

LARGE SCALE field painting: doing more with less

The Blue Valley School District is made up of 35 schools spread over about 100 square miles. The athletic field crew is responsible for about 100 natural grass and five synthetic fields. Due to limited staff, all grounds maintenance and athletic field work is done by mobile crews. Since none of this work is site based, materials management and transportation can be challenging. Jim Wilson, Assistant Grounds Supervisor, runs the crew that is responsible for painting about 30 football and soccer fields each week, along with many other responsibilities. Mixing and transporting paint for all these fields is truly one of our most difficult challenges, or I should say it used to be.

We generally dilute the paint 1:1 with water. Each field requires an average of two buckets of diluted turf paint. Crews used to spend many hours on Mondays mixing paint for the week. Carrying and opening five-gallon buckets of paint, pouring half the paint into an empty bucket, adding water and then mixing each one with a drill and paddle. Then the mixed buckets were sealed and carried to the trailer for transport to the field to be painted. Multiply this times 30! After arriving, the 40-pound buckets were lifted for the third time to be poured into the striper to paint the

➤ Buying paint in 55-gallon drums provided us about a 25% savings just on paint.

➤ **BROCK SMOTHERS** prepares to transfer paint from the barrel to the mix tank.





» Jim Wilson loads a striper with diluted turf paint.

field. Handling 60 or more buckets per week is not only exhausting but it can be hazardous. There is a risk of injury to employees due to the repetitive motion and lifting. There is also risk of spillage and bucket tip over in transport.

Imagine spilling just one five-gallon bucket of paint and the time it would take to clean it up. Some of us know first hand how frustrating and time consuming that can be. Even after the painting is complete each week, there is the problem of dealing with hundreds and hundreds of empty buckets. Our paint suppliers would take some of them if we cleaned them, prepped them for shipping and paid the freight costs. Even if I specified that the paint supplier was required to take the empty buckets, we were paying more for the paint to cover this additional cost to the supplier.

Our landfill would take them only if the lids were removed and the residual paint was completely dry. It just never seemed right to send all those perfectly good buckets to the

landfill but what were we supposed to do with them? I asked some of our suppliers if they could supply our paint in 55-gallon drums. That doesn't seem like an unreasonable request when you are buying several thousand gallons of paint per year. They agreed to find a way to do this. Now we had to find a way to efficiently handle and prepare concentrated turf paint in drums.

Anytime you can reduce the overall number of containers through bulk purchasing, there must be cost savings. Buying paint in 55-gallon drums provided us about a 25% savings just on paint. Another benefit is that this is a great source for new trash cans. Have you priced commercial trash containers recently? How about \$300 and up!

We have discovered a great way to convert our ordinary 55-gallon drum bulk paint containers into durable and inexpensive trash containers. We specify that the drums used to ship our turf paints are new or re-conditioned barrels. They must be open top so we don't have to cut off the top. They

While the undiluted paint is transferring, we are adding 55 gallons of water to the mixing tank to achieve our 1:1 dilution.

still have a steel lid, but the lid is clamped on. When the lid is removed, the upper edge of the barrel is rounded, smooth and ready to hold a trash liner in place without tearing it. They must also be painted inside and out to prevent corrosion. For trash can use, we install a flat top, galvanized lid on the barrel. The lid has a 6-inch opening with a spring loaded lid to limit the size of litter going in to the barrel to that of typical hand carry items. How many times have you had to send someone out to empty a trash can prior to the scheduled dump date because someone has stuffed a large, empty cardboard box inside or one of your neighbors needed a place to put a full lawn and leaf bag? This lid prevents that from happening. The lids are padlocked to the barrel to prevent theft.

DEALING WITH 55 GALLONS OF PAINT

So, how do we deal with 55 gallon barrels of paint? We came up with the idea for a high volume, turf paint pumping system several years before the development of the bulk paint mixing system. We have been growing and maintaining bermudagrass fields in Kansas City since 1996. During the early years of our bermuda program, we were painting stadium fields green during early winter dormancy. In an effort to paint faster, we experimented with using a 15-foot boom sprayer to paint the fields. Through trial and error, we discovered that using low pressure diaphragm pumps would be the most efficient method of pumping large volumes of paint. Also, the diaphragm pump was less likely to plug up and very easy to clean and service.

For painting fields, pump capacity of 10 gallons per minute was adequate. During

development of the paint mixing system, we determined that while the 10 gpm pump would be enough to keep the paint in suspension in the tank, it was not capable of efficiently transferring paint from a barrel to the tank. After discussing the situation with our pump supplier, we determined that a 20 gpm pump should do the job.

The system we designed has worked very well for many years now. We used the frame of an old three point hitch spray rig with a 110 gallon tank. Everything was removed from the frame except the tank. The diaphragm pump and engine combination was mounted. Attached to the outlet side of the pump are two, one inch pressure hoses. One hose is plumbed into the mixing tank to provide paint circulation and agitation. One pressure hose is an open ended coil with an inline ball valve. This hose is used to fill the stripers with diluted paint in the field. Two suction hoses tee into the inlet side of the pump. Each two inch hose has an inline ball valve.

One hose is attached to the bottom of the paint mixing tank and the other is an open ended coil to be dropped into the 55-gallon barrel to transfer the paint into the mixing tank. When we transfer paint from the barrel to the mixing tank, the ball valve on the open ended hose is opened after the hose is inserted into the barrel. Then the ball valve on the hose from the mixing tank is closed. This creates the suction needed to pull the undiluted paint into the mixing tank. While the undiluted paint is transferring, we are adding 55 gallons of water to the mixing tank to achieve our 1:1 dilution. When the barrel is emptied of paint, we rinse the barrel with water and continue transferring this residual paint rinse to the mix tank. When the barrel is empty, we open the ball valve on the mixing tank suction hose and close the ball valve on the open ended hose. This begins the paint mixing and agitation process. By the time the crew arrives at the first stop, the paint is mixed and ready for use.

The paint mixing tank is mounted in the front of a 24-foot enclosed gooseneck trailer. There is a walk through door on the passenger side near the tank and a fold down ramp in the rear of the trailer for stripers and other equipment loading. We installed cabinets, tool racks, tool boxes, trimmer and blower brackets and loaded the trailer with all the equipment necessary for Jim and his crew to take care of the routine maintenance on all their fields. The trailer is towed by a crew cab truck so there is plenty of room for transporting the crew.

This bulk paint system is just one of many creative labor and cost saving ideas developed by the Blue Valley grounds crew. Many thanks to John Peterman, Jim Wilson and all the members of our crew for their creativity and innovative thinking. ■

Jody Gill, CSFM, is the Grounds Coordinator, Blue Valley Schools, Overland Park, KS.

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Raising a family in the sportsturf industry

» Below: **BRANDON PUTNAM**, sports turf manager for the York (PA) Revolution, proposes to his girlfriend, Megan, during the 7th inning stretch of a game this summer. The team's marketing department set up a phony promotion where three female contestants were told a gift certificate was under one of the bases. Megan was asked to stand in at second base for a "no-show" contestant. The grounds crew removed first base and then third to show there was no gift certificate. That's when Brandon knelt, pulled out the ring, and proposed at second base. By the way, Brandon also won the Atlantic League's Field of the Year award.



IN OUR EVENT DRIVEN INDUSTRY, we have all had our share of holidays, birthdays and anniversaries that were missed due to employment obligations. After a 35+ year career in this business, I can honestly say that I've missed a few family life events that have me wishing I could be a time traveler. Unfortunately, missing your daughter's prom or your son's birthday is a memory that can't be restored. Our trade requires us to miss a lot of family events and your main goal should be to minimize the emotional hit the family takes when you can't attend those sentimental occasions. There is really no simple recipe that will allow you to obtain a perfectly balanced lifestyle in a sportsturf career but there are things we can do to ease the emotional impact to help our families cope.

Many of the turf managers I talk with are planning to wait until they are 30+ before tying the knot.

As the baby boomers begin to retire, the next generation is growing and developing their own lifestyles to deal with marriage and children. Long gone are the traditional breadwinner type families where mom stays at home to raise the kids. Back in the early 1900's, the average age at which men tied the knot was 25.9 years while women married at an average of 22 years. In my daughter's *Bride Magazine* it states that today women are waiting until their 27 years old and 29 for men. I can only imagine this trend will continue to rise considering the current economic climate. Many of the turf managers I talk with are planning to wait until they are 30+ before tying the knot.

HELPING FAMILY UNDERSTAND WHAT YOU DO

Spouse or partner selection and the timing of when to have children is a process that is part planning, faith and luck. If the parenting experience takes place in your life, it's important to make sure each person in your family unit understands what you do at your job. Communication as to what is

planned and expected of you shouldn't be a mystery. Pick a day each week to talk about schedules as a group so everyone knows where you will be. Talk about what the kids are doing, etc. Informing the family that you have a 10-game home stand or a turf conference coming up is better than hearing about it the day it starts. Even though you may be the head of the household doesn't mean everything revolves around your schedule.

Being open to hearing everyone's agenda really helps. Sharing goals and dreams with your life partner from the onset is crucial to the building blocks of a family and a solid sportsturf career. Understanding that you can achieve more goals by living and working together takes on a whole new meaning when everyone's on the same page.

I recall taking a position in West Palm Beach after we had just moved from Virginia to Pennsylvania. There was a brief discussion that I would go ahead of the family and set up our home and they would follow a few months later. I just couldn't see that happening and since the kids were still underage and not in school, it was a logical decision to move the entire family at once. We have all witnessed someone that took a job in another state and left their families behind and in most cases the person has no choice because they couldn't afford to move everyone right away or perhaps they didn't want to disrupt the school year as older kids have a much harder time moving and leaving friends. These decisions need to be weighed carefully because it is difficult on everyone when the family is separated. However, if you have a great network of friends and family nearby, it helps manage life's ups and downs a lot easier. As your family grows with your career, developing relationships with your spouse and children should not be secondary, but rather a part of your success.

When reviewing the family's weekly schedule, try to pinpoint and talk about things to look forward to. At family meetings:

- Give them your full attention. We are all great multi-taskers but during this time you need to live the moment and stay 100% focused on their needs.
- Turn off your cell phones, the TV, etc.
- Don't make promises you can't keep, especially with children. (To this day my kids ask me when I'm going to buy the Sea-Dos I promised when we moved to Florida.)
- Don't focus on planning for holidays or occasions you can't attend but rather the ones you can and make them really special.
- In our line of work we are always developing contingency plans just in case the first plan falls apart. You should do the same when planning your family events, especially if you're in the middle of the sports season and your work schedule fluctuates.

BE FLEXIBLE

Our jobs have trained us to be very flexible. Our event schedules can change like the weather. Turf managers are trained to react quickly and efficiently to keep the game rolling. Use the same approach at home and you will reap the benefits. Understanding everyone has schedules and yours is not the only one will build trust that you are trying your hardest to be with the family.

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The Cook family at the Athens Olympics: Megan, Cameron, Scott, Murray and Donna.

You also need to understand that with kids, things can change very quickly. As soon as you think things are under control junior breaks an arm and all you can do is to be flexible and go with it. You are the parent that is responsible so imagine it's a rain delay and get the job done.

It's also important to take that kind of approach when you can't complete a project at home or fail to finish that "honey do" list. Whatever you were supposed to do but couldn't because of your employment you need to find a way to forgive yourself. One of the



Murray's daughter, Kate, painting a logo in Mexico.

greatest wastes of emotional energy is the feeling of guilt and no one can make you feel guiltier than your family. Everyone experiences feelings of guilt. This is where logic comes into play. Accepting the fact that you missed your daughter's music recital is the first step towards a positive outcome. Again if you have those weekly family meetings, she knows you planned to be there and that something came up that wouldn't allow you to make it.

One tip that has helped me feel less guilty when I couldn't attend a particular event is to leave a card in a place where you know they will look such as in a purse, clarinet case or above the visor in the car. It becomes a game for your family to see where you hide the cards when you can't be there, but more importantly it's letting your family know that you were thinking of them.

ESTABLISHING BOUNDARIES

The social media explosion over the past few years has allowed us to communicate with ease. We can tweet, Skype, SMS, MMS, Facebook, MySpace, IM, AIM, Meebo, our families instantly. We can use these wonderful medias to keep up with family activities as they unfold throughout the day however the down side is it also opens up more ways for friends and peers to contact you. I do quite a bit of work internationally, so for the family to see me tapping away on my Blackberry at night or weekends is pretty common.

It's tough to do but everyone needs to create personal and professional boundaries. You need to decide what are acceptable and unacceptable actions that you will allow from others as it relates to using your time. This is a huge step in taking charge of your life. Everyone needs to set boundaries or limits so people will respect you. For example not taking cell calls during family dinner is no different than turning your phone off during a 2-hour movie in the theater. Which is more important? I would say the family dinner. Everyone knows how to say "no" and respecting those boundaries is a personal and professional reflection on you.

Our industry requires that we hold ourselves to high standards. Finding the balance of what you will accept via compromise in all facets with your spouse, kids, job etc. is needed but be mindful that personal standards are about who you are and when you lower them it can be a reflection on you as well.

You need personal time so get organized. Try to delegate responsi-

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bility to others at your work. To many times we see where young turf managers believe they need to water the clay, drag the infield and mow the grass themselves. Many times we feel there's more control if we can do everything. Unfortunately while you are performing all of these tasks, you are burning up time to use for other personal and professional goals.

Delegating duties by developing a work plan and keeping to it is building trust in your staff. One of the work plans we have used in our home over the years is the "official" kitchen calendar. It has everything on it from birthdays to travel schedules, appointments, etc. In fact, it has become somewhat of a family diary of events that is great to look back on as the kids get older. Just remember, being successful at your job doesn't mean you need to be a workaholic. Delegate and educate.

FIND RELIABLE CHILDCARE

Outside of your spouse we turn to extended family such as grandparents, uncles' aunts to help watch the kids. If not them, you will need to find someone that you are extremely comfortable with to care for your children. If you attend a church it's a great first step to finding childcare options. Remember children are pretty smart so even if you are not pleased with the child sitting arrangement, don't show it or let your kids see it because they will pick up on the negative vibes. Now the guilt sets in, so step back look at the situation logically and



From left to right: Cameron Cook, Murray Cook, and Scott Cook, in San Juan, Puerto Rico.

positively and makes a decision. Sometimes it's better to make a change than do nothing.

During this holiday season take the time to attend those important events in your family life. If something is important enough, you can probably make time for it. For a New Year's resolution, start out the year with a plan to bring harmony and balance into your lifestyle because it will lead to both personal and professional rewards at your job and with the family. ■

Murray Cook, former STMA president, is president of Brickman Sportsturf and the Field & Venue consultant to Major League Baseball.



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TAKE THE ANXIETY

OUT OF GIVING PRESENTATIONS



WHAT'S SCARIER to most Americans than spiders, heights, or even death? There hasn't been a horror movie made about it yet, but more than 75% of Americans surveyed report that they suffer from "glossophobia," a debilitating fear of public speaking. Statistically, far more of us claim that we would prefer death to giving a speech; even comedian Jerry Seinfeld used to joke that at a funeral, most people would rather be lying in the casket than delivering the eulogy.

Why is the prospect of trying to communicate information in front of even one person so horrifying? Most glossophobes fear looking bad, being criticized, suffering rejection, and losing business or friends, all because they are certain they will forget what they'd planned to say. Maybe you have had the experience of forgetting a speech or presentation, or you've seen it happen to someone else, and you don't want it to happen to you. Ever.

Most people memorize speeches by word-for-word repetition and try to deliver it exactly as they've written it. You probably don't realize that this method of learning is actually setting you up to forget what you're supposed to say because it creates tremendous stress, which is in turn the number one killer of memory.

Or if you do manage to remember every single word you'd planned to say, the effort requires so

much mental energy that you come off as a terrible communicator. You're not really there while you're speaking because all of your efforts go into remembering what comes next. If, heaven forbid, something distracts you, or someone interrupts you with a question during a memorized presentation, thinking about anything other than "What comes next?" can throw you completely off-track. Your mind may literally go blank, just as you feared.

And there's one more problem with word-for-word learning: 93% of our communication happens non-verbally. The majority of the message your audience receives has very little to do with the actual words you say but with body language, tone of voice, gestures, and facial expressions. So you can't expect to convey ease and expertise non-verbally if your mental and physical energies are completely preoccupied with delivering a verbatim speech. You'll simply be too tense, and it will show.

What about the security blanket of an outline or notes? You may feel you need notes to stay on track when giving a presentation, but if you're tied to those notes, you aren't free to make eye contact, a key element of non-verbal communication. You'll also be stuck behind a podium, and if people can't see two-thirds of your body, that has a serious impact on the 93% non-verbal communication aspect of your presentation. Notes may make you feel a little better, but they also take away a crucial tool for your effectiveness.

If you're fluent in your topic, you shouldn't need to consult your notes, and your audience of one or many will sense this on a subconscious level. However, if you feel you must use notes, consult them very little or not at all, and you'll gain huge credibility as an expert.

When you know what you're going to say and that your presentation is strong, public speaking may still be a little nerve-racking, but it's exciting, too. Try these tips to help turn that stomach-turning anxiety into the rush of great communication.

→ 1. Know what you're talking about.

When you prepare an organized presentation of any kind, you must be knowledgeable about the company, product, or situation. Talk about things you actually know well. If you're not confident that you know all that you need to, commit to doing thorough research and learn what

you need to know to feel and look expert. If you truly don't know what you're talking about, it will show, and all the tricks and techniques in the world won't help.

→ 2. **Decide on a few key points.** Good keynote speakers typically don't have more than three or four key things for the audience to take away from their presentations. The classic presentation formula is a story that makes the audience laugh in the beginning, a few key points for them to take away (usually illustrated with stories), followed by an emotionally moving story at the end.

Another basic formula for effective communication is to tell your audience what you're going to tell them, tell them, and then tell them what you told them.

→ 3. **Create visual triggers.** Invent pictures in your mind and "store" them in various places around the room where you'll deliver the presentation. The pictures then become your speech. For example, if one of your points is about achieving goals, you can envision a set of goal posts as a visual representation of that concept.

→ 4. **Relax, have fun and be you.** People respond best to a message when the person delivering it is genuine. With sufficient preparation of the right type, you'll feel comfortable enough to be yourself in front of a group. You can then demonstrate how much you believe in what you're saying. When you can relax and be an authentic human being, you tap into powerful communication.

You've undoubtedly heard a few presentations both good and bad, so you know it's a fact: you listen to and respect those speakers who talk to you, not at you. A conversation is always better than a lecture, isn't it? When you are preparing to make a presentation, know that people don't mind if you stumble over a couple of words; in most cases they don't even notice. What they will notice, though, and mind a great deal, is being read to or BS'd. If your audience feels as if you're insincere or unknowledgeable, they may give you real reason to be a glossophobe! But if you're prepared, knowledgeable, and relaxed, you can expect to get the results you want. ■

Roger Seip's company, *Freedom Speakers and Trainers*, specializes in memory training. www.deliverfreedom.com.

10 Tips to Better Crew Training

YOU KNOW THAT TRAINING IS VITAL for the safety and productivity of your crew. Obviously, you instruct your staff about what tasks to do and train them on how to do them. You may pop in a training video occasionally on a rainy day. But, have you developed a formalized crew training program that will improve the effectiveness, efficiency and morale of your staff? If you do not have a program in place, consider these techniques to get the most out of your training time.

Develop a cross training plan within your team and cross departmentally. Among life's inevitabilities are employee absences and your having to plan for them. If your staffers are cross-trained, you can quickly plug critical gaps without calling in temporary workers, running up overtime costs, or filling in for the absent worker yourself. Cross training of your crew outside of your team has many benefits, too. It exposes your staff to the responsibilities of other departments, which creates a better understanding and appreciation for that department's efforts. The end result is a lessening of "competitiveness", an increase in camaraderie, an opportunity to share staff during vacations and illnesses, and a focus on achieving the facilities' goals. Your employee retention will increase due to the satisfaction of your crew learning of new tasks. This also can create new job opportunities within your organization.

It's a simple fact that employees fail in their jobs because of an inability to develop a trusting relationship with you and others.

Consider developing a regular training schedule. Institutionalize a regular time for formalized training, i.e., the 3rd Monday of every month at 8 a.m. Putting it on the schedule and publicizing it helps you and your team to commit to it.

Seize the moment. Training is very effective when it occurs in quick response to a need. So even though you are elbow deep in something else, and you have formal training slotted for a different timeframe, you should make every effort to satisfy an immediate need for information.

Involve your crew in planning. People gravitate to what they like and are more engaged if they are involved. Rather than selecting the training topics, ask your crew what they need and what they want to learn. If you have a large crew, consider appointing a small subgroup to bring forward ideas.

Involve your crew in teaching. Consider having a different crew member teach a training session each time. It is a fact that peer-taught training is a successful method that helps the trainees to more quickly grasp concepts and apply the learning to their jobs. This is also an excellent professional development exercise for the trainer.

Use training time for non-technical improvement. It's a simple fact that employees fail in their jobs because of an inability to develop a trusting relationship with you and others. Building good relationships is a direct result of being able to communicate well. Consider bringing in a speaker from a local community college, the Dale Carnegie chapter or a trainer from a large corporation in your area, to present techniques to your group about how to strengthen their communications skills. Other good topics to consider are improving your writing skills, improving your presentation skills, stress management, the importance of good ethics, etc.

Create a better work environment through diversity. Meeting your facilities expectations demands that you incorporate strategies to understand other cultures. Consider hosting brown bag lunches (provide lunch) and have discussion about the various cultures represented on your staff and by your constituencies. Do you have anyone on your crew who is Hispanic? Consider having lunchtime training on learning basic Spanish, taught by these crew members.

Use demonstration techniques. When training your crew on a new technique, product

or piece of equipment follow this process:

- Begin the process by having the trainees observe, from alongside, the trainer as the trainer actually performs the job.
- Show the workers how to perform the task and explain the key elements. Be sure to explain why this task must be done, when it is done, why it is important that it be done correctly and the impact if it is not done correctly.
- Allow the workers a second opportunity to watch the trainer to perform the task. The first time through, the trainer was probably not performing the task at the same rate of speed as normal because conversation is interspersed with the demonstration. This second time through, the workers are simply watching so that the trainer can perform the task at "production speed."
- Allow the workers to perform simple elements of the task. In this phase of the instruction, the trainer and trainees are performing the task together with the trainee performing at least some of the task and the trainer coaching as necessary.
- Allow worker to perform the entire task with coaching as necessary from the trainer. Ideally, this is a one-try operation.
- Observe the workers performing the entire task without supervision. For each task, this is the "final test." When each worker can perform the task without supervision, he or she is considered trained.
- Allow workers to perform task without continued supervision. At this point the trainee's training for that particular task has been completed.

Use your equipment and product suppliers for industry insights. Of course this group provides a logical, ready-made cadre of trainers for your staff on products and equipment. But, these sales and technical representatives also have a wealth of industry insight. They visit many athletic facilities and see many different aspects of the industry. Invite them to provide an "Industry Insights" session, which should create a lot of discussion.

Leverage local chapters, university extension programs, STMA annual conference, and other sources of education. Everyone on your staff will likely not be able attend every educational session offered by KAFMO or STMA national. Hold a brown bag (provide lunch) session and have each person who was able to attend give a short synopsis of what they learned at the external educational event.-Compiled by STMA Headquarters staff ■



>> THE UNIFORMITY of a field, in terms of both its appearance and its playability is also dependent upon proper upkeep. Photo courtesy of Gale Associates, Inc., Weymouth, MA

What facility managers NEED TO KNOW about artificial turf

ONE OF THE GREAT THINGS about artificial turf is, well, it's artificial turf. No weeding, no need to rest the field between uses no worries that a lacrosse game on a muddy day is going to tear up the surface. That's not to say, though, that an artificial turf field is the invincible super-hero of sports facilities. Like Superman who wants to avoid Kryptonite, your artificial field has vulnerabilities, and part of being a good manager is being able to keep it safe. Here are some pointers compiled from sports facility construction veterans who have expertise in artificial turf.

MARCHING ORDERS

While it's traditional for the school's marching band to play during halftime, track builders caution against having the band hold regular practices on the artificial turf field.

"Bands can be hard on a turf field," says David Clapp of Baseline Sports Construction LLC in Knoxville, TN "since you have scores of marchers making sharp turns at exactly the same spot, creating worn and depressed areas. This happened on a field that we built in 2005. The band started using it for practice, and by 2008, we had to go back and patch several of those spots."

Builders advise turfgrass managers to request that marching bands practice in a gym, parking lot or elsewhere and to reserve their field time for games only.

RUNNING IN PLACE

Another problem for athletic fields? Running exercises or routines that are always held in the same area. Whether it's soccer players running drills, runners

Biggest foe of all: lack of maintenance

LACK OF MAINTENANCE can make a turf field look old and worn before its time. Unfortunately, says Dan Wright of Sports Turf Company, Inc. in Whitesburg, GA too many facility owners assume that like a plastic plant, an artificial turf field requires nothing in the way of upkeep.

"Lack of proper maintenance for the synthetic turf field is one of the biggest problems out there," says Wright. "Contrary to popular belief, a synthetic turf field is not maintenance free. It requires regular brooming to maintain the infill level and to keep the turf fibers looking good."

Food and beverages should not be allowed on the field; both can fall onto the field's surface and soak into or be ground into the infill. It should go without saying that smoking and chew tobacco should similarly be forbidden, but reminders never hurt. Remove all litter and debris from the field (and the area around it) immediately using tools approved by the installer and/or manufacturer. Depending upon the product, such tools may include leaf blowers, soft brooms, rubber-tined rakes, special vacuums, or hands wearing rubber gloves.

Try to remove any spilled material

before it causes a stain. Appropriate cleaning will help break down and remove vomit, blood and other fluids from the surface. (Recommendations on cleaning solutions should be obtained from the installer or manufacturer).

Groom the fibers by brushing them so that they continue to stand upright. If the field is groomed regularly, make sure the grooming pattern is varied in order to keep the fibers standing upright and to prevent patterns of wear.

"Keeping the infill at the specified level ensures optimum safety and performance as well as protecting the fiber. Decompacting the infill by grooming and sweeping helps to keep the infill high on the fiber," says Schedler.

Inspect all seams and edges, check the rubber depth (particularly in high-traffic areas), and ascertain the drainage system is working correctly. In addition, stand back from the field and make sure the markings and lines are all straight; in practice areas for athletic teams (or marching bands), the constant force of turning and pivoting in the same direction can actually twist the turf, making the lines appear crooked.-Mary Helen Sprecher. ■

practicing sprints or anyone else, such activities tend to take place in the same area, and eventually, the field will look worn there. This can be a hard battle because many managers have to try to convince coaches, who thrive on routine that they do need to change up the location of practices.

“Moving repetitive routines around the field or just making slight adjustments from time to time will help keep the isolated damage from showing in specific spots,” says John Schedler of Atlas Track & Tennis in Tualatin, OR. “Sprint and touch exercises with or without cones in the same spot can eventually move the turf by planting and accelerating again and again. This will show most on the yard lines.”

GETTING OFF ON THE WRONG FOOT

Improper footwear is a huge enemy of artificial turf, adds Schedler, who says that the constant shoe/turf interaction can flatten and damage the surface. Surprisingly, flat-



» **TO KEEP A FIELD LOOKING ITS BEST**, educate users in proper use, footwear and more. Photo courtesy of Suburban Consulting Engineers, Mt. Arlington, NJ

soled tennis shoes can be detrimental to the turf as well. Appropriate athletic footwear (many turf manufacturers recommend athletic shoes with rubber cleats) should be mandated.

“Flat soled shoes or street shoes can really damage areas on your field,” Schedler says. “Most fields have a fiber that has some memory and after being compressed will want to go back to its original position. If

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» **MANY TYPES** of users, not just athletes, will use a field. Ascertain that groups including spirit squads (such as cheerleaders, dance teams and baton twirlers), bands and support personnel understand the importance of proper footwear, and of not using the same areas in the turf on a continuing basis, as this can cause damage over time. Photo courtesy of Holcombe Norton Partners, Inc., Birmingham, AL

that fiber gets compressed again and again, or even worse, gets constant compression, the memory will start to fade and it will stay compressed. This is the beginning of the end for most forms of fiber. After an event that has compressed the fiber for an extended time, it is important to groom or brush that fiber back up as quickly as possible.”

THROWING IT OUT THERE

Having field events on artificial turf can be great—provided they’re the right events. With the increasing use of synthetic turf come concerns over whether throwing events can cause damage to the athletic surface. The UEFA, the European governing body for soccer, has guidelines on synthetic turf which state that shot put and discus do not cause damage, but that hammer and javelin can. Some events, therefore, may need to be shifted around during meets and competitions.

“One of the biggest questions I keep running into about turf is the field activities,” says Sam Fisher of Fisher Tracks in Boone, IA. “It seems that some sales people will say anything to get a job but, in fact, the owner then finds that their warranty is invalidated by conducting such activities.”

According to Fisher, a special tip has been developed for the javelin for use in synthetic turf, but he expresses doubts about the

ability of such a product to protect the turf over repeated use. Facility managers are encouraged to protect their new facility, and to not expose it to unnecessary risks.

VANDALISM:

Because an artificial turf represents a substantial investment, keeping it safe should be a priority, says Dan Wright. Field managers should be as proactive as possible in order to head off mischief-makers.

“The damage a vandal can cause can be something simple to repair (usually some additional brooming) or something very expensive requiring a complete replacement of the field,” says Wright. “Security of the facility is very important in keeping vandalism under control. I would recommend some video surveillance of the facility if the facility is in an area where vandalism is a high risk.”

DON'T TRY THIS AT HOME:

According to Norris Legue of Synthetic Surfaces, Inc. in Scotch Plains, NJ some of the worst damage to fields can be inflicted by well-meaning managers, maintenance crew members and others. An example, he adds, would be the person trying to examine a seam which may or may not be coming loose.

“One of the biggest enemies of artificial

turf is what I would call a ‘good-intentioned investigator’ (or overly curious user) whose curiosity exacerbates a small issue and creates a major problem,” says Legue. “In such a case, the investigator might grab the edge of a loose piece of a turf seam and peel it back enough to cause the bond to fail and create a tripping hazard on the field. In the industry, we have terms we call ‘shear strength’ and ‘peel strength’ when referring to the adhesive or bonding of turf at seams. Peel strength is like peeling a banana or orange which is much lower in bond strength. Shear strength is like trying to pull the skin off the orange or banana from the middle of the fruit without an edge to grab onto. Turf seams are similar in nature and the bond is designed to withstand normal athletic competition and activity or force. The bonded seams are not intended to withstand the good intentioned investigator attempting to peel them open like a banana.”

WATER, WATER EVERYWHERE

Turf managers often water fields in order to keep the playing area cooler; however, in many cases, says Lance Rosenberger of Medallion Athletic Products, Inc. in Mooresville, NC “watering does not seem to help temperatures, it only raises the humidity,” creating an unpleasant playing environment.

In addition, depending upon the surface temperature, watering may not immediately create playable conditions, as it may not bring down the temperature quickly enough to reach a comfortable level. Many who are caring for a turf field for the first time find that it takes about a year to understand the ambient temperature, its relationship to the field temperature, and how long a field needs to be watered in order for a comfortable playing environment to prevail. ■

Mary Helen Sprecher wrote this on behalf of the American Sports Builders Association, a non-profit association helping designers, builders, owners, operators and users understand quality construction of many sports facilities, including sports fields. www.sportsbuilders.org.



So you want to write a newsletter article...



OKAY, SO YOU DON'T. I know your type. The studious scientist. The detail-oriented, Type-A personality. You're more at home looking into a microscope than looking at a keyboard. You'd rather lay an acre of sod than write a report. You find writing a newsletter article something akin to chaperoning five of your daughter's 13-year old friends at a Justin Bieber concert.

I get it. You don't want to write a newsletter article. But let's suppose your chapter or the STMA says you need to write a newsletter article, kind of like when your spouse said you need to take those teenagers to the concert. You just line your pocket

with some Extra Strength Tylenol tablets, grab the earplugs and gas up the minivan. "Justin, here we come."

So why not approach the newsletter assignment with that same level of enthusiasm? All you need to do is come up with a great story idea, gather the information and organize it into an interesting and intelligent story. It sounds so simple, but it's oh-so hard. But try to skip over this step, and it won't make any difference how effectively you execute the other steps. You can't write your way into a good story. It must start with a good story idea.

You probably won't get to that blood sweating stage over one little newsletter assignment, but you

can make sure you don't go there by always being alert for story ideas and keeping a file of them. To help you get started on story ideas, it will probably be helpful to know the criteria most journalists use in determining if an idea is really newsworthy.

SO TELL ME, JUST WHAT IS THE NEWS?

First of all, a story idea must qualify on some basic measures of timeliness, proximity and audience. You must find a NOW element in the story you propose to tell. If you write about something that already happened and that your audience already knows all about, you are writing history—not news.

Proximity is quite easy to understand. Things that happen closer to home are more newsworthy than things that happen farther away. The development of a new mowing technique is more newsworthy if the innovation takes place in the U.S., or better yet, in your region, as opposed to the UK.

Finally, you must know your audience. If you are writing for other turf management association members, you can make certain assumptions about their base of knowledge. If you are writing for a more general audience such as the readers of your local newspaper, you must avoid those assumptions about those readers' understanding of your craft.

Once you've met the threshold on those three criteria, you should focus on the key elements of what makes an idea newsworthy, such as unusualness, prominence, conflict and impact.

The first time something happens we deem it unusual. The last time something happens we deem it unusual. Once an event happens with predictable regularity, you can't sell your idea to an audience on unusualness. So move on to another criterion.

Prominence is a significant element of newsworthiness. Names make news. If you are having a grand opening or launching a new program, get Sandra Bullock or Peyton Manning to make the announcement. That would give you something to write about.

Now consider conflict. This is one element you may have grown to hate. Love it and use it to your advantage. Many times conflict stems from battling bureaucracies. Let's say one state law requires you to do X and a federal law requires you to do an incompatible Y. That sounds like a story and one you can do without any hint of finding a villain or pointing a finger of blame.

Prominence is a significant element of newsworthiness. Names make news.

Mostly let's look for impact. If you find a story that affects a lot of people in a small way it's newsworthy. If you find a story that affects a small number of people in a significant way, that's also newsworthy. If you find a story that affects a large number of people in a very significant way, that is the most newsworthy of all. A drop in tax receipts leads to budget cuts which lead to the closing of two

parks which leads to cancellation of the entire fall youth soccer season. That would be big news, and it's big news based on impact.

Watch TV, listen to the radio, read the newspaper and surf the Web to learn the craft of news judgment. What kinds of stories interest you? In short, you must think like your audience to assess the newsworthiness of an idea.

The traditional standard of journalism demands a story cover the 5 W's and the H—who, what, why, when, where and how. Every story must include those elements. Often your previous experience and expertise will give you a head start on the fact base of the story. If the subject matter is an analysis of artificial turf vs. grass and the injury factor, you're probably pretty well-versed in the who, what, when and where of that story. Your additional information gathering will likely focus on more of the why and the how. That will help your story answer one key question, why would anyone want to read this?

As mentioned, some of the information base of your story can come from your previous knowledge. But be mindful of the need for attribution. You don't need attribution to state grass is green, but you do need to cite the study that shows a particular insecticide is harmful to the environment.

You're already quite aware of the vast number of Internet resources you can use to gather information. But once again, take the extra step of evaluation that information. First is the info believable; second, it is provable? Does it come from a reliable source, one without a vested interest?

To fill in the why and how you will need to interview knowledgeable sources, persons with first-hand information about your topic. Inexperienced writers often skip this step. They substitute their own opinion for the opinions of others. Unless you have great standing among the audience members you are writing for, you're best off taking the time to find experts other than yourself.

If you have done the proper work in gathering the who, what, when, where facts of the story, you should be able to conduct a concise and insightful interview. At the risk of oversimplification that means when you've found the right source, just ask that person why and how.

Actually, interviewing does have a more sophisticated set of protocols. Colleges offer entire courses in interviewing. But you can follow a few simple steps to make sure you cover the right ground.

- Open with a simple statement of who you are, why you are calling and the nature of your story. Ask the person if you've have him/her at a good time. Without showing off and without talking too much, you need to demonstrate you know enough about your topic that you will be asking good questions, understanding their answers and not spending time asking that person to do your basic homework. Friendly but business-like works every time.

- Zero in on the main issue you want to cover. This is where you really get into the why and how. Avoid questions that can be answered yes or no. Keep them open-ended so the interviewee can provide the context. Some good questions that often brings enlightened answers are, "What do you make of that?" or "Why do you think that way?" or "How did you arrive at that conclusion?"

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- If you ever have to ask a pointed, controversial question, this is the time to do it. If the article is something of a controversial nature, you make have to challenge your source to explain the why and how. Be calm and be nice but be firm.

- If you had to ask your source a difficult question, don't end on that note. Ease out of that part of the conversation. Move into more neutral and non-controversial territory. Maybe follow up on something you covered earlier in the interview and ask for clarification.

- One of the best ways to close an interview is to ask the source if you left anything out. "Is there anything else I should know?" A final question might be, "Who else should I be talking to on this story?" The advantage of that question is that it gives you sponsorship when you call your next source.

Clearly, interviewing someone in person is the best choice. Think of it the same way you think of asking someone for a date. You not only get to hear what the person says, but can see how the person answers it. Notice, you rarely get turned down if you ask in person.

Don't go in with a list of prepared questions. Think of an interview as a conversation. You wouldn't bring notes to lunch with a friend. Don't use them in an interview situation. When you're reading your list, you're not listening, and listening is the key to a good interview.

You gathered the factual base. You interviewed the key sources to get the how and why so now you face a mountain of information and absolutely no clue in how to organize it. But organizing a story isn't as difficult as it may appear. One organizational scheme is called the Inverted Pyramid. Organize the story by starting with an opening sentence that delivers the most newsworthy elements of your story. (Go back and review the Story Idea section). We call that the lead sentence. Then follow it with information in descending order of importance. If you write a story that is 12 inches in length, and the editor only has room for an 11 inch story, you don't have to worry about the editor cutting off the final inch. It's the least important part of the story.

A more sophisticated way of writing a story goes by the name the Wall Street Journal Method, stemming from a style pioneered by, you guessed it, the Wall Street Journal. You have undoubtedly seen this form utilized numerous times. Every newspaper, magazine and Website uses it, at least on occasion. The WSJ method includes the following elements:

- Start with a descriptive, scene setting lead that focuses on a person most affected." No bureaucrats here, just common folk. If the story centers on "no fall soccer leagues," start with a description of a lone boy, dribbling his soccer ball in the back yard. Develop the idea that last year at this time he was playing on a team in a city parks and rec league and enjoying the competition with the other 10-year olds.

- Have the last line of the anecdotal lead set up a quote, in this case, from the young boy's Mom. "Larry was so active then and absolutely loved soccer. Without soccer this year, he seems to have lost interest in school."

- The origin of the term nut graf is a hard to nail down. The concept is easy. This paragraph should explain two things: why I am writing this story and why now. So the nut graf on our soccer story might be, "The other 10-year olds in Riverville are also stuck on the soccer sidelines this fall. A shortfall in tax collections led to cuts in the city

budget. The Parks and Recreation Department had already spent most of its money for the year, so the only thing left to cut was the fall youth soccer program. The fallout over those cuts has been great."

- Use the nut graf as your outline for the rest of the story. In our soccer story, we would first explain the tax shortfall, then the budget cuts, then the dropping of the soccer program and finally, the fallout from that. In short, if you nail the nut graf, the story practically writes itself after that.

"On the other hand"—you may need to include a paragraph or two about the other side of the story. Perhaps the elimination of the city program has led to schools to look at starting soccer programs.

If you use the WSJ method of story organization, you are committing yourself to being a storyteller. And every good story must have an ending. Often that ending can evolve from your anecdotal lead. Maybe we go back to our young boy in the backyard with his soccer ball. Most often the close has a strong element of what lies ahead, what comes next. Maybe he's thinking about trying out for the flag football league or maybe he's looking at starting his own neighborhood soccer league.

You can also tell a story without a using the WSJ format. Just tell a story.

As mentioned before, inexperienced newsletter article writers often err by not interviewing any other sources and as a result, substitute their own opinions. Once the writer figures out he/she needs to interview other sources, the writer goes the opposite direction and becomes quote happy.

Regardless of the format of the story, put yourself on a quote diet. Be sparing. Do not use quotes to state facts, stats or data. Use quotes to bring out opinions, feelings, things that only that person could say. Do not use quotes to introduce a new piece of information. Use them only to reinforce a point you have already made. Keep your quotes short for better impact. Think of a quote as a punch line.

If you find yourself drifting into a sentence-quote- sentence-quote- sentence-quote- sentence-quote- sentence-quote- sentence-quote pattern, usually in the back half of a story, change it. You can use information from a quote in narrative form, an indirect quote.

Remember, many professional journalists have taken four or five semesters of college course work in those elements of story ideas, gathering and story organization. Don't be frustrated if it doesn't come natural. You might want to invite a reporter over to your place of business and ask for some advice on the various approaches for fall over-seeding. It won't help your writing, but you will feel better about your struggles with it. ■

Dr. Max Utsler teaches journalism at the University of Kansas. He is a former TV journalist and has trained business executives in how to deal with the media for the past 25 years.

This is the final in a series of seven articles in the 2010 Ewing Professional Development Series. STMA and Ewing have again partnered in this series to bring sports turf industry professional development and career issues to the forefront. For more information, go to www.STMA.org or www.Ewing1.com.

Infill plays critical role in success of synthetic installations

Editor's note: *Randy Happel of Two Rivers Marketing in Des Moines wrote this article on behalf of CushionFall Sport, Ames, IA. We believe it contains good information on synthetic infill products and installation.*



WE'VE COME A LONG WAY since the early 1960s when the first artificial turf was installed; a surface that was essentially a crowned nylon carpet with accompanying pad that was likely installed on a concrete foundation. Now in their third generation, today's synthetic turf systems are highly sophisticated engineering and design accomplishments constructed of soft, natural-looking fibers that are lushly tufted and supported by a granular infill material, most often made from recycled rubber tires.

The complex designs of current synthetic turf systems can make planning a new installation somewhat of a laborious task. After all the feasibility studies, securing funding, site surveys, etc. those entrusted with deciding on all the specifics will soon discover there are a myriad of options available, and a saturated market of system builders and material suppliers eager to convince you that their offerings are better.

Beyond the obvious—choosing an architect, turf supplier and reputable installer—next come the specifics, paring down and finalizing the final details and specifications of what will become the recipe for the new surface. Do not underestimate the importance of some of the details, including the infill.

TYPES OF INFILL

Infill is a required component of all athletic synthetic turf systems. Some systems require only a single infill while others may specify a combination approach. The menu of infill schemes and options is as complex and diverse a coaching playbook. Add to the equation all of the different ratios of each substance and varying application depths, all designed to create a surface that exhibits a desired property, and it's easy to see why the infill decision can be so confusing, yet is also so critical.

There are essentially four types of infill materials to consider. The majority of synthetic turf systems installed today use styrene-butadiene rubber (SBR) crumb infill, a material that originates from recycled rubber tires ground or smashed into small pellet-like particles. SBR crumb has served as the primary topdressing on synthetic turf surfaces for nearly two decades and remains the infill of choice today primarily because of many attributes including elasticity, resiliency, durability and affordability.

An alternative to crumb rubber, a substance composed of a thermoplastic elastomer in the shape of tiny discs of exact and uniform specification has also emerged. In addition, silica-based granules coated with an acrylic liquid that exhibits some of the properties found in

Encapsulated infill

Despite the affirmation of safety declared 20 years ago by the EPA and later substantiated by scores of independent research studies, Colorbiotics, a provider of colorants headquartered in Ames, IA challenged their team of research scientists and laboratory technicians to develop an infill alternative to traditional crumb rubber. The result is CushionFall Sport, an encapsulated crumb rubber infill that is among the most environmentally safe, VOC- and heavy metal- reducing crumb rubber infill products available.

The colored encapsulation coating that encompasses the individual crumb rubber particles repels water and moisture more readily than the traditional recycled crumb material. This allows fields to drain more quickly, promoting a drier playing surface. CushionFall Sport allows for 21% more water to pass through the playing surface than that of standard SBR crumb rubber.

When used as an infill component, ambient rubber has the propensity to float and scatter as the air bubbles located within the rubber facilitate simple infill migration. When SBR rubber is coated it fills the voids and makes the particles smooth and more rounded. This facilitates a consistent flow of water through the infill without raising and displacing any rubber.

Independent studies show the encapsulation process of CushionFall Sport reduces VOCs by 71 percent and heavy metal runoff by 80 percent.

Over time, traditional crumb rubber infill loses flexibility and elasticity after continuous exposure to bright sunlight. CushionFall Sport protects the properties of the rubber, extending longevity and durability. The material is also UV-resistant, helping fields retain their shock-absorption properties and reducing static charge often created by the various components common to synthetic turf surfaces.

The bright green encapsulation coating contributes to a more vibrant, realistic-appearing surface and eliminates the 5 o'clock shadow effect common with black crumb rubber.

www.cushionfallsport.com ■

➔ Infill is a **required component** of all athletic synthetic turf systems.

crumb rubber have also entered the scene. Because these materials are produced specifically for synthetic turf applications, project owners should be aware that using either will add roughly 20% to the overall cost of a field compared to crumb rubber.

It's the infill in conjunction with varying fiber specifications that allows architects and system designers create a playing surface that exhibits a desired property with playability characteristics that are conducive to maximizing athletic performance. What you want to accomplish on the turf often dictates what will be specified of the various material components selected to construct the field.

The vast majority of infill materials are installed in combination with silica or natural sand, which serves to stabilize the playing surface. Sand promotes a firm and stable foundation and also helps maintain the integrity of the individual synthetic fibers by keeping them upright, evenly spaced and enhancing their resiliency. The infill is also essential to ensure seam integrity and eliminates the creation of wrinkles on the surfaces.

Typical infill ratios (sand versus crumb material, etc.) can vary from 40 to 80% blade coverage. Generally speaking, the more sand, the firmer and faster the surface. Tufting companies will work with the system's integrator and installer to specify the tufting style (who knew, right?); along with the infill ratio and materials for the field, all dictated by pre-determined formulas that they have established in order to warranty surface performance factors and to pass specific EPA, ASTM and other authorities' standards and testing.

Infill materials will vary in size, color, quality, shape and mass and will differ in their abrasiveness, which, if high, can affect the integrity of the yarn fibers, depending on frequency of use over time. Finer, rounder silica sand has replaced the everyday beach variety and is less abrasive to fibers and less susceptible to compaction.

Infill materials can often vary in quality; project owners should exercise caution to secure materials that meet or exceed the specifications recommended by ASTM standards. To meet warranty specifications, many system integrators will insist that infill materials meet or exceed their surface materials specification or surface warranties will likely be voided.

Infill providers will be able to provide material safety, handling, installation and manufacturing specifications, along with life expectancy. Typically, most infill components installed on synthetic turf systems retain their effective use properties for an average of seven to 10 years and few infill providers will carry any type of warranty on the infill component.

THE ENCAPSULATION EQUATION

Some infill offerings are also available in an encapsulated form, a process involving the application of a coating that encompasses the individual crumb particles. Encapsulation offers several advantages over standard "raw" infill material offerings. Often a colorant is added to the liquid encapsulation coating that can help to reduce the temperature of the playing surface and, as is the case with crumb rubber, disguises the dark black color inherent to the raw material source. This provides for an infill that blends with the hues of the synthetic turf fibers making the surface more realistic-appearing and aesthetically pleasing.

The bright green infill material also helps to eliminate the "five o'clock shadow" effect common with traditional crumb rubber, enhancing broadcasts of sporting events, many of which are transmitted via a high-definition signal. The coating often helps to minimize the electromagnetic properties of rubber, reducing the static cling tendencies resulting from the friction created by the rubber and synthetic materials in contact, and the magnetic attraction of athletic uniforms, the majority of which are composed of polyester or synthetic fibers.

The number of synthetic turf installations has exploded in recent years, but just as the popularity of these systems has grown so too has the scrutiny. Most targeted is the crumb rubber infill, especially since the substance is used in the vast majority of installations and the amount present on each field is substantial. Before the first field was ever installed using recycled rubber tires as an infill, safety has driven the development of synthetic surfaces incorporating recycled crumb rubber as a materials component. To date more than 75 studies have been completed, among the most recent and comprehensive, an in-depth analysis of crumb rubber completed by the Corporation for Manufacturing Excellence (MANEX), San Ramon, CA in conjunction with the Laboratory for Manufacturing and Sustainability (LMAS) at the University of California-Berkeley. The study, as do all those preceding the MANEX / UC-Berkeley testing, concludes that recycled crumb rubber is a safe material for use in synthetic turf applications. ■



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