have a large lake to draw water from and our irrigation system is fairly state-of-the-art; the coverage is pretty good."

Despite the extreme weather around Kansas City and other parts of the southwest and Midwest – notably Arizona, New Mexico, Utah, Colorado, Texas, Iowa, Nebraska, Kansas, Missouri and parts of other states – Nielsen says he's not changing his fall fertilizing routine.

"I typically go for the second week of September every year. This year, I'm not going to change anything. The temps look like they'll be in the low to mid-80s so I'm not too concerned with that," he says, adding that Creekmoor's irrigation system will provide the water for the fertilizer to take, "but obviously, if this drought continues into the fall and winter, it doesn't bode well for next spring."

At Creekmoor, Nielsen reports his roughs thinned out a bit in the heat, but that's about all he lost. He'll have to do some over-seeding there.

"I can tell you what I should have done, considering how dry it was," Nielsen continues, "it seems to me like the drought started well before 2012. It was dry last fall, and it was dry in the spring and this spring when we were trenching a line, digging down three feet, I noticed it was super dry, and realized right then and there I should have been using more water in the spring."

"If there is one tip I can offer about fall fertilizing, it's that if you are seeding, you need to put down a high phosphorus fertilizer and be sure you maintain your soil moisture," Nielsen says.

Assuming the worst case scenario, that his area of Missouri is in for a dry fall and winter, Nielsen says he will "look to water deeper into the profile in the spring and make sure I build up the moisture there."



If you are seeding, Creekmoor GC superintendent Tim Nielsen recommends a high phosphorus fertilizer and maintaining adequate soil moisture.

Brad Gray, the superintendent at Mission Hills Country Club in Kansas City, Mo. has been in a superintendent role for 12 years. He oversees a classic walking course that was designed and built by Tom Bendelow in 1914. Mission Hills was redesigned by Keith Foster in 2006. Bendelow also designed Medinah Country Club, site of this year's Ryder Cup matches.

"This has been a terribly hot and dry summer," Gray says, "but what's unusual about it is it's always kind of hot and humid in Kansas City. But this year it's been hot and dry, almost like New Mexico or Arizona."

Gray has bentgrass greens, zoysia grass tees and fairways. The roughs at Mission Hills are fescue and bluegrass blended with *Poa annua*.

"Right now we're out there aerifying and over seeding the roughs. Then we'll fertilize on schedule the second week in September," Gray explains.

"We came through the summer the best we've ever had as far as maintaining cool season turf grass. We're in a drought, yet I'm on city water, so anything we use we buy and we've had no restrictions on our water use. We had all the water we needed, but that came with pretty high water bills."

The lack of rain put extra stress on approaches to and from cart paths, Gray says, so in those places he did some extra application of phosphides and some foliar "at the in and out places next to our cart paths."

Pressed for advice to other drought-hassled supers, Gray

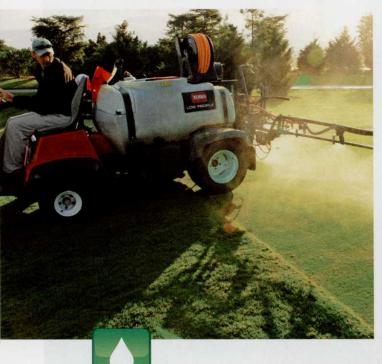
says: "Raise your mowing heights, if possible. That's a way to save money and if you do have access to the water, maybe just try to cool the plant through the day, giving it quick spritzes from the irrigation system."

Gray says the men and women on his maintenance team do their mowing in the morning and spent afternoons syringing and otherwise irrigating certain stressed areas at Mission Hills.

What if there is no relief in sight, and an equally dry winter is expected?

"I won't alter my plan next spring," Gray says.

"Every super should be tweaking their management and maintenance practices all the time, there might be a few things I tweak but it won't be much different in the spring."



"Hopefully, where possible, the superintendents are using irrigation in conjunction with their fertilization programs. Once there is rainfall, eventually the whole turf grass plant is much better hydrated."

- CHARLES "BUD" WHITE

Charles "Bud" White at the USGA's regional office in Dallas, says superintendents with warmer weather Bermuda and zoysia grasses need to go with a more phosphorus and potassium in late summer and early fall to help these grasses have better winter tolerance.

"When Bermuda grass goes dormant in the fall, it's much more susceptible to winter kill, so the fertility plan should be geared toward trying to offset the chance of winter kill affecting the grass too much. That should be the focus for people who use warm season grasses, or the golf courses primarily in the South," White explains.

"With bent grasses we advise a similar scenario, a little more phosphorus and little more potassium for the same reasons of trying to establish root growth and rebuilding a healthier plant," White adds.

In Dallas, Sept. 4 was the area's 31st day of 100 degree plus temperatures, White says, noting "normal" for Dallas is 18 days per year of 100 degree plus temps. Last year, Dallas had a record-setting 71 days of 100 plus temperatures, "and this year,





Warmer weather Bermuda and zoysia need more phosphorus and potassium in late summer and early fall to help with winter tolerance.

we've had another hot summer, not quite as bad as last year, but almost equally as dry."

White says the drought area as he understands it includes all of Texas, Louisiana, Arkansas, Oklahoma, New Mexico, Colorado, Nebraska, Iowa, Kansas, Missouri and Tennessee, "and this year it was very difficult, it even went on into the Carolinas and Georgia."

"Hopefully, where possible, the superintendents are using irrigation in conjunction with their fertilization programs. Once there is rainfall, eventually the whole turf grass plant is much better hydrated," White says.

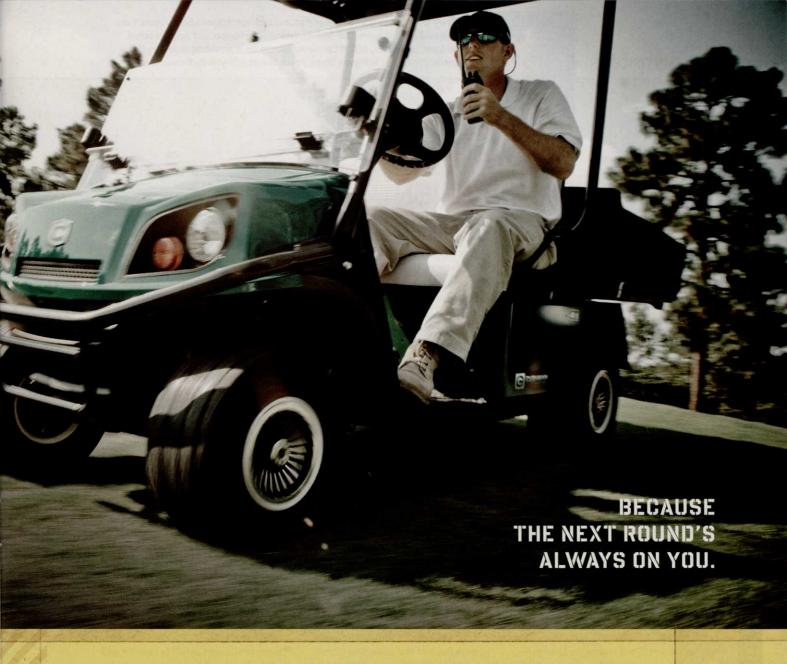
"It's going to take several inches of rain to get the soil back to where it was, and in some places in the drought states there's been several inches," he adds. "That's why we recommend potassium and phosphorus to rebuild a strong root and rhizome system."

Dr. Richard White, a professor of Turfgrass Physiology and Management at Texas A&M University in nearby College Station, Texas, says a good time for supers with cool season grasses to fertilize is once there's a break in the hot and dry weather.

"The challenge is some of your superintendents are dealing with warm season grasses and some are dealing with cool season grasses," says White.

"My recommendation is as long as hot dry conditions of summer have moderated, that's when you should look to fertilize. If you can, wait for somewhat cooler fall temperatures." GCI

Richard Skelly is a freelance golf writer based in Spotswood, N.J. and a frequent GCI contributor.



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Jeffrey D. Brauer is a veteran golf course architect responsible for more than 50 new courses and more than 100 renovations. A member and past president of the American Society of Golf Course Architects, he is president of Jeffrey D. Brauer/GolfScapes in Arlington, Texas. Reach him at jeff@jeffreydbrauer.com.

GOLF'S GRAND DESIGN

ne of the American Society of Golf Course Architects ongoing missions is to foster public awareness of the profession. In August, they unveiled their newest effort, and hit a home run. Both Golf's Grand Design, the Public Broadcasting television special and the companion book of the same name are excellent additions to the field of golf course architecture. Both chronicle the stories of the surprisingly small cadre of golf architects over more than a century in America.

The project was the brainchild of current ASGCA President and Golf Digest writer Ron Whitten, who worked with WNED, the PBS affiliate in Buffalo, N.Y., to make the program, with funding by the Robert J Stansky foundation and support from the ASGCA foundation. Over the years, ASGCA has produced technical papers, articles and books about the profession, but TV is obviously the biggest media available used to date. The fact that PBS was interested in showcasing golf course architecture speaks volumes to the awareness that has come to golf architecture.

The show premiered on Aug. 3 in most markets, but several aired it later in the month. If you missed it, the PBS website has many related clips mostly interviews with architects like Nicklaus, Doak, Fazio, Cupp, Coore, Crenshaw and David Mclay Kidd.

The show is an hour-long recap of the leading movements and ideas, together with the short lived fads in American golf course architecture. It touches on how the craft emerged and grew in America, starting with the early Scots and English who knew the craft and taught their local assistants, who gained experience and eventually struck out on their own. It covers the transformation to American architects like Charles Blair McDonald,

Donald Ross and A.W. Tillinghast before WWII, and Robert Trent Iones after the war. It then highlights the best architects of the last 50 years and the trends in architecture from "total site manipulation" to "minimalism." It helps the viewer understand the passion today's architects bring to the projects awarded to them, and provides small glimpses into the golf architect's mind-set using interviews with top architects, intelligent narrative, and stunning video.

group comes from landscape architecture training, others come from fine arts, engineering, agronomics, business, law, and of course, Tour players. Each brings unique insights, but must learn the other skills used daily by golf architects, which include a mixture of artistic work in dirt with large machines, golf knowledge, and grounding in less sexy design principals, such as drainage, agronomics and circulation. They must consider the proposed - or in renovations, existing- maintenance

It is well done and my only complaint is that an hour isn't enough time to capture much beyond the highlights.

It is well done and my only complaint is that an hour isn't enough time to capture much beyond the highlights. However, as familiar as I am with golf design history, even I picked up a few tidbits.

That's where the "old school" companion book of the same title comes in. Authored by Cupp and Whitten, it fills in the gaps created by television time constraints. They converse as experts and friends in over 30 short, and easily digested chapters that you can read separately. Each chapter focuses on a different architect, project and backstory about the architect and architecture. Most contain copies of the original design sketches of the architect, showing the variety of methods used. Cupp and Whitten explain the project and challenges via their inside knowledge as authors and architects to provide deeper analysis of the architectural thought process.

It is a collection of fascinating stories about an eclectic bunch of not more than a few hundred golf course architects worldwide, who come from diverse backgrounds. While the largest regimen. After that, golf architects need the engineering ability to put it all together, plus background in construction to design in "constructability" on a reasonable schedule.

The combination of very different creative people, individual sites, and more challenges result is an ever-widening variety of design styles, which beckon golfers to a new challenge.

The inherent interest by nearly every golfer in the design of the playing fields is why Golf's Grand Design is so long overdue, and of interest to so many, including those golfers those who think that given the chance, they could and would create a great golf course. It takes a bit of thought to design a golf course, and greater vision to build a great one. This documentary sheds some light on the real process.

For golf architecture fans, the documentary is an entertaining show, and the companion book may be a better read. Even if you missed the broadcast, the books stands alone and the book form lets you go over the interesting parts again to absorb the ideas behind America's golf courses. GCI



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LIKE A GOOD

Mentoring great assistant superintendents is as much a skill as keeping your turfgrass disease free. Doing it well puts the future of the golf course industry in good hands.

BY JASON STAHL

en Mangum learned a lesson about managing people early on in his career. He was fresh out of college and gung ho on being the hardest worker on his golf course maintenance crew. In the morning, he would mow nine of the greens, while a co-worker would mow the other nine. He would routinely be done by 9 a.m., ready to start on something else, while the other guy wouldn't finish till 11 a.m.

"I talked to my boss about it because I thought it wasn't right," says Mangum. "He asked me what I would do with the guy, and I said I think I would have to fire him and hire someone else who could do a better job. He told me I should probably look a little deeper before doing that."

Turns out, the "other guy" couldn't read or write and could only operate a walking mower or a trimmer because he couldn't drive. But he never missed a single day of work and supplemented his minimum wage income by selling golf balls he found on the course.

"My boss said, 'He's one of the most dependable guys I have, and

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you want to fire him?' I said, 'I think I'd like to reconsider," says Mangum.

The lesson Mangum learned? Not everyone is going to be a superstar, but everyone can contribute. Also, that learning how to deal with a variety of different people is key to success as a superintendent.

As director of golf courses and grounds at Atlanta Athletic Club with almost 40 years in the industry, Mangum has managed and mentored his share of people. And when it comes to mentoring assistant superintendents, he says the ideal "students" are those with a strong work ethic and a desire to learn.

"They can't come from a standpoint of, 'I already know it all," he says. "It's what you learn after you know it all that counts."

Mangum believes it also pays for an assistant superintendent to be inquisitive and a believer in a better way of doing things.

"I still think, even today, that there always has to be a better way, no matter what we're doing," he says. "You should never be satisfied with what you did last year. We have a saying around here that the only constant thing is change. If we can't change something we did last year, then we aren't looking hard enough at ways to improve."

So what makes an ideal mentor of assistant superintendents? Clearly, not everyone is cut out for the job. But Mangum believes it starts with being a true professional yourself with a solid track record of integrity and honesty.

"Most likely, those people who are that way were mentored by someone who also was like that further down the line," says Mangum.

Even though assistant superintendents' responsibilities have significantly expanded today from what they were, say, 20 years ago, Mangum believes the fundamentals of mentoring them haven't changed. The one thing he has always not done is tell them what to do.

"I want them to figure it out themselves," says Mangum. "I say, 'Well, how would you solve it?' Their way may not be exactly the way I would do it, but that's not the issue. The issue is getting the job done. So we go back and forth, and maybe I learn some-



thing and they learn something."

By making assistant superintendents part of the problem-solving process, Mangum empowers them and also lets them make mistakes – another important part of the mentoring process.

"How do you make good decisions? How do you gain valuable

experience? By making bad decisions," Mangum says.

Even though there are more turf school graduates than there are job openings right now, Mangum believes there will always be room for the "good people."

"People who are marginal and don't have the dedication and

So what makes an ideal mentor of assistant superintendents? Clearly, not everyone is cut out for the job. But Mangum believes it starts with being a true professional yourself with a solid track record of integrity and honesty.



"You're the coach. Early on, someone you initially placed in the outfield may watch the infielders and develop. Eventually, as they acquire new abilities, you can move them into the middle infield. And boy, are you a proud individual when they move on to coach another team."

ability will struggle," he says.

Like Mangum, Marc Davison, superintendent of Green Bay Country Club, believes that one of an assistant superintendent's biggest downfalls when starting out is being a "know-it-all." He has found some are a little overconfident coming out of college, and there are lots of little things that can't be taught in school that they still need to learn.

"So a lot of times you have to rein them in a little," says Davison. "But that's the beauty of having a 30-year veteran mentoring you. He has been through all of those 'little things' - dealing with the grounds committee, the board of directors, the golf committee, etc. Still, assistant superintendents can't have this mentality of, 'I'm in charge and I don't care what the membership says.' We have to maintain the course, but we have to do it in cooperation and coordination with what the membership wants.

Like Mangum, Davison doesn't believe in dictating his own way of doing things but encouraging the assistant superintendent and the rest of his team to come up with solutions themselves.

"I let them explore on their own," he says. "I'm not a real decisive guy, so when I have to make a decision, I get my top guys together and talk things out. I don't keep a hierarchy. We're all at the same level, and I want to hear what everyone has to say."

Davison likes to give authority to assistant superintendents he's mentoring, but he says you have to gradually build up to that and not load too much onto them right out of the gate.

"A guy right out of college at his first assistant job is not going to feel comfortable leading a crew for weeks on end, but eventually they understand the routine and you can start letting them coordinate things," says Davison.

As an example, if Davison was rebuilding his bunkers, he might put his assistant in charge of a certain part of the task - the sand removal, drainage tile or edging. In his mind, giving them the authority shows them that not everything has to be his way.

"I want them to know that I don't think I'm any better than them, and I think they appreciate that," says Davison.

Davison also prescribes to a tactful approach to mentoring assistant superintendents, especially if he notices something he doesn't feel is right. The last thing he wants to do is discourage them or squelch their authority by calling them out in front of

"I might pull them aside and say, 'Hey, I think we need to change cups today, but I don't see it on the board," Davison says. "It's all about doing it in an appropriate way."

Also like Mangum, Davison believes in the power of making mistakes. He feels that assistant superintendents can learn more from their failures than their successes. And their mentors should expect failures so they're better equipped to deal with them when they do happen.

"Whoever is doing the mentoring needs to understand that their assistant is going to fail," he says. "They shouldn't get alarmed if they do fail or go in the wrong direction. It's not the end of the world."

Brian Sullivan, director of Belair Country Club in Los Angeles, has a rather frank opinion of how some of the assistant superintendents he has mentored might characterize their former summers under his tutelage: hell.

"But most tell me a couple years later that it was one of the best summers of their lives,"

says Sullivan of the mentoring process. He believes a good mentor leads by example, acts and behaves like a professional, and is willing to spend the time and resources necessary to develop another individual.

A good student, says Sullivan, is one who has a desire to learn and attempts to be the example.

"They're at work early and ask questions late," says Sullivan. "They may not know the answers, but they desire to find

Sullivan tells the story of one former assistant he mentored who staved so late he used to have to go find him in the dark to lock up the shop. Another superintendent once asked Sullivan about what kind of worker this assistant was, and Sullivan replied, "I would never ask him to dig anything for fear that he would bore through to China.

Attitude and experience are also important in an understudy, says Sullivan, along with the proper education. "An education is the catalyst for success in the marketplace," he says.

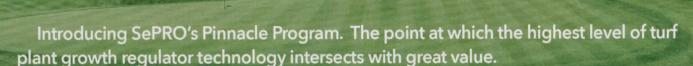
Still, Sullivan acknowledges that not everyone is the same, a nod to Mangum's lesson on people management. Each assistant up for mentoring has different attitudes, thresholds and desires. But Sullivan says developing them is akin to baseball.

"You're the coach," he says. "Early on, someone you initially placed in the outfield may watch the infielders and develop. Eventually, as they acquire new abilities, you can move them into the middle infield. And boy, are you a proud individual when they move on to coach another team." GCI

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



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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.

FIVE FINANCIAL INSIGHTS

s the 2013 budget season gets underway, owners, operators, superintendents and managers are finding that knowledge is far more valuable than a calculator or spreadsheet. If you have budget responsibilities, here are five insights to help you map your facility's financial plan.

LOCAL MARKET UNDERSTANDING TRUMPS MACRO VIEW. Most facilities rely on macro-level research - the number of rounds played and the ebb and flow of the golfer population - as leading performance indicators. While research from PGA PerformanceTrak and the National Golf Foundation help elucidate this kind of information, understanding local market data is more important. Readily available U.S. Census Bureau data, for example, reveals shifts in population, household earnings and consumption that help you gauge your market's health and vitality. Golf trends have remained soft and demonstrate the "slow leak" that NGF CEO Joe Beditz has warned of for years. But growth is more likely for facilities that have better and more actionable data to support their investment in programs or capital improvements. Local knowledge is a competitive advantage.

MEMBERSHIP OPTIONS GENERATE **INCREASED REVENUES.** Barring a significant economic reversal, 2013 membership sales will improve over 2010-12 levels, and more likely where facilities offer membership options.

Although traditional equity memberships have fallen into disfavor at many clubs, club membership - the desire to be a part of an exclusive group with common interests - remains attractive across diverse market segments and geographies. The trick is to offer flexibility that encourages consideration. For example,

many clubs are adding new members through local marketing and programs that promote low-risk, easy-to-access memberships. Non-equity, non-voting memberships that require a one-time joining fee are attractive in many markets. While the price range varies by market, the value is in attracting and keeping dues-paying members.

Discovery or trial memberships are also a useful method for attracting potential members who want to try the club before making a financial commitment. Trial memberships often offer attractive joining fees and dues that are similar (if not the same) as regular dues. In addition to discovery memberships, international and generational memberships are finding market support.

"Management teams can reduce this cost escalation through careful consumption control and procurement practices."

RECRUITMENT AND RETENTION PLAN-NING SUSTAIN GROWTH. Programs such as the PGA of America's Golf 2.0 initiative are building interest and attracting players. Recruitment, which requires constant attention and effort, is a part of most clubs' business plans. In 2013, savvy operators will focus on retention, including tactical solutions for retention - rewarding participation based on predetermined targets and competitions that reward the customer who plays the most rounds.

COSTS FOR CONSUMABLES AND PETROLEUM-BASED PRODUCTS WILL INCREASE. Corn prices, which are

trending upward following a droughtravaged 2012 harvest, will drive up costs for everything from syrups and oils to meats and poultry. Fuel prices will escalate and be affected by events such as Hurricane Isaac, which shut down several refineries for short periods. While U.S. fuel costs remain low compared to most oil-consuming industrialized countries, price increases impact all goods and services delivered to your facility.

Management teams can reduce this cost escalation through consumption control and procurement practices. Participating in procurement programs, which take advantage of volume-purchasing, can partially mitigate cost increases. If in doubt, ask one of the large procurement services to show you how much it charges customers for certain products and then compare your costs.

OVERHEAD COSTS TIED TO INSURANCE AND COMPENSATION WILL GROW. Until the new Club DNA program launched by the Club Managers Association of America is readily available, insurance costs at most clubs will continue to increase. By rewriting the risk profile of your club - the strategy behind the new CMAA program - many facilities will reduce their premiums.

Most alert club leaders have developed a compensation strategy within the club's overall business planning model. Many clubs deferred bonuses and pay increases for a year or two during the depth of the recessionary cycle. But most have begun to acknowledge the critical and competitive importance of retaining top-performing employees. As such, overall compensation for the club segment will increase in 2013; the turnover of poor performers and continued reductions in force will be used to combat these increased labor costs. GCI