football or establishing a fall rectangular field overlaying a spring ball diamond.

Layout, stencil and paint all touch lines, hash marks, and yardage numerals just prior to the start of the fall season. Mixing in a turf growth regulator with the paint mix will decrease the frequency of re-painting during the season.

#### Jeff Hintz, supervisor of grounds, Bethel College, St. Paul, MN

The development of a strategy for sports field management is influenced by many environmental and economic factors. Therefore, it is impossible to devel-







# 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 168 on card or www.oners.ims.ca/2082-168



Count on it.

# **Sportsturf Machines**

op a single set of recommendations that will result in acceptable playing surfaces on all sports fields. The dates may vary depending on the start date of the football and soccer seasons and weather, turf condition and events scheduled.

We begin fall field preparation after the last fall event of the previous year. Preparation becomes more intense, however, during the end of July and August. It is during this time, based on how the fields look, that we can determine if we were effective in planning and executing our field maintenance plan.

Two weeks before the beginning of fall practice we begin to lower the height of the cut for the field by slowly adjusting the mower height down to a final height of 1.5 inches. It is important to never cut more than 1/4 inch of the plant at any time. We keep the grass height longer during June and July to hold moisture and help with new growth.

Aerating is a good practice that opens the ground. We aerate two weeks prior to the season opening and every three weeks thereafter.

Over-seeding with our slit seeder or just spreading seed will occur right behind aeration.

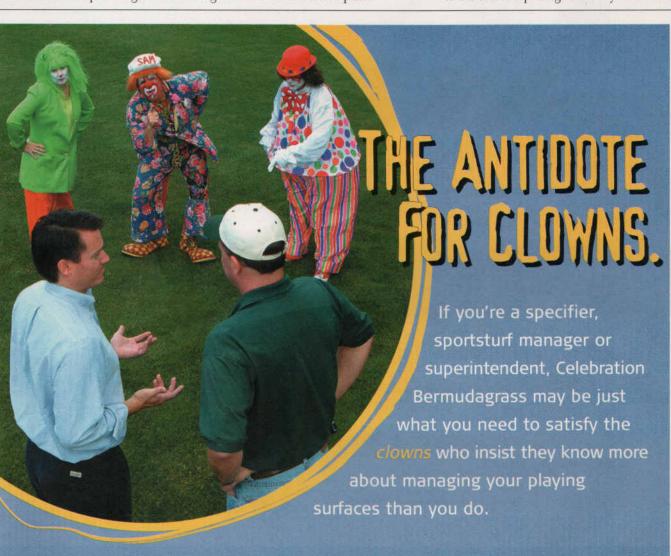
Topdressing will follow with a sand profile field. This keeps the field (playing surface) level and provides the ability for new seeds to grow.

Fertilization is done throughout the growing season. We push the grass to provide a thick and quality playing surface. During each growing season, 4 to 5 pounds of Nitrogen in total are applied from April to November during 4 to 5 applications.

Pesticide and herbicide application is used as needed. Any broad leaf plants, fungus or pests that may set the turf back will be addressed. It should be noted that herbicide application might be harmful to new grass.

Irrigation management and monitoring is very important during the summer months. Two or three short waterings each day works well to establish new grass in areas that may have been worn out from the previous season. Allowing the grass to be somewhat dry going into the night hours lessens the chance for fungus and disease to occur. Watering through the summer on good established grass occurs once every other day with occasional syringing on very hot days. Fall watering is also once every other day so that the turf gets a chance to dry on top and the root follows the water down. The right plan for each field will vary depending on drainage, condition of turf and weather/climate.

Painting of the field happens in August. Our turf grows fast and we paint lines every week. To keep the lines looking good and the turf growing well, we mow two to three times per week on average. Our game height of cut is 1.5 inches. We keep our fields at 3 inches most of the summer and work down to 1.5 inches over a three-week period as late as possible prior to the football or soccer season beginning.



A Unique Improvement. From its deeper blue-green color, to superior handling, your users will compare Celebration favorably to other bermudagrasses.

Ready Availability. With 45+ licensed growers in 12 states, you can rely on ample local supply.

Certified Purity: A rigorous QC program ensures genetically pure, contamination free turfgrass.

All Celebration is certified.

Maximizes Resources. Reduced mowing requirements and improved shade tolerance decrease maintenance costs.

For purchasing information and a brochure: Sod Solutions • 843.849.1288 www.celebrationbermuda.com

For turfgrass tips and information about all improved Sod Solutions turfgrasses: www.sodsolutions.com





The Celebration Bermudagrass and Sod Solutions names and logos are trademarks of Sod Solutions, Inc.