The Keystone Athletic Field Managers Organization was formed in 1994 by a small group of individuals who were concerned about the quality of the athletic fields in Pennsylvania. In 1997, KAFMO became incorporated as a chapter of the Sports Turf Managers Association. Today, KAFMO is over 300 members strong and each individual is committed to enhancing the professionalism of athletic field managers in the Keystone State.

Our goals are to improve the safety, playability and appearance of all athletic fields in Pennsylvania. As an organization we strive to accomplish our goals through seminars, field days, publications and networking with other professionals in the sports turf industry.

Any individual, institution, organization, vendor or supplier who has sincere interest in athletic field maintenance is welcome to become a member. Our members represent a wide range of professionals in the sports turf industry. From high school, collegiate and professional athletic facilities, to parks and recreation departments, municipalities, educators, youth leagues, contractors, and commercial vendors, our membership base is made up of a broad range of individuals who pool their knowledge together for the good of our craft.

Annual Events include:
- Summer - Field Day(s)
- October - KAFMO Cup Open golf tournament – proceeds benefit the Awards Fund
- January - Eastern Pennsylvania Turf Conference
- January - Northeastern Pennsylvania Turf Conference
- February - Annual KAFMO conference featuring seminars, exhibits and the annual awards program
- February/March - Western Pennsylvania Turf Conference
- March - Northwestern Pennsylvania Turf Conference

Educational Grants and Research
KAFMO has donated over $47,000 for educational grants and sports turf research since 2001. KAFMO provides scholarships for sports turf education and sponsors collegiate teams in the Sports Turf Managers Association’s Collegiate Challenge at their annual national conference. Research beneficiaries include: Sports Turf Managers Association’s Foundation for Safer Athletic Field Environments (SAFE); Pennsylvania Turfgrass Council’s fund for sports turf research at Penn State University and the Pennsylvania Turfgrass Research Fund, Inc.

On the Cover...
Congratulations to KAFMO members Mike Boekholder, Chad Mulholland and Jeremy Wilt and the rest of the Philadelphia Phillies Grounds Crew for being World Series Champions!

Photo by Matt Jackson.

Mark your calendars — KAFMO CUP October 12th 2009
Between the Lines  Fall 2008

Field of Distinction #3

Derry Township SD Earns Baseball Field of Distinction Honors

By Clyde Baker

Hershey is known the world over for its chocolate and nationally for its amusement park but, at least in the sphere of sports field managers, it’s known for having an excellent high school baseball field. Derry Township (better known as Hershey) School District’s Hershey High School Memorial Baseball Field was awarded KAFMO’s Field of Distinction earlier this year.

The field sits on part of 18 acres of farmland that local icon Milton S. Hershey donated to the township school district in 1944, to be designated as a living memorial for township men who died in the first and second World Wars, and dedicated to the surviving veterans of those conflicts. The native soil field has been renovated numerous times since its June 1948 dedication.

The field sees action from early March, when high school baseball begins, through August when the Hershey Baseball Association season ends. That group includes an American Legion team, adult Twilight League squad, and the local Teener League. The field seats 200 and lawn chairs are most often occupied all the way down the left field foul line. This all adds up to a minimum of 120 games a season, and the number has reached 300 in the past. The field also hosts District 3 and PIAA playoff games.

Weather, of course, is the challenge. The crew uses tarps to help keep the clay home plate and mound areas from drying out, and the infield does have manual irrigation (Toro pop-up sprinklers). The infield drains well and so can be spiked and dragged for pre-game prep. Drying agents also are used when necessary. As for the outfield irrigation, Mother Nature is in charge.

Ed Consalo is the Director of Building and Grounds at Derry Twp., but the man in charge of the field is 14-year veteran Darrell Bohannon, who’s assisted by Samuel McCorkle and, in season, by Marie Wolfe.

Bohannon says not only the legacy of Milton Hershey but the reputation of the community he started keeps him and his crew “looking to stay ahead of the game.” His area of responsibility is “Grounds Maintenance” but like most in his position he also is in charge of snow and ice removal on campus and “more things than he can even list.” Bohannon says he works little overtime except when the snow dictates, so his work/family balance is good.

What is the one product or tool that he couldn’t live without? “My Kromer utility machine. It paints the lines on all fields, spikes and drag baseball and softball infields, has a small boom for spraying, and also has a spraying gun for painting logos on fields and spraying weed killer along fences.”

What is the one product or tool that Bohannon wishes he had but doesn’t? “As for equipment I miss, there is nothing that we don’t have that I can think of. My supervisor, Ed Consalo, is great about getting us equipment that we do need. We have so much equipment to choose from to do our job the correct way. We have two trucks, a dump truck, big mowers, small mowers, two tractor loads of small tools, and so many other things. Maybe the ONLY thing we don’t have, but don’t really need, is a backhoe,” he says.

Clyde Baker is a free lance writer based in Harrisburg.

Darrell Bohannon with the KAFMO Field of Distinction plaque.

EQUIPMENT OUTLINE

◆ New Holland 75 TD tractor with front-end loader
◆ Ford 2120 tractor with front-end loader
◆ Millcreek topdresser
◆ Jacobsen King 6-foot aerator with eight wheels of tines
◆ Lazer Z Exmark mower with 60-inch deck
◆ Progressive 12-foot and 15.5-foot rotary mowers, pulled by two tractors
◆ Power trim edger
◆ Kromer riding paint machine, which also has attachments for spiking and dragging and spraying
◆ Lesco walk-behind spreader
◆ Jacobsen 4-foot slicer
◆ Turfco 18-inch sod cutter
◆ Three-point hitch fertilizer spreader
◆ Walk-behind liner
◆ Three-foot landscape rakes, shovels, and other small tools
◆ Zimmerman TR 200-gallon sprayer with 20-foot booms
◆ First Products aera-vator attached with a drop seeder
January & February
Field closed.

March
Clean up around field for start of season; spike and drag fields. Re-install batting cages. Apply 1 ton of gypsum on entire field.

April
Mow as needed. Mowing heights are: infield, 1 ½ inches, and outfield at 2 ¾ inches. Prepare field for games and fertilize with 19-3-6 at 4 lbs. per 1,000 square feet.

May
Mow as needed, same heights as above except out of play areas are mowed at 2 ¼ inches. Three times per week, prepare fields for games and then playoffs.

June
Mow two times per week or as needed.

July
Mow two times per week or as needed. Apply Roots Turf Food 15-3-8 fertilizer at 5 lbs. per 1,000 square feet. Apply compost at ¼ inch and aerate, drag, and overseed. Spray Momentum on 2-acre area at three pints per acre to control clover, 40 psi with 20-foot booms, total 50 gallons.

August
Mow as needed. Dissemble and remove batting cage nets for the season. Spray Momentum, 21-0-12 weed and feed at 150 lbs. per acre.

September
Mow as needed. Apply Dylox insecticide at 30 lbs. per 10,000 square feet to control grubs.

October
Mow as needed. Aerate in four different directions pulling cores. Apply organic compost at ¼ inch thick and drag. Overseed with ryegrass/bluegrass mixture with slice seeder.

November
Aerate in four different directions pulling cores. Compost at rate of ½ inch. Slice seed bluegrass blend at 2 lbs. per 1,000 square feet. Drag with mat and fertilize with 19-19-19 at rate of 5 lbs. per 1,000 square feet. Edge infield and re-sod where needed.

December
Closed for season.
Imagine you’re one of the grounds managers out there with a water problem, puddles recurring on your field after a rain. What’s the best way to fix the problem?

Some choose what seems like a logical approach. Dig a trench across the field, lay in some drainage pipe, cover it with gravel, then backfill with the spoil and wait for the next rain to watch your water troubles drain away.

But all you may have done is succeed in draining your maintenance budget. If there’s a puddle on the surface, a pipe 10 feet underground isn’t going to make it go away. The water can’t move through the first two inches of the soil. If it could, you probably wouldn’t have the puddle. This type of “fix” is too typical when trying to solve a drainage problem.

The mistake some managers make is running pipe under a native soil field and capping the last six inches of the trench with the topsoil they removed. I found many of these systems seldom conduct water through the pipes for very long. Once that surface soil becomes compacted, the water can no longer make it to the drainage pipe.

A better solution is to improve the surface drainage. Put a good crown on a natural soil field to move the water to the sidelines and then collect and get rid of it. I know this is an expensive solution, but it’s the best solution. Fight hard for a 1.5% slope. Don’t let the architect lean the field from one side to the other. You want to move the water the shortest distance possible off the field and you want the high wear areas to be the highest, and driest, areas of the fields. If you are draining a football only field, you can ‘turtle hump’ the field. That means that you run the traditional crown on the field until you reach the 20 yard line. Then the shortest distance off the field is to run the water out through the end zone. Beaver Stadium has a turtle hump because it is a football only field. A turtle hump is not a good idea for any sport that uses a goal ie. Soccer, field hockey, Lacrosse. If a goal sport is to be played on the field, run the crown the entire length of the field. You don’t want to run water toward the goal mouth. You want the goal mouths to be sitting on the highest part of the field.

Unless there’s a high water table, most fields will not be helped by a subsurface drainage system. If you’re in the rare situation that calls for subsurface drainage, find an expert such as a hydro-geologist or civil engineer with experience in draining high water tables. One thing about draining a high water table - you want the pipes as close together and as deep as you can afford. Remember, draining a high water table will help in the spring or other times the water table is high but will not necessarily take care of surface water problems caused by a passing thunder shower. Good surface drainage is still needed.

Of course moving the surface water to the sidelines is only part of the answer. Once there, the water should be collected and drained away. If you just put three or four small grates along each sideline, the water sometimes has a tough time finding the inlets. The grates sometimes end up being 4 inches higher than the surrounding turf and the water can’t get into it even if it can find the grates. Beaver Stadium on the Penn State campus has drains behind the benches that run the length of the field and work well. These Jiffy Drains are essentially PVC pipe that has been split in half and set only a couple inches into the ground forming a ground level rain gutter. The gutter is then covered with a grate. The channel connects to an outlet, which leads the water to a storm sewer. Initially, the grounds crew was worried that frost would heave these gutters out of the ground each winter. That has not been the case. This system has been in place for 12 years and continues to function well. Each spring the crew pulls the grates to hose out debris in the channel.

Another solution for improving drainage that is useful is installing drainage lines using one of the many slit trenching system now available. Be sure the trenches are constructed so that the coarse aggregate (sand) comes the whole water to the playing surface. The coarse aggregate cannot be topped with soil or the system will fail. The trenches these systems create should run perpendicular to the way the water flows, end zone to end zone, in order to catch the water as it runs off the crown. Contractors don’t always like to do it.

(Continued on page 10.)
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Upcoming Events
Visit www.KAFMO.org for details.

January 6-8, 2009
Eastern PA Turf Conference and Trade Show in Valley Forge, PA.
Visit www.paturf.org for details.

January 13-17, 2009
STMA 30th Annual Conference & Exhibition in San Jose, CA.
Visit www.STMA.org for details.

January 29, 2009
Northern PA Turf Conference & Trade Show in Wilkes-Barre, PA.
Visit www.KAFMO.org for details.

February 13, 2009
13th Annual KAFMO Athletic Field Conference in Grantville, PA.
Visit www.KAFMO.org for details.

March 3-5, 2009
Western PA Turf Conference and Trade Show in Pittsburgh, PA.
Visit www.paturf.org for details.

March 17, 2009
Northwestern PA Athletic Field, Turf and Ornamentals Conference in Meadville, PA.

Coming soon:
13th Annual Conference

The 13th Annual KAFMO/PRPS/PSU/STMA Athletic Field Conference will be held on Friday, February 13, 2009 at the Holiday Inn Harrisburg/Hershey in Grantville, PA. The conference will feature university experts along with practitioners who will share their knowledge and experiences.

Dr. Frank Rossi, Cornell University, will be the featured presenter. Dr. Rossi conducts research and provides education with the goal to improve the environmental compatibility and economic feasibility of turfgrass management systems. Other presenters include: Brad Park, Rutgers; Dr. Paul Heller, PSU; Don Savard, Salesianum School; Phil Woods, Quakertown Midget Football Association.

A trade show of exhibitors providing products and services to the sports turf industry along with sponsor’s materials will also be featured at the conference. The annual awards program and a raffle will also be highlights of the event.

Visit www.KAFMO.org for registration brochures.
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this because they have to create more fall in the trench. Running the length of the field means now they need 65 yards of fall, but going sideline to sideline means they only need 25 yards or so and if there is a crown there is a natural fall. A herringbone system is a workable compromise. Collection pipes run the length of each sideline and the slit trenches run at a 45 degree angle off of each collection pipe.

A common mistake made is installing a slit trench system and then maintaining the field as you had in the past. When core aerating, if you bring the cores to the surface and then drag them back into the field, eventually you are going to dirty the sand in those drainage channels and plug them up. You will eventually ‘cap’ the trenches with soil. Once the slit trench system is installed, it’s time to start sand topdressing and removing aeration cores. I suggest topdressing immediately after the slit trenching is installed. To be ready for fall sports, you should put down about 3/8 inch of straight sand across the whole system in spring. Run some test strips in the field surrounds until you become calibrated. This is a lot of sand. It looks like you are burying the grass. The grass will grow through the sand and in 4 days you’ll be mowing again so don’t be too concerned. You shouldn’t plan on playing on the newly topdressed turf for some time. The grass needs time to ‘secure’ this new sand topdressing.

In addition to straight sand topdressing, when it’s time to aerate, harvest the cores each and every time and then topdress with sand again. You’ll be treating the field like a push-up green and you must sand topdress every year and you must pick up the cores. You build up that layer of sand on the surface with the trench system under the sand. This can provide you with the best of both worlds. A quick draining firm surface but the roots will still be able to find the native soil underneath for nutrients and water.

This approach is a great way to go but it does require more money to maintain the field. You’ll need to purchase sand every year, you’ll need a large capacity topdresser, and one of the new core harvesters. It moves you to a higher level of maintenance, but remember, the worst thing you can do is spend money on a trench system and maintain the field the way you always did. If you don’t core aerate, or you do core aerate and drag the plugs back into the field, eventually the trench system will clog and stop working.

UNDERSTANDING FIELD DRAINAGE...from page 6.

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