INSIDE:
:: Development in Eastern Europe
:: Crisis management
:: Erosion control
And a conversation with Bob Pinson

CHANGING ROLES
Managers who fill the shoes of both superintendent and pro share their stories
Generations of Success

Past · Present · Future.

A solid foundation was firmly established in 1955 with the birth of Penncross. The Penn Bent family continued to grow, thanks to the introduction of the Penn A's & G's and Seaside II, followed by Penneagle II & PennLinks II. The legacy continues with the recent arrival of Crystal BlueLinks. Just like family, each new variety owes its best qualities to the generation that came before. The Penn Bent family from Tee-2-Green continues to revolutionize the industry, and remains trusted by superintendents around the world.
FEATURES

Builder profile
24 PUSHING DIRT
Course Crafters is defying the odds in the depressed construction business by staying true to its roots in the renovation market.

COVER STORY:
Career management
30 CHANGING ROLES
Managers who fill the shoes of both superintendent and pro share their stories.

Course development
36 A BUDDING BUILDER
An Eastern European comes to the U.S. for knowledge to use in burgeoning markets.

Crisis management
42 NO WORRIES
Superintendents need to have a detailed plan in place to cover all bases in case of a crisis.

Course management
46 MITIGATING MOTHER NATURE
The right strategies make for successful erosion control.

Product focus:
Irrigation control systems
58 SPREADING IT OUT
The ability to purchase a new irrigation control system over three years was the key to Southern Hills’ upgrade.

RESEARCH
52 OUT IN THE COLD
Additives may be the answer to improving herbicide performance.
Did You Know?

Typically, 1.7 times more area on a golf course is used for natural habitats than the combined area devoted to greens, tees and fairways.

DEPARTMENTS

8 Editorial
John Walsh: A bad news cycle

10 Letters and calendar

22 Consumer research

63 Travels with Terry
Equipment ideas

64 Classifieds

65 Ad index

COLUMNISTS

12 Assistant's view
Darren Harris: Playing for respect

14 Design concepts
Jeffrey Brauer: Bunker liner low-down

16 Advancing the game
Jim McLoughlin: Life's natural order

18 Human resources
Robert Milligan: Employees: assets not costs

20 Equipment management
Stephen Tucker: Roll with it

62 Tournament insider
Tim Moraghan: Tree talk

66 Parting shots
Pat Jones: Different, yet the same

VISIT US ONLINE – www.golfcourseindustry.com

GROW-IN FOLLIES

In, “Grow-in: It's your ass not mine,” Colton Smith provides a crew member’s perspective of what superintendents go through during grow-ins.

PRO-SUPER RUNDOWN

An online extra from this month’s cover story: We list the 29 members of the GCSAA who also hold PGA memberships. Visit golfcourseindustry.com/prosuper for the complete list.

AIR IT OUT

Voice your opinion about a topic or bring attention to something you believe deserves it. Visit our message board at www.golfcourseindustry.com/messageboard and speak your mind.

VIDEOS, PODCASTS AND MORE

Golf Course Industry TV is a Web site designed to enrich your business acumen and allow you to communicate with your peers through forums, blogs and polls. Videos, podcasts and an extensive photo gallery will provide you with an array of business and industry knowledge. Visit the interactive site – www.golfcourseindustry.tv – to create your profile and start networking.

EDITORIAL MISSION STATEMENT:
Golf Course Industry reports on and analyzes the business of maintaining golf courses, as well as the broader business of golf course management. This includes three main areas: agronomy, business management and career development as it relates to golf course superintendents and those professionals responsible for maintaining a golf course as an important asset.
When it comes to support, we have the rubber to meet the road.
We don't just pay lip service to the idea of great service. We have equipment distributors who have been in the game for decades. A parts network you could set a clock by.

And now, dozens of Stores-On-Wheels® and Golf Sales Reps. Who supply agronomic goods and know-how straight to your course. With the full resources of John Deere Landscapes to back them up.

It's one thing to promise support. We actually deliver.

**JOHN DEERE GOLF**
A BAD NEWS CYCLE

Every time the economy slumps and people talk about a recession, the same question tends to arise: How bad will it get? I wish I could answer that question, and I'm sure many of you wish you could, too. During difficult economic times like these, many people also say, "It's gonna get worse before it gets better." Let's hope the fourth quarter of 2008 is the lowest part of this economic downturn. There's been enough bad news for the industry lately. Here are a few examples.

The U.S. economy and the stock market have taken a beating this year. It was a sad day for capitalism when the federal government approved a $700-billion financial institution bailout package. Banks were granting bad loans to people who didn't deserve – or couldn't afford – them. Then taxpayers bailed them out. The banks shouldn't have been bailed out because they created the problem. The saying, "As you make your bed, so you must lie in it," comes to mind. The stock market decline is even making the wealthy cautious. Builders say many owners are halting renovation projects, waiting for the market to improve.

The declining economy and housing market will continue to suppress the golf course construction market, including renovations. U.S. golf course developers are on track to open the fewest number of courses in 20 years, according to the National Golf Foundation. At press time, 65 courses have opened so far this year, and, based on the number of courses currently under construction, NGF estimates another 10 to 20 will open by year's end. NGF has lowered its forecast twice this year because of poor market conditions.

Then there's the whole "green" or environmental issue. Golf courses are getting hammered because they're perceived to be water wasters and polluters because of pesticide and fertilizer use. Various segments in the industry are working diligently to change that inaccurate perception. There's been plenty written about the "green" issue this year, including in this space and the pages of this magazine.

And don't forget growing the game, which has been difficult. Various industry associations have been doing their part to change that. Still, the number of golfers playing the game – about 25 million – has been stagnant for years, and an increase probably won't been seen for some time. Rounds also have been stagnant at about 500 million.

On top of all that, there's potential for even more bad news. You could be reading this column at a time in which Barack Obama has been elected president. No one knows for sure what an Obama administration will mean for golf, but many people in the industry are dreading obstructive environmental-related regulations.

Despite all of this bad news, there's a bit of positive news, too. While course openings continue to decline, so do course closings, which reflects a correction in an oversaturated market. So far this year, there have been only 74 course closings, according to NGF, which forecasts the number of closings to be less than 100 by year's end. There were 146 closings in 2006 and 122 in 2007. It appears 2008 will be the third year in a row with zero to slightly negative net supply growth.

Also in the construction arena, Bob Pinson and his company, Course Crafters, are having the best year ever. (Read the article on page 24). I'm sure there are more bright spots that contrast the gloom and doom; this just happens to be one we covered in this issue.

In the past, the golf business has weathered many poor market cycles and obstructive governmental policies, and it will continue to do so. But at what cost? Who will survive this downturn? Who won't? I'll be interesting to see who emerges and how. Some will be bruised and battered; others will be unscathed.

Well, enough talk about the bad news. I'll keep observing the market, and hopefully, I'll be able to write more about good news next month. Hang in there.
The Liquid Fence Company is proud to introduce EcoLogic™, the next generation of eco-safe turf, landscape and agricultural products. Landscape professionals, turf specialists, horticulturists and commercial growers alike, will now experience the benefits of “going green” while enjoying the unparalleled service and economy they have grown to expect from the makers of America’s best all-natural animal and insect repellents.
Feeling appreciated
I thank Margaret Hepp for the well-written article, "Reel sharp," in the September issue on page 58. I thoroughly enjoyed reading it. I have to admit it’s pretty cool seeing my name in print. She has given me something to feel good about in a job in which I sometimes feel less than appreciated. It feels good to be recognized, and I thank her for that.

Jim Swartzel
Equipment manager
The Hasentree Club
Wake Forest, N.C.

Association participation
I thank Pat Jones for writing about an interesting topic that needs to be discussed frequently: how to promote more quality participation within the turfgrass association arena ("Chapter and verse," golfcourseindustry.com/news/news.asp?ID=4145). Our association, the Northern Great Lakes GCSA struggles with this issue. Even within the ranks of volunteers, participation varies from completely involved to just holding a seat on the board.

As president of the association, I’ve become dismayed at the lack of interest and effort on the part of many of our members. Sometimes it seems the popular attitude is "What are you doing for me lately?" If members don’t like what’s on the agenda, they don’t attend. At many of our gatherings — about five a year — almost half of those attending are vendors.

Michigan just had four or five regional chapters merge into one. This was an attractive option to some groups who were battling apathy. I’m trying to resist this trend because it seems impersonal and less autonomous.

Glen Rochester
President
Northern Great Lakes GCSA
Marquette, Mich.

Correction
Distributor sales of Bayer’s nematicide, Nemacur, will cease after Nov. 30. We published the previous deadline in September issue’s cover story, “A heavy head,” on page 31.
Three-way Firepower to Control Tough Broadleaf Weeds Without 2,4-D!

*BATTLESHIP III* gives you superior post-emergent control of tough broadleaf weeds on fairways, aprons, roughs, sod and other areas. Its 2,4-D-free formulation is effective in cool and warm-season turfgrass.

- The advanced, “three-way” formulation contains Triclopyr, Fluroxypyr and MCPA in an easy-to-use liquid formulation.

Use *BATTLESHIP III* to control broadleaf weeds and your turf will stand strong!

For more information, contact your nearest dealer or Helena representative.
Playing for Respect

Golf isn’t a sport that’s easy to learn or perfect. But golf is our job, and many times we forget it’s also a sport to be enjoyed.

Generally, golfers don’t like to hear what we have to say when it comes to “the why” behind our maintenance practices. The words “aerification” and “topdressing” almost always are met with scowls and frowns. I can see it from their point of view. If I walked into a doctor’s office and had a doctor explain the intricacies of brain surgery to me, I’d have a certain look on my face, too.

I have, however, noticed a difference in golfer attitude when another skilled golfer describes maintenance practices compared to just a “turf guy.” Golfers tend to trust other golfers – especially good golfers. I’ve had the privilege of working with assistants who also are very good golfers. I have to admit, I’m not that bad – I have a 7.9 USGA handicap and try to play often – even if it’s not as much as I would like.

I’ve witnessed golfers react to hearing maintenance explanations from assistants who are excellent players compared to them. It just seems more palatable coming from them. The golfers seem to lose the blank stare and better understand the topic because they’re hearing it from someone they respect as a golfer. Superintendents who are good at golf tend to garner more respect from those low handicappers – usually the golfers who tend to complain the most. Our respect should be based on education, experience and past accomplishments, but sometimes it’s not. It’s not right or fair, but more times than not, it’s the truth.

This doesn’t mean all superintendents must be good at golf. It’s not a requirement for success; it’s just something to consider.

There are benefits to being seen practicing, playing and enjoying golf. Golfers who see you playing a round or practicing on the driving range might say to themselves, “Well, if he plays, he must know the greens are slower than normal or the bunkers are hard. Maybe there’s a reason for this.” It helps golfers accept the conditions based on their mindset that you might actually know what you’re talking about because you have a golf club in your hand. This isn’t right, but I’ve seen it many times.

So, how do you change golfers’ perceptions if you don’t like the game, you’re too busy or your skills aren’t up to par? Not liking the game usually isn’t an excuse – almost all of us enjoy the game, that’s what attracted us to this profession.

Some say, “I don’t play golf because I see too many things that need to be done and can’t concentrate.” That’s baloney. If this truly worries you, use this time as an opportunity to see the course. Take a small notepad and clip it to the golf cart steering wheel or put it in your pocket. How many of us walk our courses regularly? Take notes as you play. If you hit the ball like me, you’ll see parts of the course you’d never see from your cart. It gives you a chance to evaluate the course the from a golfer’s view. I always called a round the “on-course evaluation of playing conditions.” I don’t get to do that as much I would like, but it’s worthwhile.

To address the not-so-good golfer excuse, you’ll have to practice. If you’re worried about being seen at your home course, hit a couple buckets of balls at a range. You’re going to have to work to get better.

Next, talk to your counterparts in the golf shop. I’ve been lucky to have great relationships with the assistant golf professionals I’ve worked with, and there’s a reason they’re in such a position – they’re good teachers. Ask them for a few pointers. Have them follow you out to the range for a five-minute evaluation. A former golf pro used to yell at me to quit lifting my head as he drove by the driving range tee. Put a couple times on the pro shop carpet and ask them what they think.

A great side effect of these interactions is strengthening the relationship between the maintenance and pro shop staffs, which benefits the entire organization.

Networking is another benefit of playing golf. Play in your chapter and state events whenever you can. You don’t have to sign up in the championship flight. Just get out there and play. These events almost always are organized for those who want to compete and those who just want to play. I’ve even started signing up for the scramble portion so I could meet others or relax and have a good time with people I knew.

As an assistant, many of my friends were other assistants and superintendents. What a better way to build friendships and meet more people than playing each other’s courses. We would rotate between courses every month and play. It’s fun, relaxing and you also might learn something you can take back to your course.

You don’t have to be a good golfer to be a good superintendent, but it won’t hurt to try. This is one of those situations that will only benefit you in the long run. Besides, we should all be able to enjoy the place we give so much of our time, sweat and blood. We should enjoy the fruits of our labor, so get out there and play golf.
Now available in three great options

1. Hi Performance Sand daM™ for slopes as steep as 60°
2. Sand daM™ MR is ideal for projects where high performance and low costs are required
3. Install Sand daM™ Lite in greenside bunkers with low angle slopes, or flat bottomed fairway bunkers to eliminate contamination
I was surprised by two things on my first golf course construction project in 1977. The first was the amount of hand labor required to prepare a good seedbed over 160 acres. (I figured it would be done mechanically.) The second was that sand bunkers were built simply by edging out a shaped area, draining it and adding sand. Intuitively, I thought there would have to be a barrier between the sand and soil. Now, most of the golf world seems to agree.

A decade ago, liners were in the experimental stage. With use, they morphed into an expensive addition to bunkers at upper-level clubs. A few years ago, they became standard items on bid sheets, but were often eliminated if cost cutting was required. They’re filtering down to just about all courses now, trading some initial cost for the benefits of easier, long-term maintenance and consistency.

I’ve seen many other homemade attempts at bunker liners during the past 25 years, including using PVC lake liner, cheap clear plastic from Home Depot and a host of other materials. One of the earliest widely recognized “improved bunker” techniques was the Billy Bunker, named after the former Augusta National superintendent Billy Fuller. He pioneered using a gravel blanket layer, geotextile fabric and using more drain tiles. His method has worked and has proponents, even though the use of a gravel base never became widespread, probably because of initial costs.

Many manufacturers jumped into the liner fray. Early products had some durability and technical problems, and each maker has released newer versions to address those problems. They’re still a relatively new product, so long-term implications are unknown. However, in my experience, bunker liners are worth installing, despite the initial cost.

Unlined bunkers need sand replacement as soon as three to five years, but using liners approximately doubles that cycle to seven to 10 years. There’s no permanent infrastructure on a golf course – greens, tees and irrigation systems need rebuilding, so we should expect that for bunkers, too.

There’s no permanent infrastructure on a golf course – greens, tees and irrigation systems need rebuilding, so we should expect that for bunkers, too.

Advantages also include machine bunker rake use and preventing golfers from straining a wrist muscle if the club snags in a fold of material. Installation costs about $1.25 to $1.50 per square foot. Some courses attempt to save money by placing liners only on slopes prone to washing. However, sand contamination comes from the top and bottom of the bunkers, so I recommend complete lining. On a current bunker project, we’re using the highest grade liner on the steeper slopes and a mid-grade near the bottoms to help save money.

Disadvantages include the need to hand-rake bunkers to avoid pulling up the fabric. Some superintendents use mechanical rakes on the flatter portions (minus the cutting bar), but most don’t take the chance. They figure faster travel time between bunkers in a utility vehicle and avoiding liner repair more than offsets the additional hand-raking labor.

Hard liners/soil binders evolved similarly. Early versions included products such as Bunker Guard, which became so popular it was difficult to get this product on site. Newer products include Klingstone and Sportcrete. The hard surface should be superior to fabric liners, but placing any hard material on native soils leaves them prone to cracking, much like nonreinforced concrete.

Proponents of these materials counter they’re easier to repair than fabric liners. Advantages also include machine bunker rake use and preventing golfers from straining a wrist muscle if the club snags in a fold of material. Installation costs about $2.50 to $3.00 per square foot, which might be the biggest reason fabric liners are seemingly the more popular choice right now.

So, which is right for your course? I’ve used them all with good results, and I’m still monitoring the long-term effects. Visit with other superintendents in your area to see how their products are working in similar climates and soils and experiment with a few bunkers before making a decision. In any case, you’ll find the long-term costs of using liners to be equal to or lower than the cost of not using them initially. And you’ll have a better bunker.
Turf can be damaged by everything from a golf cart on a wet day to fungus and disease. The Turf Essentials™ combination fungicides, along with Daconil®, provide a streamlined approach to preventing a broad spectrum of turf diseases. Like you, Syngenta understands the impact no matter what's affecting your course. We take conditions personally.
LIFE'S NATURAL ORDER

At each of the dozens of workshops I've presented to GCSAA members during the past 10 years, I've asked attendees to prioritize the following five elements that drive life's course (in alphabetical order): career, country, family, God and self. Not surprisingly, the responses I've received over the years have been inconsistent. Basically, each of the five elements has been placed from first to last within the varied responses received from workshop attendees. Judging where these elements fit within your life's plan is more than a game. It's a prudent exercise to identify the sequencing of priorities that will best ensure your life's effectiveness.

After reviewing attendees' responses to this line of inquiry for many years and applying my judgment, I've determined the optimum sequencing of life's developmental building blocks to best ensure living beings will have their best opportunity to succeed in and enjoy life. My sequencing, which follows, might surprise some, but I'll consider this writing a success if it makes readers think and evaluate their priorities as they plan the balance of their lives.

1. SELF

Less than one attendee in 20 throughout the years has placed self at the top of the priority list, primarily because attendees fail to identify with the focus of their self-examination. Mistakenly, the attendees think self is meant to identify with the amount of attention people give themselves before others. Admittedly, it would be selfish for parents to think of themselves before their children, teachers before their pupils or employers before their employees. If this is as far as one goes identifying with the concept of self, then rightfully so, self slides down the priority list.

But the focus of the inquiry isn't meant to measure one's attention to self vis-à-vis others. Instead, it's intended to measure to what degree a person is able to develop himself being completely. Only an individual who has committed to developing his life assets completely can become a truly effective parent, spouse, friend, citizen, employer, leader, etc. Those who fail to commit to developing their complete selves, deliberately or by default, are assured of living more frustrating lives than secure lives. Therefore, if one wants to leave this earth a better place than when he came to it (which is what should be a universal goal of mankind), become the best person/self possible during your lifetime.

2. GOD

The reason why I position God (religion) second is because life is unfair and can throw debilitating curve balls at anyone any time. Left alone and to our own devices, we can fail and find ourselves without hope when traveling through life without spiritual guidance. We should look at spiritual guidance as a perpetual insurance policy that will ensure the steady light of hope will always be part of our lives. Belief in a spiritual being of our choosing is the most effective way to ensure development of one's self.

3. FAMILY

Focus now turns to the building block that sustains life – the family unit. Incomplete families, such as single-parent and dysfunctional families, fail society daily, which means parents have a responsibility (as the circumstances of life best allow) to each other and society in general to procreate and raise children within enduring two-parent families. Broken families weaken the fiber of life. We too often forget that, as parents, we are the sole 24/7 models of life to our children. When we, as parents, are lax, lazy, late, disrespectful, loud, profane, argumentative and fail to hold ourselves accountable, so, too, our children will follow. Consequently, society suffers, and the family unit is weakened. We have a responsibility to guard the value of the family unit as life itself.

4. COUNTRY

The benefits realizable from the above three life values can be diminished only when the country isn't on course. Bad economies undermine business, including the disposable-dollar-dependent golf industry; political strife undermines confidence in the country; and government overspending cheats our grandchildren of secure financial futures. Accordingly, it's imperative American citizens be knowledgeable about, and participate in, government. Speak out, lead and vote. A weakened America undermines the lives and careers of every citizen.

5. CAREER

How many readers anticipated I would position career as the fifth and last element within life's natural order? This is because careers will have the best chance to flourish when the above four elements of life pave the way. Conversely, careers can lose ground only when life's order is left to chance.

FYI

The United States Marine Corps' long-standing motto of "God, country, corps" matches the sequencing presented above, allowing for the fact that corps is the equivalent of career and the two elements of self and family aren't included within this priority listing because they're embodied within the team concept of corps. Nothing will serve the golf industry's noble warriors better than adopting the credo of the country's most noble warriors.
Control Moisture

Most foliar pathogens of turf require extended periods of leaf wetness in order to cause disease. Turf managers understand the role moisture plays in disease development and that controlling leaf wetness is a key to disease control.

A New Tool

DewCure is a unique, proprietary product developed specifically to reduce excess leaf moisture caused by dew, guttation, rain, irrigation, and frost.

Control is achieved by inhibiting moisture accumulation and by promoting faster drying following the introduction of moisture.

DewCure is formulated to adhere directly to the leaf surface, providing long-lasting moisture inhibition. Once bonded, DewCure will not wash off as surfactants do, but instead will cover the leaf with a water-resistant coating that is durable once dry.

Benefits of reducing excess leaf moisture with DewCure

- Moisture management in the foliar microenvironment to reduce disease pressure
- Suppresses dew and moisture accumulation
- Faster drying following rain or irrigation
- Light frost control
- Faster meltdown after heavy frost
- Cleaner mowing — less clumping
- Drier playing conditions for both tournament and everyday play

DewCure-Treated  Untreated

Backed by university research, use of DewCure has been shown to reduce average leaf moisture levels, providing a drier environment that promotes the growth of healthy turf.

DewCure

Moisture Suppression for Turf

From the makers of TriCure Soil Surfactants

MITCHELL PRODUCTS

1205 West Main • Millville, NJ
Toll Free: 866.436.0500
tricure.com
EMPLOYEES: ASSETS NOT COSTS

For at least two decades, we’ve heard the phrase “employees are assets not costs.” The phrase represents a significant shift in how employees are led, supervised and managed by world-class businesses, including golf courses.

For costs (fertilizer, pesticides, etc.), superintendents seek to determine the optimal quantity, always keeping in mind cost control. For assets (land, greens, machinery), which are investments, superintendents determine how to use them to get the greatest return. A mower, for example, does no good until it’s used. It must be maintained and repaired to maximize the return on the investment.

Employees are quite different from other assets because they can think and feel, possess multiple talents and have other employment options. Superintendents must consider what it takes to get the greatest return from this asset.

How superintendents maintain a fleet of mowers has a considerable impact on the return on the club’s investment. Similarly, how superintendents lead, supervise and manage employees has a significant impact on employee productivity and job satisfaction. Gaining significant return on employee productivity and job satisfaction starts with superintendents’ attitudes toward employees and permeates how they manage employees.

Here’s a story relating to the idea of employees as assets. Several years ago, after a presentation at a nursery and greenhouse conference, a gentleman named George approached me and asked to tell his story. He had worked for a small landscape business for 23 years. That day, looking back at the 23 years, he determined he was a terrible employee. He took all of his vacation and sick leave whether he was sick or not. He did the minimum. His justification at the time was that everyone did the same because the owner/manager provided no clarity or feedback. Then he found a job with another small landscape business. This owner/manager provided clear expectations, feedback, encouragement and support. This was the second time George had been encouraged to attend the conference. At the time, George said he worked hard, enjoyed what he was doing and believed he was an excellent employee.

George’s productivity and job satisfaction were dramatically different when working for the two similar businesses. What’s the difference? Obviously, George was older; however, few workers change their values, personality, motivation, etc., sufficiently to explain the difference, which, in this case, was the owner/manager. The first owner/manager did little to manage his asset, George, and received little in return. The second owner/manager worked to manage, supervise and coach George, and his efforts were rewarded with an excellent employee.

This story and the phrase “employees are assets not costs” reflect a significant change in recommended practices for supervising and coaching employees. I call the old approach that viewed employees as costs the control-focused school of supervision. I call the newer approach that has emanated from the quality movement and excellent research about supervision, the quality-focused school of supervision. The table on this page compares the two approaches.

<table>
<thead>
<tr>
<th>Employee</th>
<th>Control Focused</th>
<th>Quality Focused</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisors role</td>
<td>To tell the employee what to do</td>
<td>To ensure the employee succeeds</td>
</tr>
<tr>
<td>Core value</td>
<td>Based on compliance</td>
<td>Based on fairness</td>
</tr>
<tr>
<td>Supervisor activities</td>
<td>Training, directing, reprimanding, discharging</td>
<td>The control-focused four plus coaching, mentoring, encouraging, rewarding, empowering, redirecting and holding accountable</td>
</tr>
<tr>
<td>Informal name</td>
<td>Boss</td>
<td>Coach</td>
</tr>
</tbody>
</table>

Establishing the aforementioned three pillars in a golf course environment isn’t easy. Superintendents might need help like they do with other aspects of their job, such as turf management and equipment repair.
When you are maintaining the grounds for the championship, it's not a matter of life or death. It's more important than that.

Visit Gravely Turf, an Ariens Brand, at the Golf Industry Show in New Orleans, Booth #3939.
ROLL WITH IT

Rollers play an important role in a superintendent's ability to provide a consistent, well-groomed playing surface. There are many different types of rollers, but when are certain ones used, and how important is it they're consistent?

Using the correct roller on a greensmower is important to the overall presentation of a green. We typically use two roller types on greens: smooth and Wiehle/grooved. Typically, smooth rollers are used after aerification, verticutting or when greens are "puffy." They allow us to smooth out the surface while minimizing scalping.

We generally use grooved rollers when turf conditions are optimal and we're not aggressive with maintenance practices. A grooved roller affects how aggressive the cutting unit is and should be used only at certain times of the year. When purchasing new greensmowers, be sure to include these types of rollers.

There are a few other important factors when it comes to rollers. The first is bearings, which play a key part in the construction of a roller. When bearings are loose or have end-play, they affect the height of cut. Always check them for consistency.

Also, you want to make sure to maintain bearings properly. Always grease the rollers after washing cutting units to assist pushing the water that could enter the bearing away from it. Make sure to clean and grease the fittings before and after greasing them to ensure contaminants don't enter the bearings. Don't overgrease bearings because this will cause dreaded grease streaks on the turf.

Another factor is how much runout rollers have. In the photo below, you'll see an example of measuring a roller's runout. Most manufacturers have around a 0.014 tolerance on runout. Check with the manufacturer. Most of the time they're within that specification, but always check them upon receipt. If the roller isn't shipped to you within the manufacturer's spec, you can always replace it for a new one.

The picture below shows gauge blocks and a dial indicator being used to measure the runout by spinning the roller and recording the amount of difference on both ends. This is important when mowing greens below 0.140. The more differentiation in the roller the less consistent the green, which will result in slower green speeds and a mismatched cut. In some cases, rollers can be taken to a local machine shop and "trued up."

Finally, another important aspect of rollers comes when setting the height of cut. There are many schools of thought about setting the height of cut on a cutting unit, taking into account the runout of a roller. One method is to attach a height gauge to the cutting unit and spin the roller. Then set the height in the middle of the runout. A popular method is to set the height at the lowest point the roller travels. The reason for this is if the target height of cut is 0.110, the lowest the machine will cut at is 0.110. Setting the height in the middle of the runout will allow the cutting unit to drop below the target height and wouldn't give you the most consistent result.

Selecting rollers for fairways, rough and tees is a standard process. Normally, these cutting units are outfitted with grooved front rollers and solid back rollers. Because of the height of cut, you don't need to change these rollers unless you have lower heights of cut in which scalping becomes an issue. Some manufacturers offer spiral grooved rollers, which are more aggressive and typically used in rough mowing applications. These rollers work great at high heights of cut where you need to be aggressive.

Having the correct roller installed on a cutting unit is an important part of achieving the look you're after daily. If you're having scalping issues and using a grooved roller, switch to a solid one and see if it helps. Rollers are a huge part of any cutting unit, and having the correct one is half the battle.  

Gauge blocks and a dial indicator are used to measure runout by spinning a roller and recording the amount of difference on both ends. Photo: Stephen Tucker

Presented in partnership with Bernhard & Co.
The **EXPRESS DUAL** spin grinder is much faster than back-lapping with no messy cleanup. Fifteen minutes floor-to-floor for a reel grind makes lapping a thing of the past.

And everyone knows a freshly ground mower delivers a better cut to grass than lapped mowers. Instead of grass blades that are torn; you get a smooth, surgical cut resulting in greener, healthier turf.

Find out for yourself
Test Drive a Dual — 888 GRIND-IT
Flatlining

The golf market continues to remain stagnant in terms of supply and demand growth, as it has for the past several years. Given existing economic conditions, which have worsened during the past few months, there's little to no growth expected this year in the areas of golfers, rounds and facilities - and the potential for a downturn has increased.

For companies in almost every area of the market - manufacturing, retail, facilities, turf, media - it's a zero sum game because gains are offset by competitors' losses.

The charts on this page provide a glimpse of how equipment sales have performed for the past six years and how frequent golf participation has tracked during the past 20 years. The golf participation change from 2006 to 2007 is about 0.7 percent, which is an average of four percentages from different sources: the National Golf Foundation has the change at 0 percent, the National Sporting Goods Association has the change at -5.8 percent, Medimark Research & Intelligence has the change at -0.2 percent, and Simmons Market Research Bureau has the change at 3.1 percent.

Source: 2008 Golf Industry Overview, National Golf Foundation
Trinity® fungicide

You've got enough to worry about, so use Trinity® fungicide to control anthracnose, brown patch, take-all patch, summer patch and dollar spot, even during summer stress periods. Use it to suppress algae, too, which can lead to higher turf quality. Like the entire family of BASF fungicides, Trinity works. So don't worry. Everything will be a-ok.

betterturf.com | 800-545-9525

Always read and follow label directions. Trinity is a registered trademark of BASF. © 2008 BASF Corporation. All rights reserved.
Course Crafters is defying the odds in the depressed construction business by staying true to its roots in the renovation market.

At a time when conventional wisdom holds that the golf course construction market is in the tank, Bob Pinson admits, rather sheepishly, his company is having its best year ever and 2009 looks even better. His company, Course Crafters, found a niche—renovating existing courses—16 years ago and stuck with it. Now, with reconstruction, remodeling and restoration dominating the market, Pinson and his staff are reaping the rewards of years spent doing small projects well, building relationships with the right people and growing a reputation as a go-to contractor for an increasing number of high-profile jobs.

Pinson grew up on a family farm northeast of Atlanta. The son of a butcher and a stay-at-home mom who raised chickens, he toiled away in his dad's meat shop and in his mom's chicken coops and, consequently, was glad to get out of little Gainesville for a while and head to the University of Georgia to study physical education.

He quickly decided a career as a PE teacher wasn't for him—although his lifelong love of sports later led him into high school and college officiating— so he took a job out of school in distribution warehousing. After 10 years of that, his roots in farming drew him back to the land. This time, he was pushing dirt with a bulldozer instead of tilling and seeding cotton into it. Initially, he did grading work on subdivisions, roads and dams, but he came across a report from the USGA Green Section in the early 1990s that indicated there was a big demand for folks like him to handle smaller golf course construction projects in the Southeast. Thus, a golf course construction company was born.

A decade and a half and about 130 projects later, Pinson and his staff are in demand as facilities decide to lengthen, upgrade and improve their courses. He discusses the secret to his success, how to cure what ails the golf market and what he misses most about the early days of starting a course building company.

How did you enter the golf business?

I became interested in golf in the early '90s when I read a USGA report about how much superintendents did on their own. Renovation was booming, and there weren't many guys doing small jobs. The USGA said there was about $15 million in small jobs being done annually, and I figured if I could get a million or two of that, it'd be cool. I started calling on superintendents and, for the first five years, it was a tee here and a bunker job there.

I got to know architects such as Arthur Davis, John LaFoy, Tom Marzolf and Bob Cupp, and they gave me a few jobs. They took a chance on me, and the business grew. The first job on my own was at Peachtree Golf Club in Atlanta building a dam so they could have their own water source. I started hiring former superintendents who had construction experience. It helped, because we could talk to the client on
Despite the decline of the golf course construction market, Bob Pinson’s company, Course Crafters, is having its best year ever. Pinson is the elected president of the Golf Course Builders Association of America.

Photo: McNeese Fitzgerald Associates
Unfortunately your members might want to take their divots home, rather than replacing them. That's because Tartan® with StressGard™ manages stress and provides a difference that your members can actually see. Tartan also controls a broad spectrum of diseases, including dollar spot and brown patch, and offers a 21-day residual. Only Tartan with StressGard provides outstanding disease control while still maintaining a healthier and greener golf course. To learn how to be Backed by Bayer, log onto BackedbyBayer.com.
their level. We focused on renovation and, as a result, it’s been more than 90 percent of our work for more than 16 years.

I’m not as hands-on as I used to be, but the clients know exactly who to call when they have a problem. We have the best employees in the world. That reputation has given us a niche.

**Which projects are you most proud of?**

We’ve worked at more than 130 courses. Some of those jobs were just tees and bunkers, some were renovations, and a few were new construction. We did a big renovation at Southern Hills (in Tulsa, Okla.) that was tremendous. We also did a new course in Gallatin, Tenn., called Foxland Golf Course.

I’m proud of all of them. Obviously, I’m proud that we do quite a bit of work at Augusta National. People trust us with their golf courses. I can’t think of a course I can’t go back to and the people aren’t happy to see us.

**What have you learned about working with superintendents?**

Superintendents are cool guys who understand what the deal is. Many times when we go into a renovation, the members have strong feelings about the course. You have to spend a lot of time with that superintendent and help him answer the questions he’s getting bombarded with. You don’t want anybody to get fired. We try to support the superintendent because we understand what he’s going through.

I refereed high school football and college baseball for years. That experience helped me be the referee on these jobs. When things get touchy, that’s when I try to call everybody together in a huddle and make sure they know the rules. You have to speak up and say, “Look, no matter how well you sold this project, it’s not going to be perfect. Don’t blame the superintendent. He’s just doing the best he can.” That might be what I’m best at these days because the guys won’t let me run equipment anymore.

**Why do clients select your company instead of others? How do you set yourself apart?**

Look at our job list. We have a bunch of strong courses, and they’re willing to recommend us. The biggest strength we have is sitting down and telling them the black-and-white truth.

We’ve had to submit competitive bids on more stuff in the past few years than in the previous 10. The big guys who specialize in new course construction have fallen back into renovation because it’s remained strong. The architects also have gotten more competitive. They’ve started selling harder on these jobs as well, and part of that is price pressure. So, a lot more jobs involve less negotiation and more bid preparation. We’re not always the least expensive, but folks still hire us anyway because of the reputation we have. We still do quality work even if the margin gets lower. That’s important.
It's the way I was raised. You do what you say you're going to do even if you're losing money.

What was the biggest mistake you made when assessing a project and how did you fix it?
We're big enough to do one or two big jobs and about three smaller jobs a year. Years ago, you'd have work scheduled a year in advance solidly. Nowadays, it's a little different. During the past three or four years, we took some jobs that we shouldn't have. We priced them too low because we were concerned about keeping the pipeline full. But, with weather, choices about equipment, financing, etc., you just can't figure everything. No matter how badly you need the work, you still have to price it the same way. That's why we hate change orders. Why not price the job right when you know they're going to add a bunch of stuff later?

What are the strengths and weaknesses you encounter with on-site superintendents during a remodel?
Probably their ability when it comes to scheduling. Our expectations, given the construction level required for preparation, removal of irrigation heads, etc., need to be clearly agreed on in the schedule. We quiz them about what they want to check off — things such as drainage, fine grading, etc. A lot depends on whether they have that owner's rep job. If they want to check things, they have to do it on our schedule, not theirs. That's just the nature of the beast.

Who makes choices about materials?
If I'm going to guarantee the work, we're using my materials. If it's not spec'ed, I'll ask the superintendent who he wants to use. We want them to make those decisions because that guy's going to be there after we leave and will have to live with the consequences.

Will the golf construction market eventually rebound?
I've been scratching my head about that lately. We might have as good a year as we've ever had this year, and next year looks really good, too. I'm blessed. Most clubs aren't going to stop improving their courses. They have to compete or fix what's been done wrong previously.

What's your advice for a young person, or even a superintendent, who wants to get into the building business?
You have to be a different kind of person for this business … a nomad to some degree. Some of my guys have families, and some don't. It seems to work OK for most of the folks with families. It's a little easier because we're regional to some extent. Guys try to get home every two or three weeks, but, you're basically in a hotel for three to eight months. It gets monotonous. But, if you like playing in the dirt, there's nothing better than watching a piece of ground transform into a golf course.

Final thoughts?
I love what I do. It's the most fun job I've ever had. You're always worried about a dozer breaking down or making payroll or whatever, but I couldn't have chosen anything more satisfying than this. Until I figure out I can't do it anymore, I'm going to keep going. The only thing I miss is the equipment operation part — it's fun to be out there by yourself with no phone, no e-mail and the sound of those big engines in your ears, creating something special. GCI
Old Tom Morris, modern golf's Renaissance Man, is known for his aptitude in many areas of the game, including club making, design, greenkeeping and play. He's a four-time winner of the British Open and is said to have been an excellent teacher, as evidenced by his son's success. Young Tom, called the Tiger Woods of his time, won four Opens in a row before his early death at age 24.

Such versatility among professionals in the golf industry is rare these days because of the commercialization and specialization of the game. Nowadays, superintendents typically have bachelor's degrees in turfgrass studies and PGA professionals often have attended professional golf management programs.

The demanding nature of these specialized skill sets makes it notable that there are still some in the industry whose careers are a nod to Old Tom Morris' stake in maintenance and play. There are 29 superintendents who also hold PGA memberships, based on data from the GCSAA and the PGA. There are likely many more golf professionals who serve as superintendents but aren't members of the GCSAA.

The men who hold dual credentials typically downplay their roles as pro-superintendents, saying there are many owner-operators throughout the country who do it all, including maintenance, instruction and general management. Bruce Gregory is one of those men who says many people do what he does.

"I'm not a whole lot different than a lot of mom-and-pop operators," says Gregory, PGA, CGCS, at Liberty (Ind.) Country Club.

While many folks may serve in the roles Gregory does as a golf instructor and head of course maintenance, statistics show not a lot have gone to the lengths he has to earn the credentials in each field. There are only about 1,900 certified golf course superintendents out of about 9,000 GCSAA members.
Gregory is one of three CGCSs who also hold PGA memberships.

Mark Woodward, c.e.o. of the GCSAA, says people who take on the initiative to earn their associations’ credentials only make the industry better.

“Somebody who’s gone through the process to earn the credentials in both the PGA and GCSAA definitely has an interest in continuing education, and I would applaud them for that effort,” he says. “Neither is easy to do.”

SUPERINTENDENT FIRST

Gregory grew up working on a golf course in Indiana under the tutelage of pro-superintendent Jack Miller. While earning his two-year turf management certificate at Penn State, he started as a PGA apprentice. After graduating, he returned to his home course and served as the pro-superintendent for six years before moving to Liberty to be the golf professional. Ten years later, Liberty’s superintendent died unexpectedly. Gregory stepped in and has fulfilled both roles for the past 12 years. Five years ago, he became a certified superintendent.

“The joy of my job is there’s always something different going on,” he says.

Gregory describes his club as anything but an exclusive place, adding that his business card says director of hot dog sales. On the maintenance side, he manages a seasonal staff of three full-time and six part-time employees. On the golf professional side, he has an assistant who teaches and oversees the junior program. Gregory also manages the pro shop, concession stand and the club’s books.

“I act as the club manager, so my time is probably split 60/40 – 60 on the business end and 40 on the maintenance end,” he says.

No one required Gregory to earn his CGCS designation, so why did he? Credibility, he says. By the time he took over superintendent duties at Liberty, he needed to brush up on his maintenance knowledge, so he attended any turf seminar he could.

“Because I was a golf pro, I was looking for a little credibility I might not have had and still might not have,” he says. “I didn’t want them to think, ‘This guy’s spending all his time behind the counter and saying he’s a superintendent.’”

Other pro-superintendents settled into their dual roles by happenstance, too. Like Gregory, Mark Monahan, CGCS, PGA, at Paupack Hills Golf & Country Club in Greentown, Pa., worked on a golf course in high school and attended Penn State’s turfgrass program. He graduated in 1970 and worked as a superintendent for 13 years, earning his certification in 1977.

Turns out, he also could play, and it didn’t go unnoticed. One day he got a phone call from the president of Paupack Hills, asking him if he’d like the opportunity to run the facility’s entire golf program – as the superintendent and golf professional. He kept his amateur status for a year while running the pro shop before declaring professional and registering with the PGA program. Because he was a nonmember head professional, he earned only a half credit per month, so it took him three years to earn 36 credits and become a PGA member.

Day to day, Monahan splits his time almost equally between his pro-superintendent duties. “On the weekends I’ll be almost 100 percent a pro, and during the week, I’m about 70 percent a superintendent,” he says.

On the golf professional side, Monahan has two assistants and manages an additional staff of four people, including his wife who works in

Getting along

The golf course industry is fraught with stories of head-butting between superintendents and PGA professionals. Though many say such strained relationships aren’t as prevalent as they used to be, the tales are grounded in some truth because each staff member has his own agenda, and the two don’t always converge. But that’s definitely not the case at courses where the superintendents also are PGA professionals.

Brad Erickson, PGA, is the GCSAA Class A superintendent at Richland Country Club in Nashville, Tenn. Though he doesn’t have daily golf professional duties, he says maintaining his PGA membership has been a benefit in disguise in terms of his relationships with the golf professionals at his club.

“I understand what they’re going through, and I help them to see our issues,” he says, adding that his dual experience helps him come up with compromises that work for both departments. “We have a busy membership, so there’s the possibility for a strained relationship here, but I get more of the benefit of the doubt because they don’t see me as someone trying to do something behind their back. It’s not something we think about every day, but in the back of their minds, they know I’m a PGA pro just like them, so that adds some weight.”

Mark Monahan, CGCS, PGA, at Paupack Hills Golf & Country Club in Greentown, Pa., is ribbed frequently by his peers at GCSAA meetings.

“They ask how I get along with the pro, and tell them I get along great with him,” he says, laughing. Monahan has been the superintendent at Paupack Hills for 25 years and obtained his PGA membership in 1990, though he ran the pro shop from the beginning of his tenure at the facility.

“The relationship between pros and superintendents used to be worse than it is now,” he says.

“People are finding they have to work together.”

In addition to avoiding potential workplace friction, being the pro-superintendent sometimes has its side benefits. One of them is receiving compliments that otherwise would have gone unheard.

“All the members know I’m both the pro and the superintendent, but once in a while I’ll meet a guest who will say something nice about the course and say, ‘You must have a great superintendent,’” Monahan says. “I say, ‘Yeah, he’s really great.’”
Great turf is built on tradition.

We know how important beautiful turf conditions are to the game. For the past 53 years, we've owned and operated our own golf course. It's that hands-on experience that has taught us just how much energy, knowledge and passion superintendents put in to turf to keep it looking better... and playing better. Maybe that's why all of us here at Cleary are uncommonly committed to working with you to keep your turf looking and playing at its best.

Cleary - your partner in product research and formulation.

Since 1937, we've been listening to the ideas and suggestions of superintendents to help us develop our line of exceptional turf products. Backed by our 70 year tradition of excellence in product research, innovative formulation, rigorous testing and field support, Cleary products have become the disease control solutions you can count on - day in and day out.
Cleary has always been and will remain an excellent resource for superintendents. More than a supplier of superior turf products, we’re your long-term partner in creating turf conditions that will make any golfer’s day. For more information about our products, contact your local distributor or visit www.clearychemical.com.

Make it a Cleary Day.

Cleary has always been and will remain an excellent resource for superintendents. More than a supplier of superior turf products, we’re your long-term partner in creating turf conditions that will make any golfer’s day. For more information about our products, contact your local distributor or visit www.clearychemical.com.
No other institution knows the business of golf as well as First National. For decades, the First National team has been working directly with golf course owners. We’ve weathered the storms of the industry and have seen other lenders come and go. We’ve been here, and we plan to stay: continuing our support of course owners.

Contact us to discuss your financing needs:
Call: 908-604-4700
Email: golf@firstna.com
Visit: www.firstna.com
Though Erickson isn’t itching to take on any golf pro duties, he maintains his PGA membership because he believes it allows him to see the course as a golfer does.

“I’m not interested in teaching, but it’s important to the operation, how we’re perceived by membership and how we can relate that to the course,” he says.

Erickson’s dual experience has laid the groundwork for higher management roles in the future.

“It shows I’m proficient in not just growing grass, but the other departments,” he says. “It helps me look at the operation as more of a business, and that helps if I’d like to take a step in a different direction and have more flexibility in my career.”

**BIGGER AND BETTER**

Allen Parkes, PGA, CGCS, at Traditions at Chevy Chase in Wheeling, Ill., agrees that maintaining both designations helps one’s resume stand out. Parkes, another graduate of Ferris State’s professional golf management program, has been a PGA professional for 18 years and a member of the GCSAA for 12, seven as a CGCS.

“As industry professionals, we’re all products,” he says. “The dual certification differentiates me from all the other brands on the shelf. With 20,000-plus PGA professionals and just as many superintendents, anything a person can do to differentiate themselves can only be positive.”

Ray Shane, PGA, and a Class A member of the GCSAA, is an example of someone whose experience as a superintendent and PGA pro has led to a greater management position. He’s the golf program supervisor for the city of Madison, Wis., which operates four golf facilities. Shane estimates that 80 percent of his job entails managing maintenance operations and the remainder is overseeing clubhouse operations, including four PGA professionals.

Before entering his current position 19 years ago, he served as the pro-superintendent at Portage (Wis.) Country Club for 12 years. At first he was only the golf professional, but the facility’s board appointed him the interim superintendent after theirs quit.

“Long story short, they liked the job I did and never got a replacement,” he says. “I’d get the maintenance crew going in the morning, and by 11:00, I’d end my maintenance duties, take a shower and be the golf pro until five or six at night.”

Shane credits both experiences as the reason he has his current job.

“If I didn’t have all the experiences from the pro side and the superintendent side, I probably wouldn’t have been considered for the position I hold,” he says.

Shane, like the others, loves being privy to both sides of the industry.

“I’ve had a great time and learned an awful lot,” he says. “It’s a whole new perspective for everyone in turf. I would love to have every golf course superintendent work in a pro shop for a month and vice versa – have every pro mow greens and change cups. Until you work on the other side, you have no idea what it takes.”

You could bet Old Tom Morris would agree.
Imagine growing up without golf. No courses, no magazines, no TV programs. Imagine living under an oppressive government in the old Soviet Union. Imagine what it's like to build the first golf course in your home country. Meet someone who did: Maris Gulans.

Gulans is managing director of Riga, Latvia-based Modo Riga, a construction company founded in 1993 that builds golf courses, among other nongolf projects. A young company, it has fewer than 10 courses in its portfolio. Gulans has been traveling the United States for the past few years to learn more about golf course construction, develop contacts in the business and network. A GCBAA member, Gulans attends the association's summer meeting, as well as the Golf Industry Show, with his project managers every year.

"We're educating ourselves," he says. "There's a lot of information and many contacts here. There's no doubt America is the leader in the golf industry."

Because the golf industry in Eastern Europe isn't as advanced as in the U.S., Modo Riga uses American shapers. Gulans has his own shapers, too, but with certain courses, especially ones with big-name professional golfers attached to them, Europeans, in general, use American shapers.
Throughout the history of the turf management industry, professionals who develop innovations in equipment, products and methods have eagerly handed down their wisdom and experience to the next generation. That's why SePRO Corporation is proud to establish its legacy in the form of the latest advancement in turf growth regulation.

The Legacy has been passed on

New Legacy Turf Growth Regulator incorporates patented synergistic growth regulation technology resulting from its dual sites of action and absorption. No other product can match Legacy's combination of enhanced growth suppression, extended spray intervals, improved turfgrass color and quality, suppression of Poa annua and more uniform growth regulation on mixed turfgrass stands. The next generation of turf growth regulators is here in the form of an innovation that will be passed down for years to come.

Make it a part of your golf course's tradition by visiting www.sepro.com or calling 1-800-419-7779 to learn more about Legacy or any of SePRO's products, services and technologies.

The Next Generation of Turf Growth Regulation Technology

*Trademark of SePRO Corporation. Always read and follow label directions. Legacy is pending registration in some states. The synergy derived from the combination of Type IIA and Type IIB PGRs is covered under U.S. Patent No. 7,135,435. ©Copyright 2008 SePRO Corporation.

www.golfcourseindustry.com/readerservice #25
“My guys do most of the mass grading, but all the detail and finish work on bunkers and edges is coming from American shapers,” Gulans says. “All the new technologies, such as the SubAir Systems, are coming from the United States. If you’re not visiting the U.S., you’re not getting this new information. Knowing about new technologies has been a help for me to get my next jobs because I can explain these new technologies to owners.”

Gulans says the irrigation systems installed and seed grown on golf courses in the Baltic States and Russia come from the U.S. There’s some blending of local grass, but the main product is bought in America. There aren’t many educated greenkeepers in the Baltic States and Russia, either.

“The better grow-in guys are American,” he says.

Modo Riga, which built the Ozo Golf Club in Latvia, hired an American to work with the local crew and train a local guy about growing in and maintaining a golf course.

“There are a lot of people in the Baltic States who don’t know what golf means,” Gulans says. “Maybe now they understand, but when we started in 1993, they knew nothing. There’s no manager who can run a clubhouse and no pro who can teach the people to golf. We import these people temporarily.”

Teaching professionals and managers also come from England and Sweden.

UPBRINGING
Gulans was born in 1961 in Ilukste, Latvia, which was part of the Soviet Union.

“We were one big red country, and there was absolutely no golf in the country because of the politics,” he says. “The belief was that golf was for very rich people, and it didn’t mesh well with society because workers were running the country. There was not one golf course and not much information about golf.”

At that time, the Soviet Union had 15 republics, three of those were the Baltic-state republics – Latvia, Estonia and Lithuania. In 1961, the Soviet and communist roots in Latvia were deep.

“My grandparents were farmers, and they remember what it meant to have a private business,” Gulans says. “But when I grew up, private companies weren’t allowed in the country. There were just government companies, and everyone had to work for the government.”

Gulans went to Riga Polytechnical Institute (Riga Technical University since 1990) at age 18 and earned a degree in architecture and civil engineering, graduating in five years as a civil/building engineer. Because he was interested in sports, Gulans read about the game of golf in a magazine sent to him by his uncle, who owned a business in Germany. The idea, though still illegal, struck his imagination.

In the late 1980s, Mikhail Gorbachev opened Russia to private businesses and Gulans’ dream was suddenly possible.

“I was just 24 years old at the time, just after attending the university,” he says. “I immediately said, ‘Oh man! Now’s the time to build a golf course.’ But we had no idea how to build one, so we contacted some Germans for ideas. We understood it was impossible for us because...
of the money required to build one. Building a
golf course is a big investment, but we wanted
to do it because it was the first time a golf course
was allowed to be built in the Soviet Union."

Unable to fund the construction of a golf
course, Gulans began building miniature golf
facilities, which turned out to be a profitable
venture.

“We built one in Latvia, and then it became
popular,” he says. “People were playing, and we
started getting more offers to build miniature
golf courses. It was a good business, but I was
still trying to acquire information about build-
ning a regular golf course. We couldn’t make big
money by just producing miniature golf courses,
so we started doing other constructions jobs.”

ON THE RISE

In 1991, Latvia secured its independence from
the Soviet Union and set up its own government.
By then, Modo Riga was renovating buildings.
Still, Gulans had his sights set on golf. In 1995,
the company’s first international client invited
Gulans and his associates to London to spend
Christmas together.

“That was the first time I saw how a real golf
course looked, what the meaning of a driving
range was and how to set up a clubhouse,” he
says. “I took my first golf lesson, and I liked it.”

Shortly after, in 1996, the first golf course in
Russia opened – The Moscow City Club. While
the facility was being built, Gulans visited the
site to see how the course construction was
coming along. In 1997, Modo Riga participated
as an advisor/consultant at the first nine-hole
golf course project, Viesturi, in Latvia. It was a
small-budget project. After that, the scope of the
company’s projects widened.

“Our first big job was in Latvia in 2000,” Gu-
lan says. “We worked with American architect
Rob Swedberg and owner Sandis Ozolinsh, an
ice hockey player. He was the first owner who
built a nice semiprivate 18-hole golf course in
Riga.”

Modo Riga finished the Ozo Golf Club in
2002. During the project, Swedberg introduced
Gulans to the reality of how a golf course was
constructed – the drainage, an irrigation system
with more than a thousand sprinkler heads,
growing and maintaining grass, and maintain-
ing equipment.

“It was a successful project,” Gulans says. “We
built a clubhouse, maintenance building, roads
and everything. The total budget, including the
clubhouse, was $5 million, and we finished at
$4.8 million.”

When Gulans visited Swedberg in the U.S. in
2001, he attended the Golf Industry Show and
its related seminars.

“It was interesting, and I haven’t missed one
industry show since,” he says.

The next course Modo Riga built was in Es-
tonia – the 27-hole Estonia Golf and Country
Club. Estonia’s owner had visited the Ozo Golf
Club and liked what he saw, so he called Gulans
to build Estonia.

“We finished the project and made a profit,”
he says. “We started buying construction
machines and dozers. Since 2002, I started
running just the golf construction side of Modo
Riga.”

After Estonia, Gulans built the Saliena Golf
Club in Jurmala, Latvia, which took two years,
for Swedish owners. Then Modo Riga worked
on the Nick Faldo International Golf Club in
Moscow. From there Gulans went to work in
Lithuania with Canadian architect Les Farber.

Gulans is currently working on that project,
though it’s been halted temporarily. Modo Riga
has completed nine holes – 27 holes are planned
along with real estate (123 houses) surrounding
the course.

“It’s the first golf project with real estate in
Lithuania,” he says. “The owners are trying to
sell part of the shares or maybe the whole project
to different investors.”

Modo Riga also is working on a Greg Norman
project in St. Petersburg, Russia. Gulans says the
company has grown to 60 employees, which al-
lows it to work on three projects at a time.

“My job is to be out in the market all the
time to see what’s happening,” he says. “I know
everything that’s happening in the Baltic States.
There are a lot of projects on paper. But the real
estate market has declined, so investors aren’t
going to be risky at this time, so they’re just
waiting to see what’s going to happen. We’re
registered in Russia, and we’re watching what’s
happening there, too.”

In this market, Modo Riga competes with
German and Swedish construction companies,
Gulans says.

HUGE POTENTIAL

Gulans says there’s plenty of opportunity for
him in underdeveloped Russia and the Baltic
States to build golf courses. He says most of the
development potential is in Russia by the Black

---

REALITY

Tourney Fungicide controls the "Big 3" diseases:
• brown patch
• anthracnose
• dollar spot
• plus others

---

www.golfcourseindustry.com/readerservice - #27
Eastern Europe and Russia present growth opportunities for course development, Gulans says. Photo: Modo Riga

Sea because golf can be played year round there, there are no golf courses and land is available. However, there are politics and rules to abide by, which can make development difficult.

Owners aren’t taking many risks because the real-estate market declined this summer, Gulans says. In Latvia, real estate prices declined about 54 percent in some segments.

“It’s not the time to make a big investment in golf and real estate,” he says. “Even so, there are four or five projects in the pipeline that haven’t been started yet.”

Despite the sluggish real estate market, Gulans sees a bright future for golf course development in Scandinavia, Eastern Europe and Russia.

“There has to be,” he says, citing the following statistics:

- Around Stockholm, Sweden, the population is more than 1.5 million, and there are more than 50 golf courses.
- Around Copenhagen, Denmark, there are 30 golf courses.
- Around Helsinki, Finland, there are 16 golf courses.
- Riga’s population is about 1 million, and there are only three golf courses.
- In Lithuania, with a population of more than 3 million people, there are just two golf courses.
- In Estonia, with a population of more than 1 million, there are three golf courses.
- There are 16 million people in Moscow, and there are three golf courses open.
- In St. Petersburg, with a population of 4 million, there are no golf courses, but one is being built.
- In southern Russia, in Sochi, which will host the 2014 Winter Olympics, there are no golf courses.

In addition to opportunities in Scandinavia and the Baltic region, the potential in Russia is huge.

“With a population more than 140 million, there are only three golf courses open,” Gulans says. SCI

---

**Early Bird** Special

Order Now & Save!

- Customer orders of $750 retail or more received After Nov. 1, 2008 and Before Jan. 19, 2009 will receive a 15% discount on all JRM products, including DURANUM 801 beeknives.
- Save more by ordering early for the spring season.
- Call JRM for Details.

**MERIDIAN**

800-437-2334

www.meridianmg.com

**SANDSTOR™**

The Only Solution For Storing Top Dressing Sand

**MERIDIAN**

800-437-2334

www.meridianmg.com

www.golfcourseindustry.com/readerservice - #28

www.golfcourseindustry.com/readerservice - #29
Embrace change.

COMING SOON – FUNGUS CONTROL THAT MAKES YOUR BEST PRACTICES EVEN BETTER.

Protect your turf against major fungal diseases like dollar spot while reducing the safety and environmental headaches that come with chemical fungicides. Introducing a new direction in fungus control that’s virtually non-toxic to the environment and just as effective as the leading competitor. All at a reduced risk to workers and golfers. Make your best practices even better.

Sign up for a FREE Webinar coming November 2008.

www.agreenercourse.com

Based on the results of the health and safety tests:
OECD 401, 402, 403, 404, 405, 406, 203 and 301B.
No worries
Superintendents need to have a detailed plan in place to cover all bases in case of a crisis

By Steve and Suz Trusty

When it comes to crisis management, superintendents should be prepared, plan for the worst and hope it never happens. All businesses, including independently or municipally owned golf courses, should have a crisis plan in place. It should be broad-based, covering everything from financial crises to clubhouse incidents to on-course situations.

"If your course doesn’t have a crisis plan, consider hiring a firm to develop the plan and train your employees to follow up on it," says Harvey Englander, president of Englander & Associates, a California-based public relations agency.

Targeted sections of a master crisis plan then can be pulled together into a more concise format to issue to key groups within a facility. For superintendents and their crews, a plan should provide detailed actions, covering all potential crisis situations:

- Relatively minor detrimental changes in course playing conditions
- Natural disasters
- Semi-man-made natural disasters such as wild fires
- Water usage
- Environmental issues
- Property damage
- Personal injury
- Death.

THE BIG PICTURE
Managers should consider the full scope of an organization when setting up a crisis management system. Ronald Luepke, golf course superintendent based at Charleston Springs Golf Course in Millstone, N.J., oversees three of seven 18-hole, public courses located at six different facilities within the 27 parks of the Monmouth County Park System. As a relatively large organization serving a large part of the general public, a crisis management plan is extremely important for Monmouth County.

“We’re cognizant of how many visitors we put through these areas and have tried to anticipate all the things that could happen,” Luepke says. “We’ve developed a detailed, step-by-step, park panic plan for handling these situations, covering everything from roadside safety to first aid.”

The plan is printed out and compiled in a...
binder that also contains the contact information of all supervisory employees. The binders are placed in an easily accessible spot at all facilities, and all employees know where they’re kept, Luepke says.

“We also conduct extensive training for all our employees in these multiple situations each year, so that even if it’s the first time an incident occurs, they’re so familiar with the proper procedures they feel like they’ve handled it before,” he says.

**DAMAGE CONTROL**

Crisis management includes communicating with various constituencies to get the superintendent’s story out, gain control, provide assurance and eliminate any long-term repercussions.

“You can’t be afraid of the facts or try to hide or minimize the situation,” Englander says. “You have to tell people what you know and be honest about saying what you don’t.”

Craig Felton, superintendent at Oak Hills Country Club in San Antonio, suggests superintendents build their communication network in advance so they’re well prepared for a crisis.

“Our current green chair and I talk three or four days a week,” Felton says. “Usually, it’s a quick phone call just checking in. Every week or two, we’ll take the golf cart around the course looking at things together. He’s comfortable with the level of communication, and because of that, the information flow works smoothly.”

The more avenues superintendents pursue with communication the more people they’re going to reach. They should have a plan in place to use all venues, post the information and hope for the best.

“You can ensure the information reaches everyone, but you can’t make someone take in that information,” Felton says. “It’s just human nature for people to pay attention to the things they want to and ignore the rest. So unless there’s a bad crisis, they tend to miss more than they absorb.”

A set procedure for disseminating information that’s followed consistently helps prevent missed messages. Felton posts detailed information on two easels – one at the entrance to the club and one in the golf shop. For a renovation project, for example, a notice would explain what the crew is going to do, what part of the course will be affected, when the work will take place, what to expect during the process and when it’s completed.

“We also include the information in advance in our newsletter, in the report from the green committee and on my golf course update board,” Felton says.

For significant projects, such as a recent 10-week stint rebuilding all 63 bunkers, the green committee chair will send a letter to the membership. If the issue is dramatic, Felton will put the information on letterhead and place it on the golf shop counter so everyone who checks in will be exposed to it.

The Monmouth County Park System uses a similar system, posting notices in the pro shop, by the front door and on the counter where golfers can see them when they check in. Serious situations, such as a methane gas leak on a course built over an old landfill or an injured golfer or employee, require a greater outreach.

“You’ll need to communicate your golf course is safe to the core constituency so golfers, employees and neighbors are assured they’re not in danger of an explosion,” Englander says about the gas leak example. “You’ll also need to communicate with the appropriate government officials who are going to be concerned about the situation.”

Additionally, superintendents shouldn’t view the media as their enemies. They should be transparent with them, using them as a venue to spread messages.

“Consider establishing a relationship with a public relations firm to handle the major issues, preferably the firm that developed the plan and trained your employees,” Englander says. “Keep them on retainer or negotiate alternate payment methods, such as reduced golf or a membership.”

Englander recommends taking a creative approach to back up an assertion of safety in a situation such as a methane gas leak. One option is to hold a charitable golf tournament in conjunction with a nonprofit association well known in the community.

“You’ll create good will and subtly deliver the message that if these key people play your course it must be safe,” he says. “Whenever possible, use a crisis as an opportunity to improve the situation and communicate those improvements, too.”

**WORKING THE PLAN**

Crisis can be categorized in two groups: expect ed problems that are agronomically related and often can be avoided if a superintendent is on top of his game, and unexpected problems he can’t control, such as vandalism or natural disasters.

Crisis related to a natural disaster are probably the easiest to communicate because everyone knows it occurred. People see the immediate impact of floods or wind storms in a larger area, so they understand damage at the course.

“But the effects of a severe drought are more difficult to communicate,” Felton says. “If there are one or two decent rain events, they expect conditions to be back to normal.”

Even more difficult to communicate are those agronomic situations that change conditions. An issue that might affect Oak Hills is the transition from Poa trivialis to bermudagrass on seeded greens.

“Generally, we’ll hit 90 degrees in early April, so the transition gradually takes place in early spring and makes little impact,” Felton says. “In 2007, we didn’t hit 90 until June and the Poa trivialis lingered until then. That year, the transition took place later and was much quicker. The members knew the greens looked and played differently all of a sudden, but they didn’t know why. That’s when it’s vital to use all communication avenues to keep them informed.”

Some agronomic situations require extensive renovation and need an ongoing flow of information. Luepke had problems with one of Monmouth County’s greens the second year after construction of a new course.

“I should’ve known there was too much shade to grow grass successfully, but I’d opted to push the window in favor of the aesthetics during the design and construction process,” he says. “I had to be brutally honest, first with myself in acknowledging the situation, and then in bringing it to my supervisor. I explained the problem, took responsibility for why it had...
CRISIS MANAGEMENT

happened and presented the solution, removing about 26 more trees to get additional light and air movement to the green.”

Because Luepke had been honest and upfront, the park system accepted what he said and allowed him to proceed with the project. He used the park system’s standard communication channels to alert the golfers and continually updated the information.

“Our proactive approach eliminated negative feedback because the majority of the players were more interested in better turf conditions on the green,” he says. “That was seven years ago, and we’ve had no further problems with the green. In retrospect, I’d have opted for playability over aesthetics, removing those trees during construction.”

For unexpected crises, quick reaction is essential. Luepke recounts a vandalism incident with the trail of destruction starting in the bentgrass nursery near the maintenance facility. Vandals destroyed a weather station, then proceeded to the nearest hole where they demolished a water cooler stand, ball washer and tee marker. They broke the flagstick at the next tee and put graffiti on the 15th green. Luepke’s crew called him when they pulled in and spotted the damage.

“When I arrived, we assessed the damage and called the police,” he says.

Footprints in the dew led them to the culprits who confessed, and court-ordered restitution was paid. Luepke’s crew set up a temporary water cooler, cleaned up and repaired on the green immediately after the police collected the evidence they needed. They posted notices explaining the situation and stayed open for play. Damage repair in out-of-play areas was worked into the crew’s schedule.

CRISIS CASE STUDY: GREENS PROBLEMS

Media focus can put crisis situations in the spotlight. Such was the case for Ralph Kepple, CGCS, at East Lake Golf Club in Atlanta. As the facility prepared to host the FedEx Cup Tour Championship Sept. 13 to 16, 2007, problems with the greens were documented and analyzed worldwide.

Heat-related problems were anticipated because the event was moved from late October/early November to September. For eight straight days, the club experienced temperatures warmer than 100 degrees and temperatures in the upper 70s to low 80s at night. The weather produced high soil temperatures that affected the bentgrass negatively. To make matters worse, golfers wanted to play the course before the tournament.

Kepple monitored conditions closely, but the heat limited his treatment options.

“Even hitting every green at no less than 30-minute intervals with a quick syringe produced minimal results because the water from our irrigation pond was so warm,” he says.

Kepple met with Cal Roth of the PGA Tour and the club’s general manager to discuss alternatives. One decision was to halt play two weeks before the tournament.

“We brought in a truckload of ice to soak the greens with all night,” Kepple says. “About three hours into that process, a big thunderstorm with cool rain hit, accomplishing much more than we could have.”

Early the next week, the daytime temperatures dropped into the low to mid-90s, though nights were still in the mid-70s.

On Sunday, Sept. 9, the final day of the BMW Championship, the PGA Tour put a letter in all the players’ lockers stating the greens at East Lake were damaged and they wouldn’t be allowed on them during practice rounds. Many players became upset and made comments that quickly spread through the media and were embellished through the process.

That weekend the heat spell broke, and things turned around quickly.

“Six- to eight-foot sections around the edges of the four worst greens were completely dead,” Kepple says. “We harvested collar-height bermudagrass from another part of the course to create a wide collar on three of the greens. On the fourth, we resodded the section with bentgrass harvested from our sod nursery. Both methods worked well.”

Players started arriving Monday, Sept. 10, and by then, they could play on all but three of the worst greens. Conditions were so much better than they had expected. In the meantime, Kepple sought the media.

“I was able to explain what happened, why it happened and what we had done, correcting some of the inaccuracies that were circulating,” he says. “Had I been able to connect with a couple people from the Golf Channel on Monday, it would have reduced the negative coverage.”

By the start of the tournament, the greens weren’t a factor.

“The damage to the root system left us with soft greens, but they putted true,” Kepple says. “Though the ball bounced as it rolled, it held the line. The greens were much slower than we had planned, but still adequate. The players were able to dial in the difference.”

For Kepple, the dilemma was determining the critical communication point. During the PGA Tour’s visit in July, the agronomist noted the greens were the best they’d ever been. But the heat changed that, and though breaks in the temperature were predicted week after week, they failed to occur.

“In retrospect, I’d have communicated with my general manager earlier, when I saw there was a possibility of a problem,” Kepple says. “We could’ve discussed solution alternatives and maybe limited the play sooner. Because he didn’t know what was occurring, there was no opportunity for him to help.” GCI
The quality of your turf is a big reflection on you. So it's no wonder you're obsessed with great-looking greens. Get the professional, perfectly groomed appearance you demand with Tournament-Ready® soil surfactant. Your greens will look great ... and so will you.

Get ready for healthier looking turf without unsightly dry spot.

The quality of your turf is a big reflection on you. So it's no wonder you're obsessed with great-looking greens. Get the professional, perfectly groomed appearance you demand with Tournament-Ready® soil surfactant. Your greens will look great ... and so will you.
Mitigating Mother Nature

The right strategies make for successful EROSION control  By John Torsiello

Water is the lifeblood of a golf course. It nurtures turfgrass and, when managed properly, helps create a lush, green playground that makes those who maintain it smile with pride.

But water from rain storms and snow melt can be a destructive force, wreaking havoc on fairways, greens, tee boxes and rough, as it rushes down slopes and rises out of lowland areas and streambeds.

That's why architects, builders and owners spend so much time, energy and money developing viable and long-lasting erosion control plans.

Not only is erosion control a must to avoid costly cleanups, reseeding and even regrading, it helps protect wetlands and groundwater supplies from sediment from erosion, especially during the construction phase of golf course development.

"There's so much focus on the environment and its protection nowadays that anything you can do to create a more sensitive golf course is worth doing," says Jason Straka, a course designer with Hurdzan-Fry Golf Course Design in Columbus, Ohio.

Managing stormwater and irrigation drainage is an important component of any golf course design.

“You want to get the water off the surface efficiently,” says Steve Forrest, a partner with Arthur Hills/Steve Forrest and Associates in Toledo, Ohio. “When you’re talking about stormwater, the first approach is to make sure the water is moving over the site and that it doesn’t sit there and kill the grass.

“With any kind of surface slope, you always strive for a 3-percent minimum grade,” he adds. “You get the water into the ground through drainage culverts and pipes as quick as possible. The more inlets you have, the more drainage and less erosion you will encounter.”

DEGREES OF DIFFICULTY
Managing stormwater runoff is related directly to the topography of a course.

“I’d say 90 percent of courses built need some erosion control,” Forrest says. “If you’re in a desert, where the course receives minimal rainfall and the filtration rate is so high, you don’t need to worry about it much.”

Golf courses built on flat terrain with soils conducive to quick drainage (i.e., soil that’s heavy with clay and loam) demand the usual attention to drainage. But courses that wind up and down slopes, are located close to environmentally sensitive areas and have sandy soil can be challenging.

“You can have a rain event occur over the same slope on sandy and heavy clay soil, and the erosion on the sandy soil will be 4-feet deep, and the erosion on the clay soil will be 8-inches deep,” says Paul Clute, a semiretired golf course builder.
Searching For A Cost-Effective Solution To Control Dollar Spot?

Problem: Dollar Spot

Dollar Spot n. - The fungus Sclerotinia homoeocarpa ("Dollar Spot") commonly attacks low-cut creeping bentgrass. It thrives in damp clippings or moist, cool soil.

Symptoms:
Fast-spreading Dollar Spot begins as small discolorations. Grass blades bleach, forming dead patches on turfgrass surfaces. Spreading infection causes ugly, tan-colored spots 2-3" wide (silver dollar size).

1. Many small, round dead patches
2. Hourglass-shaped lesions
3. Cobwebby white mold
4. Damaged putting greens

Solution: Kestrel® MEX

Kestrel® MEX is a broad spectrum fungicide ideally suited for control of Dollar Spot and more than 20 other troublesome turf diseases. Based on a unique, value-added formulation of the proven ingredient propiconazole, Kestrel MEX is one of Phoenix's new NexGen products, a line of enhanced, post-patent pesticides that comprises the highest-quality, top-performing formulations. Kestrel MEX can be tank mixed with a variety of other fungicides and insecticides and is also available in a BATPak®, Phoenix's convenient, returnable packaging concept.
Another method of controlling water’s speed is designing natural areas into the course and revegetating areas off the normal route of play once work is complete. “Natural areas seem to be more acceptable to American golfers now,” Clute says. “High, natural grass and shrubbery in areas with severe slopes are extremely helpful to slow water down until it reaches a level area.”

Soil type is one of the two biggest factors related to erosion. The other is the speed at which water moves over the ground. “You must control the speed of the water, and you do that by dispersing the energy,” Clute says. “You design areas on the course with severe slopes to allow the water to run at a consistent pitch and then, as the water goes faster and faster, drop it down vertically to a rocky area, a stream bed, a drainage canal or a piping system.”

Including the superintendent in erosion control planning and implementation is crucial to long-term viability of the work, Forrest says. “You always want the superintendent in on the matter and encourage his or her participation,” he says. “We want to make sure the superintendent understands what the regulatory agency is trying to accomplish and understand how it’s to be handled and the philosophy behind it all.” Straka likes to have a superintendent involved in the entire erosion control process. “I’ll test upstream if there’s water coming into or by the course because I want to know what nutrients and sediments the course might be subjected to during construction and after,” he says. “That way, the superintendent can have as much information as possible to help him control any situation.”

There are some superintendents Clute has talked to who believe erosion control should be part of a regular maintenance budget.

As with difficulty, erosion control costs range widely and typically depending on a site’s conditions. Courses built on steep or sloping terrain or around sensitive natural environments can add $1 million to $2 million to the overall price tag of a project, Forrest says.
“Erosion control always has its own line item and, particularly when sodding large amounts of a course to get grass in quickly to prevent damage from storms, you can add a couple million dollars to the project’s overall cost.”

Environmental guidelines concerning stormwater discharge must be met, or builders and owners run the risk of incurring fines.

“We were closely scrutinized by the state concerning runoff into the wetlands on our course,” says Will Heintz, superintendent at Pound Ridge Golf Club in New York, which opened in July. “You have to have the right frame of mind when dealing with the government regulations and not have an arrogant attitude. If you don’t do things the way they want, they can shut you down and slap you with fines of $25,000 or $30,000 a day for not being compliant.”

Not only does noncompliance to wetland protection regulations hit a developer and/or builder in the wallet, it doesn’t help a course’s image as being a good neighbor to surrounding property owners and the community. That’s why architects, builders, superintendents and course owners say proper planning and use of best management practices is vital when developing a sound erosion control plan that reduces the risk of adverse environmental conditions. Plus, use of erosion control products during and after construction can prevent costly erosion-related repairs down the road.

Although cumbersome and time consuming, state and federal environmental regulations are merely part of the cost of conducting business.

“Working with the regulatory agents or agencies, a civil engineer, and wetland and environmental consultants is all part of the deal,” Forrest says. “You establish what needs to be done up front and move in the proper sequence so you don’t undo what you’re trying to accomplish when preserving and protecting environmentally sensitive areas.”

That often means developing small parcels of property before moving on to the next area. Forrest is working on a project in Maryland where the team can work on only 20 acres at a time because the county doesn’t want to expose any more ground to the possibility of erosion at one time.

“It affects the planning and construction schedule,” he says. “You might be building a green in that 20-acre section, but it’s affected by an irrigation line that might have to come in from an area outside the parcel. It gets tricky sometimes.”

ESTABLISHING TURF

An important aspect of successful erosion control is the design of a drainage system that can handle large rain events with minimal disturbance to the golf course. It’s also vital for builders to establish grass in a dense and uniform manner as quickly as possible to hold valuable topsoil in

America’s #1 Lake and Pond Cleaning Service

With our nationwide service U.S. Aqua Vac Inc. continues to clean golf course lakes and ponds all across the nation.

We will remove the muck and sludge from your lake, pond, or any other waterway restoring it to its natural, clean bottom again.

Our cleaning will enhance the water quality, unclog intake pipes and springs, reduce odors, and save you money!

Winner of environmental friendly awards across the U.S.A.

866-989-MUCK (6825)

www.usaquavac.com

www.golfcourseindustry.com/readerservice - #33
Hit crabgrass where it counts.

Score extra points when you use new Echelon™ herbicide to control crabgrass on your course. Echelon will knock out preemergent crabgrass as well as postemergent crabgrass – up to four leaf. It is the only dual-action herbicide in the game that not only controls crabgrass, but also controls tough sedges and other stubborn weeds like goosegrass in the same preemergent shot. That’s a win for your budget, and for your time.

Score more information about Echelon at www.fmcprosolutions.com. Or contact your local FMC sales representative or your local authorized FMC Sales Agent.

Echelon. Expect More.
pockets, opt for sodding large parts of the golf course, an ideal method for establishing thick grass quickly, especially on rough areas around raised greens, around bunkers and on areas off fairways with severe slopes. Laying down sod was the choice for the developers of Bull’s Bridge Golf Club, a 4-year-old layout in the hill country of Kent in northwest Connecticut that has an elevation change of 400 feet through the course.

“We sodded roughly 60 acres for erosion control, and it worked out wonderfully,” says Rob Giampietro, superintendent at Bull’s Bridge. “When you compare sodding to hydroseeding, it cost about 50 percent more. But you get quick results and immediate erosion protection. When there was discussion of installing a practice range, I recommended sod. We brought in 24 truck loads and sodded six acres in early May two years ago, and we were able to use it a few weeks later.”

DURING CONSTRUCTION
To prevent erosion during construction, builders incorporate drainage or silt ponds that act as catch basins for stormwater and sediment that otherwise would run into fragile environmental areas or onto adjoining property. Many times the ponds are dismantled when the course is completed, but some superintendents might opt to leave the catch basins intact to act as fallbacks during heavy rains that could damage the course and contaminate nearby sensitive areas with sediment.

“You can leave these basins or small silt ponds up after the course is complete,” Clute says. “But superintendents have to realize they must clean them out periodically to remove the silt, otherwise the area will grow in with vegetation while the water is still trying to get in.”

The use of hay bales and plastic fencing to control erosion during construction are simple yet effective ways to manage rainwater flow and prevent damage to a course, especially when working around creeks, ponds and lakes.

“Our second hole has a 110-foot drop from tee to green, and we struggled with that for several years, using hundreds of hay bales,” Giampietro says. “We had a silt fence every 20 feet and just had to keep working at it. One thing I’ve noticed is that having curbing on cart paths helps channel water downhill and into drainage areas and catch basins. You can make all the plans you want, but you can’t anticipate Mother Nature’s fury all the time.”

To learn more about how Echelon™ herbicide fits your preemergent weed control program, including research data, usage rates, product comparisons and images, visit us at www.FMCrezLEARN.com. Log on today and plan a winning strategy for your course.

Echelon. Expect More.
Out in the cold

Additives may be the answer to improving herbicide performance

Herbicides have numerous hurdles to overcome to be effective.

First, they must be applied in a correct manner according to label recommendations — and with the correct additives.

Next, herbicides have to be applied in a timely manner when the target weed is most susceptible.

Then, after herbicides contact the leaf surface, they must remain there for absorption to occur or move at the desirable rate through the soil to be absorbed by the roots. Low humidity, dry conditions or rain soon after an application can decrease weed control by decreasing the absorption of the herbicide. Once absorbed, the herbicide must translocate or move to the active site within the plant and potentially move throughout the entire plant. Plants under certain environmental stress can have decreased functionality in the vascular system, thus decreasing translocation.

Lastly, an herbicide must remain in its active form within the plant until the weed is controlled. Throughout time, the herbicide can be degraded or metabolized within the plant, thus deactivating it.

With the obstacles herbicides must overcome, it's a marvel they work at all.

Erratic weather is the norm

The weather has become something more than just a conversation starter. With global warming, El Niño and the threat of superhurricanes,
Introducing total disease protection in one container. DISARM® C is the first and only strobilurin and chlorothalonil premix with a unique systemic and contact formulation that provides the broadest spectrum control of thirty diseases, including dollar spot, brown patch and all major patch, spot, and snow mold diseases. There is simply no easier, more cost efficient or worry-free way to protect your entire golf course. To learn more about the best weapon against turfgrass diseases, contact Arysta LifeScience North America Support Services at 1-866-761-9397 or visit www.arystalifescience.us/disarmc.
weather influences everything, even public policy. So, we shouldn’t be surprised by the effect erratic weather is having on golf course management, particularly weed control.

Consider this: In 1970, the average temperature in Illinois in January was 18.2°F. In 2006, it was 37.9°F, according to the NOAA Satellite and Information Service. This isn’t an example of global warming. It’s an example of how temperatures can fluctuate throughout time, and from year to year.

These temperature fluctuations confound our ability to predict things such as turfgrass dormancy, weed germination, disease occurrence and insect activity. To combat this, it’s often beneficial to implement management practices that are more robust under abnormal environmental conditions.

**EFFECTS OF LOW TEMPERATURE**

Herbicide efficacy can vary with differing environmental conditions. Sulfonylurea herbicides, such as foramsulfuron (Revolver herbicide) can be negatively affected by low temperature conditions. When this herbicide is applied at temperatures consistently less than 55°F to 60°F, weeds such as clumpy perennial ryegrass (*Lolium perenne*) and clumpy tall

---

**Table 1.** Percent control of clumpy perennial ryegrass applied with Revolver herbicide and several additives. Final ratings were taken after 69 days.

<table>
<thead>
<tr>
<th>Additive</th>
<th>Control (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revolver</td>
<td>70</td>
</tr>
<tr>
<td>Revolver + AMS 2 lb</td>
<td>80</td>
</tr>
<tr>
<td>Revolver + AMS 4 lb</td>
<td>90</td>
</tr>
<tr>
<td>Revolver + MSO</td>
<td>65</td>
</tr>
<tr>
<td>Revolver + MSO + AMS 2 lb</td>
<td>95</td>
</tr>
<tr>
<td>Revolver + MSO + AMS 4 lb</td>
<td>100</td>
</tr>
</tbody>
</table>

---

**REPLACE...**

**Any Existing Filters**

- Lifetime Body Warranty to Never Leak
- 316L Stainless Steel Construction
- Simplicity Minimizes Maintenance
- No Lubrication or Packing Seals
- No Electric Motors or Limit Switches

Simplicity with Efficiency all combined to provide the most cost effective filtration systems available.

**Valve and Filter**

5270 Marshall Street, Arvada, CO 80002 USA

Phone 303-425-4242
Fax 303-425-0112

www.valveandfilter.com
sales@valveandfilter.com

**VNF**

Filtration Systems

VALUE ADDED FILTRATION MADE IN THE USA

www.golfcourseindustry.com/readerservice - #37
Clumpy perennial ryegrass treated with Revolver plus 4 pounds of ammonium sulfate plus 1 percent methylated seed oil.

Fescue (Schedonorus phoenix) aren't completely controlled. Both species can become chlorotic when treated with Revolver under low temperature conditions, but after three to four weeks, injury subsides and weeds recover. Unexpected low temperature swings in the spring or fall could potentially induce decreased activity in sulfonylurea herbicides.

It's not completely understood why the effectiveness of sulfonylurea herbicides is less under relative cold weather conditions. The most popular theory focuses on the metabolism of the herbicide. During these periods of relative cold temperatures, plants are growing more slowly. Sulfonylurea herbicides are effective because they block production of essential amino acids. Because the plant is growing slowly under low-temperature conditions, the plant doesn't need essential amino acids. The plant is in a state of hibernation for lack of a better term.

Under normal conditions, the plant would be growing and would starve to death as it continues to grow. As the plant stagnates in growth, other metabolic processes slowly degrade, or metabolize, the herbicide to a less active form.

Other theories exist concerning the decrease in control. A decrease of absorption of the herbicide or movement of the herbicide through the plant also could potentially occur during these conditions. A similar sulfonylurea herbicide, nicosulfuron, has been reported to be absorbed...
more by quackgrass (Elytrigia repens) and moves throughout the plants more under higher temperatures (Bruce et al., 1996).

OVERCOMING LOW TEMPERATURE
Recent research at the University of Tennessee identified potential additives to overcome the decreased control that occurs when Revolver is applied during low-temperature conditions. Research was conducted to evaluate the use of ammonium sulfate and methylated seed oil to improve control of clumpy perennial ryegrass.

Revolver was applied at 0.4 fluid ounces per 1,000 square feet with and without additives. Additive treatments tank-mixed with Revolver included 2 and 4 pounds of ammonium sulfate per acre, 1 percent volume to volume methylated seed oil, 2 pounds ammonium sulfate plus 1 percent methylated seed oil, and 4 pounds ammonium sulfate plus 1 percent methylated seed oil. Treatments were applied Feb. 23, 2006, in Knoxville, Tenn. Final ratings were taken 69 days after treatment on May 3.

Clumpy ryegrass control with Revolver applied with no additives was 20 percent at the final rating. All additives except ammonium sulfate at 2 pounds per acre provided a statistically higher level of clumpy ryegrass control over Revolver applied alone (Table 1). The additives ammonium sulfate at 4 pounds per acre, methylated seed oil, or ammonium sulfate at 2 pounds per acre plus methylated seed oil increased clumpy ryegrass control to 45 to 55 percent. The greatest increase in clumpy ryegrass control was observed with ammonium sulfate at 4 pounds per acre plus methylated seed oil, which increased control to 80 percent.

Others have reported similar results with enhancement of certain herbicides with additives. Absorption, translocation and accumulation of nicosulfuron are known to increase when treatments are made with ammonium sulfate or petroleum oil adjuvants (Bruce et al., 1996). Similar results have been reported with glyphosate (Roundup) when applied with crop oil or organosilicone surfactants (Collins and Helling, 2002).

A WORD OF CAUTION
Additives that aid an herbicide to overcome adverse environmental conditions aren’t the same as additives that enhance the performance of a herbicide under normal conditions. Many additives claim to increase the efficacy of some herbicides to the point where one could reduce the rate of the herbicide. Research cited here doesn’t support the decrease of an herbicide rate with the addition of any additive. Rather, this research potentially supports the use of additives that enhance absorption or translocation of an herbicide, or decrease the metabolism of an herbicide within the plant when applications are made under negative environmental conditions.

FINAL THOUGHTS
In the area of golf course management, environmental conditions influence everything a superintendent does. Applying herbicides and other pesticides is no different. While ammonium sulfate and methylated seed oil can help Revolver improve effectiveness in low temperature conditions, one should be cautious of egregious product claims to enhance products beyond the claims of the manufacturer. And in all cases, avoid making applications of any postemergent herbicide when temperatures are below 40 F. GCI

Scott McElroy is an assistant professor of turfgrass and vegetation management at Auburn University. He’s associate editor for Agronomy Journal, a peer-reviewed journal published by the Agronomy Society of America. Previously, McElroy was an assistant professor at the University of Tennessee.

Literature cited

The early bird
A fall preemergent herbicide application saves time in preparation for a busy spring
By John Walsh

Like most golf course superintendents, Tom Breiner is busy in the spring. Because he has a lot on his plate during that time of year, Breiner spreads out certain tasks. One of those is a preemergent herbicide application.

Instead of applying Barricade (prodiamine) in the spring, Breiner applies the product in the fall, specifically late November.

“That will give us season-long control for the following year,” says the golf course superintendent of the private, 54-hole Fiddler’s Elbow in Bedminster, N.J. “Applying Barricade in the fall takes pressure off of us in late April when we’re busy with other things.”

Breiner applies the herbicide in a granular form combined with fertilizer at a rate of 0.75 pounds of active ingredient per acre. If he were to apply the herbicide in the spring, the rate would be less - 0.55 pounds of active ingredient per acre.

“It’s not that much more costly to apply it in the fall,” he says.

Breiner says he can apply Barricade in fall because the herbicide breaks down by microbial activity, and in cold weather, there’s little to no microbial activity. The herbicide isn’t mobile, and it doesn’t leach; rather, it binds to clay colloids in the soil.

“I’ve been doing this successfully since 1994,” he says.

Barricade also has a desired effect on Poa annua, but that’s not why Breiner uses it.

Breiner spends about $425,000 a year on inputs (fertilizer, pesticides and lime). Herbicides are the least costly in that group at less than $30,000. He applies preemergent herbicides on tees, fairways and the rough but applies postemergent herbicides only on the rough.

Eighteen years ago, Breiner worked with a consultant to improve the soil in the fairways. At the time, he was using dicamba to control white clover. But over time, with the use of lime, fertility and a soil-balancing program, the need for a postemergent herbicide in the fairways ceased.

“Just dandelions will pop up here and there,” he says. “At most, we’ll hit weeds in the fairways with an herbicide in a spray can.”

The pressure for crabgrass is strong at Fiddler’s Elbow, Breiner says, adding that if he misses a spot treatment or neglects to apply a preemergent, crabgrass will appear. In addition to crabgrass, Breiner controls many broadleaf weeds, including white clover, dandelions and oxalis.

On the 90 acres of creeping bentgrass fairways, Breiner has been rotating Barricade and Drive (quinclorac) every other year.

“Barricade is very strong, and there is a concern about high amounts of it in the soil, but I haven’t seen problems,” he says. “I’m just being precautionary.”

Drive has a 45-day residual postemergent effect. It also controls white clover. Breiner also uses Gallery (isoxaben), a preemergent for broadleaf weeds, regularly in weed-prone areas.

Breiner uses various products, such as 2,4-D, dicamba and triclopyr, for postemergent applications. He uses amine formulations of postemergent herbicides from early to late fall and then switches to ester formulations of the same product because amine formulations need warmer soil temperatures to work, and ester formulations are less temperature dependent.

Yellow nutsedge is a problem weed for Breiner. He has been using SedgeHammer (halosulfuron methyl) and recently observed good results using Dismiss (sulfentrazone).

Additionally, Breiner plans to test various herbicides. For example, he’ll work with Dimension (dithiopyr) - the only herbicide he knows much about for use on greens - on two greens that aren’t in play where crabgrass is emerging. He’s also experimenting with Quicksilver (carfentrazone), a fast-acting product with a low use rate that can be used in conjunction with a Trimec (2,4-D) formulation.

Breiner also plans to test Tenacity (mesotrione), which removes undesirable bentgrass out of bluegrass rough. GCi
Spreading it out

The ability to purchase a new irrigation control system over three years was the key to Southern Hills' upgrade

For Russ Myers, CGCS, when it comes to irrigation software, it's all about flexibility. The golf course superintendent at the private, 27-hole Southern Hills Country Club in Tulsa, Okla., is in the midst of a three-year transition to a new irrigation control system.

"The key to any new irrigation system, for me, is flexibility," says Myers, who selected the Toro Network VP Satellite, which is backward compatible with the facility's 15-year-old Network 8000 series.

For Southern Hills, "flexible" means retaining parts of the old control system while spanning the upgrade over several years, having the ability to operate the system various ways and relying on manufacturer support.

The greatest benefit of Southern Hills' new Network VP irrigation system is the fact it's backward compatible to the facility's 15-year-old Network 8000 system, according to Russ Myers, CGCS. Photo: Southern Hills
The first and only valve-in-head family of golf rotors that is completely serviceable from the top.

Leave your shovels behind.
 make an upgrade, but because of increasing costs to maintain the old system, the facility’s long-range capital investment plan and the ability to make a smooth multiyear transition, he felt it was the right time.

“The Network 8000 is working fine for us, we just have a few satellites with more age on them than others,” he says.

Because of this, Myers made the call not to upgrade the entire control system – with a $120,000 price tag – all in one year.

“It makes no sense to put that kind of capital investment into one year when you can spread it out over three,” he says. “But if the new Network VP wasn’t going to interact with the old Network 8000, then we would have had to change it all in one year.”

Having to change the whole system in one year would have been a difficult call for Myers to make, he says, because such a big one-time investment could hinder projects in the pipeline from receiving approval by the board of directors. A three-year plan is easier for the board to swallow and allows Myers to push other capital projects through concurrently.

“If I had to spend $120,000 this year on irrigation, something else might have gotten postponed,” he says. “We need flexibility in our ability to water but also in our ability to get projects moving. When you have a bunker renovation in one hand and an irrigation transition in the other, and you have to do them both full bore, one of them is going to have to take a back seat. But because of the interchangeability Toro included in the software, we have the ability to get started on the irrigation system and benefit from it sooner.”

**COST CUTTING**

One of the new system’s main benefits is a maintenance cost reduction.

“We’ve only had this software for 15 years, and we could continue to use the system we have, but we can upgrade and reduce maintenance costs and stay ahead of the curve,” Myers says.

Myers estimates Southern Hills spends $18,000 a year – out of a $2 million to $2.5 million annual maintenance budget – on irrigation system maintenance costs and attributes about half of that to the aging satellites that are part of the central control system. Next year, after the upgrade is complete, he expects to eliminate the satellite repairs and reduce overall irrigation maintenance costs to about $8,000 or $9,000.

Additionally, maintenance costs will shrink because the new system requires fewer satellites, thus, there will be fewer mechanical failures requiring maintenance.

The old Network 8000 system required about two satellites per hole plus units for practice areas. There will be 46 satellites serving the facility’s 300 acres after the transition to the Network VP system. Though it’s difficult to calculate a return on investment for an irrigation control system because savings come from a number of areas, including reduced maintenance costs and increased efficiency, Myers expects the ROI will spread out over the system’s lifespan, which is about 15 years.

**ANYWHERE, ANYTIME**

Another aspect of the Network VP system that sold Myers is the flexibility of running it.

“I can do it by standing at the satellite and running it, using the wireless radio or from my home computer,” he says. “For me, the more flexibility there is the better off we are. In our climate, it can get to 105 degrees in the summer, and we can’t afford to miss a night cycle because our irrigation software isn’t functional. Having the flexibility to go to the individual satellites and bypass the central if we need to is key.”

Because irrigation software is so advanced – typically offering more features than most superintendents take advantage of – simplicity and ease of use were important factors in Myers’ decision to choose the system.

“When I want to turn on a specific head at one location over 300 acres of property, at the very least, I should be able to find that head and turn it on,” he says. “To me, it’s about whether I can sit down a guy who doesn’t work with that central software daily and have him figure out how to run it easily and not have to make five phone calls to figure it out.”

On the other hand, if one of Myers’ crew members needs to make a phone call, he knows who to contact. Southern Hills’ maintenance staff includes 33 year-round and about 17 peak-season employees.

“The biggest thing is Toro’s national support network, where, if I have any problems or a failure, I can have anyone on my staff call or I can call and be back online within 24 hours,” Myers says.
Teach From Our Videos, Not From Mistakes

- Reduces injury risk and maintenance mishaps, and provides documentation of training.
- Orientates new employees, teaches professionalism and personal responsibility, and reinforces quality workmanship.
- Great rainy day activity.

Superintendents' Video Workshop

Because You Can't Be Everywhere At Once

Order online at www.svwonline.com or call 800-938-4330
TREE TALK

The PGA Tour Barclays was awarded to Ridgewood Country Club in New Jersey at the last minute, leaving Todd Raisch, CGCS, little time to accomplish a great deal of work. One concern was clearing trees and limbs necessary to erect tents and staging operations to allow the gallery to see the best players in the world.

Because tree removal is a sensitive subject, Raisch contracted a qualified tree service company, Tree-Tech of Mount Freedom, N.J., with extensive golf course experience to assist him with a thorough review and preparations. The following are thoughts about superintendent/tree service relations from Tree-Tech’s owner, Rob Finnesey.

Q What are the benefits for a superintendent to contract a tree service company to assist the host club?

A We’ll review a number of concerns with the golf course superintendent, including everything from sun/shade studies to safety. For the best results, a tree service company should be contacted at least two years before the event to form and execute a plan that includes:

• Reviewing tree safety issues that could injure the gallery, spectators in the grandstands or under trees, or impact moving vehicular or pedestrian traffic.
• Removing any root encroachment in high-play areas such as primary rough grass landing zones, bunkers and brush along a water hazard so the competitors won’t injure themselves.
• Understanding the superintendent’s agronomic issues with all playing surfaces. We’ll conduct a sun/shade study, identify root intrusion for gallery and players, reduce any overplanting concerns, thin canopies, root prune and remove any tree that affects the setup of the golf course inside and outside the ropes.
• Evaluating playability concerns, including sight lines from teeing grounds, tee/limb intrusion into the intended line of play and removal of trees that affect shot options (such as a tree planted behind a bunker creating a double hazard). If there’s an architect involved, we’ll help him to create the proper sight lines to enhance design features with proper tree planting or removal.
• Reviewing the safety issues of multiple trunk trees, hanging limbs, surface roots and thorn-producing species to reduce any legal liabilities.
• Working with the television crews well in advance of the event to selectively remove any tree, limb or other obstacle that might intrude the camera’s view.
• Reviewing the type of weather expected to identify additional opportunities for damage or injury in the case of a sudden storm.
• Clearing any area designated for an operational or vendor compound.
• Having an emergency crew on call 24/7 before, during and after the event.
• Evaluating playability concerns, including sight lines from teeing grounds, tee/limb intrusion into the intended line of play and removal of trees that affect shot options (such as a tree planted behind a bunker creating a double hazard). If there’s an architect involved, we’ll help him to create the proper sight lines to enhance design features with proper tree planting or removal.
• Reviewing the safety issues of multiple trunk trees, hanging limbs, surface roots and thorn-producing species to reduce any legal liabilities.
• Working with the television crews well in advance of the event to selectively remove any tree, limb or other obstacle that might intrude the camera’s view.
• Reviewing the type of weather expected to identify additional opportunities for damage or injury in the case of a sudden storm.
• Clearing any area designated for an operational or vendor compound.

Q What can a superintendent do to ease your staff’s efforts?

A Prioritize the work he wishes the tree company to accomplish. This would include:

• Receiving all as-built maps, site documentation, irrigation line and other golf course information so the tree service doesn’t add additional work for the superintendent.
• Locating and tagging all suspect and hazardous trees for removal or pruning.
• Getting involved with any golf course renovations efforts by the club. It’s better to prune trees and remove them and clear them during a renovation, limiting the extra work required of the grounds staff.
• Checking with all the subcontractors to investigate their needs and what trees might hinder them when accomplishing their tasks.
• Attending any organizational walk-throughs to identify all gallery paths, service roads, walking spectator sight lines, proposed parking lots or other areas where a tree might clutter the routes.
• Contacting local traffic authorities to identify their routes for buses, large trucks, and police/fire and emergency vehicles to allow easy and unencumbered entry and exits in case of a medical or other emergency.
• Assisting when grandstands, tents, concessions and lavatory facilities are placed to identify what trees should be removed.
• Having an emergency crew on call 24/7 before, during and after the event.

Q How can tree services assist a superintendent?

A A quality tree service can advise the superintendent about:

• Identifying and removing any miscellaneous or nonindigenous trees affecting turf health, light penetration, air circulation and prolonged shade impacts.
• Supporting the club when selecting the best species for the location and growing environment. Choose trees that don’t have surface roots, pest concerns or fruit droppings. Look for those with moderate growth rates, brilliant fall color and quick leaf drops.
• Evaluating and removing any underbrush (which might affect pace of play), identifying out-of-bounds and locating the proper boundaries of water hazards.
• Evaluating the tree lines along the teeing ground perimeters to widen the line of play and lift up interfering limbs, especially for left-handed players. Many times tree intrusion will cause the misalignment of a teeing ground to a point other than the intended landing zone.
• Eliminating any poor-quality trees that affect the growth and health of the primary species being highlighted.
• Removing any trees that frame a green, landing zone, teeing ground or encroach into a line of play, create a backdrop or overhang a golf hole.
• Reviewing the three forms of pruning with the superintendent: canopy or the thinning of the interior profile; root pruning, which will prevent a tree from robbing water and nutrients from the turf; and basal pruning.
Hang it up

At the Hermitage Country Club in Manakin-Sabot, Va., Manakin Course superintendent Eric Spurlock and director of golf course operations John Haley designed a hose rack to better organize hoses and watering accessories for quick and easy access at a centralized location at the turf care center.

Spurlock placed two 6-inch-by-6-inch posts into the ground and stabilized them with concrete to support the weight of the hoses and lumber. He cut five 2-inch-by-6-inch pieces of wood on which to hang the hoses. He also cut notches on both ends of the two-by-sixes that were angled back to the main structure to keep the hoses from slipping off the rack. Then he nailed another two-by-six to each the five he cut first, essentially creating a 4-inch-by-6-inch board.

Next, the 2-inch-by-8-inch boards (one on either side of the 6-inch-by-6-inch end posts) were bolted (1/2-inch diameter) to either side of the post for support underneath the notched two-by-sixes, which were positioned across the two-by-eights so the notches on either side enabled the hoses to be hung from both sides of the rack. The notched two-by-sixes were held in place by two short pieces of two-by-sixes wedged between the two-by-eights and screwed in place.

Two two-by-sixes (one on either side of the six-by-six) were spanned between the end posts and bolted in on top of the notched two-by-sixes for more stability. Once the structure was completed, a 6-inch-diameter PVC pipe was cut into 10 1-foot sections. The pipe sections then were split into half circles and screwed (1/2-inch diameter) to the top of the notches where the hoses hang to reduce the possibility of damage.

Finally, Spurlock built and mounted a wooden box with a hinged cover to one end of the post to keep quick coupler valves, nozzles, fittings, wetting agent canisters, etc., organized and close to the hoses.

The cost for the materials from an outlet lumber yard was about $350, the PVC pipe was in stock, and labor took about 16 hours. GCI

Jack it up

The maintenance crew at the Palmas del Mar Country Club in Humacao, Puerto Rico, uses a Greens Iron Super 5000 tournament speed roller, which comes with a removable transport frame. When the roller is transported from green to green, it hits the turf and cart paths because it rides low. So, head mechanic Jose Rodriguez raised the frame by adding one 12-inch-long, 1.5-inch-diameter hollow pipe above each axle to raise the roller a foot higher. In addition to welding the bottom of the pipes to the top of each axle, Rodriguez welded a 1/2-inch-thick piece of metal to the top of the pipes and then bolted them to the roller frame with two 1/2-inch-diameter bolts, nuts and lock washers.

Because Rodriguez raised the frame, the built-in hitch on the Toro Workman tow vehicles couldn't be used with the roller anymore. So, he bolted a 2-inch-square, class III receiver hitch to the bed of the Workman using two 1/2-inch-diameter bolts, nuts and lock washers. He also welded a class I hitch, which fits over the top of 11/2-inch-diameter trailer hitch ball, to the roller's frame. Rodriguez uses an adjustable turnbuckle to raise the roller onto the frame and lower it off.

Rodriguez, director of golf course maintenance Karla Cora and area supervisor Felix Arroyo conceived and designed the idea.

The cost of the pipe, hitches, trailer hitch ball, metal, turnbuckle, etc., was less than $100, and the labor took about two and a half hours.
BUSINESS FOR SALE

Aeration Company For Sale
Established contract aeration company for sale with strong customer base of golf courses and sports fields in NC and SC. Protected territory and patented equipment. Contact Paul Swords, Broker 828-298-6566

18 HOLE GOLF COURSE FOR SALE
Mid-Length, Very challenging, 8 Ponds. Includes all equipment, carts, clubhouse with 2 bedroom apartment & inventory. Fully irrigated. Located near Maryland beaches. Priced at $790,000. For details Call Larry 410-543-4446 or 410-430-1758.

BUSINESS OPPORTUNITY

SERIOUS ENTREPRENEURS ONLY!
After four years, $400,000 of market testing, and Millions of dollars in earnings, we have perfected the most powerful, automated, turn-key, sales and marketing system on the planet. That's How Normal People Like You Are Earning $5,000 to $10,000 a week Without Picking Up The Phone. visit: www.wealthmaster4u.com 229/848-5288

HELP WANTED

Golf Course Company seeking experienced Shapers, Irrigation Supervisor, Drainage, Management and Finish Personnel and Drafts Person with Auto Cad experience for International Projects. Resumes to be e-mailed to frank@intergolfinc.com

CONSTRUCTION OF A STATE OF THE ART 18 HOLE GOLF COURSE AT FERRY POINT PARK
The New York City Department of Parks and Recreation is establishing a list of Prequalified General Contractors for the construction of a state of the art public 18 hole golf course at Ferry Point Park. The prequalification process is designed to ensure that only firms which have demonstrated a high degree of competence and possess the requisite prior experience in the relevant area of work. Bids will be solicited only from this prequalified list. Prequalification Applications must be submitted by January 5th, 2009. The application package may be obtained from nycgovparks.org/ferrypointrqt or by contacting Juan Alban at Juan.Alban@parks.nyc.gov 718.760.6855 or Don Scama at Don.Scama@parks.nyc.gov 718.760.6573

FOR SALE

WWW.SANDTRAPRAKES.COM
HOME OF THE $10.00 RAKE

How to Outsmart Mother Nature...

Use EVERGREEN
The Turf Blanket the World Relies On

- Earlier spring green-up
- Faster seed germination
- Deeper root development
- Delays dormancy in fall
- Ideal winter blanket
- Best for quick turf repairs
- Available in any size
- 3 or 7 year warranty covers

For details call 1-800-387-5808 today!

covermaster.com
E-MAIL: info@covermaster.com

COVERMASTER
MASTERS IN THE ART OF SPORTS SURFACE COVERS

A patented impermeable ripstop barrier between your turf & the winter elements!

for more details and free samples GreenJacket.com or 888-786-2683 and see research results online!

- Minimizes temperature fluctuations & protects against ice damage, crown hydration and desiccation.
- Lightweight and durable-years of easy installation & storage.
- Millions of square feet of turf protected

PLACExYOUR
CLASSIFIED AD
TODAY

Call Bonnie Velikonya at 800-456-0707 or email her at bvelikonya@gie.net.
<table>
<thead>
<tr>
<th>COMPANY</th>
<th>PAGE</th>
<th>RS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arysta LifeScience</td>
<td>53</td>
<td>36</td>
</tr>
<tr>
<td><a href="http://www.arystalifescience.com">www.arystalifescience.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASF</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td><a href="http://www.betterturf.com">www.betterturf.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bernhard and Co.</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td><a href="http://www.bernhard.co.uk">www.bernhard.co.uk</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleary Chemical</td>
<td>32, 33, 35</td>
<td>22, 24</td>
</tr>
<tr>
<td><a href="http://www.clearychemical.com">www.clearychemical.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First National of America</td>
<td>34</td>
<td>23</td>
</tr>
<tr>
<td><a href="http://www.firstna.com">www.firstna.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMC Corp.</td>
<td>50*, 51*</td>
<td>34, 35</td>
</tr>
<tr>
<td><a href="http://www.fmc.com">www.fmc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friesen USA</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td><a href="http://www.friesenusa.com">www.friesenusa.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floratine</td>
<td>68</td>
<td>44</td>
</tr>
<tr>
<td><a href="http://www.floratine.com">www.floratine.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golflinx</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td><a href="http://www.golflinx.net">www.golflinx.net</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gravely Turf, an Ariens brand</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td><a href="http://www.gravely.com">www.gravely.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helena Chemical</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td><a href="http://www.helenachemical.com">www.helenachemical.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunter Industries</td>
<td>59</td>
<td>41</td>
</tr>
<tr>
<td><a href="http://www.hunterindustries.com">www.hunterindustries.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John Deere Golf</td>
<td>6-7</td>
<td>15</td>
</tr>
<tr>
<td><a href="http://www.deere.com">www.deere.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JRM</td>
<td>40</td>
<td>29</td>
</tr>
<tr>
<td><a href="http://www.jrmonline.com">www.jrmonline.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kalo</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td><a href="http://www.kalo.com">www.kalo.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Liquid Fence Co.</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td><a href="http://www.liquidfence.com">www.liquidfence.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitchell Products</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td><a href="http://www.mitchellproducts.com">www.mitchellproducts.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBI Gordon</td>
<td>56</td>
<td>39</td>
</tr>
<tr>
<td><a href="http://www.pbigordon.com">www.pbigordon.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoenix Environmental Care</td>
<td>47</td>
<td>31</td>
</tr>
<tr>
<td><a href="http://www.phoenixenvcare.com">www.phoenixenvcare.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Turf Products</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td><a href="http://www.professionalproducts.com">www.professionalproducts.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project EverGreen</td>
<td>41*</td>
<td>50</td>
</tr>
<tr>
<td><a href="http://www.proturfproducts.com">www.proturfproducts.com</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>PAGE</th>
<th>RS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quali-Pro</td>
<td>67</td>
<td>43</td>
</tr>
<tr>
<td><a href="http://www.quali-pro.com">www.quali-pro.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rain Bird</td>
<td>55, 57</td>
<td>38, 40</td>
</tr>
<tr>
<td><a href="http://www.rainbird.com">www.rainbird.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SePro Corp.</td>
<td>37</td>
<td>25</td>
</tr>
<tr>
<td><a href="http://www.sepro.com">www.sepro.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stabilizer Solutions</td>
<td>28</td>
<td>20</td>
</tr>
<tr>
<td><a href="http://www.stabilizersolutions.com">www.stabilizersolutions.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superintendents' Video Workshop</td>
<td>61</td>
<td>45</td>
</tr>
<tr>
<td><a href="http://www.swonline.com">www.swonline.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syngenta Professional Products</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td><a href="http://www.syngentaprofessionalproducts.com">www.syngentaprofessionalproducts.com</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Denotes regional advertisement
I’m currently recuperating from five days at the GIE + Expo in Louisville. As you may or may not know, GIE is the national show for the lawn care, grounds and landscape contracting industry. For those of you who’ve never attended—which includes, I suspect, almost every superintendent reading this—the show is similar to the Golf Industry Show in some ways, but different in others. The events, like this market, overlap but also diverge dramatically. Allow me to elucidate.

GIE is just about as big as GIS in terms of attendance (about 20,000) but significantly larger in trade show exhibit space, thanks mainly to an enormous outdoor demonstration area. The outdoor demo consists of acres of zero-turn mowers, brush hog-type doohickeys, trenchers, tree movers, chainsaws and a long list of other cool gas- and diesel-powered toys. The outdoor area is a ball, but you have to duck occasionally because turbo-charged pieces of equipment kick up rocks and dirt clouds.

Like GIS, the Louisville show is the result of throwing a number of different associations into an enormous blender to create an industrywide milkshake. Take a deep breath and get ready for a virtual acronym orgy: GIS consists of the GCSAA, CMAA, NGCOA, GCBA, etc. GIE + Expo consists of OPEI, PLANET (the old PLCCA and ALCA groups) and PGMS. Both shows are attempts to consolidate several trade shows into a single site and still allow some autonomy for education and activities by the host associations. So, you see a zillion badge types, concurrent seminars hosted by multiple groups, specialized zones on the show floor for each discipline and different types of professional meetings.

Show consolidation—however awkward—is an economic necessity these days and an alphabet soup mix of “partners” is the price we pay.

So, if you’re interested in turf cut at an inch or less, you go to the GIS (or STMA if you’re one of those athletic field dudes). Otherwise, it’s Louisville for you. And that points out another difference between the shows—the GIE takes place in Louisville, whereas the GIS moves from Orlando to San Diego to New Orleans. I love GIE, but being rooted in Louisville is equivalent to locating the Super Bowl in Toledo until the sun goes dark. Variety is the spice of life, and you pretty much only get salt or pepper in Louisville. (One aside: the location in Louisville essentially makes that show a “superregional” event.)

Another difference: GIE is, first and foremost, an iron show. The golf business is dominated by red, green and orange, but you get the entire rainbow in Louisville. There are a dozen other manufacturers selling to the residential and commercial cutting market. You think golf’s big three are competitive? The pro mowing market might be somewhat bigger than golf’s, but there are five times more companies vying for your business.

Even though the GIE part of the show—historically the chemical and fertilizer segment—merged with the Expo part (the equipment side) a few years ago, the big soft goods manufacturers don’t have nearly the presence in Louisville as they do at GIS. Why? Lawn care is basically a herbicide and insecticide market. Fungicides, growth regulators and other specialty products, such as wetting agents and foliars, play a minor role in the segment.

The educational component of GIE + Expo is good but nothing like GIS. There might be 3,000 attendees signed up for seminars versus the 7,000 who attend the conference part of the golf show. Some of the education is agronomic, but the majority is business driven. How do I get more customers? How do I manage my lines of credit in a tough economy? What about H-2B and other labor issues? In short, GIE attendees are professionals working for small, medium and large businesses trying to figure out how to sell more services and boost their bottom lines versus simply trying to deliver better-quality turf.

The two shows have much in common in terms of general product categories, exhibitors and a mutual interest in turf and the overall green industry. But they’re vastly different in scope, purpose and focus. Those differences often make it easy for superintendents to dismiss the lawn and landscape part of the green industry as second class. But look beyond the surface of the two markets and think about our common interests. The small stuff is different, but we are inexorably tied by the big issues: water, development, chemical usage, nutrition, labor and a significant perception problem that we’re only focused on aesthetics.

The “other half” of the green industry may be different, but unless we work as a whole, none of us will survive.

PARTING SHOTS

Pat Jones is president of Flagstick LLC, a consulting firm that provides sales and marketing intelligence to green industry businesses. He can be reached at psjhawk@cox.net or 440-478-4763.

DIFFERENT, YET THE SAME
Know the Sign.

You can't afford anything but the best results.
That's why more professionals are turning to the quality and value that only Quali-Pro® can deliver.

That's a good sign.
Quali-Pro puts you in control of both pests and costs with proven products featuring the newest formulation technologies.

That's Quali-Pro.

Quali-Pro puts you in control of both pests and costs with proven products featuring the newest formulation technologies.

That's Quali-Pro.

©2008 FarmSaver.com, LLC. Quali-Pro is a registered trademark of FarmSaver.com. Always read and follow label directions.
www.golfcourseindustry.com/readerservice - #43
Growing turfgrass is a science. Maintaining it in formidable conditions is an art. The stress of extreme mowing heights, suffocating heat and humidity, shade, water and nutritional challenges makes your turfgrass dependent on you for its very survival.

And this is where Floratine shines. Our patented, first-in-class foliar and soil-based technologies maximize nutrient uptake when your turf, and budget, need it most. The finest ingredients in the world ensure that your turfgrass will conserve precious energy while retaining vital nutrients.

Floratine’s highly trained distribution network, spanning 30 countries, provides you with the tools to keep you and your turfgrass rooted in solutions.

Visit our award-winning website to learn more about our solutions and find a Floratine distributor near you.

www.floratine.com