He says, "There is no ideal grass for the transition zone. You make a choice and then make it work. With our Bluegrass field, I work with different varieties to limit susceptibility. I've added quite a bit of Midnight to the field in overseeding each year. At some point, I'll probably want to replace the turf with all new varieties taking the best of what's available. With the disease pressure my most difficult challenge; water management is the most important aspect of the overall maintenance program. In 2002, we had nearly 2 months solid of 90plus degrees and high humidity. There were just a few areas where the turf was a little thin and stressed, but only our crew was aware of those spots. We



The crew left to right: Pete Lockwood, Tom Nielsen, Brad Smith, Kyle Smith, and Ray Sayre. Crewman Andy Carden is not pictured.

know there will be times when things don't look the best, but we want to keep those as few and far between as possible."

These results were achieved even though Louisville Slugger Field played host to those 100 events between March 30 and October 12, 2002. Along with the 72 home games of the Louisville Bats, a Triple A affiliate of the Cincinnati Reds, there were eight college and high school games, the Bats team workouts, six days of clinics/try-out camps, four privately sponsored batting practices, a cheerleading competition, a 2-day concert, two celebrity softball games, one spring training game featuring the Reds vs. the Baltimore Orioles, three kids' campouts on the field, each of which featured tents, a 5K run and two pregame baseball clinics.

Nielsen's staff consists of a full-time assistant, three full-time seasonal employees, and one game day employee. He credits the following for their assistance in earning the Field of the Year honors: Brad Smith, Pete Lockwood, Ray Sayre, Andy Carden, Kyle Smith, Mark Piercy, Sonny Collins, and Erik Hagen. He also has a crew of four part-time employees who take care of the extensive landscaping surrounding the stadium. He's adopted some innovative measures to make this all work.

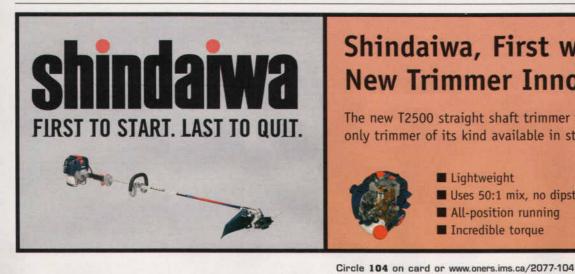
The outside landscape crew has a trailer loaded with all the equipment and supplies they need for maintenance. That simple step eliminates the time lost going into the stadium maintenance area for materials. The cart is

valve box cover to allow quick and easy access.

He's also experimented with raising and lowering the turf height of cut, and with keeping it at one level throughout the season. He's determined the plant strength and vigor is greater and sheering is reduced with keeping the same height of cut throughout the season.

One of the greatest time and money savers is the use of fans to float the tarps. Nielsen says, "We originally purchased two large oscillating fans to create air movement around home plate and the apron. During the second season here, we started experimenting with the fans and the tarp. We've now removed the oscillators and mounted the fans on wheels so they can be maneuvered more easily and set them at the height and angle that fit our needs. With the tarp pulled tight, we position the fans at the first and third base sides. When conditions are windy or the field is saturated, we anchor the corners of the tarp with equipment as well as the pins.

"The fans actually float the tarp above the surface of the field and keep the air circulating beneath it. Rain drips off the tarp as it falls, rather than forming puddles on top of it. Occasionally, if rainfall is heavy, we need to consolidate the water on the surface toward the back of the tarp and squeegee it off. The turf doesn't suffer from the suctioning effect of the tarp on the grass. We have the standard 170-foot by 170-foot tarp. By using the fans, we've found we can remove the tarp with a four or five person team, rather than 12 to 14. We



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restocked as needed after each work session. Nielsen plans to develop even more extensive plantings and flowerbeds within the next couple years.

The second season at the field, the crew took on the task of adding more drainage in the warning track. This took major excavation at each spot to install 4-inch pipe from an inch below the warning track surface to the connection point with the subsurface drainage tiles. The original drains were set 6 inches below the warning track surface. The crew also extended them to within 1 inch of the surface. There are now 35 drains spaced around the warning track, each one equipped with a short whisker pull on the drain's

Field of the Year

Maintenance Program- Louisville Slugger Field

Fertilization (Granular)

- Magnesium twice in the spring, twice in the fall
- Sulfate of potash twice in the spring, twice in the fall
- 12-3-8 Organic once in the spring, once in the fall

Fertilization (Liquid)

- Bi-weekly program carbohydrates, complete amino acids, mature proteins,
- Micronutrients, biostimulants, 8 % Calcium, 20 % soluble potash, and
- 18-0-3 or 4-4-16
- As needed 12-4-5.25
- Once a month during the active growing season chelated calcium, liquid manganese, dethatcher, liquid humic acid
- Spring and fall 10-45-8 (auxiliary nutrient N-P-K if needed)

Weed Control

- MSMA post-emergent for grassy weeds
- 18-4-10 with pre-emergent herbicide (when soil temperature reaches 55 degrees)
- Postemergent for broadleaf weeds

Fungicide

 Preventive applications March through October, curative applications when disease is present - fungicides used vary with season, matched to degree of potential susceptibility and products rotated to reduce possibilities of resistance

Insecticide

Preventive - June 1 and August 30 - as needed if insects present

Wetting Agent

Used to aid water efficient for irrigation and syringing

Mowing

- Height of cut maintained at 1-1/4-inch all season
- Frequency every day when team home, every other day when team on the road

Aerification

- Hollow tine once in spring, twice in fall, if possible drag in cores and top dress 1/16-inch
- Solid tine each month during playing season topdressing combined, if workable



Infield, Mound and Plate Maintenance

- Till infield 6-inches deep in spring and midway through the season. Float to level the infield, roll with 1-ton roller
- Compact infield with 1-ton roller every other day when games are being played
- Cover with 1/4-inch soil conditioner
- Water clay deeply to keep clay moist
- Screen infield with field rake for pre-game and post-game grooming
- 5th inning drag using 4-2-foot by 8-foot stiff mat drags
- Nail drag infield during season as needed
- Patch mounds and plates daily with clay

Lip Prevention

- Rake and sweep out edges after each game
- Blow out edges with hose after each home stand
- Edge field every third day

Winter Maintenance

- December cover infield and aprons with turf blankets
- Blow out irrigation system
- Apply fungicide
- Service and repair equipment

Miscellaneous

- Take soil test three times per year
- Conduct tissue test twice per year
- Overseed in fall using 400 pounds Midnight bluegrass seed
- Pre-germinate seed during season for use as needed varieties used: Ram, Georgetown, 1757 and Midnight

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A CRACK PROPERTY IN

Field of the Year

can keep the tarp in place until just before the start of the game, quickly remove it, and have an excellent playing surface.

"We also use the fans when the weather conditions are especially hot and humid and the air is stagnant. We position one of them in the middle of the apron to create a river of air. The air stream pulls and pushes the surrounding air into a flowing pattern creating the air movement that helps reduce disease sus-

ceptibility. Our initial cost for the fans was around \$1,000 each. That has paid for itself many times over."

It's obvious that Nielsen is always looking for a challenge and his background had prepared him for the unique ones in Louisville. He grew up in Franksville, WI, where his parents had 3 1/2 acres of land, including the neighborhood pickup game baseball

field. Though he'd always loved baseball, he knew his talents wouldn't make it a career option. He was in the process of studying police science when he discovered that working on a baseball field could be a career, not just a summer job. He changed his major and earned an Associate Degree in Horticulture from Gateway College in Kenosha. He worked for the Milwaukee Brewers at County Stadium for 3 -1/2 years, traveling to spring training with the team and working with George Toma there. He then took a position with Jacobsen, testing prototype mowers on golf courses. He worked for the Florida Marlins for one spring training session. Then he moved to the head position with the Eugene Emeralds in Oregon for 3 years. He next accepted the head position with the Chattanooga Lookouts.

Nielsen says, "I had started discussion with Louisville before heading for Chattanooga. I'd worked with all types of turf, Bermudagrass in Chattanooga, overseeded Bermudagrass in Florida, Perennial ryegrass and poa in Eugene, and bluegrass and ryegrass in Milwaukee, to gain as much experience as possible. I'd also been helping with the Lexington Legends field when Erik Hagen was working with the construction there, and was aware of many of the things he did to stop problems from happening during the process. I was really excit-

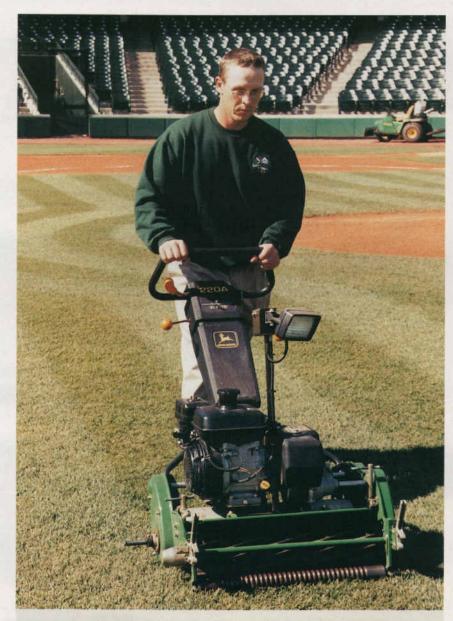
"There's great cooperation throughout the organization. I have input on field use situations and my requests are respected."

ed about the opportunity to tackle the construction and weather-related challenges in Louisville.

"Scott Shoemaker, director of stadium opera-

tions, came to Chattanooga to see my work there and to interview me. When the job offer was extended, I was pleased to accept it. The working relationship here has been everything anticipated and more. There's great cooperation throughout the organization. I have input on field

use situations and my requests are respected. I can't say enough about how great everyone is to work with. I also give credit to my wife, Anne, for all her support and her willingness to make the moves with our family to allow me to do what I love. And thanks also go to our son Andrew, 13, and daughter Cameron, 2, for putting up with Dad's schedule."



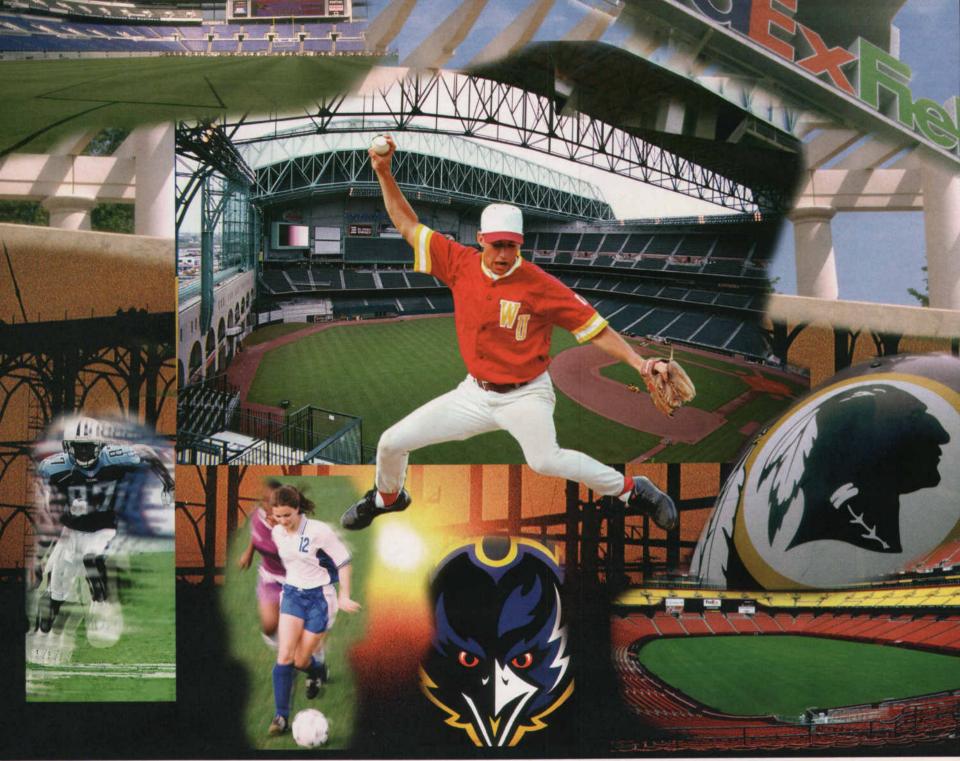
"I was really excited about the opportunity to tackle the construction and weather-related challenges in Louisville," says Nielsen.

Nielsen extends equal respect to his staff-and they earn it. He seeks out turf students with the ability, heart, and dedication to become sports turf managers and puts them through the ropes on the crew. He says, "You have to have some vested interest in the job or you won't be committed to the 14- to 15-hour workdays. I really feel that during the two to three years an individual spends as part of our staff they should have the opportunity to learn all we have to teach them. If they have the drive to go with the skills, they'll be equipped to start in a head position of their own. I believe it's all part of the mentoring process we, as sports turf managers, owe the industry. My goal is to have each of my assistants move on to head positions."

And he has a good start on that. Jake Tyler, his first assistant is now at the head spot with the Binghamton Mets. Chris Pearl holds the top spot with the Nashville Sounds; Kyle Lewis with the Norwich Navigators; and Pete Lockwood with the Eugene Emeralds.

It's the commitment by Nielsen and his crew to excellence in overall field quality, safety, playability, and appearance the earned the Louisville Slugger Field STMA Field of the Year honors.

Suz Trusty is communications director of the Sports Turf Managers Association.



Fielder's Choice

It's hard to go wrong when you're choosing between two new warm-season turfgrass varieties as outstanding as SeaIsle 1 Seashore Paspalum and TifSport Bermudagrass. These two new patented cultivars can only be sold as certified sod or sprigs, and only by a member of a select group of licensed growers. Our top-quality producers have agreed to a stringent set of production practices. This means the grass you buy from a Florida, Georgia or South Carolina grower is going to be the same grass you buy from a Texas or California grower. And it'll be the same 10 years down the road. If you're involved with the installation or on-going maintenance of a sports field, you'll really appreciate how these turfgrasses compare to Tifway 419 and the other older varieties in use today.

While SeaIsle 1 is similar in texture and wear tolerance to hybrid bermudas, it may offer a number of important advantages. First and foremost, it can handle multiple stresses: prolonged drought, high salt levels, waterlogging and extremely high or low soil pH levels. Secondly, SeaIsle 1 can tolerate most types of alternate water sources, including wastewater, effluent, gray water, brackish water, and even ocean water. It requires less irrigating, less

fertilizer and only minimal pesticide applications when compared to other warm-season cultivars. It also handles cloudy conditions and the low light intensity of domed stadiums extremely well. That's why it was such a good choice for the Houston Astros' new field. Take a look at its pluses and specify SeaIsle 1 for your new sports field or renovation project.



Looking for a bermudagrass that can stand up to the stress and demands of big-time sports, to the wear and tear of football and soccer cleats, to the punishment of baseball slides, dives and spikes? Relax; you've found it. TifSport also has outstanding color, disease resistance and cold hardiness TitSport also has outstanding color, disease resistance and cold nardiness. In fact, TifSport is performing with flying colors in stadiums as far north as FedEx Field in Landover, Maryland, on up to the Ravens' PSI Net Stadium in Baltimore. If you're a sports turf manager, you know what's important for a playing field - outstanding density, turf strength and turf quality. You need a grass that recovers quickly from day-in-and-day-out abuse. That's just what TifSport has been bred to do.



Be sure to ask for TifSport by name. It makes an attractive, dark green turf.

In & On the Ground



Here are some tips from the trenches

PORTSTURF recently asked several turf managers the following question: What does your infield maintenance plan/schedule consist of?

Mike Boekholder, Indianapolis Indians

Our daily infield maintenance schedule is quite routine. We begin our maintenance by watering the infield quite heavily, almost to the point of puddling, after a game (unless weather dictates otherwise). That way, by morning, the moisture has soaked into the profile deeply and gives us a base of moisture to begin the day with.

First thing in the morning the moisture level of the skin is checked and more water applied if needed. We then roll the sliding pits around the bags as well as the position spots on the infield to firm them up a bit more. The infield is then worked up in two different directions using a 3-foot by 3-foot homemade nail board. After the infield has been spiked, it is mat dragged with a handmade

mat drag and the edges are broomed to provide a smooth transition between the infield skin and the turf. We add vitrified or calcined clay every 7-10 days to the infield skin with a drop spreader to keep our 1/4 cushion of conditioner consistent. After games, the entire infield is raked with an infield/bunker rake and then rolled for the evening, after which we apply the post-game water.

Craig Potts, Texas A&M

For our softball field I water the dirt then put a nail drag on the skinned area. After the nail drag I clay the mound and plate area and then tamp those areas. Once I finish the plate and mound areas I level those two



before opening day. Courtesy Partac/Beam Clay.

places and then pack them with my drag tractor. After this is finished I use my steel mat drag to put the finish drag on the infield. I then water the dirt several more times until right before the game or practice. I then go out and put one more finish drag on the infield to help fluff the calcined clay back to the top. Then I apply one more coat of water. I like to try to keep the infield as moist as possible. We perform daily maintenance on the lips with a broom and wash the lips approximately five times per year so we don't get any build-up of dirt in this area.

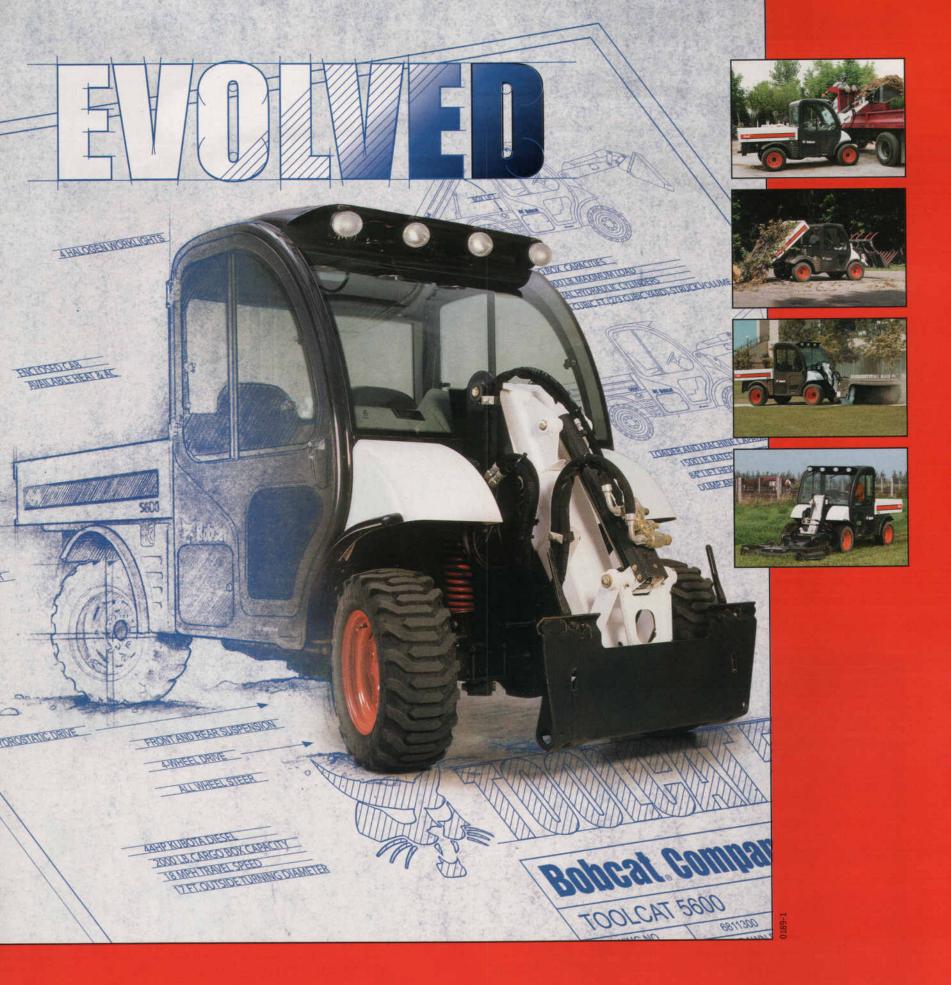
Ryan Nieuwsma, Kane County Cougars

My infield schedule starts right after the game. I usually give it a light nail drag then drag it smooth. The first thing I do the next day is water it: a lot of water if it will be sunny all day, a little bit of water if it is cloudy. Then I monitor the water content, keep it wet until the team comes out for batting practice. I give it a watering right before batting practice starts. After both teams take bat-

> ting practice I drag it smooth again and give it the final watering for the game. Depending on the weather, I could water up to five times a day or as few as twice. I always keep a layer of approximately a half-inch of infield conditioner on top. It is very important to keep that layer on there.

Mike McDonald CSFM, University of Minnesota

We broom all our edges, mow the grass every other day, and clean up any mess. We water any drier or high spots more than the rest of the skinned area. We then hand rake and fill in low areas, then we scarify the skinned area with a machine. We fix the mound and home plate clay areas, drag the skinned area, and then re-water everything as needed. ST

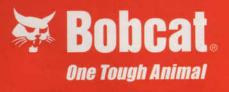


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In & On the Ground



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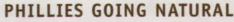
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This month SRI Sports (formerly Southwest Recreation Industries) will take the first steps to install more than 133,000-sq. ft. of bluegrass in the Philadelphia Phillies' new ballpark. The company will excavate the site, install an automatic watering system for sunny days and a



cutting-edge dewatering system for not-so-sunny days, construct bullpens, warning tracks, and batting and pitching tunnels under the stadium. Field installation should wrap up by October. It will be the sixth major league baseball field installed by SRI Sports, which has put turf into stadiums in Cleveland, Pittsburgh, Kansas City, and New York (for both the Yankees and Mets).

SRI Sports/512-259-0080 For information, circle 168 or see www.oners.ims.ca/2077-168

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Growth Products offers Companion, a liquid microbial inoculant containing Bacillus subtilis GB03 bacteria. Use it, and you'll have greener, healthier turf and a root system that is stronger, denser, and cleaner, says the company. You'll also have a higher percentage of beneficial microbes. University studies show that applications of beneficial microbes reduce the number of fungal pathogens, improve plant vigor, and enable better nutrient uptake by plants. Companion is all natural, so there is no risk of phytotoxicity. It requires no special handling/storage and has a shelf life of more than 2 years. **Growth Products/800-648-7626 For information, circle 167 or see www.oners.ims.ca/2077-167**