- Design using head-to-head coverage. Head-to-head coverage (overlapping the spray from a sprinkler head with the spray from the sprinkler head next to it) maximizes irrigation efficiency. The higher the efficiency, the less time it's required to run the irrigation system to produce the desired results.
- Use sprinklers with the same precipitation rates within each zone. "Precipitation rate" refers to the amount of water sprays or rotors discharge in inches per hour. Always have sprinklers with the same precipitation rates running together on the same zones for an even application of water over the entire zone. When sprinklers with different precipitation rates are combined on the same zone, some areas of the zone will be overwatered and others will be too dry.

OTHER KEYS TO EFFICIENCY

• Regulate water pressure. High water pressure causes water to emit from sprays and rotors as fog or mist, often evaporating

- or drifting away in the wind and leading to longer run times. Every additional 5 pounds of water pressure (5 psi) over the sprinkler's optimum operating pressure causes each head to use 6-8 percent more water—an amount that can really add up over time. Pressure-regulating valves and swing joints can remedy this situation, as well as sprays and rotors with in-stem pressure regulation.
- Check nozzle efficiency. Distribution uniformity, or "DU," is the industry measurement of nozzle efficiency shown as a percentage or decimal. The higher your system's distribution uniformity, the less time it will have to run to achieve the desired results. You can determine your DU by conducting an irrigation audit on your own using a catch-can method, or you can have a third party perform the audit, such as the Center for Irrigation Technology or your sprinkler manufacturer.
- Schedule wisely. Evapotranspiration, or "ET," measures the rate that plants lose

- water through evaporation and transpiration. ET is calculated based on temperature, humidity, solar radiation, wind speed and rainfall. ET rates are typically lowest early in the morning, so water applied during that time is less likely to evaporate due to solar radiation. Wind speeds also tend to be lower in the early morning hours than at other times of the day, making it more likely for your irrigation water to land where it should and further improving system efficiency.
- Consider ET-based control. Using an ET-based control system can reduce irrigation frequency by as much as 30-50%. These systems gather local weather data to calculate a daily ET rate. This information then determines whether the system should run on any given day or whether zone/station run times should be adjusted. Even if your current controller is not ET-based, it's a relatively simple upgrade that can save a tremendous amount of water over time.





Is your turf under "a-salt"?

PORTS FIELDS are constantly under attack! Insects, diseases, weeds, and shrinking budgets are your enemies. At least these enemies are visible. Yet there may be other enemies lurking about: being assaulted with salts is becoming more common. No worries! By the end of this article you will have your own arsenal to defend your turf.

Hey you...yes you! Don't assume the "coast is clear" and this issue pertains only to places near the ocean. There are other ways salts sneak into your fields. So read on!

WHERE SALTS COME FROM

Yes, coastal areas see the greatest impacts from salt spray and/or irrigating with tidally influenced rivers, lakes and other surface waters. But salt problems are not limited to coastal areas. Other conditions where salts may be problematic include:

- Turfgrasses irrigated from naturally occurring saline aquifers.
- · Excessive removal of water from shallow freshwater aquifers can result in them being contaminated by saline water from underlying
- Irrigating with treated waste water; many times, salts are used as part of the treatment process.
- Arid regions where salts concentrate in soils as water is lost through evapotranspiration and not replaced through rainfall or adequate irrigation.
- Areas in droughts or dense populations where water conservation efforts result in constant water restrictions that limit irrigation.
- Many deicers and snow melt chemicals are salt based. The salts are lost with water runoff. If that water is shunted to an irrigation pond, the pond water can become salinized.

Now do I have your attention?

ATTACKS ON SOIL STRUCTURE: not all salts are created equal

There are many different salts out there: calcium chloride, potassium chloride, sodium chloride, magnesium sulfate, sodium bicarbonate just to name a few. Having many different salts present does not do much harm for your soil structure. Those divalent cations (2+ charges) magnesium (Mg2+) and calcium (Ca2+) act as bridges between the cation exchange sites on soil particles. This results in aggregating the soil and promoting good air and water movement.

And then there is sodium (Na+). Sodium is a monovalent cation (one + charge), and thus it does not act as a bridge between soil particles. Instead Na fills each exchange site. In addition, Na is a very hydrous ion; it likes a lot of water. You can think of it as a very "bulky" ion and in being so, it pushes soil particles away from each other. This is called soil dispersion. When Na disperses soil particles there are little to no aggregates. Individual soil particles lay close together and the soil is susceptible to compaction resulting in very few pores for water and air movement. Water can no longer easily penetrate and move throughout the soil profile. Roots also have a hard time growing.

The degree of problems increases with the cation exchange capacity (CEC) of your soil. Since CEC is related to soil texture, knowing what your grass is growing on will help you quickly assess damage potential. Finer textured soils and soils with organic matter will have greater CEC than medium to coarse sand soils. Thus soil structure problems will be less in sandy soils.

PLANT TORTURE: salt induced battle scars

Under typical soil moisture conditions, plants have to overcome one major obstacle to take up water: the tension of water being held to soil particle surfaces. This is called matric tension. Plants must overcome another battle when salts are present, called osmotic tension. Think of this as the battle over water. Salts like water too and thus plants must work harder and exert more energy to battle the salts to take up the water. If too many salts are present, plants cannot take up enough water and begin to stress and wilt.

If Na disperses soil aggregates and ruins soil structure, turfgrasses may become water stressed because water is never getting to the rootzone. Rather water from irrigation and rainfall is lost to runoff or evaporation from the

In addition, as water is taken up from soil solution by the plant, some solutes are taken up as well. In concentrated amounts, toxicities can occur. Some turfgrasses have ways to deal with increased salts. For example, bermudagrass has salt excretion glands at the base of their blades. In general, warm-season grasses tend to be more salt tolerant than cool-season grasses. Grasses vary greatly in their tolerance to specific solutes. Besides root uptake, overhead irrigation with saline water may directly burn foliage. In both cases of direct injury, the plant may become stressed as it uses energy to repair tissue rather than for daily metabolic processes.

KNOWING IS HALF THE BATTLE

Any good attack starts with knowing your enemy. Get your irrigation water source analyzed. Make sure the test report includes Na, Cl, Mg, Ca, Electrical conductivity (EC), soil absorption ratio (SAR), and residual sodium carbonates (RSC). Your lab should be able to help you interpret the results. If you have a saline and or sodium problem, you will need to also take soil samples to assess current soil conditions to determine which management practices you will need to take.

Management typically includes many of the following:

- · Aerifying to break up any salt crusts that
- Topdressing with coarse sand to improve water and air movement.
 - Ensuring the drainage system is adequate.
- · Leaching the soil with every irrigation by applying a leaching requirement (LR) if the soil salt status is to be maintained at its current level, or a reclamation factor if soil salt concentrations need to be lowered.
- · Applying an amendment directly to the soil or injected into the irrigation system to knock Na off the cation exchange sites and leach it pass the rootzone. Amendments typically used are high in Ca and or Mg (a common amendment is gypsum). For soils that contain a lot of calcium carbonate (free lime), sulfuric acid is commonly used to release the Ca to replace the Na. There are also other soil conditioners that assist in sodium removal. If you are considering using one, make sure you ask to see the research documenting its effectiveness.

Dara M. Park, Ph.D. is an aassistant professor, turfgrass, soil & water quality at Clemson University.

JOHN WASCARO'S PHOTO QUIZ

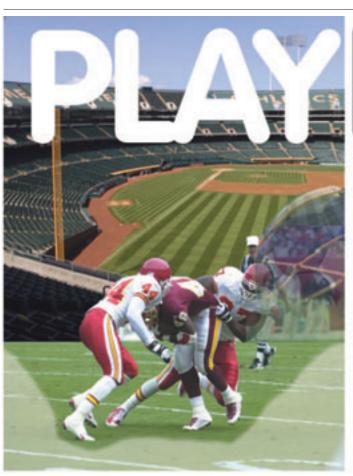
Answers from page 17

These soccer fields in Northern Florida have a base of 419 Bermudagrass and are lightly overseeded with perennial ryegrass for winter play. During the overseeding process, the seed spreader was being pulled by a utility vehicle and the extra seed bags were in the back with the gate down. Apparently while spreading the seed, one of the bags dropped off the back of the utility vehicle and impaled itself on the seeder actuator arm causing the seed to quickly spill out as the operator moved along. This spill was not noticed by the operator until the next pass with the seeder. Instead of reporting the problem to the Sports Turf Manager, the employee decided to clean the spilled seed up by dispersing the seed with a backpack blower. The incident was not reported until ryegrass had germinated and the Sports Turf Manager noticed this line of heavy ryegrass and questioned the employee. The photo also shows how effective his cleanup effort was and was taken a full 2 months after the incident. The area was visible through the entire winter soccer season until the ryegrass transitioned out; since it was not on the playing surface, it did not cause any problems.

Photo Submitted by Tim Legare, CSFM, CPRP, Director of Leisure Services for the City of Callaway, FL and NFSTMA President.



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.



BALL!

FOOTBALL, BASEBALL, SOFTBALL, SOCCER

Any sport played on natural grass is a natural for TifSport Bermudagrass. If you're looking for a sports turf that can handle non-stop action, a transition zone climate and heavy overseeding, TifSport's your answer. It's ideal for intramural fields, practice fields and gameday venues, where everything has to be perfect.

Coaches and players love the way it looks and plays and you and your crew will appreciate how easy it is to manage. TifSport can only be sold as certified sod or sprigs and only by licensed members of the TifSport Growers
Association. For more information visit us at www.tifsport.com, or call 706 552-4525.



Tools&Equipment | Products



Turf Tidy is versatile

The Turf Tidy from Redexim North America is one of the most versatile machines built today. It incorporates verticutting, flail mowing, core collection and debris clean up applications into one machine. The Turf Tidy's fully floating cutting head follows the grounds' contours, ensuring accurate cutting and pick-up. The unique turbo fan makes a clean sweep of leaves, pine needles, paper, aeration cores and grass clippings. The large hopper means less time emptying and its high lift allows greater clearance when tipping; it will easily dump into a utility vehicle or dumpster. The large turf tires mean less ground pressure even with a full hopper.

Redexim North America



New Toro Rake-O-Vac

The Toro Rake-O-Vac has a brand-new, enhanced design featuring an airflow system that minimizes dust in a variety of applications. In the new airflow system, dust travels up through the filters and back down out the rear of the machine at ground level for a clean sweeping environment. A spring-loaded flex tip reel gently lifts wet or dry debris for a clean sweep. Powered by a 22 hp, air-cooled Kohler Command engine, the Rake-O-Vac features a large hopper capacity of 5.75 cubic yards, allowing a substantial amount of material to be collected before dumping. An optional broom reel provides additional sweeping power, especially for cleaning up bermudagrass during the scalping process or various hard surface applications.

The Toro Company



Wiedenmann introduces new Super 600

The new Super 600 high dump is a heavy-duty sweeper/verticutter/flail mower collection system by Wiedenmann which is similar to the Super 500; however, the Super 600 has an increased hopper capacity of approximately 80%. The multi-purpose head allows for sweeping, verticutting, and flail mowing while collecting clippings into a 5.9 cubic yard hopper with a high dump reach up to 83". The airflow path ensures complete filling of the container. In addition, the Super 600 can works extremely well as a core pulverizer by installing brackets on the rear door of the hopper, creating a 4" gap, which allows materials to fall back to the surface. Verticut spacing ranges from ¾",1 ½", or 2 ¼". A big advantage is the floating head which follows contours. Also the multi-purpose head allows sweeping without changing the implements.

Wiedenmann NA



TurfTime Equipment adds to its Advantage line of topdressers

TurfTime Equipment is adding the TT-1000 to its Advantage line of topdressers. The 1 yd galvanized steel hopper can be heaped to 1.5 yd, or enhanced to 2.5 yd with optional 12 inch extension sides when spreading compost. Made to work with your existing equipment this sturdy and agile topdresser is powered by tractor hydraulics, PTO, or 13 HP engine. Remote controls adjust belt and spinners for up to 30 feet of coverage. The Advantage TT-1000 is covered by TurfTime Equipment's industry leading 5-year limited warranty. The TT-1000 joins the full line of fast and efficient Advantage topdressers offering 1 to 7.5 yd capacity that allows managers to choose the right equipment to fit their facility's needs and budget.

TurfTime Equipment



New Trilo vacuum sweeper model

The all-new Trilo Vacuum Sweeper S4 is the machine to clean your open areas of litter, leaves or grass clippings. The new design is the result of many years of experience as the leading manufacturer in this market. In creating the S4 the design team have worked hard to meet the requirements of councils, contractors and greenkeepers in an economically challenging environment. The S4 is manufactured using the latest production technology and great time has been spent ensuring that the final product reaches the market at an affordable price. However, it is a Trilo and there is never a compromise on quality where it matters! **STEC Equipment**



Legacy Pro and Sport with leaf blower

The new Legacy Pro and Sport by Broyhill is now available with an improved fiberglass resin formulation. The 3wheel drive vehicle is a hard working/pulling unit ideal for leveling bunkers (Pro) or pulling ball field finisher units (Sport). Unit now has optional hydraulic plow lift and rear leaf blower driven by the Legacy unit's engine. Since our leaf blower requires no dedicated engine to power blower, it saves the user this cost. Umbrella canopy now optional.

Broyhill

Parker Estate Master commercial sweeper

Parker offers the Estate Master, a towable lawn sweeper which is formed by hitching three Parker Suburbanite lawn sweepers together. With a 100-inch sweeping width, the Estate Master is capable of picking up grass, leaves, twigs and debris from a large turf area. Easily towed by a front engine turf and garden tractor, zero-turn riding mower or an ATV with a rear hitch hole, it leaves a noticeable, more groomed field. The Estate Master has eight polypropylene, steel-backed brushes in four staggered rows and provides variable height adjustment independent of the frame which provides excellent performance for various situations. Each unit has a front face plate with a variable vertical adjustment to help control how debris is deflected into the basket. **Ariens Company**

Cub Cadet leaf blower & chipper/shredder/vacuum

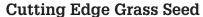
The Cub Cadet leaf blower offers the following advantages: Jet sweep clears yards faster, easier and quieter; creates fewer decibels of noise; gives up to 150 mph wind speed; provides 15 degree up/down air directional pitch control; features 8" lockable/pivoting, solid rubber, front caster wheel. The Cub Cadet chipper shredder vacuum offers: 3-in-1, multi-purpose unit quickly vacuums debris and efficiently chips twigs and branches and shreds leaves; 1.5" chipping capacity; 7' on-board vacuum hose for getting into tight spaces; lockable 2-bushel, felt-lined collection bag stays in place.

Cub Cadet Commercial

Gravely ProVac 1060

Gravely offers the robust ProVac 1060 featuring a large 3.5-cubic-yard (2.7-cubic-meter) hopper capacity for large leaf collection jobs. In addition, the 60-inch adjustable intake scoop allows the operator to pick up pine cones, trash, leaves and more. Debris can be removed from turf or cement. An optional hand vac unit provides an extra 10 feet of reach to vacuum leaves from under shrubs, along a fence line or between stadium bleachers. The unit features an 18hp Kohler® Command Pro engine and a 12-volt electric start. Built for durability, the Gravely ProVac has an all-welded, rectangular structural frame.

Gravely



The new Cutting Edge Grass Seed allows everyone to grow an award-winning lawn with little maintenance required. The revolutionary low maintenance grass seed blend of beautiful Kentucky bluegrass and other top rated seed cultivars can establish a deep root system up to 48 inches, resulting in a durable, drought-tolerant, disease and insect resistant lawn. Each of the 8 cultivars is top-rated by the National Turf Evaluation Program. It will grow to a dwarf height, requiring mowing 2-4 times per year to maintain a manicured look. It is the perfect solution for areas with water bans or those areas that are beginning to prohibit herbicides. Sustainable Low **Maintenance Grass, LLC**

Next generation Enkamat R45

Building on the legacy of Enkamat, the industry's original turf reinforcement mat, Profile Products introduces the most complete High Performance-Turf Reinforcement Mat (HP-TRM) in the industry, Enkamat R45 HP-TRM. Enkamat R45 delivers maximum soil and root reinforcement at low elongations (it will not stretch) due to its high-strength, high-modulus geogrid that acts as an additional tensile element. This, along with the matrix's 95% open space, leads to faster vegetation establishment and maximum root entanglement. Its three-dimensional matrix acts as a reinforced grip layer that allows vegetation to withstand periodic light vehicular traffic as well as mowing and maintenance operations on slopes. Produced in partnership with Colbond Geosynthetics. **Profile Products**

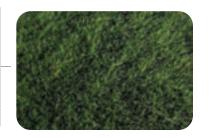
Growth Products introduces BioNutrients

Growth Products' newly released BioNutrients 8-0-9 is a 100% organic biostimulant and soil conditioner. Designed for sports turf, the product is a dry concentrate packaged in easy-to-use 8 ounce packs. Fully soluble in water, it is a "no mess, no measure" way to build turf and soil health. BioNutrients can be used in a wide variety of turf applications to revitalize soils and neutralize soil salts, to promote faster rooting and deeper turf roots, and to improve turf color and make turf better able to withstand environmental and disease stresses. These improvements derive from the dry soluble's high concentration of natural L-amino acids, humic acids, kelp extracts, and other carbon-rich molecules that sustain the powerful microbial growth unleashed by BioNutrients' proprietary mix of wild yeast and four species of beneficial rhizosphere bacillus.

Growth Products









Infinity Park, City of Glendale, Glendale, CO

Level of Submission: Schools/Parks

Category of Submission: Sporting Grounds **Head Sports Turf Manager:** Joshua Bertrand

Title: Manager of Turf Operations **Education:** Master's Degree

Field of Study: Management & Organization

Work History: seasonal, City of Boulder in 96. City of Boulder Athletic Field Maintenance technician from 97-99. Assistant turf manager University of Colorado from 99-02. Certified Turfgrass Professional 02. Denver Public Schools Athletic

Field Technician 02-07. Manager of Turf Operations, Infinity Park, Glendale 07-current.

Full Time Staff: Noel Harryman

Students, interns, seasonal, part-time staff: Bob Taylor, Gene Hazlett, Vickie Allen, Kevin Brown, Denise Neahusan, Diego Aguilar, Matt McCord, Jody Yonke, Paul Herrera, Will Truesdale, David Frawley.

Original construction: 2007

The playing surface was renovated within the past 2 years, including a complete irrigation lateral replacement on playing

surface. The irrigation lines were not installed according to design specifications. Lines were punctured in hundreds of places after an 8-inch deep tine aeration. The lateral replacements took about a week from start to finish. The sod was harvested out in hopes of being able to put it back down as soon as the lateral was replaced. However, the harvest was unsuccessful and new sod had to come in on the 4-foot wide strips that were removed, says Bertrand.

Irrigation lines not installed to correct depth according to design specifications. Lateral lines ranged from 6-inch depth to 9-inch top of pipe. The line depths were found when we deep tine aerated at 8-inch depth. We feel that deep tine aeration is an important cultural practice and wanted to be able to continue this practice in the future.

The renovation was very successful in that we accomplished our goal of burying the laterals to their proper depth. The new sod is a challenge in matching up color but this only a aesthetic issue and does not affect playability of the surface.

Soil composition: USGA sand

Turfgrass varieties: Midnight, Awesome, Impact, NuDestiny-Kentucky bluegrass (70%), Caddieshack, Accent, Topgun-Perennial ryegrass (30%)

Overseeding: Overseeding is done now strictly with Kentucky bluegrass. The pitch is overseeded four times a year (last week of March, first week of May, mid-June, and last week of August) at a rate of 10#/1000sq.ft. The seed mix is Midnight, Awesome, Impact, and NuDestiny. For divot repair we use a 1:3:1 ratio of pre-germinated seed, USGA sand, and fertilizer.

Drainage system: GraviTURF designed by Dan Almond of Millennium Sports. Using 4-inch ADS drain pipe, located on 15-foot centers, set in pea gravel 10 inches below the surface.



CHALLENGES

On May 7, 2011, while Animal Kingdom won the 137th Kentucky Derby at Churchill Downs, the turf crew at Infinity Park was facing its biggest challenge in 2011. Infinity Park hosted the largest Kentucky Derby party (outside of the actual Kentucky Derby) in the United States. More than 5,000 partygoers spent 4 hours celebrating the Kentucky Derby with open bars, a live band and watched the race live on the Jumbotron. Ladies wore extravagant hats, sundresses and high-heeled shoes, men wore derby hats and plaid pants. The result was 100 cases of champagne, 150 cases of wine and more than 140 kegs of beer being consumed. Six months before the event the decision was made not to rent flooring for turf protection. At that time, it was felt that partygoers would spread out over the surface and traffic spots would be minimal. However, the month before the event, the infrastructure of tents, catering stations, bars and portable toilets was increasing in number (doubling +).

Another challenge was the home Raptor Rugby team was tremendously successful and making a strong push to the playoffs. The Raptors would be hosting a playoff game the following weekend and Infinity Park would be hosting the National Championship games the first week of June 2011. One month before the event the pitch department began careful planning. Developing "worst case" scenarios (the worst case was a snowstorm during the 2 days before the event) and action plans to address concerns in each scenario:

- 1. Overseed the pitch a week before the event (anticipating 2-week germination, just in time for the potential playoff game the following weekend).
- 2. Water heavily 4 days before the event, before set up and staging, in anticipation of hot conditions and being unable to water with the event infrastructure in place.
- 3. Use a combination of Enkamat and plywood (courtesy of Bret Baird at Dick Sporting Goods Park). All potential wear areas, access areas, and anything heavy had this combination layer of protection under it
- 4. Carefully scheduled the setup and staging of tents, portable stages, catering, refreshments, décor, etc., to minimize the amount of time and impact on the pitch surface.
- 5. One key policy was everything going on or off the pitch surface had to be done under the direction or supervision of the pitch department. This prevented a flood of traffic at the end of the event as all stakeholders tried to get their items off the pitch at the same time.

The most unique challenge of managing a rugby pitch is the culture of the sport of rugby. Rugby is an all-inclusive sport, where in the culture, the unwritten rule is all the players who show up to play get to play in a game of rugby that day. Games can and will continue all day regardless of weather or any other outside limiting factors.

SportsTurf: What channels of communication do you use to reach coaches, administrators and users of your facility?

Bertrand: We use three basic channels of communication at the City of Glendale: e-mail, meetings and direct communication. Email is the primary form of communication for us. It allows for mass/multiple people to receive the message and it leaves an electronic trail. Those two items make email a valuable form of communication.

Next, I or someone from my staff, attend the weekly operations meeting with administration, coaches, facilities and operations. I am always amazed how well events work when everyone is on the same page. Also, I liked sending different people from my staff on occasion to those

F.O.Y. | Infinity Park

meetings because they often came back with a new appreciation of all that goes into running a team and a stadium operation. Finally, I firmly believe in direct communication. Never be afraid to walk into the head coach's office, GM's office, etc. if you need an issue resolved.

ST: Any tips on communicating well?

Bertrand: I never walk into an office without being prepared knowing exactly what I want to ask or tell the person. Only ask one or two "yes" or "no" questions and get out of their office, rather than ask a question that would require a lengthy explanation. The quicker you are in and out of their office and are respectful of their time, the more receptive they will be to your needs.

Next, don't view all meetings as a waste of time. Learn what makes people tick, watch the dynamics and learn from others. It's much easier to learn the do's and don'ts when you're paying attention to how others interact and what causes satisfaction or frustration with the bosses.

Lastly, (and the credit goes to Dave Rulli for this recommendation) respond to all emails sent to you (except when you are cc'd) within 24 hours. I sometimes struggle to respond within 24 hours, but communication is becoming increasingly faster and so must our ability to respond.

ST: What are your specific job responsibilities?

Bertrand: As manager of Turf Operations for the City of Glendale I worked out of the Department of Public Works. Along with the basic functions of turf management; mowing, fertilizing, irrigation, painting, etc. I was also assisting the Public Works maintenance operations such as street repairs, water and sewer line maintenance, maintaining the communication infrastructure, etc. It was great experience and exposure to learn how a city functions. In addition to learning many aspects of Public Works, it allowed me access to phenomenal human and capital resources. Turf maintenance tasks like loading 5 cubic yards of USGA sand into topdresser goes much quicker with a CAT 926 loader than using a John Deere 4520 tractor.

ST: What do find most enjoyable?

Bertrand: I have always found the mowing aspect of turf management the most enjoyable. I like the challenges of mowing straight lines and cool patterns. I enjoy turning the wrenches to get the mower "dialed" in and achieving a high quality of cut. But above all else, mowing gives me a couple hours each week of undisturbed, quality time with the grass. No phone calls, emails or meetings, just me and the grass. The mower can only mow the grass so fast, so there is no way to speed up or hurry the process. Sure mowing the pitch in certain directions would be faster than others, but the mower would only cut the 2 acres at 6 mph, so why rush a good thing?

ST:What task is your least favorite and why?

Bertrand: Pulling tarps would be my least favorite task of turf maintenance. Anytime you are pulling tarps, it is because something isn't working in your favor. Either the weather is turning colder and/or wetter or there is a big event upcoming which will require the turf to be at its best (and the turf is not at its best). Along the Front Range of Colorado we get decent wind gusts adding to the misery of pulling tarps.

ST: How did you get started in turf management? What was your first sports turf-related job?

Bertrand: I started as a seasonal for the City of Boulder softball complex getting adult recreational softball fields ready for play. I read an article the other day written by a job recruiter stating it's "who you know" to get a job. Not a lot has changed from 1996 when I first started; the field manager for the City of Boulder was married to my older sister's college roommate (it's six degrees of Kevin Bacon in action) and when he saw my name in the applicant pool he hired me right away. He told me I was a good hire since he "knew who I was" or at least would gripe to my older sister if I didn't pull my weight, leverage he didn't have with the other seasonal employees.

My goal when first hired as a seasonal with the City of Boulder was to get on full time with the Forestry Department. However, when a position came open for a full-time athletic field technician, I applied for and got the position. After a couple of weeks I realized I found my calling; I enjoyed the work, found it challenging and, thankfully, was decent at it too.

ST: What are the major challenges in managing turf for so many

Bertrand: The single biggest challenge is to communicate to all the users the cumulative effects of their use. For example, the head coach views the turf from the perspective of 20 home games each year. The youth rugby coordinator has the perspective of 16 youth practices each season. And the marketing department is focused on five movie nights, rugby games and a handful of large special events. It is this cumulative effect of all these users on the pitch that they need a turf manager. The challenge is communicating to all parties involved how much or when they may use the turf. I feel the best way to handle this challenge is at the operations meeting when all the stakeholders and users are present, to provide them with the current condition of the turf and the forecast condition of the turf based on planned use and weather. This will give all the users and stakeholders the chance to own the decision of who, what and when to use the turf. Allowing others to get the information from you and make a decision ultimately leads to all users to have a better experience and the turf to survive (and in some cases thrive!)

ST: How do you see your job changing in the future?

Bertrand: My career and work have taken a step into a new direction this past March. The long time Director of Public Works for the City of Glendale retired in March and I am fortunate to ascend into his position. My new duties involve managing the people who maintain the infrastructure, parks, streets and maintain the regulatory compliance of City. As for my old position, Noel Harryman has taken over the helm as the Turf Manager at Infinity Park. Noel brings a tremendous work ethic and skill set to the position.

As for the job and the role of turf managers in the future, over the next decade up to 4,000 synthetic fields will be replaced. Where will cities and schools find the money to replace these surfaces? What will be the "best" methods of disposing the old surfaces? Will synthetic surfaces convert back to natural grass? Over the next decade, the questions of which type of surface is more cost effective and which surface is more environmentally sustainable will be answered. I don't think that one particular surface is the best solution to both questions. The challenge for turf managers will be to answer these difficult questions and move sports surfaces forward.

Membership Application



Experts on the Field, Partners in the Game.

	Name	Title	
Fax to: (785) 843-2977 Or mail with payment to: Sports Turf Managers Association P.O. Box 414029 Kansas City, MO 64141	Employer/ Facility		
	☐ Business	☐ Home	
	Address		
	City	State Zip	
	Home phone	Work phone	Cell phone
	Fax	Email	
	Signature	Lond Monda	
	Direct Supervisor N	ame	
	Membership C	ategory:	
	□ Sports Turf Manager		\$110
	☐ Sports Turf Manager Associate* (Additional member(s) from the same facility)		\$75
	Please select the primary facility type where you are employed:		
	O Professional Sports O Higher Education O Schools K-12 O Parks and Recreation		
I know I am a better sports turf manager because of this association. As sports turf managers, we take the challenge seriously to make our fields the best possible for the next game. The resources I have access to through STMA helps me do it."	□ Academic		\$95
	☐ Student (verification of enrollment)		\$25
	□ Commercial		\$295
	□ Commercial Associate* (Additional member(s) from the same commercial company) \$75		
		who is indirectly or on a part-time basis, involved in the	***
		nagement of sports fields)	\$50
	☐ Chapter Dues (contact headquarters for amount) Chapter name)		2
	☐ Contribution To SAFE Foundation (research, education and scholarship):		S
	Total Amount Enclosed:		\$
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Mt. San Antonio College dedicates field to Dr. Kent "Doc" Kurtz

MT. SAN ANTONIO COLLEGE, Walnut, CA hosted a field dedication ceremony March 24 in honor of the late Dr. Kent W. Kurtz. The beautiful, sunny day was fitting for honoring a legend in the sports turf and golf industries.

Over the past few months the students of Mt. SAC worked hard to build a learning laboratory that is comprised of a small stadium, now known as Dr. Kent W. Kurtz Memorial Stadium, with regular field features that can and will be used for training young men and women on baseball field construction and maintenance. How fitting that such a living laboratory should be named after Dr. Kurtz.

Kent Kurtz was a major influence in sports turf and golf turf for many decades. His influence extended way beyond southern California and he was sought after for many consultations on soccer fields, horse racing tracks, baseball diamonds, and football fields around the world.

During his time at Cal Poly Pomona, Dr. Kurtz trained many young men and women that are now managers of major sports venues all over America. His students included Brian Scott, professor of horticulture and Agricultural Sciences Department chairman at Mt. SAC and the genesis of the field construction and dedication. Brian has always considered Dr. Kurtz his major mentor. Many of the students from Mt. SAC matriculated to the program at Cal Poly Pomona to eventually study under Dr. Kurtz.

The day of the dedication began with a won-

derful family style barbeque that was enjoyed by all the attendees. Many stories about Dr. Kurtz prevailed during the warm-up to the main event. Dr. Kurtz's family and friends came from near and far to share their many remembrances of a great man.

In his role as Master of Ceremonies for the day, Brian spoke of the many contributions that "Doc" had made to the industry over a long career. He added some personal anecdotes which included a bit of a stubborn streak that "Doc" had and his methodology for getting everyone to chip in and get the job and projects done whether they liked it or not! Brian also shared a story about "Doc" having to make a presentation away from campus and sending his lecture in on a tape recorder so the students would not miss a beat. Brian indicated that Dr. Kurtz was well networked and always found jobs for his many students in a variety of venues in golf and sports turf. "Dr. Kurtz was a giver that influenced many lives and all in a positive way!" he said.

Dr. Kurtz's brother and son also addressed the crowd of 40+ with anecdotes of a lifelong Chicago Cubs fan. Dr. Kurtz had a wonderful 35 years at Cal Poly Pomona and many years in the industry before that working in the seed and chemical business dating back to days with Upjohn back in Illinois and Michigan. While Dr. Kurtz was an unassuming gentleman he will be remembered as a legend and icon in the industry.

Steve Wightman, turf manager for San Diego's Qualcomm Stadium, remarked on the years when Dr. Kurtz was the first Executive Director of STMA. Steve said "STMA would not have survived without Dr. Kurtz, who kept it afloat in the early years."

Emails were read from dear friend John Souter in England with his many memories of work and travels with Dr. Kurtz. Paul Cushing also sent his regards and gave praise for the many golf turf guys that learned from "Doc" over the years. A couple of those former golf students were in attendance, including Richard Ray and Dave Zahrte.

Richard said, "The dedication was a moment for reflection. As I reflected on the past, Dr. Kurtz, a friend, mentor, and educator had a huge influence on my success not only professionally but also personally. It was not what he taught, but how to implement the knowledge gained to be successful. Dr. Kurtz had a passion for the turf industry and passed that on to his students."

While some could not attend the ceremony they shared their thoughts. Mike Schiller told me that "Doc" was the #1 Cubs fan in the world. "He was a one in a million individual who loved the industry and trained many great people," Mike said. "I was blessed to have him in our home many times and I was lucky enough to be his flunky and work on many STMA projects together. I miss the old guy!"

That seemed to be a common theme from many who were "coerced" into working on committees and projects with Dr. Kurtz. Good leaders certainly know how to get others involved and bring out their unknown skills. Dr. Kurtz apparently was an expert at that!

One of the finest speeches of the day came from Dr. Kurtz's daughter, Heather (see below). The crowd was moved by all the speakers but especially by Heather's comments.

As the ceremony drew to a close there was the ceremonial first pitch of dozens of wiffle balls to open this field officially. Dr. Kurtz's grandson announced to all "PLAY BALL!"

While Dr. Kurtz left us in 2006 he will live forever in the memories of many. The dedication of the field and stadium is a monument to his energy and drive in the world of golf and sports turf. The gathering of family and friends was just as "Doc" would have liked it. He would have loved the CUBS logo in centerfield and a bit of the fanfare regarding his background. Quite a nice tribute for a wonderful man that is gone but not forgotten.

Bruce Williams, CGCS, consults in the golf industry and is executive director of the California Turf and Landscape Foundation. He is a Past President of the Golf Course Superintendents Association of America.

