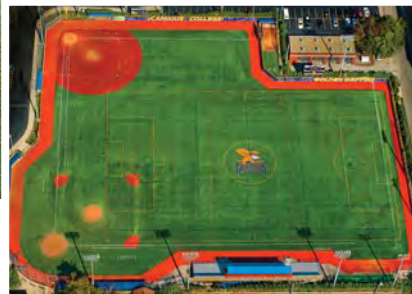




>> CARDINAL NEWMAN HS, Santa Rosa, CA



>> Top left: EASTERN KENTUCKY UNIVERSITY, Richmond, KY

>> Bottom left: CANISIUS COLLEGE, Buffalo, NY

Maintaining a synthetic baseball infield

AT ELON UNIVERSITY the baseball field consists of a synthetic (FieldTurf) infield and a natural, 419 bermudagrass outfield. Our maintenance plan of the synthetic baseball infield is developed around field use and weather. More maintenance is required for higher field use or inclement weather.

The basic daily maintenance includes working on the high-wear areas, including batters boxes, around the pitching mound, around all the bases, and around dugouts and entrances to the fields. For the most part, the work requires just a push broom or backpack blower to move the crumb rubber back into place. The rubber is pushed back to its original location and then water is used to help settle the rubber back into place.

Around the mound area, we push any clay back on the mound. This will also push crumb rubber on the mound. We believe that the

crumb rubber is easier to remove from the mound surface than the clay is to remove from the synthetic surface. During certain times of the year we use backpack blowers daily to blow debris off the surface. Fortunately our synthetic infield surface is only about 40,000 square feet so the time for this process is minimal.

Monthly, we drag the field using the Field-Turf drag. The FieldTurf drag has three different tools: a broom, an aerator, and tines. We use the broom and the tine part of the drag the most often. These two parts help to move the infill (rubber and sand) around, as well as stand the plastic fibers back up on the infield.

After we get done brooming the field, we use three 3-foot magnets to roll across the field to pick up any metal debris. Since the crumb rubber is from old tires there are small fragments of metal, about the size of staples, which we have been collecting off the field. We also sanitize the field monthly. To do this, we use a Gator with four nozzle boom that sprays FieldTurf detergent on the field. We then use four Hunter I-90 heads to water the cleaner into the field.

There are two edges of the field that we must maintain: the edge where the synthetic meets the grass and the synthetic around the dirt mound. For the grass edge, we have found that the best method to remove the runners from the

edge is hand pull them every 2 weeks throughout the bermudagrass growing season. We will also use a weed eater to edge. This gives a clean look without cutting the synthetic fibers. For the mound we use push brooms and backpack blowers to remove the clay from the synthetic fibers. If the clay builds up too much then we use a hose and shop-vac to remove the clay. This is typically done twice a year, once at the end of the fall and again at the end of the spring.

The biggest thing that we have learned in taking care of the field is to stay on top of the maintenance. If we let the clay to build up, then it becomes harder to remove. If we allow the grass to grow too far into the synthetic then the grass becomes well rooted and is harder to pull out. If we allow debris to collect on the surface then it is tougher to remove them. With the help of the coaches and players we are able to stay on top of the maintenance.

Scott Stevens is sports turf manager for Elon University, Elon, NC.

Sports Turf Manager

CARDINAL NEWMAN HS, SANTA ROSA, CA

Mike Truesdell, president of Cardinal Newman High School, says, "It seems to me, a neophyte, that the separation between the dirt of the mound and the turf of the (Tiger-Turf) field works well. If dirt is kicked into the field it can be swept back. The rubber beads can be replaced if the reverse happens.

"Matt Brown (installer) just completed a major sweeping and disinfecting of the entire surface. I believe that is an annual event. On a quarterly basis our maintenance team pulls a brush device to redistribute the infill. And where it is significantly displaced around the bags and home plate more infill is added," Truesdell says.

"During our planning stages we went back and forth as to whether the area around home plate should be dirt like the mound. Given our required repairs to the batters' boxes, and the apparent ease of keeping the mound dirt and field turf infill separated, it might be worth rethinking that decision," he says.

Matt Brown of Precision Surfacing, Inc., says, "We installed the baseball field at

The biggest thing that we have learned in taking care of the field is to stay on top of the maintenance.

— Scott Stevens

Marin Catholic High School with the three bases, home plate and the pitcher's mound all dirt and the rest of the field synthetic turf. Three years later, they had us tear out the dirt except at the mound and install a brown colored synthetic turf at home plate area and all the bases. The dirt infiltrating into the turf was a maintenance headache around the bases."

EASTERN KENTUCKY UNIVERSITY, RICHMOND

"Our infield is all synthetic (Tiger Turf), parts of it are just clay colored," head baseball coach Jason Stein says. "Our outfield is natural sod." During the season Stein grooms the synthetic turf with the machine he was given by the field builder. "I just run it behind the John Deere for 15 minutes a week during the season," he says. This is the field's third year and Stein reports no problems, no rips in sliding areas. "I am a proponent of the synthetic infield," he says. "Even though I have a turf degree!" Stein earned a bachelor's degree in ornamental horticulture from EKU as well as a master's degree in sports administration.

CANISIUS COLLEGE, BUFFALO

"We are a multi-use (A-Turf) field and have turf everywhere except our mounds and home plates (bb/sb) to work," says Jon Lyons, assistant facility director for Canisius College. Daily maintenance, we hit the removed dirt with a garden rake and steel brush to loosen it and then hit it with a push broom back into the circles. We let it go our first year and had a lot of work to do to get the circle back into shape. We used a power washer and that worked great to blast the hardened clay out and we then filled the rubber back in. We now do the power wash once a year.

"Game days are similar to our daily/weekly work. We run into trouble with time because we have soccer and lacrosse going on as we try to do work on it, it can get a little dangerous with lacrosse out there," he says.

"The migration of dirt/clay into the turf surrounding the mounds and home plates is a constant battle, but it is nothing compared to the work involved [when] we had a grass field.

"Looking back and talking with our coaching staff, being in the Northeast we should have 'turfed' home plate. It would allow us to use it in a great deal more in all seasons," Lyons says. ■

Your grass will be greener and thicker, sooner with CoverSports FieldSaver® Winter Turf Blankets/Growth Covers.



Actual photo – not retouched.



PPL Park, Philadelphia Union, MLS



"The results were incredible..."

Paul Heron, Grounds Supervisor,
Unionville-Chadds Ford School District, PA

WE'VE GOT YOU COVERED ALL YEAR LONG!

Protect turf from harsh winter conditions!
Promote faster spring growth and green-up!

- 8 Year Limited Warranty
- Heavy 100% woven polypro fabric
- Reinforced hems and grommets all edges

Stakes keep covers in place
in brass grommets at 5' intervals.

Special offers ONLY at www.CoverSports.com/ST
For price quotes, sizes and fabric specs,
visit www.CoverSports.com/ST
sales@coversports.com • 800-445-6680

We make covers for all athletic surfaces:
Rain Covers, Sideline Tarps, Track Protectors



AerWay®

AerWay® Leaves Sports Fields Safe and Playable

AerWay® venting tines can be used all season long to reduce compaction and stimulate strong root development without taking the field out of play. The result is a resilient playing surface with excellent top growth.



for more information call

1-800-457-8310

Advanced Aeration Systems

www.aerway.com email: aerway@aerway.com

Packers, Red Bull use grow lighting system

A LLEN JOHNSON, CSFM, FIELD MANAGER FOR THE GREEN BAY PACKERS AND STMA BOARD MEMBER, reports he has been testing and using the SGL Concept lighting system to help grow grass this fall.

SportsTurf: What prompted you to investigate using the SGL system?

Johnson: Nico [the system's inventor, Nico van Vuuren] and a representative from his company were doing a tour of the states to find suitable places to introduce their technology. I was aware that this technology was being used elsewhere but hadn't really been investigating it. I got a call from Henry Wilkinson from the University of Illinois one day asking if I would be interested in letting the group visit and talk about their technology. It went from there.

ST: How did your testing process work and what were the results?

Johnson: We were given three of the large MU360 units which allowed us to test approximately 40% of our field. We treated the southern end with the lighting units and complemented it with our underground heat system set at 50 degrees. The northern half of the field was treated traditionally by me without any supplemental lighting and the heat system set low at 38 degrees. We started October 7 and ran the trial through the first week of December. We had to stop when the ambient air temperature consistently started to drop below freezing.

"By the end of October we were collecting three times the amount of clippings than the 'control' end of the field. By late November the clipping yield on the treated half doubled from the late October amounts and the 'control' half of the field had started to go dormant and did not

yield any clippings. It was interesting, because of the layout utilized we actually had four different plots so to observe A) turf with no supplemental light and minimal heating B) turf with supplemental light and minimal heating C) turf with enhanced heat set at 50 degrees but no supplemental lighting and D) turf with both supplemental lighting and enhanced heat set at 50 degrees. The areas of the field that had both the enhanced heat and supplemental lighting produced the greatest growth and density easily."

ST: How do you plan on implementing the system [as of Sept 27]?

Johnson: Based on our observations from the trial and discussions amongst the front-office executives the organization decided to purchase 9 MU360 units, which is enough to treat our entire playing surface consistently. Those units have been delivered this past month and will be put into use following our game on October 2.

ST: How much work has been involved in setting up and using the system?

Johnson: The units came pretty much assembled. We had to update our infrastructure in regards to getting the proper electricity down to the field's edge to power the units.

Johnson also replied: "Our organization has also decided to add on to Lambeau Field. We will be filling in the south end zone with stadium seats, adding approximately 6,600. The new wall of bleachers and updated scoreboard will create significant areas of shade that we had not previously had before. The south end was fairly open and allowed a lot of natural sunlight into the bowl and down on the field. Our purpose in purchasing the lights was to assist the growing season a bit in October and November, but also to replace any sunlight lost to the new expansion of the stadium. That expansion is set to be completed in 2 years.

Dan Shemesh, director of grounds, New York Red Bulls, also has used the SGL system. "I started looking into grow lights my first day on the job back in November of 2009. Red Bull Arena has a similar design to many European soccer stadiums that have partial roofs and covered seats. When I took a look at the shade study I thought it might not be that bad since part of the roof is a certain percentage "translucent." I found out very quickly that the roof was not translucent at all and the days and sun hours were much worse when you experience them in person as opposed to a shade analysis on paper."



January 3, 2011 with no lighting treatment.



January 3, 2011 with lighting treatment.



ST: What were your growing issues before using the system?

Shemesh: Before we started using the system we had multiple shade related problems, we still do now but they have decreased significantly. On the first day of spring and fall the best part of our field sees between 3.5 and 4 hours of natural light on a sunny day. The entire south end 18 yd box including the top arc is in complete shadow all day. On the first day of summer the best part of the field receives about 5.5 to 6 hours of natural light. There is still an area in the south 6 yd goalie box in complete shadow.

On the first day of winter more than half of the field is in complete darkness. So as you can imagine we experience limited rooting, slow growth, cooler soil temperatures, excessive wetness and increased disease potential. In 2009 we did a full midseason resod at the end of July and another resod of the south 18 yard box before playoffs because of the poor turf quality.

ST: How much work is involved in

setting up and using the system?

Shemesh: There is some work involved with setting up the grow light system. We own 3 large rigs which takes two people about one hour to get in place and turn on. The greater the distance becomes between the lights and power source means more cabling and setup time. The lights require close monitoring along with the area of treatment. The lights generate some heat which can cause ET rates to go up. We also keep track of the amount of natural PAR light our field gets and turn off the lights during the day if the treatment area receives adequate sunlight.

ST: How has system performed?

Shemesh: The system had performed very well and we are still learning how to utilize the lights for the maximum benefit of the field. We have not exchanged any sod so far this year and do not plan on doing so. The south end of our field which has received the most hours of artificial lighting has the highest turf density compared to other parts. ■

About the manufacturer of SGL

THE SGL CONCEPT is for growing grass under any condition in any stadium, even during winter, by controlling all growth factors such as light, temperature, CO2, water, air and nourishment. The use of assimilation lighting is an important factor in SGL Concept.

The idea for the SGL Concept came from Nico van Vuuren. As a successful grower of roses van Vuuren has lots of experience with growing plants. Following a theoretical investigation to see what were the possibilities to optimize grass growth van Vuuren wondered why companies didn't put time into assimilation lighting tests. During the months with lower natural light intensities turf will even show negative growth. On the one hand this is caused by the fading light intensity and on the other caused by the partly or fully closed construction of today's stadium, which results in a very large temperature difference between inner and outer temperature.

At first it was thought that the problem with natural grass could be solved by just applying assimilation lighting. But it soon appeared that for a real success, a combination of all the growth factors is needed. It's the goal of SGL to provide a high quality pitch throughout the whole year. Achieving this goal needs more than just turning on the lamps. You have to combine a lot of different expertise such as knowledge about the soil, grass seeds, grass growth, growth techniques, lighting and stadium construction, the company says.

GROWS GREEN • SAVES GREEN • STAYS GREEN™

TURF ENHANCEMENT



- Absorbs 12x its weight in water
- 95% of water and water-soluble nutrients available to plant
- SAVES UP TO 66% WATER
- Longevity 5-7 years subsurface
- 40 lbs per 1000 sq. ft. for Topdressing, Aeration, Overseeding, New Sod



Day 1



Day 4



Day 7

"Ready Play's technology is amazing. It has helped me speed up the germination of my grass seed, resulting in a stronger, denser grass, while using a lot less water."

**-Chad Huss, Head Groundskeeper, Oakland A's
Papago Park Spring Training Facilities**

Further advice on the rates of application or installation can be obtained by contacting AquaSmart™

1-855-384-9844 | www.ReadyPlaySports.com

Sold through Ewing Irrigation



Putting your turf to bed for winter

OFTEN TIMES it seems that immediately after the fall season begins, we begin bracing for winter. This actually has some merit as far as a turf manager is concerned. While you are quite likely still devoted to managing fields week after week for football or soccer practice, it's not too early to start thinking ahead to steps that you can take to put your field to bed for the winter.

It is a bad assumption to think that turf management ends the minute the final whistle of the season is blown. In fact, some of the most important work is done in November and December, especially if you will have traffic on the field in early March. The following are some tips that you should consider before turning out the lights on what has hopefully been an enjoyable season:

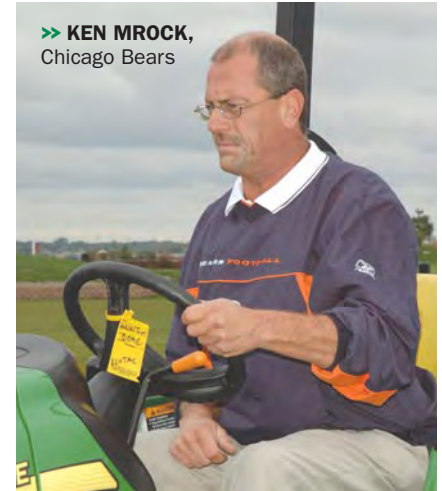
AERIFY THE TURF AFTER THE END OF THE SEASON

Chances are good that your turf has become compacted during the course of the football or soccer season, given the amount of heavy traffic a field can get, especially if teams have games and practices on the surface. Help open up space for air and water to move in the root zone with a postseason aeration. No matter how late your season extends you can aerify and topdress as long as the field has not frozen solid.

If you haven't yet incorporated conditioner into the field, now is a good time to do so. I use Field & Fairway at a rate of 750 lbs./1000 ft² across the entire area. Use a chain link drag, broom, or mat drag to break up soil cores and to move your conditioner into the aeration holes. Selecting a calcined clay conditioner will help bring air and water porosity to the rootzone for a long time.

REPAIR WORN OR DAMAGED AREAS AS SOON AS POSSIBLE

By taking the time to patch the field at the end of the fall season, you give your turf a significantly better chance of coming on strong by the time spring practice comes around. A field that has been badly beaten up will likely require some resodding. If turf



>> **KEN MROCK,**
Chicago Bears

damage is light to moderate, you may be able to get by with seeding to help reestablish a strong stand of turf.

Plan ahead, considering what kind of use your field will have in the spring. A multi-use field that needs to be ready for lacrosse and other spring events needs to go into the winter in much better shape than a field that is reserved for a single sport like football.

CONSIDER SEEDING OPTIONS BASED ON CLIMATE

If you are in a climate where soil temperatures drop significantly by the end of the season, dormant seeding is an option for you. Dormant seeding can have benefits because the freeze/thaw cycle of your soil will relieve compaction and provide space for seed to work its way into the soil crevices over the winter. Seed will remain protected over the winter months and germinate in a hospitable environment in the early spring. In milder climates, a good option is to pre-germinate seed by submerging your seed bag into a 55-gallon drum of water. Change the water every 8 to 12 hours over several days until the seed swells and pops, putting out the beginning of the root. Drain the seed and mix with sand or conditioner to prevent clumping and allow spreading. The exposed seed will take up root nicely in the winter months and provide good plant growth early in the spring.



Passion
for the game

Passion
for the dirt

It's more than dirt; it's the difference between game days and rain delays.

Grant's Engineered Soil Technology ensures that the quality we promise is the product we deliver.

Engineered Soil Products

- DuraEdge™ Infield Mixes
- FieldSaver™ Infield Amendment
- DuraPitch™ Premium Mound Clay

Not all dirt is created equal.

Natural Sand Company™

1-866-867-0052
www.naturalsand.com

THINK AHEAD TO SPRING CRABGRASS TREATMENT

It is common to implement some kind of crabgrass treatment program in the spring season. What is often overlooked is the impact that this can have on seeding. If your plan is to apply herbicides in the spring, it is even more important that you schedule post-season fall seeding accordingly.

TURN ON THE HEAT

Turf blankets can extend your window of warm soil temperatures by several weeks, lengthening the amount of growing time before winter, and promoting earlier green-up at the end of winter. The blankets keep soil temperatures warm enough to promote seed germination, and allow existing turf to grow instead of going dormant. This results in thicker and stronger turf when blankets come off later in the winter. Blankets are best put down in November or December in cool climates—too early and the soil will overheat—and should be removed two to three weeks before traffic returns to the field. After removing the blankets, mow the turf several times to harden it prior to field usage.

In all winter conditions and especially if you are laying turf blankets consider a fungicide application to help avoid snow molds since air movement will be restricted to the turf. This will help prevent unwanted and damaging disease from forming over the winter.

ADJUST MOWING HEIGHTS

Mowing should be infrequent, if at all, following the end of play for the season. Be sure to avoid mowing when there is any frost on the turf, as this can cause damage. Adjust the mowing height to 2 to 3 inches following the end of season, and be sure that blades have not become dull over the course of the season.

WINTERIZE IRRIGATION SYSTEM AND EQUIPMENT

Water will have remained in the lines, even when the system is turned off. Take an air compressor to blow the water out of the lines to prevent freezing and expansion, which will rupture pipes.

Also, after going through the rigors of the fall season, there may be equipment issues that have come to light. Winter months can pro-

vide the necessary time for proper repairs or rebuilds in place of short-term fixes that got you through the season. Take the time to clean out maintenance equipment, sharpen blades, wipe down machines, tighten fuel caps and cover anything that might be left exposed to the winter weather. All small engines should be drained of fuel and winterized them also running the gas tank empty.

ADJUST FERTILIZATION TO TIMING OF THE SEASON, CLIMATE

In cool climates, a late-season fertilizer application will promote rooting and carbohydrate storage. In warm climates, reduce or restrict the amount of nitrogen so that turf can be put to bed. In all cases, wait until the spring flush before starting next year's fertility program.

Remember, just because play concludes for the season doesn't mean your job is complete. Take advantage of every available hour when it comes to turf management. ■

Ken Mrock is Head Groundskeeper of the Chicago Bears.



Learn it first hand.

Beacon Field Seminars from the Experts in the Field.

Beacon's Field Maintenance and Field Building Seminars offer hands-on expertise to field maintenance pros everywhere, helping you avoid costly mistakes while getting the results you're looking for.

Field Maintenance Seminars include:

Plano, TX (Dallas area) May 11
Madison, WI..... Aug 2
Portland, ME..... Sep 14
 Fargo, ND Sep 21
Winston-Salem, NC..... Oct 11

Field Building Seminars include:

Plano, TX (Dallas area) May 12
Madison, WI..... Aug 3
Winston-Salem, NC..... Oct 12



Visit BeaconAthletics.com/seminars to register and for schedule & location updates.

800-747-5985 BeaconAthletics.com

FIELD MAINTENANCE . EDUCATION . GAME-PRACTICE EQUIPMENT . TRAINING & CONDITIONING



Brighter, Straighter Lines with the First True Ride-on Airless Field Striper

Newstripe introduces the

NewRider 5000 HPA Athletic Field Striping Machine

- Front wheel drive with rear steering for straighter lines
- 0-3000 psi adjustable pressure produces sharper, brighter lines
- Sprays thinned or non-thinned paints on natural or artificial turf
- Tilt steering column and high back seat for operator comfort
- 50 gallon paint tank with 2.5 gallon purge tank
- Removable gun for stencil work



Visit us at

www.newstripe.com

to download specs and see our complete line or Call us at

1-800-624-6706

Newstripe Inc. 1700 Jasper St., Aurora, CO 80011