



Darren J. Davis, director of golf course operations at Olde Florida Golf Club doesn't believe verticutting eliminates the need for thatching.



Davis and his crew uses both methods as cultural practices at his course in Naples, Fla.



OLDE FLORIDA GOLF CLUB

## DRIVING THE QUEST FOR THE PERFECT CUT.



**BED KNIVES**



**REELS**



**ROLLERS**

With parts fitting over 250,000 applications in five distribution centers, the part you need is only a click away. All of our parts are competitively priced and tested to ensure the highest quality. So you can use the best parts at a great price. And best of all, you can do it really fast.

**Helping Business Run Better™**



**1-800-457-7444**

[www.stens.com](http://www.stens.com)



“It’s like asking a superintendent, ‘do you believe that you should grind or do a touch-up grind.’ **I believe the answer comes from their schooling.** They come out of school with an answer and it just sits in their brain and no matter what anyone tells them, their way is the right way.”

— David Ramirez, Ariens Co.

dethatch. Instead, he prefers to use a Graden vertical mower, which he uses once a year on his greens.

“I hear some people talking about these vertical mowers you can use to detach, but I go back to turf school and the definition of thatch,” he says.

“To dethatch means getting into the thatch, which is below the surface, and blades on a vertical mower don’t do that,” Davis says. “Instead, I use a walk-behind Graden unit once a year on my greens. I use a 2-millimetre blade at 1-inch spacing and at a quarter-inch deep. This lets me cut all the way through that thatch. The Graden has a saw-like blade on

it and it cuts through the thatch and pulls it all up. The amount of thatch the Graden can pull up is tremendous. I recommend it as an excellent dethatching tool.”

Matt Shaffer, director of golf course operations, at Merion Golf Club in Ardmore, Pa., takes a bit of a different approach to verticutting. He can’t imagine using venting and light verticutting in the same sentence. Shaffer goes back to the textbook and to his learned definitions to explain what makes the most sense from a turf theory point of view.

“When I think of venting, it is an air shaft open or filled with sand,” he explains. “Light verticutting, for me, is grooming. Perhaps it

is just verbiage, but grooming for me means removing leaf tissue, whereas verticutting means removing sloughed off leaves and old roots or thatch. I groom to increase speed and smoothness on my greens.”

When your groomers are set at the effective depth you can’t see any lines, Shaffer adds. “I verticut to remove thatch, you will see the grooves whether you chose to leave them open or topdress them shut with sand,” he says. “I vent to bridge the gap between full-blow aeration. You won’t see these for long especially if you roll right afterwards. I aerate to remove earthy material and replace with sand to increase my percolation and to place amendments deep in the profile. If you can’t see the hole, then you haven’t aerated. In my opinion, all of these are independent actions that aren’t the same.”

According to some suppliers, if done frequently, verticutting can replace the need to dethatch

David Ramirez, Ariens Co. manager of product training, says a light, frequent verti-



the ultimate green industry experience

# Un-Conventional!

**February 2 – 4, 2011 • Wednesday, Thursday & Friday**  
Boston Convention & Exhibition Center • Boston, Massachusetts

**Register before  
January 15  
& save!**

**REGISTER TODAY**

**More than 30 seminars covering today’s hottest topics:** *Ecological Landscaping* *Social Media*  
**EDIBLE LANDSCAPES** *Perennial Diseases* **CLIMBING & RIGGING** *Customer Retention* **BARE ROOT TRANSPLANTING** *Retail Success*  
*Landscape Design* *Water Management* **ALB & EAB** *Native Plants & so much more!*







**Special registration offers starting as low as**  
**\$30.00 per person!**

[www.NewEnglandGrows.org](http://www.NewEnglandGrows.org)  
(508) 653-3009

New England Grows is produced by the industry, for the industry.

**Proud partners:** New England Nursery Association • Massachusetts Arborists Association • Massachusetts Association of Landscape Professionals • Massachusetts Nursery & Landscape Association ... and a network of more than 30 allied green industry organizations.

MEDIA PARTNER





## Frequency

Most golf course superintendents will verticut three times per year.

In the fall, if overseeding, then again in the spring, and finally, depending on the conditions, will verticut once again in the summer. While cultural practices for verticutting and dethatching, along with frequency, vary from greenkeeper to greenkeeper depending on their education and experience and the unique characteristics of their course, seasoned superintendent Brian Netz sums it up best with the following analogy.

"Personally, I don't think you can rely on one thing, like verticutting, to control your thatch," says the golf course superintendent at Presidio Golf Course in San Francisco, Calif. "You need to examine all parts of your plan. It's like a puzzle; you can't see the picture if your missing one piece. If you have verticutting, but don't have topdressing or fertility, you have no picture. On poa/bent greens I would say verticutting on a frequent basis would be adequate to control thatch. This would differ depending on climate and turf species, obviously. For us, it works well in combination with a dialed-in fertility plan and a frequent - weekly - light topdressing plan.

"You have to dial all the components in," he concludes. "That is a time-consuming process. I have yet to find where a solution to any agronomic problem is as simple as one solution. We do way too many things to our turf to consider just verticutting a solution to thatch. You have to examine how the thatch got there and what can we change to keep from creating it. Verticutting is just a screwdriver in a box full of tools."

cutting will provide enough venting to alleviate the need for superintendents and maintenance crews to dethatch. The key word, though, is frequent.

"If you wait too long, then the need for dethatching is necessary," Ramirez explains. "Superintendents should try to implement a frequent verticutting process as the clean-up time after dethatching is brutal."

Ramirez believes verticutting and dethatching are essentially the same thing. "It's like asking a superintendent, 'Do you believe that you should grind or do a touch-up grind?' I believe the answer comes from their schooling," he says. "They come out of school with



# BEAUTIFULLY SIMPLE



PRECISION CUTTING / LOW MAINTENANCE / DURABLE BUILD

## HUSTLER 7700 FAIRWAY



**HUSTLER**

HUSTLERTURF.COM



## The Turf Professional's Free On-line Source for Weed ID and IPM Control Recommendations

- Weed ID Photos • Regional Alerts
- Control Options • Turf School Links

### TEST YOUR WEED IQ! WEEKLY CONTEST-

Correct ID  
Can Win This  
Magic Mug  
With Disappearing Ink



An Industry Service From  
**G pbi / GORDON**  
CORPORATION  
An Employee-Owned Company

[www.golfcourseindustry.com/readerservice](http://www.golfcourseindustry.com/readerservice) - #28

## TURF MAINTENANCE

an answer and it just sits in their brain and no matter what anyone tells them, their way is the right way.”

According to Ramirez’ way of thinking, the only difference between the two depends on the application and the equipment used. Ariens tow-behind verticutter is one of its best-selling products and Ramirez says golf course superintendents like it for three reasons.

“First, its aggressiveness,” he says. “It aggressively gets the thatch out. The blades are accepted by superintendents as one of the better blades on the market because of its carbine tip; they last longer, especially when you get to places like Colorado and even Hawaii where the soil is hard. The blade tip stays sharp even in these tough soil conditions.”

Ramirez says that a blade-type verticutter allows you to verticut and dethach – letting a superintendent get two jobs out of one.

“The second thing superintendents like about our blades is that you can set them to go down as deep as one inch,” Ramirez continues. “But, we don’t recommend this because it takes more to clean up.

“Instead, we recommend you set the blade to go down 1/8 to 1/4 of an inch and then you are actually alleviating the soil,” he adds. “You are not doing a true aerification, but you are relieving some of that compacted soil – getting into the roots faster or allowing the grass to germinate quicker if overseeding at the same time.”

Ramirez says his company’s verticutter doesn’t damage the turf and force superintendents to shut down their course for several days to clean up the thatch.

“I know some products sold have a spring tine for dethatching and those tines abuse the grass more than a blade,” he explains. “That spring is just sheer pressure on the ground and it will flick and tear; it doesn’t leave a consistent groove in the ground if you are trying to break that compaction. It will do a great job of getting the thatch to the top, but it’s not essentially doing the two things that a blade verticutter can do.” **GCI**

*David McPherson is a freelance writer based in Toronto.*

**So where do you stand on the verticutting debate?** Does this practice make sense for your course and how do you use it effectively? Weigh in on this topic by sending your thoughts to [gci@gie.net](mailto:gci@gie.net). We will feature some of your responses in future issues.

United States Postal Service Statement of Ownership, Management, and Circulation Required by 39 USC 3685		(Requester Publications Only)	
1. Publication Title: GOLF COURSE INDUSTRY			
2. Publication Number: 1054-0644			
3. Filing Date: 10-1-2010			
4. Issue of Frequency: Monthly			
5. Number of Issues Published Annually: 12			
6. Annual Subscription Price: Free to Qualified			
7. Complete Mailing Address of Known Office of Publication (Not Printer): GIE Media, Inc., 4020 Kinross Lakes Parkway #201 Richfield, OH 44286		Contact Person: Melody Berendt Telephone: 800-456-0707	
8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not Printer): GIE Media, Inc. 4020 Kinross Lakes Parkway #201 Richfield, OH 44286			
9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor - Publisher: Pat Jones, GIE Media, Inc., 4020 Kinross Lakes Parkway, #201, Richfield, OH 44286; Editor: Mike Zawacki, GIE Media, Inc., 4020 Kinross Lakes Parkway, #201, Richfield, OH 44286; Managing Editor: n/a, GIE Media, Inc., 4020 Kinross Lakes Parkway, #201, Richfield, OH 44286			
10. Owner - Full name: Richard J. W. Foster, Owner, 4020 Kinross Lakes Parkway #201, Richfield, OH 44286			
11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages or Other Securities: None			
13. Publication Title: GOLF COURSE INDUSTRY			
14. Issue Date for Circulation Data: September 2010		Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
15. Extent and Nature of Circulation		28,628	27,551
a. Total Number of Copies (Net press run)			
b. Legitimate Paid and/or Requested Distribution (By Mail and Outside the Mail)			
(1) Individual Paid/Requested Mail Subscriptions Stated On PS Form 3541. (Include direct written request from recipient, telemarketing and internet requests from recipient, paid subscriptions including nominal rate subscriptions, advertiser's proof copies, and exchange copies)		27,067	26,683
(2) Copies Requested by Employers for Distribution to Employees by Name or Position Stated on PS Form 3541		0	0
(3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid or Requested Distribution Outside USPS		102	69
(4) Requested Copies Distributed by Other Mail Classes Through the USPS (e.g. First-Class Mail)		0	0
c. Total Paid and/or Requested Distribution (Sum of 15b (1), (2), (3), and (4))		27,168	26,752
d. Nonrequested Distribution (By Mail and Outside the Mail)			
(1) Nonrequested Copies Stated on PS Form 3541 (include Sample copies, Requests Over 3 years old, Requests induced by a Premium, Bulk Sales and Requests including Association Requests, Names obtained from Business Directories, Lists, and other sources)		1,027	601
(2) Nonrequested Copies Distributed Through the USPS by Other Classes of Mail (e.g. First-Class Mail, Nonrequester Copies mailed in excess of 10% Limit mail at Standard Mail or Package Services Rates)		0	0
(3) Nonrequested Copies Distributed Outside the Mail (Include Pickup Stands, Trade Shows, Showrooms and Other Sources)		233	0
e. Total Nonrequested Distribution (Sum of 15d (1), (2), (3))		1,260	601
f. Total Distribution (Sum of 15c and 15e)		28,428	27,353
g. Copies not Distributed		199	198
h. Total (Sum of 15f and g)		28,628	27,551
i. Percent Paid and/or Requested Circulation (15c divided by 15f times 100)		95.57%	97.80%
16. Publication of Statement of Ownership for a Requester Publication is required and will be printed in the issue of this publication.		November 2010	
17. Signature and Title of Editor, Publisher, Business Manager, or Owner		Date	
Melody Berendt, Director Circulation		9/30/2010	
I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).			



**Monroe Miller** is a retired golf course superintendent. He spent 36 years as superintendent at Blackhawk Country Club in Madison, Wis. Miller can be reached at [groots@charter.net](mailto:groots@charter.net).



THE MONROE DOCTRINE

## WHO WOULD YOU LIKE TO HAVE MET?

Recently I was daydreaming about my dad, thinking about how much I miss him and the questions I'd like to ask him.

This reflection led me to wonder about ancient relatives who I have spent a lifetime studying through various genealogy projects. Soon I was imagining which ancestors I would like to meet. I could see how they stood, hear their voices and ponder their views on the world and life.

Before long I was thinking about important people in history – Presidents Washington, Monroe and Lincoln, to name a few. Wouldn't it be something to meet old William Shakespeare and listen to what the world's greatest wordsmith had to say? Or how about Mozart, Beethoven or Bach? I would love to meet Martin Luther and John Wesley, Michelangelo,

to know him a bit. He shared stories about his father, Joe. They were great and I wish I'd known him, too.

Good fortune allowed me to meet Sherwood Moore, a gracious gentleman who was a giant among us, so much so he was given the Old Tom Morris Award by GCSAA. I never had the opportunity to meet John Bone, a predecessor at my club of 36 years. He was one of our state chapter's founders and the only man to serve three terms as its president. He wrote extensively in the Green Section Record and the National Greenkeeper. I would have learned a lot.

And who wouldn't cherish the opportunity to meet Col. John Morley, the visionary who led the formation of our modern day GCSAA?

I have been lucky to know many of the professors and scientists who

were influential in the Green Section. Add to this list other well-known professors who played a role early in our business, such as MSU's William Beal, Cornell's Liberty Hyde Bailey and Wisconsin's Aldo Leopold.

Then there's O.J. Noer, one of turf's all-time great agronomists, who died before I was a turf undergrad. He was a great man, a pioneer and an intellect and writer who was accorded the GCSAA DSA three times.

Like most superintendents, I have an interest in course design and designers. It has been a privilege to enjoy a friendship with Geoffrey Cornish. Many of those his junior have been friends, also. And wouldn't it be great to meet Alister Mackenzie, A.W. Tillinghast and C.B. Macdonald and Donald Ross? The best we can do is study their work and read their words.

As a bibliophile I've had contact with many golf writers. I had a warm relationship with Hebert Warren Wind, met the Graffis brothers and have a nice collection of autographed golf books. But in golf's history, Bernard Darwin stands out. Gosh, I would love to have heard his voice and engaged him in conversation.

I would include some tangential individuals, such as equipment pioneer John Deere, landscape architect Fredrick Law Olmstead and U.S. Senator Justin Smith Morrill. Surprisingly, the only players on my list are Bob Jones, Walter Hagen and James Braid.

This brings me to the person I would like to have met the most. He is the obvious choice – Old Tom Morris. With his full beard and stout appearance, he stood out with a presence few had. Biographies of him say he was a friendly, respectful and well-organized person who commanded respect. I don't think I would shrink in his presence, no doubt I would be at a loss of words. For a while, at least. **GCI**

---

This all brings me to the person I would like to have met the most. He is the obvious choice. – **Old Tom Morris.**

---

Norman Rockwell. Paul Revere, Ernie Pyle and E.B. White, along with Tom Edison and Henry Ford.

Soon I was contemplating professional ancestors. The relative youth of our profession, my age and many fortuitous opportunities have allowed me to meet and know many industry luminaries and leaders.

I once shared a cab ride with Eb Steiniger, and fairly early in my career I was introduced to Chet Mendenhall. Founding GCSAA member Harry Hanson lived close by and I visited him often. Once, Walter Wood and I were on a program together and he invited me to stay with him if I ever visited St. Andrews. Years ago I had lunch with Richie Valentine and I was delighted

advanced the profession through research, teaching and extension activities. From those at our own land grant university to various men and women around the country – so many to name I'd surely leave someone out. But I have attended their classes, read their textbooks and sought their advice on a personal basis. They all made phenomenal contributions. I can go back as far as Dr. Fred Grau, but I never met Dr. Burt Musser, well known in his time because of his excellent and widely used textbook.

And speaking of textbooks, I'd love to have met Drs. Piper and Oakley, USDA turf researchers who in 1917 authored "Turf for Golf Courses." It was a standard text for years and both





# Don't throw away that old toothbrush

Don't be so quick to chuck that frayed and weathered toothbrush you've thought can no longer help prevent cavities. While it may no longer work to clean your teeth, it's a perfect tool for cleaning the tips of your sprayers. That's one of several tips Peter DeHaan offers to help greenkeepers maintain this heavily-used piece of equipment. As the technical support representative from TeeJet Technologies, DeHaan is duly qualified to speak on this subject.

The most important thing, according to DeHaan, when you use a sprayer on a daily basis is to rinse it out after each use. Allowing the residue to dry and harden will only make cleaning more difficult. "That can definitely help as far as the tip clogging," he says. "It can also help prevent later damage to its internal parts. By letting some of the chemicals you use sit in the lines and in the tank, you will cause mineral and chemical build up in the lines that will eventually cause clogging of your tips, so always rinse your sprayers out after each use."

**GET TO THE TIP OF THE MATTER.** DeHaan says equally as important is to not neglect the tips. This is where clogging can occur and he always recommends superintendents use tip strainers, not just line strainers. If you get clogging in the tips, it will cause an uneven application.

"A lot of people think they are a pain and they don't use them, but if you use them, you will see the benefit," he says. "Most



“Tips are essential to get an even spray pattern, so if you use something to clean them that is too coarse, you can damage them. And, a **damaged tip** can actually have worse distribution than a worn tip.”

— Peter DeHaan, TeeJet Technologies

# How to clean out nozzles with a toothbrush

by David McPherson

sprayers come with inline strainers that filter the sprayer right at the tip. Even if you are just spraying water, the minerals in the water will build up in the line at the tip, so it's good to perform this routine maintenance as the last check right before the nozzle.

As mentioned, one of the best ways to clean the nozzle is to use a toothbrush since you want something softer than the tip that is non-abrasive. DeHaan says TeeJet sell tip cleaning brushes, but they basically perform the same function as a toothbrush.

“The reason you want to use something like a toothbrush is because the tips are pretty delicate,” he says. “Tips are essential to get an even spray pattern, so if you use something to clean them that is too coarse, you can damage them. And, a damaged tip can actually have worse distribution than a worn tip.”

At same time you clean your tips, check them for wear and tear. Don't use them for multiple years without changing. The best way DeHaan recommends to check your tips for wear is to keep a new tip on the side and then once or twice per year, put that on and compare a spray with it to the old tip for a minute at a certain pressure.

“Compare the difference in the flow you get out of each tip,” he explains. “If there is more than a 10 percent difference, it's time to change the tips. Don't base your decision to change the tips on how many hours you've used them or how much acreage you have because that's vague... tips are going

to wear differently at different pressures and different materials used.”

Always clean your sprayer and tips immediately following each spray application. Allowing the residue to dry and harden will only make cleaning more difficult, says Warren Wybenga, turf equipment manager at Donalda Club, Toronto, Ontario. Never use a piece of wire or any sharp object such as a piece of wire or dental pick to scrape residue from the nozzle as scratches or other damage to the nozzle will negatively affect its spray pattern and performance characteristics.

“If one nozzle is performing poorly while the others seem to be working properly and cleaning doesn't seem to make an improvement, consider replacing all nozzles instead of just the suspect one,” he says. “As a set of tips gets more hours of use and depending on the product used, they will tend to wear out. Replacing one at a time will give an equally unacceptable, non-uniform appearance to the spray pattern.”

And finally, thoroughly clean the sprayer and always use the recommended PPE's (personal protective equipment), even when cleaning the nozzle tips.

## GET READY FOR WINTER'S LONG EMBRACE.

Just like putting away any of your equipment in the fall, when it's time to put the sprayer away for the winter, DeHaan says to make sure the valves are cleaned out. “You don't want any fluids sitting in your lines for the winter because they will expand, freeze and eventually crack,” he says. He adds that the end of the season is also a good time to replace any seals if you've had any leaks.

While most of these tips are common sense, DeHaan says just like the homeowner with his lawn mower, when superintendents and equipment managers are time-pressed, these simple maintenance practices are sometimes skipped. **GCI**

*David McPherson is a freelance writer based in Toronto.*

## Top sprayer maintenance tips

- Always rinse your sprayer thoroughly and immediately following each application.
- Soak the nozzles in hot water before cleaning.
- Use a toothbrush to clean the tips, followed by a blowout from some compressed air; Never use a piece of wire or other sharp object to Scrape residue from the nozzle as damage to the nozzle will negatively affect its spray pattern and performance.
- Always wear personal protective equipment.
- Do a collection/calibration test to check for wear and tear of your tips; this ensures you have good, even distribution.



# Fix your crown

Avoid sand buildup that can cause your collars and approaches to become crowned and thus impede proper drainage off of the putting surface. *By Dustin Riley, CGCS*

The summer of 2010 delivered some extremely challenging weather for golf course superintendents all across the country. In Wisconsin and parts of the upper Midwest, record rainfall totals, high humidity and lengthy stretches of above average night time temperatures throughout June, July and August provided stresses that superintendents and their turf hadn't seen since 1995 – albeit Summer 1995 still ranks No. 1. Water management is crucial in assisting the turf survive these types of environmental stresses. And yes, irrigation scheduling and proper hand watering techniques are the obvious responses for proper water management. And, of course, drainage is always something that becomes obvious as water accumulates in low areas following rain events.

But, what if this accumulation of water is occurring on your putting surfaces as a result of slowed or impeded surface drainage? As superintendents, we focus on providing the best root zone medium for the turf on our putting surfaces. Sand topdressing is a major component in maintaining or modifying the root zones and improving putting surfaces. Throughout the growing season,

sand is periodically applied to the putting surfaces as part of turf management programs – deep-tine aeration, core aerations and topdressings. If these turf management programs are in place for many years, a buildup of sand can develop on the collars and approaches as a result of the repetitive brushing or dragging of the sand across the putting surfaces. This sand buildup can cause the collars and approaches to become crowned and thus impede the proper drainage off

of the putting surface. Since the crowning slows the surface drainage, more water is forced to enter the soil at the front of these greens. The increased soil moisture can raise soil temperatures, reduce air filled pore space, negatively impact turf rooting and induce disease concerns. All of which impact turf health and quality and could lead to potential thinning, which many witnessed this season.

To improve the turf health, crowned areas need to be cor-

rected to assure there's positive surface drainage off of the green surfaces. I'm sure there are various methods which could be used to correct a crowned collar or approach.

Here are two methods that have worked well and could be considered if you encounter a similar situation. **GCI**

*Dustin Riley is superintendent at Oconomowoc Golf Club in Oconomowoc, Wis.*

1b.





Method #1:  
Slight Crowning (<1")

1c.



1d.



1e.



- 1a. Identify the crowned area.
- 1b. Aerate crowned area with  $\frac{1}{2}$ " or greater hollow tines. 2" spacing (or tighter if possible)
- 1c. Remove all cored material.
- 1d. Hand water cored area until saturated.
- 1e. Roll area with drum style roller (Sidewinder style greens roller, 1 ton asphalt roller) forcing the aeration holes to collapse and close. This process could result in a  $\frac{1}{4}$ "- $\frac{1}{2}$ " drop in elevation per event.
- 1f. Allow to heal and repeat as necessary until crown is removed and proper surface drainage can be achieved.



2a.



2b.



## Method #2: Moderate to Severe Crowning (>1")

- 2a. Identify the crowned area.
- 2b. Remove sod and carefully store. Label and place each row of sod so each piece can be easily returned to the exact same location it was taken from. This is crucial to promote faster healing and to avoid "sod square" discoloration.
- 2c. With sod cutter, set depth of blade to match desired soil removal. Cut and loosen soil throughout the crowned area to desired depth and remove material. Repeat until crown has been removed. Measure surface elevation with transit to ensure proper surface pitch.
- 2d. Finish rake and float the soil surface in preparation for sod replacement. If soil surface is too soft, lightly roll and pack to reduce any unevenness or foot printing.
- 2e. Apply starter fertilizer and begin replacing sod in reverse order. Again, replacing each piece exactly in the same location as before will promote a faster healing and eliminate any future "sod square" discoloration.
- 2f. Following sod replacement, blow the surface clean of any debris or soil.
- 2g. Slowly roll the entire area to smooth the surface and seal the seams.
- 2h. Hand water area to begin the healing process.
- 2i. All of us manage turf in different locations with varying degrees of geographical and environmental influences. Unfortunately, summers such as 2010's highlight and enhance turf concerns that may not normally be visible. Renovating a crowned collar or approach is not a complex process. But the result can become extremely valuable in assisting the surface drainage component of your water management for your greens.