

# A WAKE-UP CALL FOR YOUR IRRIGATION SYSTEM

Matt O'Neal, CID, CIC\*

As we all know the spring season will soon be upon us. With that come many of the chores that go along with it. Those of you lucky enough to have an irrigation system know that along with the luxury comes a certain amount of maintenance. To keep the life blood of your fields running in tip-top condition requires starting up your system properly.

Before we even begin to talk about spring start-up, we first need to look at the fall winterization of the system. It doesn't matter how careful you are starting your irrigation in the spring, you can't make up for a poor winterization. What constitutes a poor winterization? Not completely blowing the system out or doing it too late after freezing has occurred is common scenarios. Particular attention must be paid to the point of connection. Backflow preventers can be very expensive to replace or repair especially large ones. Therefore it is imperative that they be winterized properly.

The first step to starting an irrigation system is to inspect the entire point of connection for any visual problems. You should check the meter, valves, service line and backflow preventer. If the backflow preventer was not fully winterized, there may be cracks or damage evident. Once a visual check has been performed, the water can be turned on to the system. When opening a valve, you should always open the valve slowly so to meter the amount of water entering the irrigation pipes. Opening a valve all the way immediately can cause water surge and can ultimately shorten the life of your irrigation system if not causing a sudden break in the pipe. After the water has filled the irrigation lines you will notice that the sound of the water will diminish. The valve can now be turned to its fully open position.

Once you are confident that the system is fully charged and does not leak, the attention can be directed towards the sprinklers and electric valves. As a rule of thumb, you should always start at the controller and go through the zones one by one walking the site observing any unusual conditions. This works especially well with a remote control where you can walk around without having to return to the controller to change zones each time. Things that should be noted are: sprinklers not popping up, sprinklers not rotating, whole zones not operating, and any water appearing where it should not. You should also identify all irrigation control boxes, exposing them if they are covered and opening them to inspect the valves for leaks or weeping.

An electrical inspection should also be performed now to help ensure that the control system is ready for operation. Each zone should be checked for resistance with a multimeter to indicate any problems with electric valves that may show up during the season. Especially low or high readings point to a short in the zone's electrical circuit. The short may be found in the wiring or in the solenoid by checking the resistance of the solenoid at the valve you can isolate the problem. You can obtain proper resistance readings for each valve from the manufacturer. Other checks for the electrical system would be incoming voltage into the controller and voltage out to the zone valves through the terminals.

A good practice throughout the season should be to perform inspections periodically to catch minor problems before they become major ones. Typically, the irrigation would run at night when no one is around to see the sprinklers operate. Running through all of the zones while you are on-site would be a great way to see if sprinklers are not turning or even operating. Valves boxes should be kept clean so that maintenance can be performed readily and to avoid having valves become buried over time. Extra time spent now analyzing potential problems is only going to help prevent downtime during the season.

\*Matt O'Neal is a Certified Irrigation Contractor and Certified Irrigation Designer; and Technical Support Specialist, Storr Tractor Company

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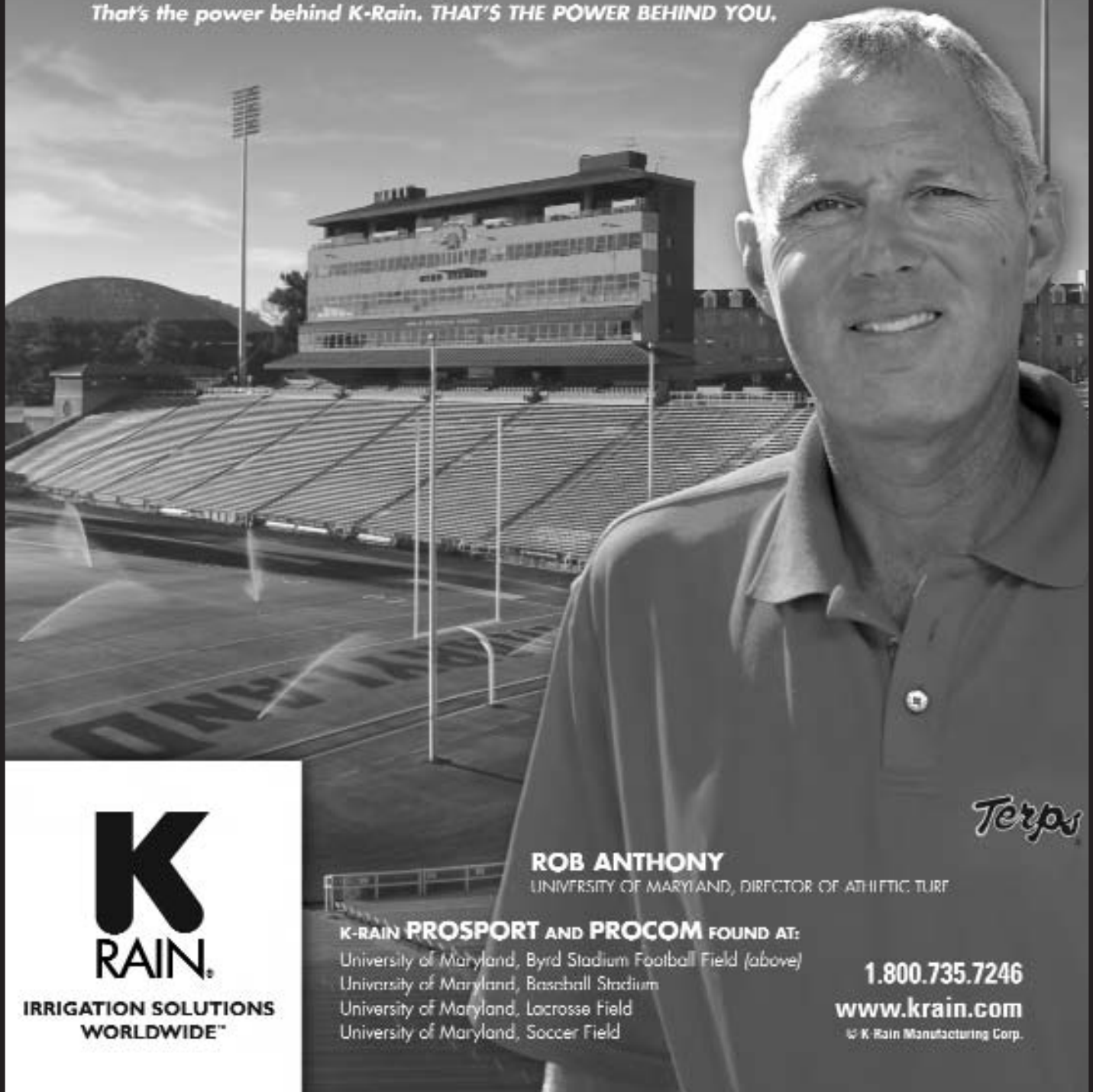
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## CONSTRUCTING AN ATHLETIC FIELD

Sean Connell\*

As an athletic field construction contractor, I am frequently asked by sports turf managers and owners, "How much will a renovation cost?" Unfortunately, this is not always an easy question to answer. The amount a customer will spend on a renovation can vary widely. From my experience, the greatest differences in price usually are dependent upon several key factors: earthmoving, drainage, sod versus seed and irrigation.

Typically, a customer will ask for an estimate based on one item such as laser grading. Other key components such as grassing, irrigation, fencing, and earthmoving never get addressed. To make an accurate estimate, quantify all areas that need to be addressed before construction starts. Information that is organized makes accurate and competitive estimates for the customer and straight-forward directions for the contractor. Limited information does not complete projects; nor does it allow projects to achieve full potential.

So how does the sports turf manager or owner decide how much they need? The easiest way to do this is to obtain the services of a design engineer local to your area. The engineer will survey the area and have a topography map made of your potential site or existing field. From there, they use a program such as Land Cad (or an equivalent program) to design your field. The program can be used to show how much area will be disturbed, how much soil will need to be cut and filled, and how much grading and drainage will be required. From this design, all

other components including sod, irrigation design, fencing etc. can be incorporated into the design.

Once a basic plan is determined, agronomic decisions usually come into play. Frequently, the design engineer has little or no experience in the athletic field industry. Therefore, it is crucial that the turf manager participate in this part of the design process. After some decision making and some estimating from your information, the project can go to bid. As a contractor, a bid organized in chronological order is easiest to price accurately. Bids listing actual quantities of units already estimated for the project are the easiest to quote as well as interpret for the customer. All contractors bidding the project are bidding apples to apples versus multiple contractors interpreting blueprints that can vary greatly. This can make bid evaluation confusing. Using unit prices gives the customer lateral movement as the project is in progress to make decisions onsite without renegotiating the contract. Additions and deletions can be made easily from the inception of the contract.

If you provide your contractor with all of the information he needs, you will get the most accurate price for the work. You will also be more likely to address issues before construction starts instead of in the middle of the project. An ill-prepared plan is more likely to sabotage the project even before construction. No construction project is perfect, but it can be a great experience to work-through with the right planning and tools.

\* Sean Connell is President, Georgia Golf Construction, Inc. and a member of the SFMANJ Board of Directors

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## Lip Service

Nicole Sherry\*

Usually, when I am called to look at fields in our area I notice the same thing over and over again: huge lips. I am talking about lips you could step-off and break a neck. So what causes this problem? I believe it all depends on maintenance practices. The first problem entails too much material on the infield. After it rains and you notice a pool of water in spots on your infield skin, the first cure is to add more material, right? Wrong. Yes, add material to soak up extra water and dry out the puddle, but afterwards remove all that extra stuff you added. Have you ever been to a rainy ballgame and the grounds crew comes out inning after inning with drying agent to help the teams get through the game? Well, what you don't know is that the next day we are scooping all of that extra material off the infield. Why? If we did not, those players would soon be playing on a beach. I went to visit one field last week and the lips on the field were two feet high and five feet wide. They thought they would need to strip all of the grass and

add more root zone to get the grass even with the lips. I asked them to look at the field from a side view. "Look at your infield," I said. "See how it is raised almost two feet compared to the rest of the field? Imagine a giant knife slicing through the point at which the existing grass meets the lip and continuing all the way through to the backstop." I noted that it appeared as though loads of material just kept building-up so that it made almost a two-foot difference between the outfield grass and the infield skin.

The second problem for lips is wind. Wind will take hold-of that topdressing and blow it everywhere. A lot of it ends up in the grass edge. Can you ever stop lips from forming? No. You can, however, help control them by putting in a little extra effort about once per week. After each home stand, I have my crew use street sweeping brooms with really stiff bristles and broom from six to eight inches in the grass back towards the skin all the way around the field including inside edges, base paths, and the mound and plate grass edges. This will damage your grass a little bit. Try to make sure you only broom the same spot a couple times and move on. Also, if it's a hot sunny day, your grass may yellow a little. Cloudy days are per-

fect. Once a month I sharpen all the grading rakes (iron rakes) and stand on the dirt. I place the rake in the grass edge about six inches back and rip through the hump in the grass pulling towards the dirt at an angle then go back over in a different direction and angle. It will rip the grass. Don't worry; it will also loosen up all the compacted lip areas. When done, broom all of your edges again to clean them out and then you can roll the edges and use an edger to even it out again. In extreme cases like the one mentioned above, you might have to use a sod cutter to rip out those lips, find a level grade, re-sod, and take out some of your infield material.

Lets face it, I know we all have different things going on in our lives; however, if we try to spend a couple of hours on the lips of our fields and our finished product is correct (level) the first time, it's easy to maintain. Let's give our players a field that is safe. There is nothing worse than someone trying to field a ball, and cannot focus because he or she is worried about tripping on the field and getting hurt.

\* Nicole Sherry is Head Groundskeeper, Trenton Thunder, Double-A affiliate of the New York Yankees



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Don Savard, CSFM\*

*The Information Toolset- Identify Your Resources!*

Even the best grounds managers don't know all the answers to their questions, but here is how to find them! We live in the information age, where we can quickly find out almost everything about anything. We look to our resources to find the answers. Anyplace that you can find information is a potential resource.

I believe that my most important informational resources are the people. It began with the instructors that I had in school and the bosses and coworkers who taught me the fundamentals of my job. Trusted colleagues helped me figure out what to do- and sometimes what not to do, and continue to do so. My vendors partner with me and help me find solutions to problems. I network with my industry peers constantly. I try to surround myself with people who know more than me and I listen, ask questions and learn from them.

My next choice is information that I can find in print. I have textbooks and reference books on my bookshelf. Some of these books are like a "groundskeeper's bible", they contain the fundamental facts about what I need to know and what I need to do. I read and reference them often. There are also a number of trade magazines that I read monthly. Publications such as Sports Turf, Grounds Maintenance, Landscape Management and others offer timely information for the reader as most issues have a monthly theme. The articles are usually well written and concise and have useful content. Most subscriptions are free, thanks to an abundance of advertisers.

Another great place for information is the Internet. There are a number of good e-magazines out there for groundskeepers and sports field managers. Some are weekly newsletters with links to other websites, others are monthly. If you are looking for something specific, search engines such as Google, Yahoo and others can find tens if not hundreds of search results about whatever topic you choose.

Continuing Professional Education courses that Rutgers or your local community college offers are a good way to become trained and many offer credits and a certification of completion. Among the formats in which courses are offered are seminar, traditional classroom and online or distance learning classes. I took a soils course online last year and it was just as rigorous as any that I had in college. The advantage was that I could fit it around my busy schedule.

Some of the best clearinghouses of information are professional organizations such as the Sports Field Managers Association of New Jersey, the New Jersey Turfgrass Association, and others. These organizations publish newsletters by and for their membership, sponsor field days and demonstrations.

Lastly, if you need to know about a control product, ALWAYS read the label. A label is a tremendous resource. The label will tell you many things including what pests it will and won't control, what things you can safely apply it to, when, how and the amounts much to use.

\*Don Savard is a Certified Sports Field Manager; Director, Athletic Facilities and Grounds, Salesianum School; and SFMANJ Vice-President



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Excellent References

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*Management of infield skinned surfaces is always a popular topic at SFMANJ's annual Spring Field Day. Here, Frank LoSasso, Hammonton Board of Education and SFMANJ member, describes the techniques he employs during the SFMANJ 2005 Spring Field Day.*



*Traffic Management: Thoroughbred Style!  
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# Calendar of Events

## **SFMANJ Spring Field Day**

(908) 730-7770

Shore Regional High School and Monmouth Park Racetrack

Thursday, April 13, 2006

Registration: 7:30 am, Shore Regional H.S. Front Lobby

Education: 8:00 am

Members: \$25.00

Non-members: \$40

## **The 11th Annual**

### **Rutgers Turfgrass Research Golf Classic**

Monday, May 8, 2006

Fiddler's Elbow Country Club

Bedminster Township, NJ

Contact: The NJ Turfgrass Foundation

(215) 757-6582

[www.njturfgrass.org](http://www.njturfgrass.org)

## **SFMANJ Summer Field Day**

### **Featuring George Toma, Super Bowl Turf Consultant and NFL Hall of Fame Inductee**

Wednesday, June 28, 2006

County College of Morris

Randolph, NJ

## **Rutgers Lawn & Landscape Turf Research Field Day**

Wednesday, August 2, 2006

Plant Science Research & Extension Farm

Adelphia, NJ

9:00 am – 3:00 pm

## **Rutgers Golf and Fine Turf Research Field Day**

Thursday, August 3, 2006

Hort Farm II

North Brunswick, NJ

9:30 am- 3:15 pm

## **New Jersey Turfgrass Expo 2006**

December 5-7, 2006

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