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Spring Tine Rake.**

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



**GreensSlicer Spring Tine Rake**  
3 rows of 28 tines.



# FACILITY & OPERATIONS

front office, sooner or later it will come back to bite you. At most colleges, the team puts the tarp on and reports, at the turf manager's discretion, for the removal or dumping of the tarp.

Of course the major leagues are a whole different situation. Most turf managers at that level have a staff of up to 30 on call for just the tarp. If there is a certain % of rain in the forecast, this crew knows to report to work. Some teams have full-time positions for a "tarp coordinator," the job being to make sure there are enough people there when the tarp is called for.

Just like caring for an infield, everyone has a different set up when it comes to tarping. There is not a right or wrong way to tarp, as long as we can preserve the playability of the skin we have tarped in the right way.

## University of Kentucky

Tarping at the University of Kentucky is a full time job. We tarp both baseball and softball fields year-round. Most of our tarping occurs between September and May (pretty much



Bungee cords connected to the dugout benches help hold down the softball tarp at Kentucky.



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# Dean's TARP TIPS

Use sand buckets instead of sand-bags. The buckets are easier to carry, stack, will not hold water, and will last longer. We use empty paint buckets and fill them about 1/3 with sand.

Make sure your tarp's seams run in the same direction as you are pulling, e.g., if you pull your tarp north and south, your seams should run north and south. Having your seams run perpendicular to the direction you pull your tarp may cause them to stretch and eventually leak.

Skin tarps allow some water to get on the edge of your dirt. They will keep the majority of your dirt dry but are not as effective as a full tarp. These wet spots are right where the shortstop and second baseman play, which raises a safety issue.

If you use players to help you pull the tarp, make sure they don't have cleats on (plastic or metal). The metal spikes will cut right through the tarp, and plastic cleats potentially can cause damage as well.

If the wind is blowing, you will need more people to pull the tarp. Do not hold on to the tarp if it starts to "blow up." It is not worth risking personal injury over a tarp.

When buying a tarp, I highly recommend getting one with straps. It is a lot easier to pull.

If you cannot afford a new tarp, shop around to see if someone in your area has one for sale. Do your homework though to make sure you are not inheriting someone else's problems. Buyer beware!

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**Sand buckets are easier to carry, stack, will not hold water, and will last longer than sandbags.**

the whole academic calendar). We tarp in the fall for fall practice, individual workouts, and camps; winter tarps in order to keep the field ready for practice in January; spring tarps are for in season games and practices; and summer tarps are for camps and high school games.

With both facilities in mind, we average pulling at least 150 tarps per year. All this tarping has its advantages; yes, that's right **ADVANTAGES!** We have developed great relationships with our two head coaches, John Cohen and Eileen Schmidt. Without their cooperation, all this tarping would not be possible. We can always count on a couple players and coaches from the baseball team to help pull off the tarp. If the softball team is practicing or playing, putting the tarp on is not a problem.

Our baseball tarp is a Covermaster 170 x 170-foot, 7-ounce tarp with straps. We store it behind the third base cut out. Without water, we can pull our tarp with four guys. With water we want as many people as we can get. Our tarp is folded three times using the half method (fold it over

in half once, then fold in half twice and finally fold in half a third time). We then roll it on a 20-foot, double-walled plastic drainage drum that has a 40-inch diameter. We hold our tarp down with 12-inch, T-handled spikes that our mechanic welded. He cuts one 12-inch section in half to get two handles, then welds a half spike on top of a whole spike.

We have a skin tarp for our dirt as well. The skin tarp covers the entire infield dirt as well as baselines, in four overlapping sections. We hold the skin tarp down with sand buckets. This tarp is used in December and January.

Our softball tarp is a 120 x 120-foot, 7-ounce Covermaster with straps. We have pulled that tarp, dry, with as few as three guys. Our softball coach requested that we fold this tarp accordion style. The tarp rolled up on the same size drum and stored behind the first base cut out. We hold the tarp down with 12-inch T handled spikes, sand buckets, and bungee straps attached to the benches.



12-inch, T-handled spikes.

We have a full infield of dirt, no dirt in front of the dugouts, with the grass starting along the back lip. The spikes are used in the grass, the sand buckets are used along our backstop, and bungee cords connected to the benches in the dugouts. The skin tarp is held down with sand buckets. We use the skin tarp when the skin will be covered for long periods of time, which allows us to keep the dirt dry while not putting any pressure on our grass.

Here is how some other turf managers work with tarps:

### Ray Sayre, Greenville Drive

Our tarp is 170 x 170-feet and we use an accordion fold that allows us to be quick and efficient when pulling the tarp. We roll it up on a 50-foot tube and store it just beyond the dugout on the third base side. This reduces the distance we need to pull the tarp, which is important when it is already raining.

During a typical day we will put the tarp on with 4-6 people but for games our tarp

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crew is 12-16 people. Once the tarp is on the field we use 10-inch tarp stakes to hold it in place. When winds pick up we also use our larger equipment on the corners and edges to help hold it down. Two large turf fans are used for air circulation under the tarp. This air will create a tarp bubble that can reduce water on the tarp and help minimize disease pressure on the covered grass areas.

Here in South Carolina we average about 45 tarp pulls each year. A lot of these are due to the afternoon showers we receive almost daily. We watch the weather constantly to follow weather patterns which together with our rain percentages form the basis of our tarp decisions. Usually a rain chance of 40% and higher will cause us to put the tarp on. I will not gamble with the weather; I have tried to out-smart Mother Nature in the past and it is not worth it. It is much easier to put the tarp away dry than it is to risk canceling a game and losing that revenue!

### Chris Pearl, Lexington Legends

Our tarp is located just past the umpire's cutout on the first base side. It is rolled up on a 28-inch diameter, double walled plastic drainage pipe. I have been part of 4-man crew to put it on. We accordion style fold using three folds. I use two blowers that came from the old inflatable at our kid's zone in the stadium. They are squirrel cage type blowers, which really produce a lot of air. The blowers are located at each coaching box and have an extension cord running to the dugout for power. I anchor my tarp with 12-inch nails put in the handles, twisted a few times, and set at an angle. I use the front office staff to help me pull the tarp when needed.

*Marcus Dean is the assistant sportsturf manager for the University of Kentucky.* ■

# Goose grass

**G**oosegrass (*Eleusine indica*) is an annual warm-season grass that develops in commonly reclining, leafy tufts. The weed is characterized by its silvery white base and dark green color. Coarse blades grow, flat or folded, from 2 to 8 inches long and .1 to .3 inches wide. Mature stems can grow up to 2 feet tall. Goosegrass flowers are composed of 2 to 10 finger-like spikes that resemble zippers. Other common names for this species include silver crabgrass, crowfoot, or wiregrass.

### Host material and range

This troublesome weed, often confused with crabgrass, is found in sports turf areas throughout the South. In Florida and parts of Texas, emergence begins as early as March, and in more northern areas, as late as June. Traditionally, goosegrass germinates when soil temperatures at the 4-inch level reach 63 degrees Fahrenheit for 24 consecutive hours. Sunlight also provides optimum germination. As a rule of thumb, goosegrass germinates three to four weeks later than crabgrass, depending on the area of the country. Emergence contin-

ues throughout the summer season. Goosegrass thrives in hard, compacted or poorly drained soils, as well as in high-traffic areas where turfgrass cover is minimal.

Bert McCarty, professor and turfgrass specialist at Clemson University, says, "Goosegrass has the ability to grow under lower soil oxygen levels than desirable turf, which makes it all the more difficult to control."

### Current threat

Each goosegrass plant can produce 50,000 seeds. Once it is established, annual re-infestations are very likely to occur. Due to its far-reaching root system, goosegrass easily tolerates close, frequent mowing. Because of this, mature blades are extremely difficult to mow. Often, the blades become frayed by mowers, and develop a whitish tip. Mower blades must be kept very sharp in order to effectively cut goosegrass.

### Prevention tips

Preemergent herbicides will control goosegrass in warm-season grasses. In order to achieve maximum control, application rate and timing is critical. Rotation of herbicide chemistries is

also crucial for resistance management. McCarty recommends rotating products such as pendimethalin, dithiopyr, and prodiamine.

Richard Duble, turfgrass scientist at the Texas Cooperative Extension Service, found that goosegrass can be controlled with post-emergent herbicide applications. For example, Revolver herbicide provides control of a variety of cool season grasses, including goosegrass and *Poa annua*, in bermudagrass and zoysiagrass.

### What can you do?

Maintaining complete grass cover and applying practices that promote vigorous turf are the best ways to keep goosegrass infestation minimal throughout the warm seasons. Other practices that reduce soil compaction, and therefore goosegrass growth, include reducing irrigation, increasing aeration and diverting traffic. If a small area of weeds has already emerged, dig it up! If the weed problem persists, use a post-emergent herbicide. ■

*Don Myers is the product development manager, herbicides and plant growth regulators, for Bayer Environmental Science.*



# *Super Bowl XLI turf was MVP*

By Eric Schroder

It may be akin to “preaching to the choir” but we here at *SportsTurf* would be remiss if we didn't recognize and publicize the great job Ed Mangan, George Toma, Alan Sigwardt, and their crew did in handling the turf for this year's Super Bowl in Miami.

Not only did these turf professionals have to deal with the “normal” Super Bowl, a.k.a. “The Biggest Game in the World” (apologies to World

Cup fans but this IS the USA we're talkin' about!), routine – hours and hours on the field of rehearsal time for pre-game and halftime festivities, but did you notice that steady rain throughout the game?

Luckily the players' skills weren't at all diminished by the conditions [insert joke here about “What skills?” when referring to Chicago QB Rex Grossman]. “About as bad of weather as you could throw the ball in,” Indianapolis quarterback Peyton Manning was quoted as say-

Photo courtesy of Dolphin Stadium.



ing afterward. And, "I was thinking, 'Has there ever been more rain in any game I've been in?'" from Indianapolis coach Tony Dungy. Did anyone see one splash, one slip, one divot, anything at all about the playing surface that affected any action in the Big Game? Right, neither did we.

And that's the point. Most Americans and millions of other earthlings watched a football game, played in a Florida downpour, and 99% of them didn't realize the field was perfect. It didn't enter their minds and THAT'S HOW IT SHOULD BE.

Meanwhile, you readers of this magazine were probably the only ones bragging to your fellow Super Bowl partygoers, "Look at that field!" What could have been a better advertisement for the wonders of natural grass?

"We put more water on the field the day before the game than fell on it during the game," NFL Field Director Mangan told us. "You have to keep these sand-based fields moist or they will fall apart on you."

"All the Super Bowls (he's done 17 now) are challenging in one way or the other; this is the first one where we've had rain on game day, but you have to prepare for the worst and hopefully get the best," said Mangan.

"The PAT system (Prescription Athletic Turf, can drain up to 3 in. of rainfall per hour) provides such great drainage, combined with some great turf on top of it, grown in a sand profile that perks real well,

well, we had a great field," Mangan said. "And that bermudagrass can hold a lot of water."

As for the indefatigable, 78-year-old Toma, who's been involved in prepping the turf for all 41 Super Bowls, he called the sod for #41 "The second greatest sod I've ever seen. After 48 hours of rehearsals, the only thing that was going to hurt that grass was fire," he told us.

Toma credited sod farmer "Eddie Boy" Woerner from Southern Turf Nurseries with growing the "Super" sod. He said Woerner's turf is grown on a sheet of plastic and will hold up under any conditions and in any part of the country. The turf was trucked in from farms in nearby Indiantown, FL and Tifton, GA and put down in 7-foot wide, 41-foot long strips, said Toma, and the whole field was done in 6 hours.

Toma told us the greatest sod he's ever seen was a paspalum variety Woerner grew on plastic for a 1999 game in the Superdome.

Boyd Montgomery, CSFM, sports fields district sales manager for Toro, who provided equipment for this year's field preparation, said, "The Super Bowl field was a testament to the fact that properly maintained natural turf can withstand the extreme conditions of practice, play, and weather. The sod used on the playing surface had an outstanding structure and thickness that provided the athletes with the footing and traction needed to perform at the highest level. The quality of the playing surface that Ed, George, and the turf crew provided was the true winner of this year's Super Bowl." ■

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The Aera-Vator is now available with 3 interchangeable rotor shafts for increased versatility. The Aera-Vator now comes with the Aera-Vator shaft, the Multi-Tine Shaft, and a new Slicer Shaft. One machine with 3 optional shafts will help productivity and lower equipment costs for the turf professional. The Aera-Vator and the Multi-Tine Shaft use the same "patented" vibrating action. The Slicer Shaft has an elliptical looping motion to cut stolons and rhizomes to promote growth.



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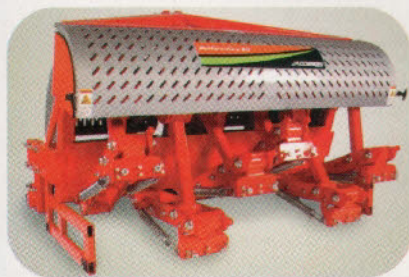
## New painting system

Kromer introduces the new Ultra Pressure high pressure painting system, available on all Kromer riding athletic field maintenance products (AFM's). Ultra Pressure is the only "all in one" riding high pressure paint-

ing and grooming system that allows you to paint lines quicker and more economical by using up to 50% less paint than traditional methods.

### Kromer Company

For information, fill in 063 on reader service form or see <http://www.oners.hotims.com/12049-063>

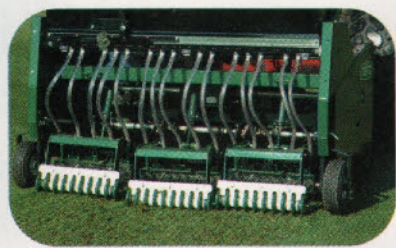


## New aerators from Jake

Jacobsen introduces the PerformAire 60 and 80 3-point mount, variable depth aerators that offer the flexibility to vent or core-aerate large areas of turf. Available

with solid or coring tines and capable of depths ranging from 1-16 in.; depth can be adjusted using hydraulic top link. The PerformAire 60 can core up to 65,000 sq. ft. of turf per hour.

**Jacobsen** For information, fill in 054 on reader service form or see <http://www.oners.hotims.com/12049-054>



## Turfco improves overseeder

Turfco Manufacturing has increased the versatility of its TriWave 60-inch overseeder with a new Power Take Off (PTO) shaft that allows the unit

to more easily be mounted to tractors without the need to trim the shaft. The model also received a new patent-pending top hitch link that allows the machine to better track the ground contour. These units feature three 18-inch wide independent floating seed heads to follow ground contour.

**Turfco** For information, fill in 065 on reader service form or see <http://www.oners.hotims.com/12049-065>



## Seeder attachment

Bobcat Company introduces a slit seeder attachment that can handle various types of grass seed and cover several acres per hour. The seeder's front and rear rollers are made up of a series of notched press wheels. The front roller crushes lumps and represses small

stones to form a firm seedbed. Seed is precisely metered with the proper spacing and at the right depth.

**Bobcat** For information, fill in 064 on reader service form or see <http://www.oners.hotims.com/12049-064>



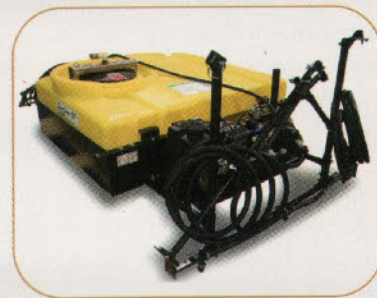
## Learn in Myrtle Beach

Horry-Georgetown offers a Golf and Sports Turf Management Associate Degree program, located in the heart of the Grand Strand. Two-year program prepares students for positions ranging from turf management to turf product sales. Program spans near-

ly 40 years, with more than 1,000 graduates. Internships at leading courses and resorts across the US.

### Horry Georgetown Technical College

For information, fill in 055 on reader service form or see <http://www.oners.hotims.com/12049-055>



## Stadium series sprayers

Broyhill has expanded their sizes of Stadium series sprayers to include 110 and 160 gallons. Featuring low centers of gravity, these units allow you to customize your sprayer. Boom and handguns standard.

**Broyhill** For information, fill in 056 on reader service form or see <http://www.oners.hotims.com/12049-056>



## New 2-wire decoders

Underhill has a new 2Wire decoder control system that quickly converts any Hunter ICC Controller to two-wire operation. The ICC decoder module snaps into the controller. Up to 96 valves can be controlled by one 48-station ICC with one or two decoders per station.

**Underhill** For information, fill in 057 on reader service form or see <http://www.oners.hotims.com/12049-057>



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adjust. Available with manual or electric lift.

### Heying Co.

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Continued on page 42 ▶