

# Removing snow from synthetic and natural turf fields



**A**S SPORTS TURF MANAGERS there are many challenges we face and many of these are weather related. While working in the Northeast, my biggest challenge was dealing with winter conditions, in football season or in early spring with field hockey or baseball.

I have found through trial and error a number of ways to deal with snow on both synthetic and natural grass fields; the most important strategy was to have a plan of attack ahead of time, before Old Man Winter throws multiple inches of snow or ice at you. If you are not prepared the result will be a lot of lost valuable time in the removing of this frozen precipitation. Establish what the plan of action will be in advance and be sure to factor in “the worst case scenario” while also having a Plan B.

## PLOWING OPTIONS

Here are a couple of plowing options that can be used to successfully remove snow on either synthetic or natural grass:

If a rain tarp is available, tarping the surface before the event allows you to remove the snow/ice AS SOON AS IT BEGINS TO FALL. Using high-powered, PTO-driven blowers allows you to prevent as much accumulation on the tarp as possible; this requires being on site as soon as the snow or freezing rain begins to fall, and proactively removing the precipitation, working from the center of the field and working your way out to the sidelines.

The snow has to be a dry snow for blowers to work. If it’s a wet snow you can remove the snow by using rubber tip snow plows, or other snow plow options listed below. Do not allow the snow to **accumulate more than 1 inch before beginning the removal**. Also, plowing off the

**CAUTION:** When plowing off of the rain tarp, plow in the direction in which the tarp was laid, and modifying the plow blade to prevent snagging and tearing the rain tarp.

- >> **1. SNOW REMOVAL** on rain tarp with a drain pipe bucket plow and turbine blower.
- >> **2. PLOWING SNOW** with retro-fitted bucket with guard. >> **3. RETRO PLOW BLADE** on utility vehicle. >> **4. RETRO FITTED** bucket on tractor. >> **5. SCREEN DRAG** on dusting of snow.
- >> **6. SNOW BLOWING** a natural grass field. >> **7. GREEN DYE** sprayed on snow to accelerate melt.

rain tarp makes for a cleaner surface in the end.

**CAUTION:** When plowing off of the rain tarp, plow in the direction in which the tarp was laid, and modifying the plow blade to prevent snagging and tearing the rain tarp.

Plowing an uncovered surface with a pickup trucks or utility work vehicles works fine, but you must **retrofit the plow blades**. Here are some ideas:

Use pressure treated wood/recycled lumber. Hardware needed: long lag bolts, washers, and nuts and one 2 x 4 x 8-inch or 4 x 6 x 8-inch piece of lumber. I remove the snow shoes from the plow (will still be used as the receiver for the pressure treated wood). Take the lumber or whatever you find that will keep the blade from coming in contact with the surface.

On the bottom side of the lumber recess drill two holes (large enough for the lag bolt head with a washer) in alignment with the plow shoe receivers; the recessed drill hole should be deep enough to allow for a lag bolt head to sit flush with the bottom of the board. Place a support washer at the head of the bolt for reinforcement. Run the lag bolt up thru the board and thru the snow shoe



>> **PLOWING** and snow blowing off rain tarp.

ring on the back of the plow. Add washers above and below the lag bolt as you would with the snow shoe for spacers and secure bolt with a locking nut.

Another idea is using a Drain Pipe bucket plow. You need a 15-20-foot by 18-inch diameter drain pipe, ratchet straps, and a tractor with bucket. Strapping the drainage pipe to the bucket increases the plowing swath; when you plow have the lift bucket up, tilt bucket forward, lower to turf and plow.

### SYNTHETIC FIELDS

When plowing synthetic fields you don't need to scrape the surface clean. If you try it will result in the removal of

crumb rubber and the chance of turf damage. Instead, drop the plow to the surface and then raise it slightly (1/8 to 1/4 inch). Leaving this small amount of snow is what you want to achieve. Synthetic turf heats up so fast that even 1-2 inches of snow will rapidly melt off if there are slightly exposed areas of green turf.

After the majority of snow has been removed, black crumb rubber (synthetic field) or black sand (natural grass) can be spread over the field. Allow this to sit 20-30 minutes and then run a field groomer over this last bit of snow and it will quickly dissolve. I have also seen green dye sprayed over the last 1 inch of snow that will absorb more sunlight and accelerates the melt.

If only 1-2 inches of snow has fallen on synthetic turf, I have been able to just drive a utility vehicle in a crisscross pattern across the field (like a mowing pattern) to achieve melting; by compressing this little bit of snow in the tire tracks it accelerates the melting.

Snow blowers also work well. But remember to **NOT SCRAPE IT CLEAN**. Leave a 1/4 inch of snow, followed by an application of crumb rubber or black sand.

Don't be too concerned with plowing against the seams of the synthetic turf. As long as you're not scraping it clean and take your time, it will be fine. If you try to cowboy plow the removal of the snow and the plow begins to bounce it could result in extreme turf damage.

If a large amount of snow is called for, get after it as soon as there is an inch of accumulation and keep repeating the removal process throughout the storm.

When the field is scheduled to be used in early spring (March/April), I recommend you remove the snow after each storm event throughout the winter. Removing all but 1 inch will prevent a lot of heartache come March. It's much easier to remove 1 inch of snow in the spring than to remove 3 feet of frozen, hard-packed snow. ■

*Steve LeGros has been in the turfgrass industry for 28 years as a turfgrass/stadium operations manager, and since 2007 has been consulting with turfgrass management and facilities operations on all levels of athletic fields.*

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By William J. Seymour, PE

portant role in the non-traditional funding of public projects. Municipalities can apply for grants from US Soccer, US Tennis Association, Nike Endowments and Foundations, the NHL, etc. These organizations and others have been involved in providing funding for public projects. They provide these grants as a way to propagate their particular sport or interest. Therefore, it appears they are more likely to provide grants for building new facilities as opposed to renovating existing facilities. A successful private grant solicitation or submission should demonstrate how the awarded grant will facilitate the propagation of the interested sport. For example: Is there un-resourced soccer demand in your community? If so, and if US Soccer grants \$150,000 for your project; will it result in new field inventory that will service that otherwise un-resourced demand (thereby furthering interest in that sport)?

Like public granting authorities, private granting authorities also look for the applicant that has “real” plans, budget, and milestone schedule. Due diligence and feasibility studies are necessary to help convince granting authorities that the project is worthwhile. If the private grant is awarded, they want to know that the financial resource will result in the successful outcome of a project that furthers their interests.

### PRIVATE FUNDING

Grassroots fundraising efforts (e.g. selling brick pavers, parking spaces, seats, and candy bars) can sometimes be disappointing as far as how much money they can generate (often less than 10-20% of the project budget). The biggest advantage these efforts provide is public awareness and involvement. This can be quite helpful when seeking permitting and other municipal public funding since you’ve enfranchised a number of people into the process as advocates.

The first step in developing significant private funding is to form a private fundraising conduit for the money raised: a booster club, a “Friends of (insert name) Field,” and/or a 401(c) 3 that can receive tax exempt moneys. The Booster organization can be the conduit for fund raising, corporate sponsors, youth sport user fees,

# Non-traditional funding alternatives for public athletic facility projects

**F**UNDING FOR PUBLIC ATHLETIC FACILITY PROJECTS has changed dramatically in the last decade. The days where a municipality could go to a town meeting and seek an override approval for 100%, or float a bond for 100%, of an athletic facilities project are essentially over. The fiscal reality is that municipalities have been forced to consider steep financial cuts to schools and public safety services (police and fire). The “extras,” such as athletic facility enhancements, have, out of necessity, taken a back seat.

Although traditional funding is not readily available, the demand for public athletic and recreation facility enhancements has actually risen. This is due to continued population growth in urban areas, enhanced diversity of sports, and increased gender equity in sports. Municipalities are now compelled to find “out of the box” ways to meet this growing demand, and the solution begins with creative funding. To be successful in raising the funds for an athletic or recreation project, the municipal or non-profit Owner should assemble a fundraising group that considers the following options concurrently:

### PUBLIC AND PRIVATE GRANTS

The first constituent of a funding group should always be an experienced grant writer. If

there is no grant writer on staff, hiring a professional grant writer will greatly increase the odds of receiving public and private grants.

**Public Grants.** Public grants vary from state to state and from municipality to municipality. There is a federal program called PARC (Parkland Acquisitions and Renovations for Communities) and each state implements block PARC grants; \$97 million was awarded in 2010 alone. The Department of Urban Development has community block grants that some communities will qualify for based on net income and demographics. The EPA provides brownfield grants for the redevelopment of impacted parcels of land. There are ReLeaf grants available from federal agencies for the planting of trees and landscaping that can be associated with park projects. For example, there is a federal land and water conservation fund that has resulted in the funding of thousands of outdoor recreation facilities.

These public grants rely heavily on feasibility studies that demonstrate the viability of the project and accurate cost estimates. It is important for the granting authority to be convinced that the project is valid and feasible, and that the funds allocated for the project would result in the successful completion of a fully serviceable facility that meets a previously un-resourced community need.

**Private Grants.** Private grants, although a bit more constrained lately, are playing an im-

concessions proceeds, individual donors, etc. The Boosters can gift these revenues to the public owner. Alternatively, the Boosters often complete the sports facility enhancements themselves under a private procurement, which may have cost and project control benefits.

### SPONSORSHIP

One of the more lucrative fundraising opportunities is corporate or individual sponsorship associated with naming rights of the facility. The fundraising committee should determine the municipality or school's policy with regard to naming rights before initiating the fundraising drive, and identify naming opportunities (field, track, scoreboard, press box etc.) It's important that you present a possible donor with a policy that details the recognition they would receive. If they can see that their donation would result in significant name recognition; there is a higher likelihood of success.

Another avenue of sponsorship would be approaching prosperous citizens in the community. Part of the fundraising group's chal-

lenge is to first determine who these people are through local community groups (alumni groups, philanthropic groups, the Kiwanis, the Rotary, the Elks, the Chamber of Commerce, etc.). The fundraising chairperson is often approached to make presentations to these various community organizations. Oftentimes, these well-heeled individuals of the community can be identified and approached through this type of networking. This is more effective than knocking on people's doors. It's important that these approaches are made with mature marketing materials (glossy project descriptive information with colored renderings, feasibility studies, and budgets) in hand to facilitate the conversation and encourage the potential donor to become involved in the project.

### PUBLIC/PRIVATE PARTNERSHIP

A public/private partnership strategy can be a bit more complicated but municipalities are becoming increasingly reliant on them. This type of partnership comes in two forms:

**Use.** This is the partnership frequently seen between a municipality and an institu-

tion. The institution is often a small or community college that is landlocked but has growing athletic requirements. By reaching out to a local community with available land, but constrained funding, the two parties enter into an understanding. The private organization builds an improved/expanded facility on public land with additional capacity for the community, and the institution is able to use it (often with use and scheduling preference). These partnerships are becoming increasingly popular and they are a win/win for both entities to meet their need for expanded facilities of higher quality than either could achieve on their own.

**Profit.** Under this scenario, a for-profit, private organization enters into an agreement with a municipality whereby they would develop an athletic or recreation facility on public land with facilitated permitting, public services, and tax incentives. They may gift a portion of the facility (e.g. a soccer pitch) outright and retain control of a for-profit facility, or they may operate the overall facility for profit but give the municipality use at reduced rates. One complication that can arise



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with this arrangement is that often a public owner cannot simply enter into this agreement with a private entity without going through an RFP process. The municipality typically has to advertise the opportunity, define the selection criteria, review all the proposals, and come to a decision based on the best value for the community. This requirement will vary from state to state.

**DONOR IN-KIND GOODS AND SERVICES**

The donation of in-kind goods and services is another way to help fund an athletic project. The fundraising group should identify early on the various businesses in the community that could potentially perform in-kind services for the project. For example, stone, asphalt, and concrete; earthwork and landscaping; topsoil and seed; site and athletic lighting; and fencing.

An effective way to learn about, and approach, these companies is through networking with the Chamber of Commerce and various philanthropic groups within the community. There are challenges associated with

in-kind contributions. Since these services and goods are donated, they are often the last priority for otherwise profit-making companies. As a result, donor projects can take longer than expected and may not be built to the same quality as a normally competitive, bid project. They can be disjointed since coordinating the various subcontractors and materials as they arrive on the job site can be challenging for the owner. But, if a municipality is willing to put in the extra time and effort necessary, these projects can result in a cost-effective and functional facility that may not exist, were it not for these donated goods and services. Typically, a design professional (who may also donate services) is engaged to provide the design and permitting for the full potential build out of the facility so that permits are in place as the materials and services become available, and the facility is developed over time.

**DEVELOPER OFF-SITE IMPACTS**

Another potential fundraising opportunity is developer off-site impacts. When a developer comes into your community proposing a multi-family residential or commercial devel-

opment, they could be exacerbating a traffic problem or putting extra burden on municipal services such as water and wastewater utilities, schools, etc. It is common practice for municipal zoning and planning boards to require the developer to perform off-site impact mitigation by replacing a sewer, widening an intersection, or adding traffic light(s) as part of the acceptance for the developer's project. Some municipalities have told developers that they are beyond their capacity in terms of their ability to support recreational facility use, and as such are requiring developers to develop recreational facilities to mitigate the impact of their proposed project on the community. Town-wide recreation needs assessments documenting recreational facility shortfalls in the town are needed by local planning and zoning boards to set the stage for this discussion.

**UTILITY LEASES**

There are a number of utility companies willing to provide significant funding for athletic facility enhancement in return for the rights to develop private utilities on public



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land such as cell towers, solar power arrays, and wind power. Such endeavors typically involve long term leases which encumber a significant area of land or roof top; however, they can be very lucrative for both parties. Of these funding opportunities, solar power sites currently appear to be the most heavily sought after. In some instances, the solar power developer will actually procure/build the athletic facility as part of their installation project and then turn the resultant facility over to the public owner.

**VENDOR FINANCING**

Although many recreation product vendors (turf, lighting, surfacing, etc.) offer financing programs; in our opinion, they have not proven to be effective to the municipality. This type of funding may only be effective as a last resort, or to complete the last portion of funding required for a significant project. The typical financial terms vary and may not be more advantageous than conventional financing from a lending institution. Additionally, such vendor financing arrangements can put the municipality in a situation

where they are locked into doing business with a particular vendor and the price could reflect the proprietary nature of the procurement. Also, many states have very specific rules prohibiting proprietary specifications for public projects. If vendor financing is relied upon to complete project financing, it will be advantageous and probably necessary for the Booster group to obtain this type of financing in lieu of the public owner.

**PROFESSIONAL FUNDRAISING**

A professional fundraiser can assist a community with identifying potential corporate and individual sponsors, and developing an approach that is more successful than what the typical layperson could accomplish. A professional can manage “pledged giving” more effectively than most community fundraisers. They are also usually able to organize the grassroots fundraising in a more cost-effective fashion. Keep in mind that their success does depend on having the right materials (feasibility studies, colored renderings, and realistic budgets).

There are two types of professional

fundraisers: those that work for a percentage of the funds raised and those that work for a set fee. The Association of Fundraising Professionals strongly encourages professional fundraisers be paid set fees for their services instead of a percentage.

Many athletic facilities constructed in the past decade have been funded to some extent by non-conventional means. Multiple funding sources for one project are common. To get the most out of your efforts, it’s important that your fundraising group is organized and everyone has a function, eg, one person is responsible for approaching businesses, one to research grants, etc. It’s also imperative that you start off on the right foot with excellent collateral materials. Engaging a design professional to provide realistic budgets, feasibility plans, and color renderings will help to facilitate your community to reach its fundraising goals. ■

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» Bottom Left: THESE HOSES ARE FOR TESTING and draining a hydraulic system, which should be done at designated intervals, including during a winter service by a local distributor.

## Managing and maintaining your equipment fleet

Now that the turf growing season has ended for most of the country and winter is here, many turf and equipment managers turn their attention to servicing and repairing equipment for the rigorous spring schedule that will soon be here. Whether you have one unit or several units, preparations and planning this winter can help ensure a productive, successful equipment season in the spring.

Winter preventative maintenance programs can be scheduled to cover many of the larger recommended maintenance schedule items that are required. Because these services can include draining of fuel and hydraulic tanks and replacing many of the hoses, scheduling these services with a local equipment distributor can save time, money, and potential down time in the spring. Once spring arrives and the equipment is back out and being put through its paces, many of the common issues that are faced in the field can be prevented by following a regularly scheduled maintenance plan. The minimum maintenance standards that are outlined in the owner's manual for each piece of equipment are essential to ensure the units in your fleet are operating

to their maximum level of expected performance.

Changing the oil and filter regularly, checking tire pressure, replacing belts and hoses, changing the fuel filter, and if the unit is diesel draining the moisture from the fuel tank are some simple but important measures aiding in the performance of your equipment. While many of these tasks are performed on a regular or interval basis, there are other requirements that each operator should follow before using any piece of equipment. Doing a walk around inspection of the unit to visually check for issues is something that is often overlooked. Seeing an operator walk up to a unit and get on and ride away without looking on the ground to see if there are any leaks is a common occurrence in a race to be productive. This

simple check could identify a potential issue and prevent environmental contamination or damage to playing surfaces.

Training your team in proper pre and post inspections when using equipment is a key element in the maintenance reg-

iment. Checking fuel levels to ensure you start each shift with a full tank of gas is the start of any pre-operation process. If you plan to refuel your equipment during the day, make sure the unit is moved to a flat, concrete surface, turn the engine off and allow the engine to cool. Checking safety devices to ensure they are working properly and have not been tampered with is also a critical step. Manufacturers have continued to improve safety features that include automatic shutoffs, ROPS systems, vibration and noise reduction components, and seat belts to help prevent many of the injuries that occur. Tampering with these safety devices or using equipment for tasks not designed for can put the equipment at risk of serious damage. More importantly your operator or even bystanders can be at peril of serious injury or death.

### Fleet management system

ONE OF THE KEY ELEMENTS of a maintenance operation is the ability to efficiently and accurately track imperative equipment data to ensure preventative maintenance is performed on schedule. One solution, myTurf, is The Toro Company's fleet management system that offers a unique combination of tools that increase the efficiency of a turf equipment maintenance operation by reducing unnecessary steps and automating others. myTurf has you covered whether it is being able to locate and order parts online, automatically load service schedules, or view purchase and repair histories, whether for Toro equipment or any of the other brands in a fleet. The goal of a good online fleet management tool is to make sure the preventative maintenance gets done on time efficiently, automatically and simply.

## Facility & Operations

When a piece of equipment does break down, the clock to get equipment back up and running starts ticking! Whether you have an on-site service technician or you call to have a service technician come out, your goal is to be productive and keep the plans and tasks for your operation running efficiently while keeping the highest standards of proper equipment repair and safety paramount to your team's success.

There can be several techniques used to properly diagnose the source and extent of equipment issues. Today's technicians are highly trained and skilled professionals. They are able to diagnose issues that may be due to electrical, fuel, hydraulic or mechanical failures. Through planning and staging standard or highly used parts in inventory, this strategy can more often than not make repairs quick and alleviate precious time needed to accomplish daily or weekly tasks.

Having the right equipment to properly diagnose any issue quickly and getting the unit back up and running is another important key to properly keeping your equipment up to par. As many equipment managers have

discovered, equipment has become more advanced to meet the challenges and demands of the industry. Making sure that a technician has all the right tools and equipment can be costly and with budgets getting tighter this is becoming more challenging. However, the upfront investment can save you thousands of dollars via proper daily, weekly, monthly and annual costs in equipment and downtime—furthermore, how do you quantify sleepless nights wondering how you will get tomorrow's tasks completed when broken equipment didn't allow for completion of the previous day's agenda?

In addition, the cost of environmental contamination and disposal of used fluids generated at equipment maintenance facilities is becoming more regulated through state agencies. Examples of disposable fluids include; oil, anti-freeze, brake fluid and cleaner, solvents, batteries and fuels. Appropriate, safe disposal has prompted many to upgrade their facilities in order to meet or exceed regulated guidelines. In some cases operations have or will decide to leave a portion or all their service and/or repair to someone else.



>> **LIFT SYSTEMS** can prevent injuries and eliminate unsafe conditions for employees.

With the many daily activities that equipment and turf managers have to be concerned with, trying to remember when you last did a service or what parts you needed to complete the recommend service can be a challenging task. In some cases, technicians have a dry erase board or a hand written note book somewhere in the shop that they use to track all the equipment services. What if someone accidentally erases something from the board or in case of an accident that destroys those records, what does one resort to as a back up?

Maintaining proper records of equipment maintenance is another large component of keeping your equipment in shape for many years. As technology continues to emerge

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some technicians have created elaborate spreadsheets on their computers that they use as part of their documentation process for maintaining equipment as a transition from hand written notes in a book or record keeping on a board.

With the dawn of information technology and Cloud-based software, new fleet management software solutions are attempting to take fleet maintenance to a new level. Fleet management tools are gaining adoption in the market by simplifying the process of tracking preventative maintenance and the inventory management and ordering of necessary parts. Logging and wireless update and reporting of operating hours, for easier tracking of maintenance intervals, is an added benefit of these solutions. When preventative maintenance alerts appear in the software, the system will provide information you need on the unit via a "work order" that includes the service required and what parts are needed to complete this service. Once this information is provided, a technician can simply order the parts online and have them shipped right to their facility the next day.

You can also use solutions like The Toro Company's fleet management system, myTurf, to get a total cost of ownership information to help drive equipment upgrade decisions. And, since many of these solutions are now web-based, instead of residing on a desktop computer like prior generations, data is backed up daily for security and work order processing or parts ordering can be accomplished from any web-connected computer with a simple log in and password.

Working equipment is vital to any organization. No matter how big or small the piece of equipment is in size or importance, keeping it running at peak performance is critical. The window of opportunity to complete tasks can sometimes be a huge difference maker and in some cases when things go awry; they become an equipment or turf manager's worst nightmare! Tracking and following proper preventative maintenance practices, ordering appropriate parts per manufacturer's guidelines, including a full winter service plan can help alleviate many of the challenges that are faced in the field every day.

Having the appropriate equipment main-

tenance practices in place for each unit is essential to every operation whether it's a small one to two acre property or a larger one hundred acre facility. It's all about your users' expectations and your vision and passion to meet or pursue something greater. While equipment is being serviced for the winter this is also a good time to review safety procedures and pre-operation equipment checklist with employees. This includes going over the operator's and safety manual or watching associated video's for the different units that you have. Covering routine maintenance schedules and safety tips with employees can give you an additional set of eyes in the field. Following these suggested guidelines can drastically decrease down time and improve overall team productivity so moral and general operations help keep employees and the environment safe, including better playing surfaces and turf in 2013 and beyond. ■

*Jason Kopp has been a sports turf and grounds manager for more than 20 years and is currently territory manager for Turf Equipment and Supply, Jessup, MD.*

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# Report: status of small school turfgrass education programs

**WE ASKED SOME EDUCATORS** at three community colleges and one 4-year institution about the status of their turfgrass programs. The questions were:

- 1. What is the trend in your turf program enrollment numbers—up, down or steady?
- 2. What are some of the reasons your students give for wanting to study turf management?
- 3. Have you made recently, or are you anticipating making in the near future, any changes to your program? If so, what and why?
- 4. What is your opinion on how turf management will be taught 10 years in the future?

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**CHAD FOLLIS,**  
Mineral Area College  
Park Hills, MO

Follis is a horticulture instructor, greenhouse supervisor and baseball field manager.

1. Overall enrollment in horticulture is up. Those students wanting turf specific is steady this year.
2. Many of the anticipated answers are love of sports, love of outdoors, working with hands and equipment. In our rural area of southeast Missouri, turf management is still growing and new so there is some aspect of novelty also in the mix.
3. We have increased our end of program testing to assure employers and 4-year colleges our students are meeting necessary competencies. We also put in a NTEP-style variety trial over the past 2 school years. We now have 50 bermudagrasses, 13 zoysia and

eight buffalo, two St. Augustine, and two paspalum. We also installed 100+ cool-season grasses. All the basics, KYB, PRG, TTF, FF, Bent and a few outside the norm like faults alkali, poa triv, poa supina, micro clover. The students got behind this project. It allowed us to teach establishment of the various grasses and gave the students some hands on experience using equipment such as verticlers, aerators, etc. Thanks to all the folks that helped us with samples of live warm seasons and seed, too many to mention in this space. We are also trying to work out articulation with a couple 4-year institutions to smooth the transition process.

4. More and more online distance delivery of education. Students don't want to come to campus or at least want to limit the amount of trips per week. We have to determine how to deliver a hands-on outside careers driven education via a computer screen. How do we engage students fully, not just pass along PowerPoint slides? I also see STMA becoming more involved in how and what we teach in the classroom much in the model of the GCSAA. I think this will allow for increased matching competencies across the industry, which strengthens the knowledge base and gives employers the assurance they are getting individuals that can make a difference in their facilities immediately.

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**TROY MCQUILLEN,**  
Kirkwood Community College  
Cedar Rapids, IA

McQuillen is a turf instructor.

1. Numbers are remaining steady, but something that is changing is the number

of students that are expressing interest in sports turf management. Currently I have 55 students in the program and I could say that 70% express interested in golf course maintenance and the other 30% are pursuing a sports turf career. This percentage is up from past years. I attribute this to increased sports turf opportunities in our area, having student participate in the STMA Conference, and shifting more curriculum and course competencies toward the sports turf experience.

2. Usually I ask the same question when a potential student enters my office for the first time. I would say the most common response is that the student likes the “hands on” portion of the career and the applied education. Students also comment on wanting to work outside, having a passion for the sport, or in some cases have worked a summer job involving a sports turf experience. They come to Kirkwood wanting more knowledge.

3. Every year the Kirkwood sports turf program hosts area sports turf managers for a 1-day advisory committee meeting. These members provide both curriculum and lab experience suggestions to our program so that the education and staying competitive with the industry. Besides the Athletic Field Maintenance class, students in our programs also take Irrigation Installation and Design, Intro to Turfgrass, Horticulture Math, Advanced Turfgrass, and Plant Material Maintenance among other classes that make up the 68-credit curriculum. Recently we have made changes to our internship where students are now required to complete an internship packet, followed by a presentation that identifies internship competencies they need to complete while on the internship, and then share that information with the incoming freshmen. We are also adding more transfer level coursework for those students that have an interest in pursuing 2 more years after



Kirkwood. These classes include Chem 2, Organic chem, Comp 2, etc.

The advisory committee and I also have been discussing the potential of an Advanced Soil Fertility and Chemical Reaction class. What I really like about the community college curriculum is that changes are not difficult to make and the advisory committee keeps up on the same track as the industry.

4. Good question. I see a lot more on-line training for either current credit students, or as a refresher course for existing industry professionals. The difficult aspect of online education is the “hands-on” factor. For me I always find it difficult to teach an objective without the hands-on lab activity.

I see 2-year institutions working closer with universities to make sure our students have the best transfer route. (We have made great progress already with this). In the near future for Iowa there will be a student shortage. In the state of Iowa the next largest senior classes are now in kindergarten! There

will be a competition for students. I think that high schools need to provide more horticulture courses for students that also include sports turf topics to let students know that these [offer] realistic careers.

I also see our curriculum having to make some adjustment with not only teaching students about sports turf, but also more coursework on facilities management, engineering, and lots of MATH. Sports turf managers are expected to perform it all, and we need to back it up with qualified training.

**BRIAN SCOTT,**  
**Mt. San Antonio College**  
**Walnut, CA**

Scott is a professor of horticulture.

1. It is difficult to get accurate figures for the number of students specifically in the turf program due to the way majors are reported on. Our typical student usually comes in with an unrelated declared major, or as a declared Horticulture Science major. It is quite a process for them to change their declared major and sometimes changing the

declared major impacts their financial aid. So, with that said, I will give you some information based on Certificates, Degrees and general observations. It is also important to understand that our typical student is around 30 years old, has a family and works either part or full time and attends school part time. I have students ranging in age from 18 to 70 years old, multi-racial, male and female. A quite eclectic bunch!

I have been at Mt. SAC going on 12 years. When I started we did not have a degree in Sports Turf Management. I implemented the Park and Sports Turf Management degree in 2003. Since that time we have awarded seven degrees. The certificate in Sports Turf Management, in the same time frame, has been awarded to 33 individuals. This certificate encompasses the core courses minus the general education requirements.

In just looking at ‘completers’, there is a steady trend. I can’t say numbers are up or down. The most certificates we awarded in one year were eight in 2008-2009. The least



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was one in 2004-2005. Degrees have been fairly consistent with 1 per year.

My general observations are that the program is gaining interest and enthusiasm to a higher degree every year. We have been taking eight students to compete in the STMA Student Challenge every year since 2009. Last year we had 12 students participate. When we first started, I had trouble getting four students to compete. Now we have tryouts and give them qualifying exams. I don't require that they are majoring in Sports Turf Management. In fact, I use the competition as more of a way to promote the sports turf industry. Many of the students have decided to seek employment in the sports turf industry after they go to the national conference and see what it is all about. By this measure, I would say that our program is growing and will continue to do so in the future. Our local industry is consistently seeking people who have knowledge of athletic field management.

2. This past spring (2012), we conducted some student focus groups to answer this type of question as well as several others. While the students who participated were from various disciplines within the Agricultural Sciences Department, I think the answers accurately reflect how students in every discipline within our department feel.

Participants described several attributes about the program that are working well and should be maintained:

- Hands on/practical experiences

- Ample industry contacts, networking opportunities, information about trends and job opportunities
- Teachers who are caring, down-to-earth, knowledgeable, and who convey their love for what they do
- Pride in the program among students and faculty
- Variety of classes/new computer-aided drafting course
- Good use of limited resources
- Everything!

Participants also stated what aspects of the program are less successful, offering program personnel opportunities to improve by:

- Incorporating technology in courses/program
- Developing more design/drawing curricula, as well as more advanced curricula
- Using industry trends to drive offerings
- Addressing class scheduling/availability
- Increasing program's limited resources
- Having more voice-of-the-student opportunities

This is all fairly general information. The students who specifically go into turf management typically like the environment of being around sports and like being outside. Also, it gives them an opportunity to take pride in their accomplishments.

3. We have recently changed our certificate program to be much more specialized. For instance, our sports turf certificate used to require 30 units of courses. Now it is 18. Our previous philosophy in our certificate programs was that we wanted to

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make sure students had a very broad knowledge base for all certificates. Now we feel that it is more important to provide certificates for very specialized subject matters. We also provide more certificates now (was 9, now 12) and have included a general Horticulture Science certificate for those who want to go wide but not as deep. We hope this will allow students to achieve certificates in a shorter time frame.

4. I see turf management, just like many other subjects, being taught from more of a “soft skills” and thinking on your feet mentality. When I first started teaching, I put so much emphasis on the details of the trade (for example, disease, insect and weed identification; fertilizer programs, etc.). As I have traveled and had discussions with many turf managers in different regions, it seems like all of the details change from site to site, region to region. It is impossible to consider all of the scenarios. Now, I do recognize the importance of the details, especially to universities who are training researchers. At the community college level, however, I don’t see this as being one of my missions. I sure want them to understand the basics, and even the details when I think it will be extremely relevant. But I keep asking myself what details I remember from my college education. It was that I was taught how to think like a diagnostician, how to be a professional on all levels, and how to be resourceful. This sounds pretty basic, but the challenge for the future for me is developing curriculum that incorporates these concepts with the technical knowledge that students need to have when beginning their careers in sports turf management.

**DOUG LINDE, PHD, Delaware Valley College  
Doylestown, PA**

Linde is professor of turf management at this 4-year college in southeastern PA.

1. We are staying steady around 30 total students. That number has been around 30 for the past 5 years. Most of our students are 19-22 years of age.

2. Like playing golf and want to work outdoors. Like sports and want to work outdoors on a sports field [are the major reasons].

3. I’m sensing in the near future we will have students take more basic sciences and less specialty classes. This will result in a more broad-based science education that would give them more flexibility in case of a career change. New graduates have no problem getting jobs upon graduation as long as they have work experience; however advancement to head field manager and head superintendent is much more difficult. So some graduates are switching careers. We also will be redesigning our required internship program to increase the academic rigor.

4. Professors will need to continue to adapt to the learning styles and preferences of the students. 18-22 year-old students’ learning preferences will likely change due to technology, their habits, and teaching techniques they witness in high school. Also, students need professors less and less for the information about a subject. They need professors to evaluate information and use it to solve problems. ■

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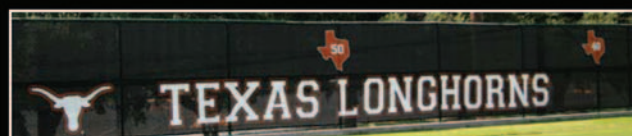
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