quickly from sports-related wear. Aloha is available through licensed producers in Florida (Emerald Island Turf in Avon Park) and California (Am-Sod in Escondido).

SeaDwarf seashore paspalum is the only true dwarf variety of seashore paspalum. It has a fine texture, distinctive bright green color and its strong root system creates a cushiony feel underfoot for better play. SeaDwarf is available domestically through licensed producers in California, Florida, Georgia, South Carolina, and Hawaii. International licensed producers of SeaDwarf are located in Australia, Brazil, China, Mexico, Panama, South Africa and Turkey.

Both Aloha seashore paspalum and SeaDwarf seashore paspalum may be irrigated with alternative water sources such as effluent or brackish water. The grasses' salt tolerance allows ordinary table salt or salt brine solutions to be used instead of herbicides to kill weeds. Plus, both have lower nitrogen requirements and lower overall water requirements than bermudagrass varieties.

Rex Cunningham, farm manager at Emerald Island Turf, said he expected prices on SeaDwarf and Aloha to hold steady in Spring 2011.-Stacie Zinn

LEBANON TURF PRODUCTS

In general, seed prices for most species should be fairly stable going into 2011 compared to 2010. However, the downturn in the economy, which goes back as far as 2007, and the subsequent decrease in demand have had a profound effect on the seed business

Starting in 2008-09, prices dropped to historic lows on some seed varieties. In some cases, the prices were below the cost of production. As a consequence, a lot of seed production acres have been removed over the past 2 years and replanted to wheat or other crops. The price of wheat really took a jump again in August due to problems in large wheat growing areas like Russia. So, even more seed production acres may be replaced this fall.

Prices have remained low as inventories are reduced. There should be adequate supplies of most species through spring 2011, but as demand starts to return, shortages of some varieties and species may start to occur. That could start to drive higher prices later in 2011.-Murray Wingate

BARENBRUG USA

I think pricing compared to last year is fairly stable for most species. There is pretty good movement in the seed industry right now so I don't see a reason for prices to go down. Actually over the run of 2011 prices on perennial ryegrass are probably going up, most likely in the fall.

Our introduction of RPR (Regenerating Perennial Ryegrass) into the US market has been a tremendous success with many happy users. At the end of the spring we were sold out and we had had a large amount of RPR produced. Now in the fall we see people reordering the RPR seed, which says the product is performing. The initial trial plots at Ohio State were still in the ground this summer but weren't irrigated and fertilized. With a very hot summer in Columbus, all the regular perennial ryegrass plots were dead except the RPR.

SOS stands for Super Over Seeding and is our system for overseeding warm-season grasses. We believe that in a few years the market will shift from perennial ryegrass to turf type annual ryegrass for overseeding warm-season grasses in the south. The new lines of annual ryegrass are not any different compared to perennial ryegrass. New turf type annual ryegrasses are going in the ground this fall for production. SOS was used on 32 training fields for the World Cup in South Africa and was flown in during the tournament as the stadium fields that were overseeded with perennial weren't holding up.

SOS is also used more and more for overseeding of cool-season grasses sports fields in the north. Dr. Dave Minner at Iowa State found that when you overseed during the season turf type annual ryegrass gives the best result. Dr. Minner tried this both in fall and spring overseedings and found the same results. Tony Leonard from the Philadelphia Eagles has used SOS Cool Season for years on his stadium field, and says sometimes he is mowing grass in a few days after overseeding.

Turf Saver RTF has the patented RTF technology inside. RTF stands for



Global economy

By Murray Wingate

Leaders in the grass seed industry gathered earlier this fall for two of their industry's most important events. At both the Atlantic Seed Association conference in Philadelphia and later at the Western Seed Association meeting in Kansas City, attendees were reminded that we live in an interconnected world where a hiccup in one part of the globe is acknowledged in another and felt in the pocketbooks at athletic complexes, golf courses and landscape companies throughout the US.

To understand the current state of the grass seed market, you must first recognize that the grasses that cover our sports fields and parks grow on some of the same acres where wheat, corn and barley are also cultivated. That puts them in direct competition with the grains that ends up in the food we eat, that cattle graze on and the biofuels being produced to counter rising fossil fuel prices.

With that in mind, let's go back a couple of years to a time when grain prices were on the rise and seed companies were forced to increase payments to growers if they wanted their crops planted. Soon after the economy slipped into the ditch, new housing construction slowed to a crawl and weather conditions improved, meaning little or no turf was lost. It was a perfect storm that lowered demand dramatically for perennial ryegrass, tall fescue and bluegrass seed. Sports fields, golf courses and homeowners that normally would have overseeded decided they didn't have to, even if they could have afforded to.

Fast forward to today. Seed production acres are at their lowest levels in years. Corn and wheat prices continue to rise. Farmers are increasing production of grains they can sell for a profit.

Couple all that with our recent summer of discontent, when heat and drought parched turf across the country. The record-setting conditions left turf so ravaged in many areas that not overseeding wasn't an option this fall. Sports field managers, superintendents and homeowners were forced to buy and plant seed, whether they wanted to or not.

What does all this mean for the price you'll have to pay for grass seed next year?

With current prices at or near historic lows, we see increased demand for agricultural grains and continued demand for overseeding in the spring. And if the demand we've seen this fall continues, we could see a turnaround in market prices. But, like the weather, the seed market is tricky to predict.

If there's a lesson in this scenario, especially as the budgeting season hits, it's that manufacturers and distributors need to work with their customers to help plan their spring and fall seed purchases. Waiting until they need seed to put in the ground, as many did this year, may not be a sound strategy for 2011. ■

Murray Wingate is turfgrass sales and marketing manager for LebanonTurf.

Rhizomatous Tall Fescue and is the only one in the market. We just released a new variety called BAR FA 7676; this is the newest variety with the rhizomatous technology. We are not releasing these varieties very often as the breeding technology is very difficult, and it takes sometimes 10 years to develop a variety. Turf Saver RTF is one of the most drought tolerant cool season varieties. New Mexico State University did a large research study on drought tolerance under 15 and 30 % less water than evapotranspiration. In both cases Turf Saver RTF was the best in the trial. Better than other regular tall fescues, hybrid Texas bluegrasses etc.

Turf Blue. We are having a lot of success with fast germinating Kentucky bluegrasses. They give the sports turf manger a chance to get bluegrass established in a short time window. Pam Sherratt at Ohio State did a study on the establishment of our Kentucky Bluegrasses in Columbus. She reported that she could get Kentucky bluegrass established and ready to play in 6 weeks. Troy Smith at the Denver Broncos is using Barimpala, one of our fast establishing varieties already for years and loves it.-Christiaan Arends

SOD SOLUTIONS

Started in the early 1990's, Sod Solutions is a turfgrass research, development, and marketing company that has developed grasses that are drought tolerant, require less mowing, require less overall inputs, and are more durable for sports.

Sod Solutions works with more than 200 farms worldwide to produce and distribute turfgrass. The company is not locked into just one source of improved turf material but works with several entities to find the best grasses from around the world. Sod Solutions does not grow or produce grass for commercial sale but does work with private breeders, develops grasses in-house, and works with several university research programs to identify and develop the best varieties available for the industry.

A number of grasses released by Sod Solutions have had a significant impact on the sports turf industry including Celebration bermudagrass and EMPIRE Turf zoysiagrass. Celebration has expanded the capabilities of bermudagrasses with regard to wear, durability, recovery, drought, shade, and overall performance.

Bella Bluegrass is the first and only dwarf variety of bluegrass that is propagated vegetatively. It grows and spreads from rhizomes, which allows for quick repair from damage. Bella has a dark, alpine-green color and is drought and heat tolerant. Bella only grows to about 4 inches in height which means less mowing.

EMPIRE Turf is a wide-bladed zoysia that has an emerald-green color and is extremely tough. EMPIRE is a top choice for parks as it is wear resistant and low maintenance. This year growers in Florida were caught off guard as the demand was very high throughout the spring, and even in a down economy, many regions ran out of EMPIRE for varying periods. It is uniquely adapted to the heat and humidly of the southern US and performs well on a wide variety of soils, which is not typical of most zoysiagrasses.

For 2011 Sod Solutions will release a finebladed grass called Geo Zoysia that is an emerald- green, fine-textured zoysiagrass with outstanding shade tolerance and adaptability to a wide range of climates and soils. In golf, Geo will be an excellent choice for tee boxes, surrounds, and fairways; Geo was developed by a turf producer and has proven to be an extremely tough grass.

Availability of Celebration and EMPIRE will be moderate to good for next spring. Growers are increasing acreage to keep up with demand, and the outlook is good for production from spring to summer 2011. Bella Bluegrass will be available next spring in the Wyoming, Utah, and Idaho with limited quantities elsewhere. Acreage of Geo Zoysia and Regenerating Perennial Ryegrass will be available in limited quantities across the country next spring.

Pricing for all grasses will be stable to increasing. Supply is getting more in-line with demand and prices should be increasing throughout next spring followed by normal summer stabilization. Turf is like anything else, you generally get what you pay for. Be prepared to pay a fair price for high quality turf or be prepared to suffer consequences that will most likely cost more in the long run if you purchase on price alone.-Tobey Wagner



JOHN WASCARO'S PHOTO QUIZ

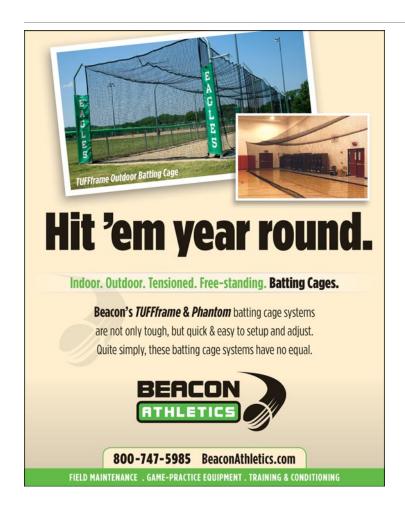
Answers from page 17

THESE IRREGULAR BROWN AREAS were the result of a sleepover event after a Friday game at this stadium. The event attracted about 150 campers and 50 tents for this warm summer night out. The Sports Turf Manager started to see the grass die on Saturday right where one of the stadium's high ranking supervisors had been camping with his kids. The grounds crew suspected the brown areas were caused by bug spray but the patterns were oddly shaped, with some in straight lines. The sports turf manager could make out some small green footprints surrounded by death from the overspray confirming their suspicions.

As it turned out the straight line of death was caused by spraying mosquito repellent while standing next to the tent. The bug spray must have hit the outside wall of the tent and then run off the tent damaging the turf. Another baseball game was also scheduled to be played that Saturday afternoon on the stadium field before the damage could grow out. Next year they will make sure the ALL the campers are instructed to go to the warning track to apply their insect repellent.

Photo submitted by Dan Douglas, Director of Stadium Grounds at FirstEnergy Stadium, Reading, PA.

If you would like to submit a photograph for John Mascaro's Photo Quiz please send it to John Mascaro, 1471 Capital Circle NW, Ste # 13, Tallahassee, FL 32303 call (850) 580-4026 or email to john@turf-tec.com. If your photograph is selected, you will receive full credit. All photos submitted will become property of *SportsTurf* magazine and the Sports Turf Managers Association.





Is a propane-fueled mower in your future?



>> PROPANE-FUELED COMMERCIAL LAWN MOWERS, like the Ferris Propane Powered IS 3100 ZP zero-turn model, can help sports turf managers and landscape contractors achieve lower operating costs.

PRISTINE NATURAL GRASS PLAY-ING SURFACE that both catches the eye of sporting event spectators and is safe for players is the goal of every sports turf manager that services those grounds. Arriving at that gorgeous, dark-green turf requires cost, and increasingly environmental, considerations, both of which are driving equipment purchase decisions.

The answer may be propane-fueled commercial mowers and equipment. Studies show propane-fueled lawn mowers reduce greenhouse gas emissions by almost 50%

compared with gasoline-fueled counterparts, and carbon monoxide emissions by more than 80%. Those low emissions mean labor continues on Ozone Action Days when use of gasoline-fueled mowers is limited or prohibited.

Propane-fueled mowers can also help sports turf managers achieve lower operating costs. For example, propane is a cleanerburning fuel than gasoline, making oil changes easier. Further savings comes from the elimination of fuel spillage, leakage, and theft that can plague gasoline use. Financial

When it comes to propane-fueled mowers, sports turf managers have plenty of options from which to choose. More than 29 propane-fueled commercial lawn mower models exist today from the industry's top brands.

Available equipment options

This list is just a start; visit www.powered bypropane.org for more information.

- Ariens/Gravely: The Pro-Master 260H LP XDZ zero-turn mower features a 28hp/992cc Generac LP engine.
- **Bad Boy:** The Propane Series zero-turn mower uses a Briggs & Stratton 895cc/32hp Vanguard V-Twin engine allowing for an 80 percent emissions reduction.
- © Cub Cadet Commercial: The new TANK S LP zero-turn mower utilizes an 852cc or 999cc Kawasaki engine powered by liquid propane.
- **Dixie Chopper:** The Xcaliber Propane zero-turn mower is fueled by two 40-pound propane cylinders and a 990cc Generac LP
- **Exmark:** The Lazer Z Advantage Series zero-turn mower is powered by a 28hp Kawasaki V-Twin engine. Also available are the Turf Tracer and Turf Tracer HP propane-fueled walk-behind
- Ferris Industries: The IS 3100Z zero-turn mower features an 895cc Briggs & Stratton Vanguard Big Block V-Twin engine with vapordraw fuel tanks.
- Musqvarna: The PZ6029PFX zero-turn mower uses a Kawasaki FX Series 29hp/852cc engine. Optional 33-pound tanks hold about 14 gallons of propane, allowing all-day operation.
- **Scag Power Equipment:** The zero-turn Dual-Fuel Turf Tiger is the only dual-fuel powered commercial mower on the market, with the ability to operate on both liquid propane and gasoline. An optional propane-only conversion kit allows it to conform to local regulations, while the mower is also available with a Kohler propane-fueled engine.
- Schiller Grounds Care: The Bob-Cat Predator-Pro LP zero-turn mower uses a 30hp Generac engine designed to take advantage of propane's higher octane level.
- Snapper Pro: The S200xp zero-turn mower features an 895cc Briggs & Stratton Vanguard Big Block V-Twin engine, offering up to 30 percent reduced emissions.
- © Zipper Mower: The front-mount Model STS-28LP uses a Kawasaki 28hp air-cooled OHV engine.

In addition to those mowers, propane-fueled hand-held equipment is also available. For example, both the Lehr Incorporated Eco Trimmer and Eco Blower use a 16.4-ounce propane canister to operate a 25cc four-stroke engine, achieving a 2-hour run time. Both products produce no evaporative emissions, and avoid the need for priming, carburetor gum-up, and winterizing.

incentives are also available from select state propane gas associations that offer reimbursements for incremental costs associated with purchasing a propane-fueled mower.

When it comes to propane-fueled mowers, sports turf managers have plenty of options from which to choose. More than 29 propane-fueled commercial lawn mower models exist today from the industry's top brands. Available models allow sports turf managers to quickly tap into the sustainability and cost benefits, along with the propane refueling infrastructure already in place. Other propane-fueled lawn equipment on the market today includes hand-held equipment like string trimmers and blowers.

Also known as liquefied propane gas, LP-gas, or simply LP, propane is nontoxic, colorless, and virtually odorless; an identifying odor is added so the gas can be readily detected. Propane cylinders of varying capacities are mounted horizontally on propane-fueled mowers. Most cylinders are for vapor service only, and include a liquid prevention device (LPD) attached to the end of the vapor tube, along with an overfill prevention device (OPD). These cylinders are mower specific, even

though they might look similar to propane cylinders used for forklifts. What makes them different are a left-hand connection and a specific collar that indicates mower use only, helping ensure the proper equipment is deployed.

Two types of fuel systems are available on propane commercial mowers, liquid injection and vapor injection. Working closely with equipment dealers, manufacturers, and local propane providers can help sports turf managers identify the mower and fuel system that best fits the needs of both their facilities and staffs.

Many propane providers offer cylinder exchange programs, which usually include onsite installation of a cage to house cylinders. For larger volumes and multiple facilities, a no-spill dispenser can be installed on site at a centralized location and used to refuel both mowers and propane-fueled work trucks.

Brian Feehan is Vice President of the Propane Education & Research Council, which came into existence by an act of Congress in 1996. Its mission is to promote the safe, efficient use of odorized propane gas as a preferred energy source.

Foliar fertilizer

Recover Rx 3-18-18 with SA is a foliar spray that improves turf health and helps turf-grasses withstand stressors such as extreme temperatures, drought, and disease. With 8 oz. of salicylic acid per gallon, an ideal P to K ratio of 1:1, and a proprietary blend of phosphorus sources, Recover Rx is exactly what the doctor ordered.

Recover Rx's key ingredient is salicylic acid (SA), the active ingredient in aspirin. A natural plant hormone (phytohormone), SA is produced in small quantities by all plants, and is present in high concentrations in willow trees. (The name salicylic acid is derived from the botanical name of the willow family – Salix.)

Applications at time of sodding and overseeding are especially beneficial, according to Randy Oberlander, a Nutrition Specialist with Growth Products. "Recover Rx with SA is ideal in these situations. Its salicylic acid stimulates growth and initiates the turf's systemic acquired resistance (SAR), while its phosphorus content kick-starts critical root growth," Oberlander explains.

www.growthproducts.com



For Cool/Cold Weather
Turf Installations
In Late Fall and Early Spring,
Use NORDOT® Adhesive #34P

WANT THE FACTS? - Write, Call or Visit our Website:



P.O. Box 241 Scotch Plains, NJ 07076 U.S.A. Tel: (908) 233-6803 Fax: (908) 233-6844 E-mail: info@nordot.com Web: www.nordot.com

♦ NORDOT® Adhesive #34P

Thixotropic One-Part Curing Urethane With a Light Mayonnaise Type Consistency.

- High and fast development of green strength (high grab) in cool/cold weather.
- Easy application and spreading even when cold.
- "Stands up" and holds trowel ridges on both flat and vertical surfaces.
- Ideal for applying to seaming tape from a "glue box".
- Great for faster bonding of hash marks, team logos, game lines and other turf inserts.
- Excellent fast repair adhesive.

Tools Equipment



Turf box for use on synthetic track & field facilities

Underhill International introduces a new custom-designed Turf Box to house the company's long-throw Mirage-125 sprinklers, typically installed around the perimeter of synthetic sports fields. Mirage-125 heads are used to cool down and clean artificial track and field surfaces before practice or competition. By installing the M-125 heads in a stainless steel Turf Box, crews can better access the sprinklers for routine maintenance without disturbing the surface of the playing fields. Constructed to accommodate the oversized M-125 sprinklers, the Turf Box enclosures sit 18" below grade and measure

15" x 18" wide. Artificial turf is laid up to the edge of the Turf Box lid. Sprinklers can be serviced through-the-top of the Box, without interfering with track or field surfaces.

www.underhill.us



Seago introduces the **PortaPump**

It is a one-person operated portable pumping machine. A 35cc Honda four-stroke engine powers the 33 GPM pump that is perfect for clearing water from bunkers, Irrigation breaks or leaks, flooded cart paths, low areas, flooded yards, ponds, play or parking areas etc. Half speed trigger lock keeps the machine pumping. Self-priming, easy to transport and operate, the PortaPump is fast and effective. The PortaPump is backed with a one-year warranty ships 90% pre-assembled. Seago sells this unit with a metal mesh sand screen and an extra 16 feet of hose.

www.seagousa.com





Turf Teg 1305PL Plow Turf Teg has introduced the Model

1305PL Plow. The 46-inch wide plow is ideal for snow removal. The Plow's angle (left / right) can be easily adjusted from the operator position and its unique design has the capability to allow the blade to oscillate or to be locked into position. The Model 1305PL features a spring loaded trip release and a replaceable cutting edge while employing a fully hydrostatic transmission with forward / reverse and a 13 HP Honda engine. The Plow can also be easily converted into a Power Edger, Power Broom, Power Rake or Brush Cutter for all season use.



Quantum Growth, new natural product

Quantum Growth is a living consortium of microorganisms including photosynthetic strains designed especially for treatment and growth enhancement. Regular use restores nature's microorganisms to the soil allowing the plant to absorb the nutrients it needs to reach its full growth potential. Quantum Growth actually helps reset the soil to its original, enriched state. The microorganisms in Quantum Growth convert light, carbon and even fertilizer into sugar, or plant food, more than 10 times faster than the plants would themselves. A biologically active soil is like having a fertilizer factory making 10-5-2 continually. The microorganisms in Quantum Growth help a plant retain water by capturing water molecules as the plant exhales through the root zone. Combining oxygen and hydrogen to build water, the microorganisms store the water and are able to release it to the plant in dry conditions.

www.douglasspeed.com

STEC now distributing TRILO products

STEC Equipment has announced that they will handle North American Distribution for TRILO professional outdoor clean up equipment. With a complete range of Blowers, Verticutters, and Vacuums, STEC has a TRILO to fit any need. The TRILO SG400 is a versatile turf vacuum with many options and features. With over a 5 cubic yard capacity, 33" fan, 80" tipping height, and turf tires, the TRILO makes clean up and collection a breeze. The options include: Verticutting head, so you can verticut and collect in ONE PASS. Hand Held Hose, for clean up around tight areas. Flail mower head, for simultaneous cutting and collection. Gully brush, for curbs and walls. The SG400 truly is a multi-function tool.

www.stecequipment.com





ESP-LX Modular Controller now expands to 48 stations

Rain Bird is taking the ESP-LX Modular to the next level by offering an all-new 12station module that gives the controller the ability to accommodate up to 48 stations. Installing the 12-station module is as simple as snapping it into place in one of the four module slots inside the ESP-LX Modular's cabinet. The 12-station module can be mixed and matched with the ESP-LX Modular's 4- and 8-station modules to provide the optimum number of zones for any application. After each 12-station module is installed, it provides 12 stations and one common terminal. Once the module is installed, it reflashes the ESP-LX Modular's firmware, providing 12-station compatibility along with other new features including Dynamic Station Numbering and a module status screen under the controller's "Special Feature" dial position.

www.rainbird.com

New Specticle herbicide

Specticle[®], a new pre-emergent herbicide from Bayer Environmental Science, is for use on warm-season turf. The recommended use rate is 2.5 – 5.0 ounces per acre, depending on the weeds to be controlled and length of control desired. This rate is up to forty times less active ingredient than any other pre-emergent herbicide

SPECT(i)CLE

Apply less. Achieve more.

on the market. The active ingredient is indaziflam, is a cellulose biosynthesis inhibitor. Specticle is formulated as a wettable powder available in pre-measured water soluble packets. For convenience, two package sizes are available: six bottles with eight - 0.625 ounces packets each and four pouches with seven 2.5 ounces packets each.

www.backedbvbaver.com

EPA approves Pasteuria liquid product for turf

Pasteuria Bioscience received EPA registration for Pasteuria usgae liquid formulation for use against sting nematodes on turf. EPA has also allowed an exemption from the requirement of a tolerance for residues of the biological nematicide, Pasteuria usgae, in or on all food commodities when applied pre-harvest and used as a nematicide in keeping with good agricultural practices. Both of these actions support the use and safety of Pasteuria usgae in nematode control products. With some nematicides being voluntarily removed from the market due to safety and environmental concerns, few nematicides exist to meet the demand. The commercialization of Pasteuria-based products helps address the need for environmentally safe, cost-effective and reliable nematode control products.

www.pasteuriabio.com





PORTS TURF MANAGER MARC C. MORAN, a horticulture/turfgrass science instructor currently working on his Master's degree, led a group effort at Atlee High School, Mechanicsville, VA to win the 2009 STMA High School/Parks Softball Field of the Year Award.

Moran began working with the school's practice field in 2000 as part of a landscape class project in lawn and turf care. "I was then asked to take over managing the sports turf facilities in fall 2001. In 2002, I worked with other horticulture teachers in the county to develop a county-based Turf Science curriculum, which later was adopted by the Virginia Department of Education. Atlee High School became the first high school in Virginia to teach Turf Science as a recognized course. Given the available access to sports fields, we adopted them as our 'land

laboratory.' It has been a great partnership since the program began," Moran said.

The original construction date of the facility was in September of 1991. The field was sprigged, in late summer and was not opened for regular use until spring of 1992. At that time, the field was still a mix of cool season and warm season grasses. "We employ a perennial rye/dormant bermuda overseeding program. In mid-October, we overseed with Brigadier blended perennial ryegrass seed. We over-seed at a rate of 6

lbs/1000 sq. ft. during the initial overseeding. We follow up with a late-season overseeding of 2 lbs/1000 sq. ft. All seeding applications are done with walkbehind broadcast spreaders. We transition our ryegrass out in late spring with an application of Revolver Herbicide. If needed, we follow up with a second application," Moran said.

In the spring of 2008, the infield mix was improved by dressing 16 tons of Luck Stone's Infield Mix to the existing infield skin.

"We employ a surface drainage system. Our field has a slight slope from infield to outfield that drains water from the playing surface. Water that is not absorbed is collected by a large storm drain located beyond the outfield fence.

"We face many challenges when it comes to the management of our soft-ball field. Many of our challenges are not unlike most public schools across the country, but we have managed to take a unique approach to overcoming those challenges. Through administrative support (school and school board), athletic administration efforts, industry partnerships and hard work, we have been able to take on each challenge with visible success and positive outcomes," Moran said.

Since 2005, the Atlee Turf Science Program has taken over management of the softball facility. Our program is a two-year education program developed to educate students in the broad areas of turf science. We use the various sports fields on campus to teach important areas of the industry. The students are involved in every aspect of field management. They help develop the management plan, organize work schedules; they handle all aspects of infield care, line painting, and mowing.

"Our first challenge has always been budget. As with most public schools, our funding resources are primarily directed toward education and student development. Each year, our athletic administration must look at finances and decide what monies are available for field maintenance as well as other financial areas like team operations, game staffing, and officials. It has been our effort to cut cost when we can and prioritize spending on critical areas of field management. By working within the Turf Science Program, our athletic administration has been able to keep nearly every management area in-house. The program handles all spraying applications, fertility applications, aerating, topdressing, as well as day to day field maintenance.

The second major challenge is manpower and time. Each goes hand in
hand with the other. Coaches seem to
have less and less time, thus field maintenance becomes more and more difficult. Our students make up the balance
of time by completing nearly all management activities during their class period. Nearly all management practices are
completed during one of three classes
offered during the school day. Nearly all
management during the school year is
completed by students. Any extra work
that may need to be done is made up in
balance by coaches and volunteers," said
Moran.

"In the last 3 years, students have





By working within the Turf Science Program, our athletic administration has been able to keep nearly every management area in-house. The program handles all spraying applications, fertility applications, aerating, topdressing, as well as day to day field maintenance.

Field maintenance calendar

JANUARY

• Check Infield for Weeds

FEBRUARY

- · Check Infield for Weeds
- Nail Drag Infield once a week for Maintenance
- Begin Athletic Season Transition

MARCH

- · Check Infield for Weeds
- · Mark field weekly for Softball Games
- · Nail Drag Infield once a week for Maintenance
- Mow at 1" as needed

APRIL

- Fertilize 15-30-15 Starter fertilizer at 1lb. N per 1000 ft2
- · Mark field weekly for Softball Games
- Nail Drag Infield once a week for Maintenance
- Core Aerate two directions, drag cores and remove debris
- Mow at 1", increasing frequency as green-up continues

MAY

Broadleaf weed control spraying with liquid nitrogen application of 1/4 lb. N

per 1000 ft2

- · Apply post-emergence crabgrass control as needed
- · Mark field weekly for Softball Games
- · Nail Drag Infield once a week for Maintenance
- Mow at 1", increasing frequency as green-up continues

JUNE

- Apply Revolver Herbicide for perennial ryegrass transition
- \bullet Hollow Tine Aerate entire playing surface, $3\!\!/\!\!4''$ x 6'' cores Vertical cut and Drag in cores
- Apply 1 ton calcitic limestone
- Apply Ammonium Sulfate at 1 lb. N per 1000 ft2
- Mow at 1 1/4", 2 to 3 times per week as needed

JULY

- Apply Ammonium Sulfate at 1 lb. N per 1000 ft2
- Mow at 1", 2 to 3 times per week as needed
- Nail Drag Infield once a week for Maintenance

ΔΙΙGΠΙΣΤ

- Apply Ammonium Sulfate at 1 lb. N per 1000 ft2
- \bullet Mow at 1 ¼", 2 to 3 times per week as needed
- Nail Drag Infield once a week for Maintenance

CEDTEMBER

- Apply Ammonium Sulfate at 1 lb. N per 1000 ft2
- \bullet Mow at 1 ¼", 2 to 3 times per week as needed
- · Nail Drag Infield once a week for Maintenance

OCTOBER

- Apply Brigadier Ryegrass Blend at 6 lbs per 1000 ft2
- Apply 14-20-14 30% SRN Fall Fertilizer at 1 lb. N per 1000 ft2
- Mow at 1 1/4", as needed

NOVEMBER

- · Check Infield for Weeds
- Nail Drag Infield once a week for Maintenance
- Mow at 1 1/4", as needed

DECEMBER

- Check Infield for Weeds
- Work with students to evaluate previous management plan and make improvements for the coming spring.

F.O.Y. I Atlee High School



helped to upgrade the softball field by topdressing the infield with new infield mix. Students also work hard each fall clean up any renegade weeds that may pop up over the summer. It's a dirty job, but the kids do a great job of getting the field ready for the fall and making sure it is in peak condition as we begin the school year. Students also work to maintain the irrigation system and repair any areas of the system that may need attention.

Our students have great pride in doing the job right. If I could pay them, I would. They deserve all the accolades that people express about our fields. My students do the work for the right reasons, school pride and sense of ownership in doing something right."

SPORTSTURF: What changes are you planning to make to your maintenance plan for 2011, if any?

MORAN: Working with local vendors, we are hoping to get started with a Patriot Bermudagrass inter-sprigging project. We do not have the time or budget, to do a total renovation, but we have done some research into inter-sprigging into our existing stand and think that we can slowly transition it over the next two seasons.

As always, we are looking to do more with less. As our workloads tend to increase and budgets are being streamlines, we are trying to develop ways to get the same result with fewer inputs. An example would be to spend a little more for a low release fertilizer product, but make fewer applications over the course of the growing season. Compare that to some of the soluble sources we apply at more frequent intervals. If we really looked at the results in regards to growth combined with time and cost, I believe we would see that our current strategy maybe be a little less efficient.

ST: What's the best piece of turf management advice you have ever received?

MORAN: Two things really stick out. First, when I had just gotten into field management I used a lot of the same techniques and "programs" that others before me had used. What I learned was that I was getting the same mediocre results. Our Virginia Sports Turf President, at the time, told me to take soil samples and he helped me look over them and see what was going on with my soil. Since then, I take samples of each field twice a year. It's amazing how much money we save on inputs and the incredible impact it has had on our turf quality.

The second is communication. I try to talk with my athletic director every day and try to talk with each of the coaches a few times a week during the season. I tell my students that our voice is one of the most powerful tools we have when it comes to our success. If you keep the constituents in the loop, we have found that overall; our fields remain in good condition throughout the season. This goes beyond our game facilities. We work with the band director, athletic director, and head coaches at each level, school administration and even try to explain to athletes so they understand our goals. Simply said, we try to educate the consumer to they get the most out of the product.

ST: How do you balance your work and personal time?

MORAN: This is an area that I think has changed quite a bit since our program began working on the fields. As the program has grown, that provides opportunities for more students to take an active role in each of our fields. We find that 95% of the work that needs to be done on the fields during the school year is handled during the school day by various turf classes within our program. It is very rare that I am working beyond the school day to get a field ready. The summers are a little different, but we have worked to develop an organized schedule that includes coaches, volunteers, and me taking care of the facilities. We have a retired coach, Jim Anderson, who takes a lot of pride and time dedicates it to our athletic fields during the summer. His time and effort is invaluable when it comes to our summer maintenance.

ST: How much input do you have regarding administration decisions?

MORAN: Our director of student activities has the ultimate say in what is done with our

facilities, as he rightly should. The decisions and practices my students and I employ are a direct representation of our athletic program and his administration. Our goal is to provide him the best possible management plan that will have the greatest positive impact on our facilities. I work directly with him to develop a budget for what we project we will need for the coming year, and I also work with him to forecast and project repairs or improvements we think we should address. These are typically suggestions we gather from coaches, athletes and observations we make throughout the sea-

ST: How do you establish good working relationships with both supervisors and end

MORAN: As I noted, I try and listen to their needs and see what I think we can realistically accomplish with the resources we have available. I also work very hard to keep them in the information loop when it comes to conditions, playability, safety, and any projected maintenance that may impact practice or play. Conversely, most of the coaches have an open line of communication with me and keep me informed if things develop on their fields or if repairs need to be made.

ST: What was the biggest compliment you've heard about your field?

MORAN: One of the biggest compliments has to be the fact that most people are amazed that the fields are managed by students and that we do all that we do with staff of teenage men and women who get a kick out of something looking and playing like a professional staff had been working on it all day. By the end of the year, most people are amazed at how knowledgeable and proud the students are about the fields they work on. I'm often told by other coaches and athletic directors that they wish they had a program like ours at their school. Those types of comments make you feel like you have done something right and that all the hours of hard work have paid off.

ST: What's the biggest complaint, if any?

MORAN: To be honest we do not get many complaints about the field. I think people realize that students are putting a lot of work into the facility and that when it comes down to it, they are still kids and they do make mistakes. If we do make mistakes, we've learned ways to repair them pretty quickly.