

It's all teed up and ready to go.



All the benefits of CIVITAS in an easy-to-use, pre-mixed formulation.*

Pre-mixed CIVITAS™ ONE, makes it even easier to benefit from the many strengths of CIVITAS. Through its research-proven multiple modes of action, CIVITAS boosts the plant's own immunity and overall development, making turf **healthier, stronger** and better able to defend itself. Now, with a pre-mixed formulation, it's even easier to empower turf to reach its full potential. CIVITAS ONE provides **effective disease control** and insect suppression, while helping to **maximize turf quality**, wear resistance and appearance. Plus, it **enhances plant efficiencies** meaning less inputs are required to achieve picture perfect turf. CIVITAS ONE is the **Total Turf Health Solution**. Visit civitasturf.com for more information.



Left: No. 4, prior to construction, required the removal of a large white oak that had been struck by lightning and was suffering from internal rot. Right: The completed tee box on No. 4, note how much the area opened up after the removal of the large oak.

While the health of the grass on the tee boxes saw improvement through fall, this would **only be the beginning** of what issues really needed to be addressed. We made the decision to fix some of the ongoing issues that had plagued our tees.

establishing grass using the Triwave seeder. The Triwave is designed to create a square groove, rather than a "V" groove, to drop the seed into. The square groove opens up more area for seed to be established. The image to the left shows the lines that are left by the Triwave seeder. We seeded all tees directly into the existing turfgrass stand at two directions at a rate of 1 pound of seed per 1,000 square feet. We then fertilized with a starter fertilizer with the analysis of 12-28-10 at a rate of 0.5 lb. N/M. The tees were heavily topdressed and rolled to create seed to soil contact. The penncross seed was quick to establish and fill the voids of summer's scars. We kept up with necessary agronomic practices to retain healthy turfgrass. This included frequent topdressing and spoon-fed applications of fertilizer.

While the health of the tee boxes grass saw improvement through fall, this would only be

the beginning of what issues really needed to be addressed. We made the decision to fix some of the ongoing issues that had plagued our tees. These included contamination from unwanted turfgrass species, uneven teeing surfaces and drainage issues.

Prior seasons the use of other perennial ryegrass had been utilized to increase germination time to speed recovery. The problem was that this species, known as perennial ryegrass, had a very contrasting appearance then the desired creeping bentgrass. While focusing on improving the tees, we stripped and seeded many areas on the tees where encroachment of perennial ryegrass had impacted the playability and aesthetics. We used a growing medium of 70 percent sand, 20 percent peat humus and 10 percent sphagnum peat moss. This mixture is one of the more popular rootzone blends for tee boxes because of the quick drainage and ability

to hold required nutrients. We filled the stripped area to grade with existing tee surface and seeded with penncross creeping bentgrass. Overall this process was done to five tee boxes that were heavily contaminated.

Drainage is one of the most important aspects to consider when producing superior turfgrass surfaces. An area's inability to drain water can have devastating effects. Grass, like any living organism, requires oxygen to grow and remain healthy. Anytime water is unable to drain, the grass will undergo a significant decline in health. A few of our tees had drainage issues that required attention. We installed corrugated drain lines with pea gravel to improve drainage.

The square footage of our tees is roughly 1.75 acres. For a golf course that sees well above 25,000 rounds annually, our teeing surfaces were grossly undersized. With a management and ownership invested in providing the best playing conditions, a decision was made to expand tee size and add tees to address our need for greater square footage.

When constructing tee boxes, the philosophy bigger is better couldn't be truer. Divots and traffic wear takes time to heal, seed takes time to establish and creating a larger area to place tee

markers can drastically improve the health of tees. Our efforts were focused on the par-3 tee boxes that could not withstand the constant golfer traffic. Where real estate was available, we built a new tee. If the area was landlocked, we created teeing surfaces as large as could be allotted.

On the fourth hole, which has always seen the greatest amount of wear, we agreed on the addition of a new tee box. The loca-



A newly established tee, just prior to opening for play.

tion of the new tee box would also provide golfers with a different angle into the green. The location required the removal of a large white oak that had been struck by lightning and was suffering from internal rot that had compromised the safety of the tree. The large oak also restricted air movement and blocked sunlight. The tee was constructed with the 7/2/1 rootzone growing medium. The tee was built at a 3-degree pitch from front to back on a base of 8-feet. No drainage was needed and irrigation was expanded to provide adequate coverage.

Upon completion of the construction of the tee, we seeded the surface with pennecross and fertilized with a starter fertilizer. It was decided to put a turf cover to protect the area through the tough winter months. Winter covering has been a common practice to assist establishment, protect annual bluegrass and prevent winter kill due to desiccation. We also sodded the perimeter of the tee to prevent contamination of seed into the surrounding areas. Once the new tee is open for play, we plan to make improvements to the existing tee

boxes on hole No. 4.

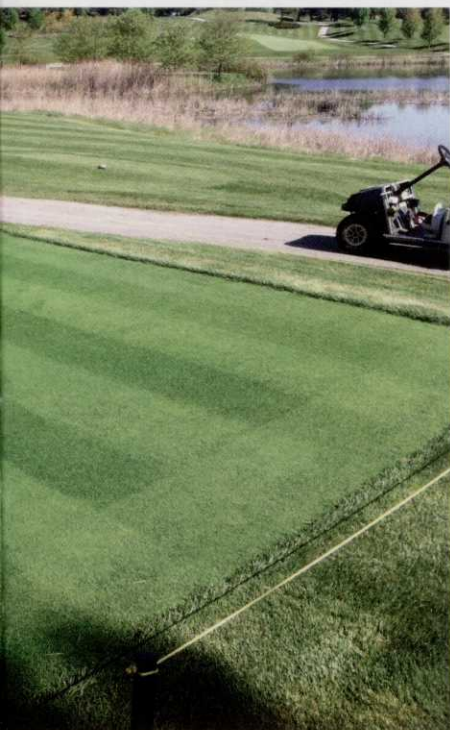
Holes No. 7 and No. 13 created a problem with their need for increased size and lack of area to expand. The goal would be to expand the original tees to a size that would accommodate the high amount of traffic we see throughout the summer. Due to our inability to close the course, we needed to find a way to reduce the downtime of these tees. It was decided that sodding the tees would benefit their ability to be ready for golf earlier in the spring. The process on these tees began by stripping the sod around the existing tee. We were able to use the sod on the perimeter of the tee box on No. 4 and to fill a few voids on the driving range.

Once the existing turfgrass was stripped, we removed the topsoil surrounding the existing teeing ground. This area was then dug out and leveled. We stripped the grass off the tee surface and leveled the entire area with 7/2/1 medium.

After leveling the tee area to desired grade, we seeded some of the tees with pennecross creeping bentgrass and sodded tees on No. 13 and No. 7 with pennecross creeping bentgrass. The process of sodding wrapped up in late November and we hope to have the tees open for play sometime in early spring.

Losing grass in the heart of summer is never easy to deal with. The key to recovery is to document the damage, communicate with membership/ownership about the loss of turf and put together a plan to repair the damage. It is also good to understand what happened and how it can be avoided in the future. Any seasoned superintendent will tell a young superintendent that they are going to lose grass, and how you deal with it is how you will define yourself as a superintendent. GCI

Timothy Christians is superintendent Makray Memorial Golf Club in Barrington, Ill.



MIGHTY

TURF PROTECTION



- Kills Damaging Turf Insects with Long-Lasting Results
- Protects Through Rapid Uptake and Translocation
- Allows for Plant Rescue and Future Protection

Effective On:
Chinch Bug • Mole Cricket
Annual Bluegrass Weevil • Crane Fly

G pbi/gordon
CORPORATION
An Employee-Owned Company

800.821.7925 • pbigordon.com/zylam20sg

Gordon's® and Zylam® are registered trademarks of PBI-Gordon Corporation. Always read and follow label directions. 2/13 02285



John E. Kaminski, Ph.D. is an associate professor, Turfgrass Science, and director of the Golf Course Turfgrass Management Program at Penn State University. You can reach him at kaminski@psu.edu.

THE PERFECT CIRCLE

Those who know me know I'm pretty intense. As a kid I'd get into a lot of trouble at school. Despite this, I maintained high academic standards, played several sports and was involved in other activities. I remember receiving the Presidential Academic Achievement Award in elementary school and my principal stressing "this next recipient is an outstanding scholar, but definitely has fun doing it." Just to round out the scholarly and athletic activities, I also was the one who, at 15, "borrowed" my Dad's Corvette to drive my girlfriend home after school.

As I was completing my Ph.D., I remember my mentor Dr. Dernoeden saying something to the effect of "You take on too much and finish too little." I never took this as an insult. I just do things a little differently.

My philosophy has been to throw 20 things against the wall and see what sticks. Maybe two or three ideas are good ones and get accomplished. I've always looked at those who focused on two things in the hopes one works out as underachievers. Therefore, I'm always on the move.

This continued with me through my days at Maryland, as an assistant professor at UConn, and now in my position at Penn State. For those who follow me on Twitter (or one of the other social networks I post junk on), you know things haven't slowed down.

If I could sum up my early career, I would credit this "Go. Go. Go" phi-

losophy to much of what I've accomplished so far. I work hard and place extraordinarily high expectations on myself and others within my "circle."

So what's my point? The demands and expectations I put on myself

"circle of control" and the "circle of influence" and their differences.

Since San Diego I've contemplated this "red circle of control" and the positive impact it could have on my professional and personal goals. The

The **ability to focus** on what you "can" control versus those things which you want to "try" to control is significant.

and ultimately on those individuals, groups and associations around me have swayed my attention and efforts in the wrong direction. Instead of focusing on my own 20 projects (in hopes two or three will stick), I have allowed the projects and work of others to infiltrate my circle of control. And so we've come to the story of the "red circle of control."

At the most recent Golf Industry Show, staff members who I highly respect (let's call them Sarah and Karen) spent about 30 minutes of their busy day listening to me complain about things that were festering in my mind.

After some time, Sarah looked up at an architectural detail in a convention center archway – a red circle with what appeared to be sun rays extending out of it – and said, "Do you see that red circle? That's you. Do you see all of the lines extending out of that red circle? That's everyone else. Focus on the circle. That's the only thing you can control."

In typical Kaminski fashion, I couldn't let it sink in or conceptualize the full meaning and instead got into another 30 minutes of philosophical discussion about the interpretation of the circles and its rays. The story bounced back and forth between the

ability to focus on what you "can" control versus those things which you want to "try" to control is significant.

For someone who manages things the way I do, however, it's not easy to ignore the things around me. In San Diego, I expressed my concern that focusing on the "red circle" would mean giving up the desire to contribute to an entire industry. I distinctly felt focusing solely on me would equate to not caring about the big picture.

I've now come to the realization that I'm not as important as I'd once thought I was. It's not my job – or even position – to force my ideas on an entire industry in hopes for change.

Focus on the circle.

I've also realized focusing on what I can control doesn't mean I won't have an impact on advancing an industry.

Considering the time I spend on projects and activities, pulling back and focusing on what I can control could result in a significant improvement in my own productivity. Maybe I could throw 30 things at the wall and see four or five of them to completion.

Maybe I'm out on a limb with this, but I doubt it. I wonder if we all focused more on our own red circles would our careers, families and industry ultimately be better off for it? **GCI**

Share

As always, John encourages reader comments. Share your #redcircle stories with him on Twitter (@johnkaminski).



GO WITH THE FLOW

Complete plant nutrition solutions for your fairways and greens has never been easier, with the all new highly efficient **Rx Fairway** and **Rx Green Flowable** formulations from **Redox**.

Rx Fairway and **Rx Green** are supremely effective sources of carbon chelated and complexed P & K nutrients, combined with essential micro-nutrients, giving you the power through all seasons to improve and maintain plant vitality without excessive growth. You control the nitrogen inputs based on seasonal and other growth requirements.

From the world's leading courses to municipal and local clubs and resorts, **Redox Turf** is fast becoming the brand of choice of superintendents in all types of growing conditions. Now, you can achieve superior results with the industry's top single-package nutrition solutions:

**TURFRx Fairway
Flowable**

**TURFRx Green
Flowable**

Cost effective, safe to handle and easy to mix, the **Redox Turf Flowable** solutions provide powerful, plant-available nutrients that strengthen plant growth in any growing environment.

Call **Redox Turf** today to learn more about why more and more superintendents are choosing this fast, easy and affordable way of improving turf conditions.



RedoxTURF

www.redoxturf.com Redox Chemicals, LLC 1-877-503-2207

SPRING into action

A comprehensive spring weed control management program begins with preemergent herbicides.

By Jason Stahl

Golf course superintendents thinking about spring this year might be wondering if there will even be one. After all, there wasn't one last year, for the most part. Winter seemed to jump right to summer. But we all know that was an aberration and we can most likely expect a return to normal in 2013.

With that in mind, superintendents have to consider their spring weed control strategy. Most will probably stick to their tried-and-true methods, while some might consider less conventional approaches to get the results they desire. One of the most basic actions, however, can't

be ignored: applying preemergent herbicides.

"This is the foundation of all weed control," says Laurence Mudge, technical service manager with Bayer Environmental Science. "It has been that way for 30 years. If you don't do this, you'll fight weeds year-round with post-emergent herbicides, which is much more costly and inefficient."

Steve MacDonald, president of Turfgrass Disease Solutions, says another key is to identify problem plants and know their biology in-and-out. Also, finding herbicides that have turf tolerance for your species.

"Determine which weeds are summer annuals and can effectively be controlled with a preemergent herbicide application in the spring, and determine what weeds are perennials and need to be controlled post-emergently," says MacDonald. "Control of winter annual weeds in the spring can be hit or miss and, in most cases, these will be gone by early summer. Spring time is critical for good weed control programs because soil moisture, moderate air temperatures and vigorous turf growth are optimal when compared to summer time."

Weed control programs in cool-season turf have not changed much in recent years, MacDonald says. But that is not the case in warm-season turf.



With a normal spring, superintendents have to be thinking about their spring weed control strategy.

“There seems to be many more herbicide options that are evolving in warm-season turfgrass,” he says. “The newest herbicides we see in the Mid-Atlantic and Northeast regions are niche herbicides that fit in certain scenarios, but not all.”

One concept MacDonald says isn't new but is being employed more frequently in recent years is aggressive overseeding of the rough in the autumn and spring.

“Many golf courses are more focused than ever on the improvement of their rough turfgrass, and this can complicate weed control programs,” he says. “Because of the need to continu-

ally overseed these areas, some superintendents have changed their weed control programs in roughs from a preemergent approach to a spot treatment, post-emergence approach using quinclorac (Drive) or fenoxaprop (Acclaim Extra) for summer annual grassy weeds. The majority of golf courses, however, are still utilizing more conventional pre-emergent approaches to annual grass control.”

Kyle Miller, senior technical specialist with BASF, says one thing superintendents do in parts of the country where there is an extended crabgrass season is to put out two applications of

preemergent herbicides, one in spring and one in early summer. Others take a more non-conventional “wait-and-see” approach to weed pressure.

“What some people do is eliminate that first application, then use a product like Drive or Accelerate in combination with a second preemergent application,” says Miller. “That controls the weeds that have come up that you didn't control before when you didn't put down that first application. That will also give you some residual control during summer. Plus, you save manpower by eliminating that one application.”

As far as post-emergent weed



FOR MORE INFO

Check out USGA agronomist Brain Whitlark's article “Weed Control In Non-Overseeded Bermudagrass Greens.” Whitlark offers some strategies to provide cool-season weed control in non-overseeded Bermudagrass greens.

Enter bit.ly/VUoTyB into your browser to access Whitlark's article.

New on the Block

What new tools are out there to facilitate spring weed control? Not much, says Laurence Mudge, technical service manager with Bayer Environmental Science, at least on the preemergent side.

“A lot of the preemergent herbicides have been around awhile. There is not a lot of new technology,” he says. “In fungicides, we've had a lot of new products introduced in the last 10 to 15 years. Insecticides and post-emergent herbicides, too. But for some reason, not preemergent herbicides.”

One exception was Bayer's introduction of Spectacle a couple years ago for control of *Poa annua* in warm-season turf. This preemergent, says Mudge, will be applied starting mid-February in Florida and late February to April in other parts of the South.

“Preemergent herbicides tend to provide annual grass control – crabgrass, goosegrass, *Poa*, etc. Some preemergents provide some broadleaf weed control. Spectacle offers more broad spectrum control,” Mudge says. “There are a lot of weeds on the label, the length of control is good and use rates are extremely low. Current preemergents get applied at a

half-pound or pound per acre. Spectacle is applied at less than an ounce per acre.”

Steve MacDonald, president of Turfgrass Disease Solutions, says there are two new herbicides superintendents may see on the market in 2013: Pylex, from BASF, and Defendor, from Dow Agrosciences.

Pylex, with the active ingredient topramezone, is in the HPPD inhibiting class of herbicides, which turns sensitive weeds white.

“In our trials, this herbicide has proven to be a potentially important tool for annual and perennial grassy weed control in cool-season golf course turf,” says MacDonald.

Kyle Miller, senior technical specialist with BASF, says Pylex will provide effective post-emergent control of goosegrass.

“Goosegrass can be a big problem in cool-season turf in the transition zone,” says Miller. “Bermuda can also be a real problem in cool-season turf, and so Pylex, with multiple applications, can do a nice job of suppressing or controlling Bermuda, too. It's a niche product,



but those are two tough weeds we feel it will provide good or better control than what's available today.”

Defendor, with the active ingredient florasulam, will be labeled for post-emergent control of various broadleaf weeds.

“Just like any new product, we'll continue to learn about these materials in years to come,” MacDonald says.

Monument 75WG, released last year by Syngenta, offers post-emergent control of dandelion, crabgrass, nutsedge, clover and spurge, among other broadleaf and grassy weed, in Bermudagrass and zoysiagrass. It comes in a water-soluble, pre-measured package, and can be broadcast or used for spot treatment.



“This is the foundation of all weed control. It has been that way for 30 years. If you don’t do this, you’ll fight weeds year-round with post-emergent herbicides, which is much more costly and inefficient.”

— Laurence Mudge, Bayer Environmental Science



control, MacDonald says applications should take place as early in the year as possible to increase herbicides’ effectiveness (smaller plant and more conducive weather).

Miller advises to broadcast post-emergent broadleaf herbicides in spring to address henbit, chickweed, speedwell, etc., and



A lot of people see weeds here and there and spot spray, but superintendents will find that there are a lot of weeds that germinate all spring long.

avoid spot spraying unless you historically don’t have that much weed pressure.

“A lot of people just see weeds here and there and spot spray, but you’ll find that there are a lot of weeds that germinate all spring long – broadleaf weeds you don’t see that first time you go out to try to control them,” Miller says. “So, as a rule, it makes more sense to broadcast spray, otherwise you’re going to have to come back and retreat, which will obviously cost you time and money.”

Superintendents who were spooked by last year’s dry and mild spring should keep an eye on soil temperatures as the ultimate deciding factor on when to apply.

“Last year, our soil temperatures in March were really warm and there was a big concern that people might not be getting their preemergent herbicides down soon enough to control crabgrass. Also, people wondered if it would last as long or would they need to make multiple applications,” says Miller. “What I can guarantee for



Bird Phazer Laser for Canada geese



5 3/4" X 1 1/8"

During a recent USGA Turf Advisory Service visit, a laser was used to show how Canada geese can be removed from the course.

The pocket-sized Bird Phazer Laser emits a powerful bright green light. When the beam hits the feathers of geese, it makes a bright splash of light. Their eyes are very sensitive to uv light, and the bright green laser light is very traumatic for them. A flock of more than 50 Canada geese immediately took flight from more than 200 yards away.

\$199 Compare to the Avian Dissuader

geesedamage.com
(800) 555-9634
JWB Marketing Columbia, SC

**Turf Equipment Technicians Association
of the Carolinas**

P.O. Box 210
Liberty, SC 29657
tetac.org
800-476-4272
kclark@cgcsa.org



this year is that you will come out of winter with broadleaf weeds, just like every year, so be prepared to treat for them. Continue to monitor soil temperatures, and if we have a short winter, expect to be out earlier than normal.”

It’s impossible to predict what type of spring we’ll have in 2013. “The winter of 2012/13 has been a rollercoaster ride of cold to cool weather mixed with some warm days,” MacDonald says. He suggests superintendents plan their preemergent applications at conventional timing and scout high pressure areas for weed germination. “Flexibility and proper timing in the spring is key to successful weed control.” **GCI**

Jason Stahl is a Cleveland-based freelance writer and frequent GCI contributor.

JOHN D. BYRD, MISSISSIPPI STATE UNIVERSITY, BUGWOOD.ORG

Problem Weeds

Sedges (nutsedge and *Kyllinga* spp.) have quickly become one of the most difficult perennial weeds that most superintendents battle. Unfortunately, there are only a few herbicide options for these weeds in cool-season turfgrass, and repeated applications and time are necessary to achieve high levels of success.

“Superintendents who had issues with these weeds in 2012 and did not control them successfully will likely see them again in mid to late spring,” says Steve MacDonald, president of Turfgrass Disease Solutions.

Obviously, the weeds a superintendent should target with a post-emergent herbicide depend on where their courses are located. Florida, for instance, has alexandergrass and other weeds that aren’t found in other parts of the country.

“And doveweed is becoming a major problem in the south and southwest,” adds Laurence Mudge, technical service manager with Bayer Environmental Science.

The four annual grassy weeds that continue to be the most problematic are crabgrass, goosegrass, foxtail and Japanese stiltgrass.

“But a well-timed preemergent application in spring will successfully control these annual weeds,” MacDonald says.

PENN STATE | ONLINE

Learn from a leader in turfgrass education

Master’s Degree in Turfgrass Management

Bachelor’s Degree in Turfgrass Science

Associate Degree in Turfgrass Science

Certificates in Turfgrass Management

- ▶ Financial aid options available
- ▶ Credits awarded for GCSAA certification



Developed in cooperation with
GCSAA

PENNSSTATE
World Campus

www.worldcampus.psu.edu/GCI

U.ED.OUT 12-0568/12-WC-0352bkh/jms/sss



Henry DeLozier is a principal in the Global Golf Advisors consultancy. DeLozier joined Global Golf Advisors in 2008 after nine years as the vice president of golf for Pulte Homes. He is a past president of the National Golf Course Owners Association's board of directors and serves on the PGA of America's Employers Advisory Council.

SUSTAIN THE RIPPLE

The days of wondering whether that was light at the end of the tunnel or a train bearing down on us finally may be over. After attending the PGA Merchandise Show, the Golf Industry Show and the CMAA World Conference, I'm feeling some of the optimism that filled the aisles at those events. But before we get too giddy, let's ask ourselves: "How do we tap into the upswing and how do we make sure the momentum continues to build?"

First, a little reality. Most golf businesses are only beginning their recovery. There will be continued vulnerability and volatility in some segments for some time. The tender nature of this recovery requires that business practices such as golf and club marketing, access (for memberships and tee times) and course conditioning must be kept simple and easy to use.

However, evidence supports a recovery beyond that, which inevitably surfaces at trade shows and conferences. In its 2013 study of golfer consumer attitudes, Sports and Leisure Research Group notes a shift in golfing consumers. "After a post-recession flatness, U.S. golfers appear more poised to play and spend on golf than they have in the past three years," says SLRG president Jon Last.

Manufacturers will be among the beneficiaries. According to Last, irons, balls, apparel and drivers will see an uptick. SLRG also forecasts a favorable swing in sales of shoes and golf bags.

Golf course architects and builders note that new projects finally are hitting the drawing boards. There is no indication that new courses will exceed the number of closures in 2013; it's likely that we will see the eighth consecutive year of decline in golf course supply. But the steepness of the decline is declining, which may be a good or a bad trend, depending

on your perspective and how far you think we need to go to restore the supply/demand balance.

Listening to CMAA members at the World Conference in San Diego, it's obvious many are anticipating increased membership demand. In fact, Steven Graves, president of Creative Golf Marketing, notes membership sales at strong clubs increased – with joining fees recalibrated to market rates – throughout 2012. The preferred categories for new members in

for each touch point. Turning a surface ripple of opportunity into a genuine wave requires that all stakeholders invite return participation to expand golf's numbers. This is a time during which we all must be engaged in growing the game.

Sustained commitment to recovery is the key. Many influences external to golf and club categories are at work; but people involved in golf-related business will have a direct influence on the continued recovery of golf and

Turning a surface **ripple of opportunity** into a genuine wave requires that all stakeholders invite return participation to expand golf's numbers.

many clubs are non-equity and non-voting right-to-use memberships.

While noting that golfers are driving the industry momentum, Last also cautions that time pressures and other ongoing challenges lend a cautionary feel to golf's comeback.

In short, golf must lift itself up by its own bootstraps. But how?

Each of the major trade associations has challenged its members to increase golfer participation. New ideas are abundant in the extreme. Programs such as Golf 2.0, launched by the PGA of America and now supported by the broad assortment of interested parties, are gaining traction.

Every aspect of the user experience is important. Golf professionals must be helpful and friendly to timid newcomers. Superintendents must contribute to course set-ups that promote enjoyment and fun. Food-and-beverage managers must ensure that dining and entertainment options are family-oriented and sensitive to women's expectations for the health and well-being of their families.

Personal accountability is required

club business categories. Three ingredients fuel continued recovery:

- Personal engagement by managers, golf professionals and course superintendents; customer-facing staff must be friendly, inviting and appreciative
- Smart and patient pricing to see that facilities remain accessible to many people frightened by the recessionary cycle and unwilling to recommit to steadily increasing fee streams. Many customers and members will remain financially cautious for years to come.
- Best reasonable conditions for club and golf facilities. Returning customers have a newfound sense of value. If they tell you they lack the time or the money, they're saying they demand value commensurate to their investment.

It's easy to be optimistic now, when all around us seem to be reading from talking points prepared by golf's chamber of commerce. It will require a diligent effort on everyone's part to make sure we're feeling just as good come December. **GCI**