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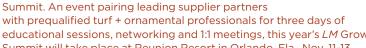
The story behind the president of Pacific Landscape Management (page 74).





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educational sessions, networking and 1:1 meetings, this year's LM Growth Summit will take place at Reunion Resort in Orlando, Fla., Nov. 11-13. Visit LMGrowthSummit.com for more info.

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SETH JONES EDITOR-IN-CHIEF

Contact Jones at 785-690-7047, sjones@northcoastmedia.net or via Twitter @sethajones.

Great evidence



The show is clever in that it keeps you watching through each commercial break, hopeful they'll solve the mystery in the next segment (they rarely do.) Sure, some of the footage is dubious, but the show is always entertaining.

that spins around all on its own.

The prevalence of cameras today has changed the way we live our lives and do our jobs. For this month's "Five Questions" (page 74) I asked Bob Grover, president of Pacific Landscape Management in Hillsboro, Ore., what his favorite tool is to get the job done. His answer: a camera, especially those cameras everyone carries in their pockets that double as phones.

This got us to talking about just how much the cell phone camera has changed the way we do our jobs.

For a little over 20 years I've been a journalist. I remember early in my career, the odds of getting good photos from a source were low. If people even had photos at all, they would have to physically mail them to you, and because they were shooting with film, the options were few and it was unlikely they got a good photo.

Now? Sources usually text me the photos of any given project or person, and I have them instantly.

For Bob, camera phones have changed his job in a different way. He told me he uses the camera as a selling tool. If he sees a great combination of flowers, he grabs his phone and takes a photo. It's an informal selling tool, he told me — something he can easily show customers or coworkers.

I spoke with Tom Kessler of Kessler Photography recently, about the value of having good photos of your work. Kessler's skill behind the camera is in heavy demand; in 2018 alone, his job took him to projects in 35 different states. Granted, Kessler is doing work on a higher level than with a

I like to think that every issue of *Landscape Management* is full of great photography, starting with our front cover and ending with the back cover. Some of it is professionally shot and some of it is hastily shot on a smartphone, but the work always shines through. Part of the fun of working on a magazine like this is the potential for beautiful photography.

If he sees a great combination of flowers, he grabs his phone and takes a photo. It's an informal selling tool, he told me — something he can easily show customers or coworkers.

simple camera phone, but he knows the value of great photography in our business.

"Their work is important to show and market," Kessler told me. "If you have shoddy photography, it's like having a dirty house and you're a house cleaner, or showing up in a beater car when you're a car salesman. You want to show the best you can with your projects ... that's what going to sell when you're sitting across the table from someone who might be willing to spend \$5,000 to \$10,000. If you have a dynamite portfolio, it's going to prove that you can pull the job off."

Keep us in mind when you're out on the job site. If you see something great, nab a photo of it and send it our way, to us directly or even through social media. We love to share with the world the fruits of the labors of our readers.

The TV show "Strange Evidence" has taught my family that cameras really are everywhere. This is a good thing, not just for a silly TV show, but also to document the great work people are doing each and every day in our industry.

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See more great advice and complete answers from our Editorial Advisory Board in the online version of this feature at LandscapeManagement.net.

What's your advice for dealing with rising fuel prices?

"We generally absorb higher fuel prices until winter and then do a price increase if we think fuel prices are going to stay up. But I can tell vou what not to do: Don't do a fuel surcharge ..."

"We've taken

reduce overall

fuel usage, which

times when gas prices

start to go up. First, we

shifted our salespeople

to hybrid cars. Second,

of the 3500 category

lease program. As a

standards."

we moved all our vehicles

and smaller to an equity

result, our fleet is newer and takes advantage of

improving fuel-efficiency

has helped us in

two steps to

Landscape Professionals

Arbor-Nomics Turf Norcross, Ga.

Troy Clogg

Troy Clogg Landscape Associates Wixom, Mich.

Paul Fraynd

Sun Valley Landscaping Omaha, Neb.

Luke Henry

ProScape Lawn & Landscaping Services Marion, Ohio

Chris Joyce

Joyce Landscaping Cape Cod, Mass.

Aaron Katerberg

Grapids Irrigation Grand Rapids, Mich.

Jerry McKay

McKay Landscape Lighting Omaha, Neb.

Bryan Stolz

Winterberry Landscape & Garden Center Southington, Conn.

Greg Winchel

Winchel Irrigation Grandville, Mich.

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Marty Grunder

The Grow Group

Dayton, Ohio

Phil Harwood

Grow the Bench Grand Rapids, Mich.

Laguna, Calif.

Jeffrey Scott

Jeffrey Scott Consulting Trumbull, Conn.

"Fluctuations in fuel pricing are common each summer. We try to stav as fuel efficient as possible by properly maintaining vehicles, creating tight routes for our crews and investing in new equipment as much as possible."

"Smart companies know their numbers and are prepared for fluctuations in fuel prices. Routes, idling trucks and buying more fuel-efficient equipment are things we should always be looking at, whether fuel prices are up or down."

Kevin Kehoe 3PG Consulting

GPS driver management."

and better

"Better routing





OUR MISSION: Landscape Management shares a comprehensive mix of content designed to stimulate growth and take our readers to their next level.



Check out a few of the places where the *LM* team made its rounds recently

Like father, like son Weed Man's Bruce Sheppard and Brandon Sheppard, father and son, have been volunteering at the annual Renewal & Remembrance at Arlington National Cemetery for almost 20 years.

Deere volunteers (Left to right)
Madalyn Zambrano, Heather Van Nest,
Irle Jones and Les Reu looked good in
green as they got to work beautifying
Arlington National Cemetery as part of
the 2019 Renewal & Remembrance.

Nufarm family When it came time to get a group of volunteers for Renewal & Remembrance, the team at Nufarm brought the whole family including (from left to right) Jamie Heydinger, regional sales & key account manager; Rod Marquardt, national accounts manager; Kyla Marquardt, national accounts manager; Oralea Marquardt; Lacy Veltmann, digital marketing specialist; Taylor Williams; Laura Williams, Nuseed Global Lead, HR; Kirby Williams; Brooke Williams; and that's John Marquardt up front.

Flocking to Florida As part of the Bayer Focus on Florida media summit, attendees got to hear from Leon Humphrey (second from right), manager at Stahlman Landscape and Property Maintenance in Naples, Fla. Stahlman is pictured with members of the Bayer team, from left, Mike Ruzzio, Zach Lane and John Wendorf.

5 Congressman Green Landscape Management Editor-in-Chief Seth Jones (left) didn't hesitate to nab a photo with Congressman Mark Green (R-TN), who was the keynote speaker at R&R.

Communication is key Project EverGreen Executive Director Cindy Code and Norman Goldenberg, Namron Business Associates, celebrate Goldenberg being named the 2019 Turf & Ornamental Communicators Association's Environmental Communicator of the Year.



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NEWS+ ISSUES

Specticle in the Sunshine State

BY CLARA RICHTER | LM MANAGING EDITOR

any companies that care for turf in Florida believe that it is nearly impossible to use a preemergent herbicide to treat weeds taking up their residence among St. Augustinegrass. Debunking this myth was one of the main reasons Bayer hosted its Focus on Florida media summit on July 11-12.

Throughout the summit, representatives from Bayer, along with lawn care providers and grounds operators, spoke about how preemergent programs could be effective on St. Augustinegrass, especially with the introduction of Bayer's Specticle Flo.

Erica Santella, regional technical manager for TruGreen, spoke to the group about this topic.

"One of the urban legends in Florida is that preemergents don't work in sandy soils," she said. "Every other agriculture industry uses preemergents, but that myth still exists."

Attendees of the event got to see firsthand how one company decided to ignore the myth that preemergent herbicides can't work in Florida.

The group headed out into the field to see how a preemergent treatment



Erica Santella describes how TruGreen has incorporated Specticle into its preemergent program.

of Specticle on St. Augustinegrass has helped Stahlman Landscape and Property Maintenance in Naples, Fla., rid a housing development of weeds. Leon Humphrey, manager at Stahlman, met the group to discuss the preemergent treatments the company was doing at the site.

So far, the program has been effective, according to Humphrey. "I walked that whole street in December of last year, and if I found 50 weeds in there, it was amazing," Humphrey noted. "It works. It takes some time to get going and working, but it works." (19)

NALP initiates national search for next CEO



Professionals (NALP) initiated a national search to identify its next CEO. The organization's board of directors named the experiences and competencies that will be sought in the new staff leader. NALP released an extensive position description to recruit candidates interested in serving the professional lawn and landscape industry, and prepared to strategically address its trends, challenges and opportunities. Contact Heidrick & Struggles, a Chicago-based executive search firm facilitating the selection process, with interest.

Warren Gorowitz ioins Hunter Industries

After two and a half decades at Ewing Irrigation & Landscape Supply, Warren Gorowitz joined Hunter



Warren Gorowitz

Industries this month. At Hunter, Gorowitz will lead the company's corporate social responsibility efforts and direct its industry relations activities. Gorowitz most recently led Ewing's

sustainability efforts and was instrumental in spearheading sustainability programs throughout the green industry. These included controller recycling programs, ground-level work with the U.S. Environmental Protection Agency's WaterSense program and development of the Water and Sustainability Innovation Award, presented by Ewing and Audubon International, Additionally, he served as the 2018 president of the Irrigation Association.

TORO AND STEEL GREEN SETTLE LITIGATION

The Toro Co. and Steel Green Manufacturing have reached a settlement. The settlement includes the court's entry of an agreed injunction, in which Steel Green and its employees will refrain from certain activities, including the use of the information that certain employees allegedly removed from The Toro Co.'s computer systems. The injunction also prohibits the sale of machines and parts by Steel Green during certain months in 2020. The other terms of the settlement are confidential.

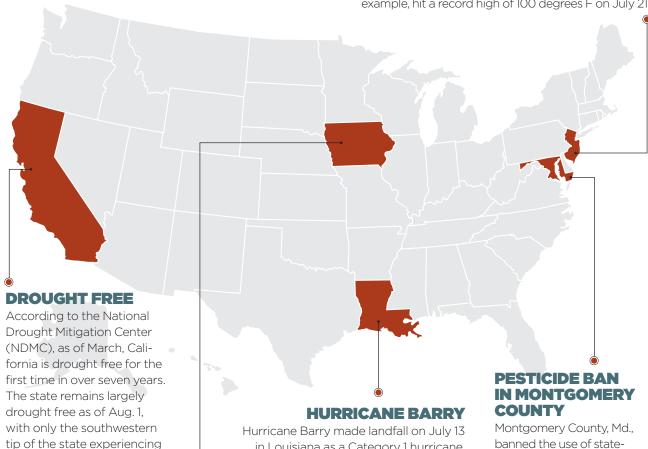
Steel Green dealers and distributors are not affected by the injunction except for Steel Green's manager for one month in April of 2020. All other dealers will be permitted to sell Steel Green machines during that time.

Mapping the news

A quick look at the industry news happening around the nation

HEAT WAVE

A record-breaking heat wave scorched many parts of the U.S. from July 18 through July 22 from the Front Range of the south-central Rockies to the East Coast. Many places saw heat indexes in the 90s, with some areas topping 100 degrees F. Atlantic City, N.J., for example, hit a record high of 100 degrees F on July 21.



Hurricane Barry made landfall on July 13 in Louisiana as a Category 1 hurricane, before being downgraded to a tropical storm. The storm created power outages, damage to homes and flooding in Louisiana. However, it produced much less rainfall than expected, with some parts of the Gulf Coast receiving just 2 to 6 inches of rain.

banned the use of stateapproved pesticides on private lawns in 2015. After a nearly six-year fight to stop the ban, legal remedies available to challenge the county's law on state preemption grounds have been exhausted, according to Responsible Industry for a Sound Environment. On July 11. Maryland's Court of Appeals denied the petition of Complete Lawn Care Inc., et al., v. Montgomery County, seeking judicial review of the Court of Special Appeals' May 2019 decision upholding Montgomery County's ban on most pesticides used on private lawns and landscapes.

GROUND BROKEN IN IOWA

abnormally dry conditions.

experienced some form of

weeks. NDMC said.

Prior to March, the state had

drought for 367 consecutive

Vermeer Corp. held the groundbreaking for a monument commemorating the buildings destroyed by an EF3 tornado last July, while celebrating the rebuilding of Vermeer Mile in Pella, Iowa. The first facility scheduled to open this summer is a new engineering and R&D building named Shop 48. Plant 7 was formally announced as the new facility being built where Plants 5 and 6 once stood. The new facility will connect to the original Plant 7 that was damaged in the tornado but repaired in the months following. It's scheduled to be completed in fall 2020. Additionally, a new Eco-Center will replace the one lost in the tornado, placed behind Plant 1, and will open its doors in January 2020.

THEY'VE GOT THE

BY CLARA RICHTER | LM MANAGING EDITOR

Mower engines contribute to a machine's power as well as to a company's bottom line. Choosing the right engine can help landscape contractors save on fuel costs, be more environmentally friendly and increase efficiency.

ower engines have come a long way since the first internal combustion engine (ICE) was put into a commercial lawn mower by Ransomes of Ipswich in England in 1902.

"Internal combustion engines are changing as government regulations and market competition increases," says Ken Logan, product strategy manager at Kawasaki. "Of course, the physics hasn't changed for ICEs — intake, compression, spark, exhaust — but the technology of how to do this has. More power is coming out of engines while lowering fuel consumption, improving exhaust emissions and increasing engine life."

Well over a century later, it is hard to even conceive of using a lawn mower that isn't powered by an engine, especially if it is being used on a large commercial or residential property.

Recent developments and innovations in commercial mower engine technology can help landscape contractors save fuel and money. The power they afford can also help companies be more efficient, even if they have fewer employees, which is important in an industry experiencing a dwindling labor market.

Many of the latest innovations in engines have been introduced to enable mowers to cover more ground in less time, says Brett Wegner, product manager, Kohler Engines. "With tightened labor markets, productivity has become more critical because time is money," he adds.

When it comes to a commercial mower engine, the fuel choice is perhaps one of the biggest deciding factors, and more efficient fuel consumption is one of the biggest recent advances in engine technology. Fuel and the rate at which it's consumed can determine cost of ownership, environmental impact and engine performance.

"All different fuels have their place," Wegner says. "The benefits depend on the type of equipment you're using and the fuel source that's most readily available and cost-effective for your specific use."

No matter what type of fuel a landscape contractor chooses to use in his or her mowers, developments in engine technology ensure he or she will likely experience a cost savings, benefit from environmental friendliness and see an increase in power.

SAVING GREEN

"Certainly engine products today are far more efficient than they used to be," says Kris Kiser, president and CEO of the Outdoor Power Equipment Institute. "One of the ways you get to emissions conformity is by reducing the amount of fuel you burn, so if you have an emissions requirement, you'll burn less fuel. Engines have gotten far more efficient as of late."

If an engine burns less fuel, it stands to reason that less money will be spent on fuel. Electronic fuel injection (EFI) is one innovation in engine technology that helps landscape contractors use fuel more efficiently, which in turn, saves them money.

Continued on page 14





Continued from page 12

EFI systems — which have been commonly used in automobiles for many years — work to precisely meter fuel in the engine to optimize performance and fuel efficiency. While some commercial mower engine manufacturers have been using EFI for several years, for many, it is still new technology.

According to John Deere's engineering team, EFI reduces machine cost without sacrificing performance. EFI machines do not have carburetors, which often require routine maintenance or replacement — both of which can be costly and lead to downtime.

The sensor technology in an EFI engine optimizes performance by adapting to operating conditions.

"For example, in applications like an urban area where you're doing a lot of transport time between parking lots and different areas where you're not running the (power takeoff), it's not consuming as much fuel because the engine doesn't have

to power all those areas," explains Natalie Haller, product marketing manager for commercial mowing at John Deere.

The technology



Natalie Haller

allows engines to continuously adjust engine performance in response to changes in operating conditions — such as external temperature and altitude.

Engines equipped with EFI technology are able to make adjustments as they run, so fuel is always being used in the most efficient manner, no

Continued on page 16



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COVER STORY

Continued from page 14 matter the operating conditions and, most importantly, if the operating conditions change. Not only does this save companies money, but it also adds to the machine's green factor.

The fuel system itself is constantly readjusting, measuring and tweaking its air-fuel ratio hundreds of thousands of times per minute and optimizes the performance of the engine to put out the least emissions and be as fuel-efficient as possible, says Jeremy Wishart, director of offroad business for the Propane Education & Research Council (PERC).

"All different fuels have their place. The benefits depend on the type of equipment you're using and the fuel source that's most readily available."

- BRETT WEGNER, KOHLER ENGINES

EFI technology is now common on gasoline-powered engines, but there are only a few manufacturers that have adopted it for propane engines, according to Wishart. He says he expects several companies to announce EFI propane engines in the fourth quarter of this year or the first quarter of next.

Other efficiencies incorporated into today's mowers that can save contractors money include: cast-iron cylinder liners; aluminum block; large capacity air, fuel and oil filters; high-performance spark plugs; and hydraulic valve lifters, Wegner says.

Fuel choice is another way contractors can save money on their mowers. Though gasoline is still the most common fuel of choice for mower engines, according to Briggs & Stratton, switching to an alternative fuel like propane will cost more upfront but overall can help a company's bottom line.

According to Wishart, unlike traditional fuels such as gasoline or diesel,



propane is less susceptible to market volatility and less likely to see fluctuations in price due to weather, geopolitical conflict, a refinery going down or even regional price differences.

Because a landscape contractor can lock in fuel price with a propane retailer, he or she can more effectively budget for fuel, since generally, the price won't change until the contract is renewed.

GOING GREEN

Environmental, or green, initiatives are top of mind for many engine manufacturers. As emissions regulations get ever stricter, companies must find ways to make their engines more environmentally friendly, which is another area where EFI comes in.

"With older carbureted engines, you're basically tuning it for one operating condition, and that's usually max power equals may

max power equals max fuel consumption, unfortunately," Wishart says.

Decreasing fuel consumption not only decreases the amount of money operators have to spend on fuel, but it also decreases the amount of

decreases the amount of engine emissions.

Other companies have committed to developing engines that run on cleaner-burning alternative fuels. Propane engines have gained some traction in recent years due to their lower emissions and financial incentives from the government and PERC that can help make the purchase of new propane-powered equipment more affordable, Wegner says.

"Since propane is a cleanerburning fuel, propane models are ideal for states that enforce Ozone Action Days, when mowing with carbureted gasoline engines is limited," Wegner adds.

When EFI is added to an already clean-burning propane engine, the environmental impacts are lessened even further. And with more engine manufacturers jumping on board to develop propane EFI engines, they are becoming more readily available.

Other engine companies are embracing the green trend, not just

by the type of fuel they use, but by what the engines them-

selves are made out of. Briggs & Stratton's commercial mower engines are comprised of 98 percent recycled aluminum.

"Not 100 percent of the materials can be recycled, but many of the materials

can be," says Michelle Gross, senior director of marketing for North America in Briggs & Stratton's global engines and power group.

Jeremy Wishart

Continued on page 41

(GIE+EXP

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TUES, 8PM THE CRASHERS

WED, 8PM EASTON CORBIN THUR, 8PM CASSADEE POPE

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GIE+EXPO 2019 DAILY SCHEDULE

TUESDAY, OCTOBER 15

8:00 PM

Free Concert: The Crashers Sponsored by STIHL on the Mercedes-Benz Vans Stage at Fourth Street Live!

WEDNESDAY, OCTOBER 16

9:00 AM - 12:00 PM

*NALP Workshop 1:
Estimating Workshop
Jim Huston, JR Huston Consulting, Inc.

12:30 - 1:45 PM

*Irrigation Workshop: Secrets of a Successful Irrigation Business Moderated by Chris Pine, C. Pine Associates, Inc.

2:00 - 3:00 PM

Keynote: Never Fly Solo® Lt. Col. Rob "Waldo" Waldman Sponsored by John Deere

3:00 - 7:00 PM

Indoor Exhibits open to all industry, including welcome reception

3:00 - 4:15 PM

*NALP Workshop 2: Snow and Ice Management Workshop: Liquids – Making the Most of a Key Ice Management Tool Phill Sexton, WIT Advisers

4:30 - 5:45 PM

*NALP Workshop 3: Benchmarking for Profit Jeffrey Scott, Jeffrey Scott!

8:00 PM

Free Concert: Easton Corbin Sponsored by STIHL on the Mercedes-Benz Vans Stage at Fourth Street Live!

THURSDAY, OCTOBER 17

8:00 - 9:15 AM

*Hardscape Workshop I: Give Them Something to Talk About – Build Your Hardscape Business with Online Reviews Susan Frew

9:00 AM - 5:00 PM

Indoor Exhibits and Outdoor Demo Area open

9:30 - 10:45 AM

*Hardscape Workshop 2:
The Power of Breakeven Analysis
for Hardscape Business Success
Leslie Shiner The Shiner Group

10:30 - 11:30 AM

*Hardscape Demo 1: Proper Takeoffs, VR Designs, and Layouts

11:00 AM - 2:00 PM

Mutt Madness, Turf Mutt Adoption Event

11:00 AM - 2:00 PM

Food Truck Thursday

11:00 AM - 12:15 PM

*NALP Workshop 4: Your Fleet Structure – What Should it Look Like? Ed Schultheis, ThruPutNow

	INDOOR	OUTDOOR
WED, OCT 16	3:00 – 7:00 PM Open to all (includes reception on trade show floor)	CLOSED
THUR, OCT 17	9:00 AM - 5:00 PM	9:00 AM - 5:00 PM
FRI, OCT 18	8:00 AM - 2:00 PM	8:00 AM – 1:00 PM

All times listed in Eastern Daylight Time.

12:30 - 1:30 PM

*Hardscape Demo 2: How to Significantly Increase Paver and Slab Installation Efficiency

1:00 - 2:15 PM

*NALP Workshop 5: QuickBooks Tools and Strategies for Better Cashflow Monica Muir, Muir & Associates, LLC

2:30 - 3:30 PM

*Hardscape Demo 3:
The New Technology to Increase
Your Retaining Wall and Raised
Patio Installations

2:30 - 3:45 PM

*NALP Workshop 6: The Landscaper's Guide to Modern Sales and Marketing Jack Jostes,

4:00 - 5:00 PM

*Hardscape Demo 4: Integrating Water Features, Rainwater Harvesting Systems and Permeable Pavements

8:00 PM

Free Concert: Cassadee Pope with opener JD Shelburne Sponsored by STIHL on the Mercedes-Benz Vans Stage at Fourth Street Live!

FRIDAY, OCTOBER 18

8:00 AM - 1:00 PM Outdoor Demo Area open 8:00 AM - 2:00 PM Indoor Exhibits open

8:00 - 9:15 AM

*NALP Workshop 7: Grow Your Sales by 300K and More in 2020! Christopher Yates, Success Landscape Marketing

8:30 - 9:30 AM

*Hardscape Demo 5: Outdoor Kitchens and Technology for Rapid Installations

9:30 - 10:45 AM

*NALP Workshop 8: Small Business, Free Cashflow Sam Coates, Coates Company, LLC

11:00 AM - 12:00 PM

*Hardscape Demo 6:
Hardscapes and System
Automation: Outdoor Sound,
Lighting, and Fire Features

12:00 PM

\$15,000 UTV Giveaway (enter by 11:30 AM)

1:00 PM

Fabulous Friday \$20,000 Giveaway Sponsored by Mercedes-Benz Vans (enter by Noon)

*NOTE: Pre-registration and/ or additional fees are required for activities marked with an asterisk. Visit your registration dashboard to add sessions.



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Josiah Runyon R&S Lawn Service Fayette, OH



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Workshops are sponsored by the National Association of Landscape Professionals, Interlocking Concrete Pavement Institute and Irrigation Association.

WEDNESDAY, OCTOBER 16

9:00 AM – 12:00 PM NALP Workshop 1: Estimating Workshop Jim Huston, JR Huston Consulting, Inc.

12:30 – 1:45 PM Irrigation Workshop: Secrets of a Successful Irrigation Business Moderated by Chris Pine, C. Pine Associates, Inc.

3:00 – 4:15 PM NALP Workshop 2: Snow and Ice Management Workshop: Liquids – Making the Most of a Key Ice Management Tool

4:30 – 5:45 PM NALP Workshop 3: Benchmarking for Profit Jeffrey Scott, Jeffrey Scott!

THURSDAY, OCTOBER 17

8:00 – 9:15 AM Hardscape Workshop I: Give Them Something to Talk About – Build Your Hardscape Business with Online Reviews Susan Frew

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II:00 AM – 12:15 PM NALP Workshop 4: Your Fleet Structure – What Should it Look Like? Ed Schultheis, ThruPutNow

1:00 – 2:15 PM NALP Workshop 5: QuickBooks Tools and Strategies for Better Cashflow Monica Muir, Muir & Associates, LLC



2:30 – 3:45 PM NALP Workshop 6: The Landscaper's Guide to Modern Sales and Marketing Jack Jostes, Ramblin JacksonFriday

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9:30 – 10:45 AM NALP Workshop 8: Small Business, Free Cashflow Sam Coates, Coates Company, LLC



THURSDAY 11:30 AM-1:30 PM

NHLA Lunch & Learn (Includes lunch, Pre-registration required) Cost: \$30

FRIDAY 7:30-9 AM

NHLA Breakfast & Learn (Includes breakfast, Pre-registration required) Cost: \$30

WWW.GIE-EXPO.COM

HARDSCAPE DEMONSTRATIONS



THURSDAY, OCTOBER 17

10:30 – 11:30 AM Demo 1 – Proper Takeoffs, VR Designs, and Layouts

12:30 – 1:30 PM
Demo 2 - How to
Significantly Increase
Paver and Slab
Installation Efficiency

2:30 – 3:30 PM
Demo 3 – The New
Technology to Increase Your
Retaining Wall and Raised
Patio Installation Efficiency

4:00 – 5:00 PM
Demo 4 - Integrating
Water Features, Rainwater
Harvesting Systems, and
Permeable Payements

FRIDAY, OCTOBER 18

8:30 – 9:30 AM Demo 5 - Outdoor Kitchens and Technology for Rapid Installations

11:00 AM – 12:00 PM Demo 6 – Hardscapes and System Automation: Outdoor Sound, Lighting, and Fire Features



WEDNESDAY RECEPTION ON THE SHOW FLOOR 3:00 – 7:00 PM

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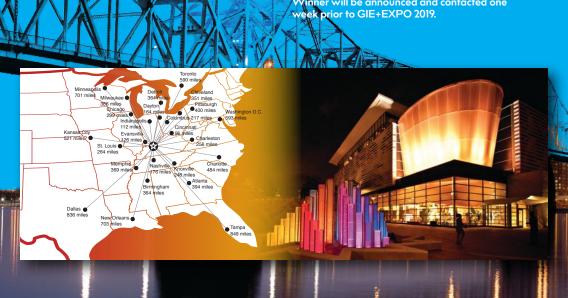
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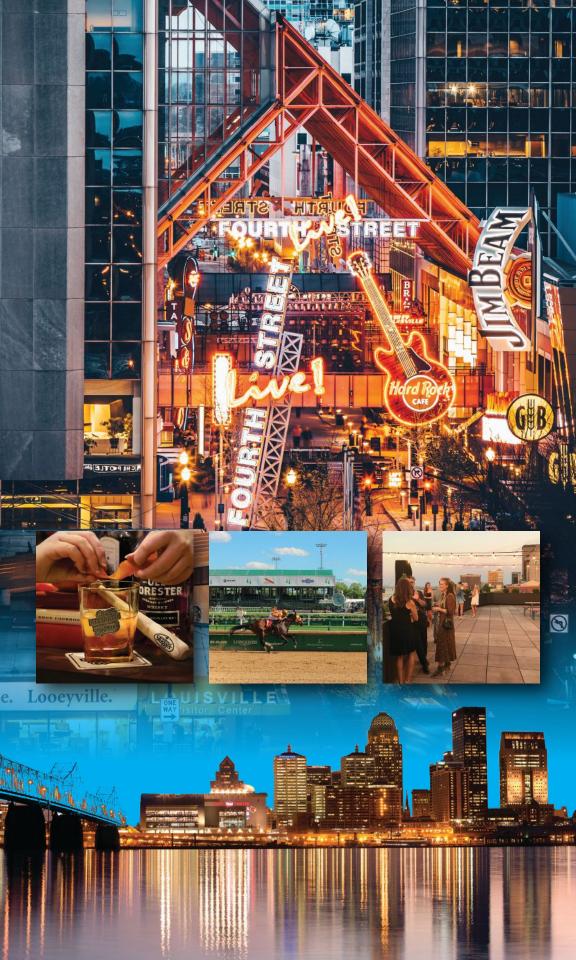
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REGISTRATION INFORMATION

Children under 16 must be accompanied by an adult at all times. Pick up a free badge for them onsite. Children 16 and over must register at the adult price. Must have a valid drivers' license to operate equipment.

Photocopy the form on page 23 for additional registrations. Print clearly in black ink. After Oct. 11 fees are nonrefundable. See FAQs at www.gie-expo.com for refund policy.

Exhibitors: Please use this form for your customers only.

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Please visit www.gie-expo.com/media to register for media credentials.

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Online Registration www.gie-expo.com Registrations cannot be taken over the phone.

22 PHONE: (800) 558-8767

GIE+EXPO REGISTRATION FORM

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Name:	Check one that best describes your business. 10 Dealer - Equip. Serv./No Retail 11 Servicing Dealer				
Title:		2 Equipment Rental De 3 Retailer/Merchandise	er/Buyer		
Company:	□ 19	4 Lawn & Garden Cent 5 Distributor of Lawn &	Garden F	Products	
Address:	16 Power Sports Retailer 17 Non-Exhibiting Manufacturer/				
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<u>Phone:() Fax:()</u>					
Country if outside the U.S.:	☐ 28 Nursery ☐ 31 Sports Turf ☐ 33 Arborist				
Email Address:	**Through Sept. 5: \$350, Sept. 6-Oct. 13: \$400, onsite: \$450.				
EDUCATIONAL & OPTIONAL EVENTS	Осрі	. o Gen. 10. \$ 100, 01131	ιε. φ 150.		
SESSIONS	CODE	DAY/TIME	COST	\$	
HNA Demonstration Upgrade - 6 sessions	231	THU-FRI	\$65		
NALP Workshop 1: Estimating Workshop	240-1	WED 9 AM-12 PM	\$129		
Irrigation Workshop: Estimating Workshop	260	WED 12:30-1:45 PM	\$85		
NALP Workshop 2: Snow and Ice Management Workshop: Liquids – Making the Most of a Key Ice Management Tool	240-2	WED 3-4:15 PM	\$85		
NALP Workshop 3: Benchmarking for Profit	240-3	WED 4:30 - 5:45 PM	1 \$85		
Hardscape Workshop 1: Give Them Something to Talk About – Build Your Hardscape Business with Online Reviews	230-1	THU 8-9:15 AM	\$65		
Hardscape Workshop 2: The Power of Breakeven Analysis for Hardscape Business Success	230-2	THU 9:30-10:45 AM	\$65		
NALP Workshop 4: Your Fleet Structure - What Should it look Like?	240-4	THU 11 AM-12:15 PM	\$85		
NHLA Lunch & Learn (Includes lunch, Pre-registration required)	149-2	THU 11:30 AM-1:30 PM	\$30		
NALP Workshop 5: QuickBooks Tools and Strategies for Better Cashflow	240-5	THU 1-2:15 PM	\$85		
NALP Workshop 6: The Landscaper's Guide to Modern Sales and Marketing	240-6	THU 2:30-3:45 PM	\$85		
NHLA Breakfast & Learn (Includes breakfast, Pre-registration required)	149-3	FRI 7:30-9 AM	\$30		
NALP Workshop 7: Turnaround Tour Round 2: Stories of Success	240-7	FRI 8-9:15 AM	\$85		
NALP Workshop 8: Small Business, Free Cashflow	240-8	FRI 9:30-10:45 AM	\$85		
PAYMENT INFORMATION					
TRADESHOW PASS: Through 9/5/19 \$15 ea. Through 10/13/19 \$30 eor - Non-exhibiting Manufacturers/Suppliers/Ad Agencies/Media Sales: Through 9/5/19 \$350 ea. Through 10/13/19 \$400 ea. After 10/13/19 \$450 ea.	ea. Afi	ter 10/13/19 \$60 ea.	\$		
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Douglass Delano Level Green Landscaping Upper Marlboro, MD



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Continued from page 16

Even diesel-powered engines, which have historically been some of the dirtier engines, are getting more environmentally friendly. "There have been significant strides in diesel, whether it's injection or filtering because emis-

sions requirements are tightening," Kiser says. "Oftentimes the cost of fuel will dictate the product choice and selection. But certainly diesel manufacturers have made significant progress in making engines cleaner."

According to Haller, the John Deere Z997R, which is a diesel engine, was in final Tier-4 compliance a full year ahead of the mandated regulation, just to support

the cleaner emissions.

Kris Kiser

Tier-4 emissions standards are the strictest Environmental Protection Agency (EPA) requirements for off-road diesel engines. According to the EPA, to meet Tier-4 emission standards, engine manufacturers must produce new engines with advanced emission control technologies, and in-use diesel fuel must decrease sulfur levels by more than 99 percent, since the emission control devices can be damaged by sulfur.

Kohler manufactures diesel engines from 9.1 to 134 hp for a wide variety of equipment. These engines are unique because they meet Tier-4 standards without the use of a diesel particulate filter, Wegner says. The diesel particulate filter removes soot from the exhaust of a diesel engine.

Not only is this part of the engine often bulky and inefficient, Wegner notes, but the filter can also be costly to replace. Being able to eliminate it altogether saves money and the downtime associated with engine repairs.

"We have a lot of faith in our manufacturers that they will be able to meet any emissions requirements," Kiser says.

Continued on page 42

It stands to reason that the simplest way to save money on fuel and reduce emissions is to eliminate the internal combustion engine altogether, which some companies are doing by switching to electric or battery-powered equipment.

Electric and battery-powered mowers run on motors, rather than engines, and tend to cost a bit more upfront than their engine-powered counterparts, says Joe Conrad, president of Mean Green Mowers.

"Electric mowers are going to be a higher initial investment," he says. "Most contractors find that it takes about one-third of the service life to obtain the return on investment. The last two-thirds of the service life savings is money in the pocket of the contractor."

Conrad says there are several reasons why landscape contractors may choose to switch to electric or battery-powered commercial mowers, including:

- Customers requesting a green alternative that is nonpolluting;
- Customers wanting quieter options; and
- Contractors can more easily draw in new customers or keep existing ones by offering low noise and zero emissions.

According to Conrad, electric or battery-powered mowers also require less routine maintenance because they do not have belts, pulleys, hydraulics or oil that need changing.

"Electric mowers save money because of minimal maintenance and zero fuel to purchase," he says. "They also save time since the mowers charge overnight and (operators) do not need to make trips to the gas stations during the day to fill up."

Electric mowers' lack of emissions is another upside for operators, according to Conrad. "Low noise, zero exhaust smells and very low vibrations mean less stress on the operator."



POWER UP

Gasoline and propane-powered mowers offer the same amount of power to the engine. Diesel engines, however, provide more torque.

Continued from page 41

MOWING GREEN

Ultimately, no matter what kind of engine a mower comes equipped with, it is important to find the one that is right for a company's intended application, budget

and fuel availability. Overall, gasolinepowered engines are still the most popular, according to Gross. One of the benefits of a gasoline engine is the prevalence of the fuel.

"For most commercial lawn mower applications, gasoline is preferred because it delivers proven performance and is relatively inexpensive, easy to use and readily available," Wegner says.



Brett Wegner

Gasoline is everywhere at every fuel station in every town, Haller notes. It is not always easy to find diesel, and securing propane typically requires a contract with a local propane retailer.

It's also likely that if a gasoline engine needs maintenance, a landscape contractor is going to be able to find someone who can fix it. "Gas engines are easier to service

Continued on page 44





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SINCE 1842

COVER STORY

Continued from page 42

Ken Logan

because most of the small engine repair shops focus on gas engines," Gross adds.

Performance-wise, propane and gasoline operate about the same, but there is a notable power difference when it comes to diesel engines, which do afford operators a bit more power under the hood, Haller says.

According to Haller, diesel provides more torque, so if an operator is mowing through thick or tall grass, diesel engines are going to give them more power and provide a better quality cut the first time around. Unfortunately, the

power comes at a price. Diesel still has the stigma of being one of the dirtier fuels.

"Diesel has greater power density than gasoline, but it has a reputation to overcome ... (Think of) that thick black billowing cloud of smoke belching out of the exhaust you see from trucks on the highway," Logan says. Propane, while clean burning, espelly when compared to diesel, has a

cially when compared to diesel, has a stigma of its own to shake off. According

to Wishart, landscape contractors often believe propane won't afford them the same type of power they're used to working with.

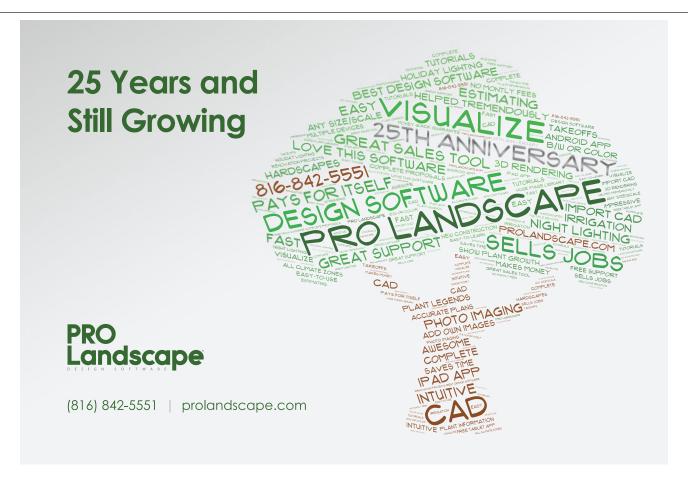
"We have a lot of faith in our manufacturers that they will be able to meet any emissions requirements."

- KRIS KISER, OUTDOOR POWER EQUIPMENT INSTITUTE

Wishart explains that all of the rumors landscape contractors have heard about propane-powered mowers are generally just that, rumors. "Give it a try on one mower," he says. "You'll experience that the power is going to be the same, the maneuverability is going to be the same."

According to Kiser, as long as the correct engine is paired with the right mower, a user is going to experience the intended amount of power paired with the best fuel economy.

"There are a wide variety of engines. The key is finding what product works best (for your application)," he says. "Manufacturers are terrific at this. The key there is to identify what engine is best and then make them available in the marketplace."







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ollar spot is perhaps the most economically important disease in turf management in that more money is spent controlling it than any other turfgrass disease in the industry, according to Paul Giordano, Green Solutions Team member at Bayer.

Luckily, that means the disease receives a lot of attention, and a lot of research goes into successfully controlling it.

Symptoms: Dollar spot typically starts out as smaller 2- to 3-inch patches of turfgrass with bleached or tan-colored lesions on individual leaf blades. The lesions resemble an hourglass shape. In time, the half-dollar-sized spots on the lawn can coalesce to form larger patches within a lawn.

Often, the disease is accompanied by mycelium, a cottony, stringlike fungal body, according to Anthony Goldsby, research agronomist for the professional products division for The Andersons.

For the disease to crop up, only three conditions need to be present: a pathogen, a favorable environment and a host, Goldsby says.

The disease doesn't discriminate by region and can appear in a wide variety of turf types — including Kentucky bluegrass, fine fescue, perennial ryegrass, annual bluegrass, St. Augustinegrass and tall fescue — as long as the conditions are favorable.

"Other than maybe the desert southwest where it's just too dry, you'll pretty much see dollar spot on all turf species as well as all climates across the country," Giordano says, adding that it tends to favor cool-season turf.

Dollar spot is most prevalent between May and October, when daytime temperatures are in the 80-degree F range and nighttime temperatures are between 60 and 75 degrees F with high levels of humidity.

Predictive tools, such as the Smith-Kerns model developed by the University of Wisconsin, can help lawn care operators (LCOs) calculate when conditions are most favorable for the disease.



"It gives you a threshold scale and warns you of when you should be doing preventive applications when the conditions are most favorable," Goldsby says.

Treatment: Dollar spot is most severe in malnourished or underfertilized lawns, so it's crucial to regularly make fertilizer applications.

Giordano recommends 2-4 pounds of nitrogen per 1,000 square feet annually for most cool-season lawns. "Make sure those applications are being made on a fairly regular basis so you have consistent feeding of the plants throughout the year," he says.

Goldsby suggests LCOs use a product that's available in at least 50 percent in slow-release form. He also advises avoiding nitrogen applications during the peak summer months when temperatures are too high.

Another way to reduce the risk for dollar spot is to limit the amount of time the surface of a lawn stays wet by timing irrigation appropriately.

Finally, LCOs also can apply fungicides on a 21- to 28-day basis for successful control and recovery. ©



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Bug off

How to treat and control billbugs
BY DANIELLE PESTA | LM ASSOCIATE EDITOR

f you're not concerned about insects in your clients' lawns, think again. Billbugs are one of the most widespread and damaging insects for turfgrass. We asked Rick Fletcher, technical services manager, turf and ornamentals for Nufarm America, and Dean Mosdell, technical manager, western U.S., for Syngenta, to share some management advice.



Dean Mosdell

DAMAGE

If left untreated, billbugs can kill turfgrass. "Typically, on a lawn that's been infested with billbugs, you'll see what looks like drought damage," Mosdell says.

To identify billbugs as the culprit, Mosdell and Fletcher both recommend the "tug test." Fletcher says lawn care operators (LCOs) can also perform this test to check for white grubs.

"The easiest test is to grab the grass plant stem and tug it," Fletcher explains. "In a billbug scenario, the stem breaks off right above the crown. And when you look closely at it, it looks hollowed out like a soda straw."

When the larvae begin feeding on the turfgrass plant, it tunnels into the stem of the plant and causes a disruption to the plant's vascular system, Fletcher says. "The top of the



plant presents itself as if it's wilting," he says. "Then all of a sudden, the plant can't get water, so it dies off and quits."

LIFE CYCLE

Also known as snout beetles, billbugs are weevils and use their snout to probe turfgrass plants and lay eggs, according to Mosdell.



Rick Fletcher

Since billbugs overwinter, they are typically spring hatchers. Billbugs' feeding stage happens as larvae. As larvae get older, they tend to work deeper from the stem toward the root system.

"The most severe damage to turfgrass is primarily when they start feeding on the root system of the plant," Mosdell says.

MANAGEMENT

Billbugs aren't going away. Actually, the problem is getting worse, according to Mosdell.

Since billbugs only crawl to get to new areas, most of their distribution comes from moving turf around. This can be a problem with sod installations. Mosdell says LCOs should be diligent and inspect sod as soon as it arrives.

Diligent identification, maintaining healthy turf and control timing are keys to control.

"If you have billbugs in an area and you didn't do any type of treatment, billbugs are still in that area," Fletcher warns.

Treating in early spring will knock down the billbug population before damage to the turfgrass begins. A preventive insecticide should be applied based on growing degree days and past research, Fletcher advises.

In the spring, LCOs should plan to knock down the adult population that overwintered and then treat systemically to get eggs before they hatch, Fletcher says.

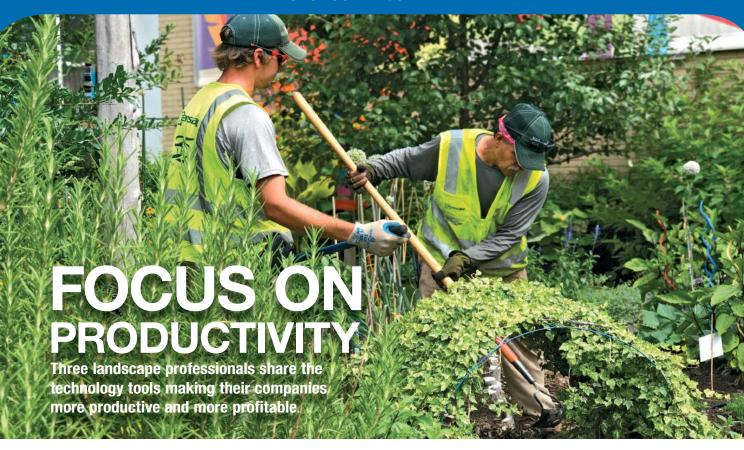
Damage symptoms occur in the spring, even if not immediately visible. Once the damage is done, it's time to plan for the following year.

Keeping a healthy stand of turf can mitigate damage. Mosdell recommends using varieties of turfgrass more resistant to billbugs. Some varieties, such as ryegrass and fescues, contain endophytes, which billbugs tend to not prefer for feeding.

"Once you have billbugs, there are really very few choices other than tolerating the injury and applying fertilizer and water," Mosdell says.

For treating billbugs as eggs, Fletcher and Mosdell suggest using products with one of the following active ingredients: chlorantraniliprole, thiamethoxam, clothianidin, imidacloprid and dinotefuran. "Curative applications are less successful but can be made," Mosdell says.

When treating billbugs as adults, consider using products with active ingredients such as cyhalothrin and bifenthrin.



t's no secret the landscape industry is in the midst of a labor shortage. Good managers know that happy employees are ones who are productive, feel valued and, in turn, have the potential to earn more for their efforts. That's why savvy landscape companies are looking for ways to attract and retain talent, while improving productivity.

One way they're doing this is through technology, including leveraging business



JOHN MUNIE

management systems like Aspire and using other programs and apps as needed.

"Like most landscaping companies, we're dealing with a labor shortage in St. Louis, so achieving past production numbers with inexperienced team members has become a big focus for us," says John Munie, president of Focal Pointe Outdoor Solutions in

Caseyville, Ill. "The more information we have and the more timely the information is, the better we can coach and improve performance."

Munie is not alone when it comes to using data

and information systems to drive his team toward productivity. Fellow Aspire users, like Greenscape in Holly Springs, N.C., and Cincinnati-based GroundSystems, are taking a similar approach both in the office and out in the field.



RACHEL RORIE

IN THE OFFICE

At GroundSystems, much of the firm's office-related productivity comes from having a business management system that takes jobs all the way from estimating through invoicing, which Aspire does.

"The more information we have and the more timely the information is, the better we can coach and improve performance."

- John Munie, Focal Pointe Outdoor Solutions

"Everything is being entered into one place as opposed to being entered in about five different places," says GroundSytems President Rachel

SPONSORED CONTENT

Rorie, who especially likes the Mobile Time feature that allows crews to clock in on a phone or tablet. "Companies I worked for in the past would use paper time sheets, for example, and an administrative person would spend almost a day entering time sheets into the system, so it saves us a lot of time that way."

Munie agrees. The lack of paper shuffling and data entry are huge time savers, as is having the correct production rates built into the system. This information allows Focal Pointe to accurately schedule the proper workforce to efficiently complete projects.

Other office improvements at GroundSystems have come from shared document storage with



DANIEL CURRIN

Dropbox and using Go iLawn for remote takeoffs and measuring. Rorie is also looking forward to the benefits that will come from implementing GPS fleet tracking technology later this year.

At Greenscape, CEO Daniel Currin likes to drive productivity with accountability. He does so by using Aspire in conjunction

with Traction Tools, a software program for companies that run the Entrepreneurial Operating System, a model popularized by the book *Traction: Get a Grip on Your Business* by Gino Wickman.

"Aspire runs the business and Traction Tools



runs the management," Currin says, noting his company plugs in numbers from Aspire, QuickBooks and some of its other systems to make up a scorecard within Traction Tools. "It's a really good accountability tool because we meet every week on that rhythm and at the end of the meeting we determine any issues we need to discuss and solve."

Personally, Currin uses Trello to track his action items and provide input to his direct reports on the projects they're managing. The company also uses Trello in the sales department to manage the sales team's "work in progress" chart, which used to be a whiteboard.



Productivity and Software

There are two productivity ratios that a contractor must manage: Labor Productivity and Overhead Productivity.

Productivity is calculated as the dollar value of RESULTS produced by the dollar cost of the ACTIVITY required to produce that result. Contractors incur ACTIVITY expenses for people (labor) who do the work (you have to pay them to drive, load, mow, etc.), and for people (overhead) to manage the work (plan, schedule, sell, administer, etc.).

Software and technology can increase productivity as it must document RESULTS in reports, and coordinate and communicate ACTIVITY in an efficient workflow. Managing results and activity maximizes accountability to drive profit margins.

Here's an example of the impact on profitability as a result of an incremental five percent improvement in **labor** *and* overhead productivity. Without business management software it's hard to build the processes and culture to sustain productivity gains.

"An investment in software will produce long-term ROI far greater than any other investment," says Kevin Kehoe, Founder of The Aspire Software Company.

Example: 5% Productivity Improvement Effect

REVENUE	\$1,000,000		REVENUE	\$1,050,000	
LABOR/TAXES	\$400,000	40.0%	LABOR/TAXES	\$400,000	38.1%
MATERIALS	\$100,000	10.0%	MATERIALS	\$100,000	9.5%
GROSS PROFIT	\$500,000	50.0%	GROSS PROFIT	\$550,000	52.4%
OVERHEAD	\$450,000	45.0%	OVERHEAD	\$450,000	40.8%
NET PROFIT	\$50,000	5.0%	NET PROFIT	\$100,000	11.6%
LABOR HOURS	20,000		LABOR HOURS	20,000	
REVENUE/HOUR Revenue / Hour = \$1,000,000 divided by 20,000	\$50.00		REVENUE/HOUR Revenue / Hour = \$1,050,000 divided by 20,000	\$52.50	
LABOR WAGE/HOUR Wage / Hour = \$400,000 divided by 20,000	\$20.00		LABOR WAGE/HOUR Wage / Hour = \$400,000 divided by 20,000	\$20.00	
LABOR PRODUCTIVITY Rate = \$50.00 divided by \$20	2.50		LABOR PRODUCTIVITY Rate = \$52.50 divided by \$20	2.63	5% gain
,					
OVERHEAD PRODUCTIVITY Revenue / Overhead = \$1,000,000 divided by \$450,000	2.22		OVERHEAD PRODUCTIVITY Revenue / Overhead = \$1,050,000 divided by \$450,000	2.33	5% gain

SPONSORED CONTENT



"There are multiple people involved in the sales process, going from opportunity to sale, so this tracks who's working on it, what's done, what needs to be approved, etc." Currin says. "At any moment you can see where the sales team is at, moving through the design/estimating phase."

OUT IN THE FIELD

Sometimes, something as simple as sharing information with the right people at the right time is enough to improve productivity.

"In real time, our operations managers know exactly how their crews are doing and can provide feedback to maximize their performance and adjust the next day's schedule as needed," Munie says of Aspire's capabilities.

As another example, Rorie says the software's Daily Plan feature shows crew leaders a list of all the materials they need to load for the day, instead of doing it the "old way," when they'd sift through

multiple hard copy job folders to see what they needed to gather to get their jobs done.

Currin's team has been exploring new ways to display details from Aspire and other programs using Microsoft's Power BI, a data visualization program.

This tool allows Greenscape managers to create charts and graphs to communicate data points by branch, by profit center, by crew or by other factors so team members can quickly grasp them and make better decisions.

One simple chart Greenscape has been displaying companywide this year is a list of drivers who speed the most.

"It's changed driving behavior even more dramatically than using sticks or carrots or talking to people about it would," Currin says. "We're just saying 'here's the information, make better decisions.' Sharing information visually is something we're just getting figured out, but our hope is to expand it."



If you want to talk to us about your business and see a demonstration, visit www.youraspire.com.

PHOTO: CORTEVA AGRISCIENCE

Gil Del Rosario

DID YOU KNOW

PROLIFIC POA

Poa annua is one of the most common grassy weeds in the country and begins germinating in the late summer or early fall.

No more Poa

It's time to stand up to that widespread weed, Poa annua

BY DANIELLE PESTA | LM ASSOCIATE EDITOR

try is about to start germinating: Poa annua, also known as annual bluegrass. We asked two experts, Gil Del Rosario, market development specialist for Corteva Agriscience Turf & Ornamental, and Ian Rodriguez, Ph.D., technical services manager for Quali-Pro, to offer advice for identifying and treating Poa annua.

ne of the most common grassy weeds in the coun-

Planning starts now: Germination begins in late summer or early fall. Warm days and cool nights indicate when germination is near and create the ideal environment for the weed, according to Del Rosario. When soil temperatures drop to 70 degrees F, Poa annua begins to germinate. It grows through-

out the winter; seeding starts in the spring.

Cool is king: Although it's known as a winter annual weed, perennial varieties exist. With an aversion to heat, perennial varieties are more likely to be found in cool-season grass-growing zones, Del Rosario says. The weed prefers cool, shady and wet areas, but it can thrive in full sun if the turf stand is thin, he says.

Don't pick up hitchhikers: Poa annua is so widespread because it's a prolific seeder. It is found in lawns, landscape beds and planted containers. Seeds transfer by shoes and mowers, Del Rosario says. Early application of a preemergent herbicide is important since the weed is most susceptible as a seed. With obvious white tufted seedheads, the weed can be identified in early spring and summer, Rodriguez says.

Avoid a mix-up: Unlike creeping bentgrass, Poa annua has a prominent midrib on the leaves. With a folded appearance, the leaves have boat-shaped tips. Watch out for a bunch-type grass that is a lighter green than desirable turf types, Rodriguez says.

Keep turf happy: As with all weed control, preventive methods and maintaining a healthy, dense lawn are crucial. Poa annua takes advantage of lawns with poor fertility, compaction and a thin turf stand. With Poa's shallow



root system, overwatering can promote growth. Rodriguez says a low mowing height will favor the grassy weed.

Even with healthy, desirable turfgrass, it's important to not waste any time contemplating a control strategy.

Del Rosario and Rodriguez both recommend a preemergent strategy instead. Preemergent applications should be made right before soil temperatures reach 70 degrees F.



Ian Rodriquez

"Be sure to allow for adequate time to make the application and then irrigate before the seeds begin to germinate," Del Rosario says.

It is also important to plan for a spring re-treatment. "The spring application needs to be timed before the fall application starts to lose its residual control," he says.

Preemergent programs are the best approach, Rodriguez says. "Postemergent options are more limited in cool-season turf," he explains. "But there are a number of selective postemergent control options available to clean up breakthroughs in warm-season turf."

For preemergents, products that contain the following active ingredients can be effective: prodiamine, dithiopyr, pendimethalin, indaziflam, ethofumesate or simazine.

Del Rosario recommends using postemergent treatments as a backup plan for persistent populations of *Poa annua*.

Some active ingredients to look for in postemergents include: pronamide, metsulfuron, glufosinate, glyphosate, rimsulfuron or foramsulfuron — which are effective on dormant warm-season turfgrasses.

Application timing and changing modes of action are strategies that can minimize resistance when treating the weed.

"Poa annua has shown the ability to develop resistance to virtually any herbicide group," Rodriguez says. "So, combining modes of action is becoming a more common strategy when using preemergents."

Rotate products with different modes of action, Del Rosario says. "Look at the mode of action number on the label of herbicide, and when switching products, make sure the number is different," he explains. Before using any product, be sure to read and follow label directions closely.

Surfactant power

Do's and don'ts for getting the most from wetting agents

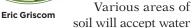
BY LAUREN DOWDLE | **CONTRIBUTOR**

atering and applying chemicals to turf are only successful if they can reach below the surface of the soil. Surfactants help water better and more evenly penetrate the soil by reducing the surface tension of water. Sometimes referred to as wetting agents or soil surfactants, surfactants are especially useful on water-repellent soils and lawns needing an improved appearance.

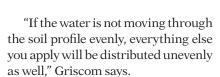
This type of compound can help give the turf a more uniform, green color; reduce dry and brown spots; improve the distribution of soil-applied chemicals; and require less water usage going forward.

"Lawn care operators (LCOs) can communicate those

> benefits to the customer and get a happier, more satisfied customer," says Eric Griscom, product manager at Aquatrols.



differently, preventing the water's ability to easily travel into the soil, particularly in drought situations and water-repellent soils. This can lead to runoff, erosion. wasted water and dry spots, which affect the turf's look and health.



Surfactants penetrate the surface, carrying water evenly through the thatch layer and into the soil. This compound also helps improve the effectiveness of chemicals — such as soil-applied pesticides or fertilizers when it's mixed in.

"(LCOs) might have fewer callbacks or fewer postemergent sprays they need to do, and also happier customers," Griscom says. "The operators who are using surfactants are using them as a competitive advantage."

PRODUCT USE DO'S

Like with any compound, LCOs should read the product label and follow the water-volume application rates. If it's a new tank mix, perform a jar test to ensure compatibility. LCOs should also know their water's pH level, since it can affect the overall tank-mix performance, Griscom says.

More advanced types of surfactants work like a detergent, getting into the soil and then attaching to the wax hydrophobics and wet particles in the soil. It's especially important to follow the application and mixing instructions for these because they can burn some of the grass if mixed incorrectly, says Kurt Brace, ornamental horticulture manager at ICL Specialty Fertilizers.

Many LCOs mix surfactants with soil-applied pesticides and fertilizers. Since surfactants can increase the efficiency of these chemicals, it's important to test anything mixed in with them before an application.



Kurt Brace

PRODUCT USE DON'TS

Not all surfactants provide the same benefits or level of efficiency, so LCOs should be sure to choose a quality product — rather than basing their decision solely on price.

"It's important to know they don't all work the same," Griscom says. "Sometimes, you get what you pay for."

Some herbicides include a type of surfactant, Brace says, so don't mix in more of the compound if it's already present. That's another reason checking labels is a must.

Also, don't forget to adjust the property's irrigation schedule to reduce the amount of water used once the surfactants are applied.

"You can cut water use by 20 percent or more," Brace says. (1)

Dowdle is a freelance writer based in Birmingham, Ala.

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THE BIG ONE

Drama in the desert

LOCATION Albuquerque, N.M.

COMPANY Yellowstone Landscape

DETAILS Mesa del Sol is a mixeduse, master-planned development located outside of Albuquerque, N.M. Yellowstone Landscape has been maintaining the property for just over two and a half years.

As the name suggests, Mesa del Sol is located on top of a mesa. It receives little rainfall and can experience 40-degree temperature swings in a single day.

The landscape features plant material that requires little moisture such as yucca, agave, butterfly bush and catmint perennials. Assorted colors and sizes of gravel accent plants and trees.

The soil in the area is poor quality so teams brought in mycorrhizae, a fungus that adds organic matter to the planting beds, to help tree and plant roots take hold and absorb water.

Irrigation is a challenge in a xeric landscape. When the development was built, water pressure was so low Yellowstone teams used booster pumps to get water through the system. The team now uses a smart irrigation system and makes adjustments based on water collection data from a nearby airport.

The project won the company a 2018 Silver Award from the National Association of Landscape Professionals' Awards of Excellence program.

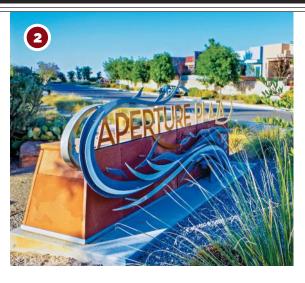
See more photos from this project at LandscapeManagement.net/thebigone.















Captions | 1. The neighborhood park and pool are used as recreation areas for residents. 2. Mesa del Sol is a mixed-use, master-planned development located just outside Albuquerque, N.M. 3. The xeric landscape includes an assortment of grasses and native shrubs. 4. University Boulevard's wide medians highlight the area's natural beauty with desert plantings and hardscape elements. 5. The first homes of the development are located closest to the town center. 6. With temperatures often exceeding 90 degrees F, the community pool is a popular destination for residents during the summer.



Decades of dependability

Why one company relies on Exmark mowers as its go-to

BY SARAH WEBB | LM ASSOCIATE EDITOR

ussell Landscape has been around for 32 years. The Sugar Hill, Ga.-based company has been using Exmark mowers for about 28 of those.

Founded in 1987, the company employs about 425 people across seven branches in the Southeast and boasts about 300 Exmark mowers in its fleet, according to CEO Teddy Russell.

"We are a commercial landscape contractor, and so we have all different-sized properties. The Exmark mowers are good for all types of properties," Russell says.

About 70 percent of Russell Landscape's fleet is comprised of Turf Tracers (pictured below), hydro-drive walk-behind

mowers. The remaining 30 percent is made up of zero-turns, like the Lazer Z, with 60- and 72-inch deck sizes.

The company originally chose to go with Exmark based on a recommendation from its dealer, The Howard Brothers.

"The Howard Brothers are engaged with what we're doing, everywhere from our needs in service to new equipment," Russell says. "The relationship has been there since we started our business, and they are almost like family to us now."

He adds, "Exmark has also always had that family feel. They're genuine about their recommendations and wanting something that's going to be a best fit for our company." (9)







Weekend warriors know the difference between lawn mowers that make child's play out of yard work and those that are mere toys. They trust the equipment backed by a reliable Honda Engine. That's because Honda GCV160 engines pack power, legendary performance and quiet operation into a lighter weight that increases fuel efficiency, and user satisfaction. Go with the engine that tells your customers they're getting the very best — Honda Engines.





Continuous, in-depth chainsaw training is a must to keep operators safe and efficient BY EMILY SCHAPPACHER | CONTRIBUTOR

or crews at Aspen Tree Expert
Co. in Jackson, N.J., chainsaw
training begins on day one. In
fact, employees will have a solid
four hours of training and education under their belts before they even
put their hands on a chainsaw.

"There are so many things to learn," says Mark Chisholm, the company's director of operations. "We train everyone across the board because it enhances safety across the board."

For many landscape and tree care companies, chainsaws are vital tools to getting the job done each day. With the high level of risk involved in operating these powerful machines, industry experts agree that continuous, in-depth training is a must to keep operators safe and efficient.

"Running a chainsaw is a skill that will slip away from you if you do not continue to practice," says Kenneth Glass, technical sales specialist for mid-Atlantic Stihl. "The best thing a contractor can do is spend some time with both new and seasoned users."

At Aspen Tree Expert, a \$5 million company that provides tree care, plant health care and insect control services to a 55 percent commercial, 45 percent residential clientele, training begins by understanding the components of a chainsaw. Crew members are required to watch training videos and study the user manual, which Chisholm says is the Bible when it comes to chainsaw safety. Time is spent understanding the various types of personal protective equipment (PPE) crews must wear when operating a chainsaw or power saw. Required PPE at Aspen Tree Experts includes a hard hat,

ONGOING TRAINING

At Aspen Tree Expert Co., even seasoned crew members undergo refresher chainsaw courses to prevent bad and unsafe habits.

eye and hearing protection, appropriate pants or chaps, gloves and work boots.

Crews are then shown how to inspect a chainsaw, checking items such as the chain tension, chain catch, chain break and throttle interlock, Chisholm says. Next, trainers show crews how to start the machine, hold it and stand while it's operating.

"There are all of these little details we teach our guys," Chisholm says. "We then encourage them to look for these things in the field and to hold each other accountable to safe practices."

Once employees have learned the basics, Glass recommends putting them in a controlled environment to run the saw while trainers provide tips after each cut.

"It's possible to overload a new user with a large amount of information, so we take baby steps to ease them into running the units," Glass says. "You need to make sure they can do each step before moving to the next because if they do not have the basics down, you are setting them up for failure."

Aspen Tree Expert provides a comprehensive refresher course to all employees once a year. Of the company's 40 crew members, six of them are Certified Treecare Safety Professionals through the Tree Care Industry Association. This equates to about one certified professional on each crew who is expected to lead and oversee the rest of the team.

"Those people are held to a higher standard," Chisholm says. "They not only have authority within the organization, but they have to gain certification units each year to uphold their credentials."

Glass says this type of continuous professional training is important because experienced employees may get complacent over time.

"The stuff we run into most with seasoned users is bad habits — they forget how to safely start the chainsaw and become more careless, or they don't wear all of their PPE because they haven't needed it before," Glass says. "We try to stress to the seasoned users that the new users look up to them for examples, and they need to set good ones."

Regular maintenance also is important. Jay Larsen, global technical services manager of the forestry, lawn and garden division at Blount International, recommends daily cleaning of dust and debris from the machine and frequent inspection of the air filter. Operators should follow the gas and oil requirements as stated by the saw manufacturer. Proper upkeep and maintenance of PPE is just as crucial, Larsen says, adding that contractors should periodically inspect PPE for wear and replace when necessary.

"Chainsaws are incredible laborsaving tools; however, they can also be very dangerous," he says. "Training should be ongoing and never one-anddone. Establish a company safety policy if you don't have one already and do spotcheck site visits to make sure crews are adhering to your safety standards." (

Schappacher is a freelance writer based in Cleveland.



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DESIGN BUILD + INSTALLATION

HARDSCAPE SOLUTIONS

Updated but timeless

LOCATION Cleveland Heights, Ohio

COMPANY Exscape Designs

DETAILS The design intent was to create an updated landscape and entertainment area that reflected the traditional architecture of this 1920s-era home.

Exscape helped create a new driveway layout, which meandered down the middle of the left-side lot, integrating the double lot into a cohesive whole and working around the existing large trees.

The brick and stone used ties back to the materials used on the house and provides an updated but timeless look.

A masonry feature fireplace provides a focal point in the entertainment area, while creating a backdrop for privacy. A 6-foot-tall cedar fence around the backyard adds another layer of privacy.

The hot tub was integrated directly into the wide veranda steps, and the hot tub and chimney were lined up on the center point of the upper veranda to connect them to the house's architecture.

The Exscape team excavated and installed a masonry foundation for a 1,200-square-foot addition and installed all new storm and sanitary connections from the house to the street, drainage throughout the property and a complete waterproof system on the foundation around the existing house.

The project earned Exscape Designs a 2018 Gold Award from the National Association of Landscape Professionals' Awards of Excellence program.

See more photos of this project at LandscapeManagement.net/hardscapesolutions.















Captions | 1. A new front porch was installed, along with new landscaping, a front walk and masonry walls across



the front of the house. 2. The homeowners did not want a hot tub that was "floating out in the landscape," so the Exscape team designed the hot tub so it appeared to be part of the dining veranda. 3. The fireplace does double duty as a center focal point of the entertainment space, while also providing a backdrop that provides some screening to the adjacent house.

4. A formal area garden is visible from the upper and lower patio areas. The crushed bluestone paths visually tie the garden area to the bluestone patio.

5. An 8-foot-tall guitar sculpture purchased at a charity auction creates a whimsical focal point in the formal garden area. 6. With many large, mature trees, the team positioned the new underground connections carefully to minimize damage. 7. Due to budget restrictions, Exscape designed a pavement scheme that transitioned from the main bluestone patio to a dyed concrete walk, which leads guests to the driveway/parking area. The brick border softened the look of the concrete and tied back into other brick features on the house and in the landscape.



Todd's Services.

had driver's licenses."

the company in 1985.

business," Kurt LaButte says.

Climbing back to the top

How Todd's Services battled back from tragedy to reach its peak in its 40th year by ABBY HART | LM SENIOR EDITOR

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The company peaked in 2007, with about 90 employees and just under \$12 million in revenue, mostly in new construction, which was booming just outside of Detroit.

odd and Kurt LaButte, like many in the landscape industry, started young with a couple of push mowers,

mowing neighbors' lawns. Todd, being the older of

the LaButte brothers (he was No. 5 of eight children, and Kurt was the youngest), named the company

"We started in 1979, my brother and I," says Kurt LaButte. "It was unique because we lived on a chain of lakes on a river

Kurt and Todd's mother and father joined in the budding business, answering phones and fixing equipment, respec-

tively, and their sister Sherry (now Sherry LaButte-Birk), a

couple years out of high school, began working full time for

ness out of their parents' house, and operations relocated to

ture and figure out what we wanted to do and figure out the

built its offices in Hamburg, Mich., which is still the facility

that houses the business to this day. With Todd serving as

president overseeing sales and Kurt as vice president man-

aging personnel and production, the company grew. Todd's Services acquired another company, began to get heavy into

new construction and purchased more equipment.

a tiny trailer on an empty lot down the street.

At the time, the LaButtes were forced to move their busi-

The LaButtes' hard work led to the incorporation of the company in 1986. "Just learning, growing up, trying to ma-

Todd's Services hit its stride in 1990, when the company

system, so we'd use rowboats and stuff. That's how we got our push mowers around and got to our clients before we

Continued on page 62

DOMINATE THE LANDSCAPE

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DESIGN BUILD + INSTALLATION

COMPANY SPOTLIGHT

Continued from page 60

THE HARD TIMES

The Great Recession of 2008 struck and when the housing bubble burst, Todd's Services 2009 revenue dropped to \$4.5 million — 40 percent of its peak revenue. Kurt LaButte says having to restructure, lay

off people and try to look at things in a different light was difficult, and the financial burdens weighed heavily on the brothers as the leaders of the company.

On the second day of the 2010 season, April 13, Todd LaButte died by suicide.

Even with the grief they were going through as a family and as a tightknit company, LaButte-Birk remembers that Kurt sprung into action that day.

"He immediately went out and met with everybody in the company and tried to find out if people were going to



The founders of Todd's Services, Todd (left) and Kurt LaButte, at the opening of their headquarters in 1991.

be leaving or not, and they weren't — we didn't lose anybody," she says. "Believe me, they didn't have to stay. In the landscaping industry, they could have gone and got jobs all around us. And they all stayed. I wouldn't have faulted, honestly, any of them for leaving."

Josh Robinson began at Todd's Services in 1989 while he was in middle school. His first job was washing trucks, and over the years, he worked his way up to the position he holds now as sales and design manager. He had already been at the company for 20 years when the recession hit. Robinson thought it was always a great place to work, and he stayed loyal through the hard times. After Todd's death, he credits Kurt's approach to rebuilding the business as another reason he wanted to stay.

Continued on page 64

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DESIGN BUILD + INSTALLATION

COMPANY SPOTLIGHT

Continued from page 62

"If he had shown signs of weakness, or giving up or handling something without integrity, I would have been out of there," Robinson says. "He showed strength, poise and integrity—he did the things that he needed to do to keep this place going. That's what kept me confident that we could pull out of this."

REACHING THE SUMMIT

"We were a key player in the industry, and we just got walloped really bad," LaButte-Birk says. "It felt like we were climbing a mountain, but we wanted to get back up on top of that mountain again."

Now, as the sole leader of the company, as its president and CEO, Kurt LaButte immediately began trying to understand the sales and operational side of the business — a tough task given that in 2010, he didn't use a computer.

He got up to speed on technology and developed a management team out of the longtime employees, including LaButte-Birk, vice president and office manager; Josh Robinson, sales/design manager; Kevin Birk, master plumber/ (Kurt LaButte) showed strength, poise and integrity — he did the things that he needed to do to keep this place going. That's what kept me confident that we could pull out of this. ""

- JOSH ROBINSON, TODD'S SERVICES

service and fleet manager; Jeff Walz, production manager; Mark Becker, purchase/scheduling manager; and Doug Murphy, business development manager.

From there, Kurt LaButte's goal was to make Todd's Services more resistant to economic forces by diversifying its service offerings. The team added commercial lawn and snow, reconstruction, more design work, plant installations and more irrigation installations to its mix. The company included retaining walls and brick pavers on its list of installation capabilities, and not just in the new housing Continued on page 66

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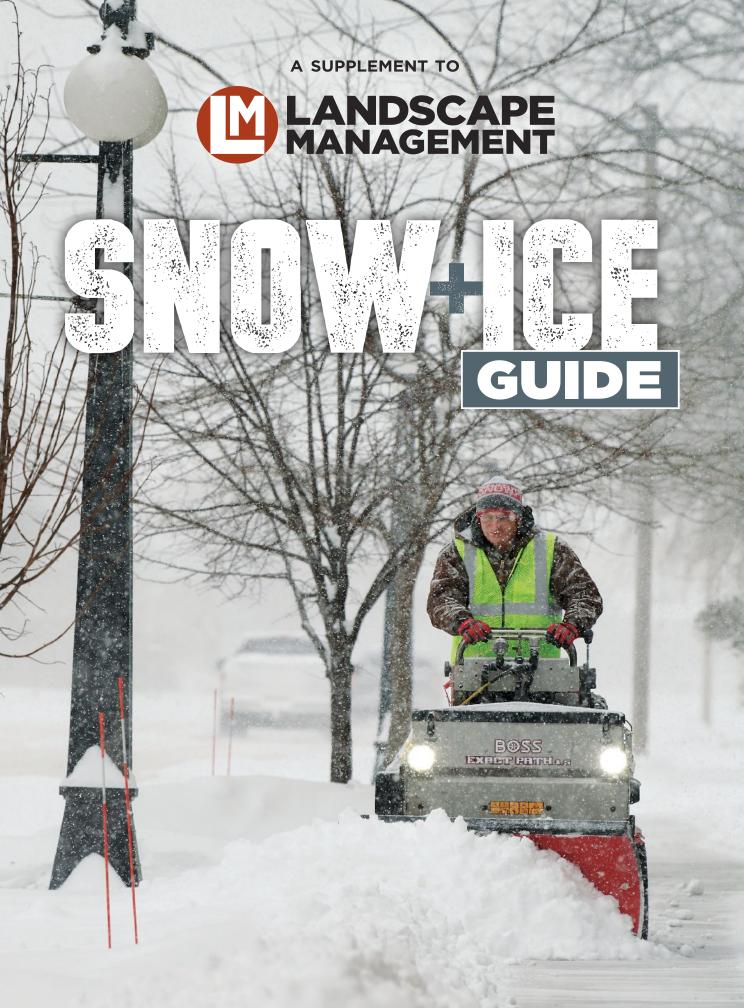


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**MDII pictured with optional $\textbf{SNOWDOGG} \@ifnextchar[]{\opartition{1.5em}{\line NOWDOGG} \@ifnextchar[]{\opartition{1.5em}{$









magine your area typically receives about 50 to 60 inches of snowfall a year. One year, you experience less-than-average snowfall from November through January, until out of nowhere, your region is pummeled by back-to-back blizzards within a week of each other, dropping 20 and 30 inches of snow, respectively.

The rest of February and March yield extremely cold temperatures, leaving no room for warmup periods to melt off the snow pack and delaying spring cleanup work. What do you do?

This was the scenario that befell JC Grounds Management, a Danvers, Mass.-based snow management firm that was left to contend with 100 inches of annual snowfall — double the usual amount — across 90 commercial properties during the 2014-15 winter season.

Jeremy Darling, account manager at JC Grounds, and Anthony Pennella, owner of Polar Snow & Ice Solutions and business development manager of its parent company Pennella Landscape Designs in Towaco, N.J., shed light on the strategies they employ when faced with an extended snow season.

JC Grounds is a \$5 million organization that employs 350 people during peak snow season and provides 75 percent snow services to a 100 percent commercial clientele. It offers maintenance and enhancement work in the summer. Polar Snow & Ice Solutions is a \$1 million company. It employs 75 people in the winter. Its parent company, Pennella's Landscape Design, employs about 35 people in the summer and provides design/build and maintenance services.

ADAPT ON THE FLY

Whether a storm unexpectedly hits late in the season or roars in early in October like one did about eight years ago in Pennella's neck of the woods, the ability to adapt is key.

"I'll never forget it because we were actually plowing leaf piles, school was shut down and they canceled Halloween because we had such an immense amount of snow," Pennella says. "That was very challenging because our trucks were prepared for picking up leaves, servicing maintenance customers and designing patios. We needed to flip the switch in a matter of two days to get ready for that storm that came in."

To adjust quickly enough to service its 90 commercial accounts, Polar Snow & Ice Solutions includes polysalters on the back of its pickup trucks



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because they're lightweight and easy to put in and take out of the trucks.

"We've found ourselves tossing a salter in the night before and taking it out the next morning after we salted because we're going to do a patio or cut the grass," Pennella says.

He adds that the company's shop is organized so that each snow-dedicated truck backs up to a salter to make hooking up the equipment more efficient.

For those seasons when snow takes a long time to melt, Darling suggests constantly evaluating properties.

"Don't wait until the snow melts to have a plan in place of where you're going to go and when you're going to start," Darling says. "Always be assessing your properties as often as possible because the stuff on the southern side of a building is going to melt before the northern side of building."

Sometimes, JC Grounds Management makes the call to start performing spring cleanups on a property once the snow has melted off by 50 percent. Then, the company goes back a week or two later to finish off the job.

"One of the most difficult things is having to decide, 'Do I go to a property and start the cleanup or wait until it completely melts off?" Darling says. "That's done on a property-by-property basis, depending on the property type, the timeline for the contracts and the time we usually start mulching."

Darling says overall, the company tries to get started on spring cleanups as soon as possible.



"We have so many deadlines to meet that if we have to work extended shifts, we do that. If we have to do mulching at night versus day to get caught up, we do that," he says.

PREP IS KEY

It's not all about pulling together at a moment's notice, however. Both Pennella and Darling tout the benefits of being organized months in advance.

"In our business, we're an emergency service," Pennella says. "We're called upon in a moment's notice. If we don't have things ready to go, somebody else will service our customers better than we will."

To stay on top of their game, JC Grounds and Polar Snow & Ice make use of historical data by documenting items such as site details and dates of service.

"We do a lot of the same properties year after year, so we can tell which properties are going to melt off fast and which ones aren't," Darling says.

Pennella adds, "Just being able to keep track of your time on-site, of your salt usage, of materials and man-hours, that's huge."

Taking the documentation a step further, Polar Snow & Ice Solutions has used a service called Site Photos to monitor its sites and plans to implement video cameras on its commercial sites this year.

"We're making sure we're fulfilling the needs of our customers and protecting ourselves as a company from any liability or potential loss," Pennella says.

Darling says JC Grounds pays close attention to almanac data and weather systems and reassesses long-range forecasts every month. Polar Snow & Ice also uses a company called Weather Works, which provides storm alerts and live weather updates.

It's also helpful to make sure schedules and contracts are laid out well in advance. For example, Pennella says snow and ice contracts are drawn up and signed before October. Darling says JC Grounds starts putting together spring schedules before March.

Keeping equipment in tiptop shape is also important to contend with early- and late-season storms. Polar Snow & Ice keeps on four dedicated snow employees year-round to handle snow equipment preparation and make sure everything is ready to go.

In addition to keeping its snow equipment prepared, JC Grounds also makes sure its landscape



equipment is ready to go, in case an early thaw allows crews to get a jump on spring cleanups.

"We do all of the prep work for our landscape equipment in late January and early February," Darling says. "We start going through stuff early to make sure everything runs properly and blades are sharpened, so if we do get an early melt, we can get up and running in March."

OTHER ODDS AND ENDS

Being prepared and adaptable may seem like nobrainers, but there are other ways snow contractors can ensure they don't get buried under snow removal and landscape cleanup work.

For example, Pennella says his company seeks out contracts that will allow Polar Snow & Ice to keep snow equipment on-site, ready to plow at a moment's notice. The company's snow-dedicated pickup trucks are snow-ready until May 15, he adds.

"You'll never know if we get a late-season storm and need to transition," he says.

Darling suggests using larger 10- to 16-foot snow plows and clearing snow off of properties in the winter whenever possible.

"That helps because we're not damaging turf by moving those bigger snow piles," he says. "We will also blow snow way off the property into the woods. You may get a thicker snow pack in the woods, but at least around the property, it melts off faster." (4)

PRO TIPS

BOSS SNOWPLOW: Adding a back-drag plow to operations can help snow contractors gain productivity over a front-mounted plow. Seasoned back-drag plow operators can realize a 30-50 percent increase in productivity versus a truck with just a front plow on it, Boss Snowplow says.

JOHN DEEREE Contractors located in areas with less snowfall should consider using a rotary broom or blade to remove lighter amounts of snow. Also, skid-steers can be transformed with attachments for snow removal applications. The machines can be used throughout the rest of the year for moving materials and landscaping projects. Finally, contractors should work with their dealer to ensure the parts inventory is stocked ahead of time.

with unpredictable weather that equipment quickly adapts to ever-changing needs. Invest in equipment where the plow can be changed from the driver's side in one minute or less. No one wants to waste time messing around with complicated systems or driving around with a plow hanging off the front of the truck when it's not needed.

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NO BUSINESS LIKE SNOW BUSINESS

Adam Schlutt, president of MAAC Property Services, discusses his reluctance to join the family business, his company's challenges and his approach to the labor issue

BY CLARA RICHTER | LM MANAGING EDITOR

in his dad's snow-removal business.

"I avoided this industry as much as possible when I was in college," says Schlutt, president of MAAC Property Services in Niles, Mich. "I wanted nothing to do with

dam Schlutt never wanted to be involved

it. My father started this business back in '98. I've always worked for my father, but it was always the summer stuff and the random winter stuff."

Schlutt says being in the family business used to scare him because he had seen it tear some families apart.

He was on the road to become a self-described "perpetual college student" when in 2010, he got a call from his dad, Mark Schlutt, and snow industry consultant Phil Harwood, managing partner of Grow the Bench. Schlutt has been working with Harwood since 2010.

"(Phil's) focus has always been training me on all

the ins and outs of running a business," Schlutt says. "In 2011, he actually stepped in to help me with decision making when my father was out after heart surgery."

About 60-65 percent of the company's work is snow removal, which it performs for a 98 percent commercial clientele. There are always a few residential properties that sneak in, says Schlutt (pictured below on the far right), but the company only actively seeks to work with large commercial properties.

To offset the winter months, the company performs maintenance in the summer, doing mowing and irrigation work for large commercial properties, generally those for which it provides snow-removal services.

MAAC has 45-55 year-round employees and 75-150 members on its sidewalk crew and salt-spreading MAAC Property Services has provided snowremoval services since 1999.



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team. The company subcontracts out any plow work that needs to be done.

The company started offering snow removal in 1999, a year after it was founded.

"A good friend and one of our subcontractors convinced my father to go this route because in this area, it wasn't a big industry," Schlutt explains. "Not a lot of companies offered full-year maintenance."

Despite trying to avoid working in the family business, the demands of running a snow removal company are well suited for Schlutt, who says he "thrives in chaos."

"In the wintertime, every event is different," he says. "You don't know if you're dealing with the same employees this week as next. You treat each event as a catastrophic event, and you try to make it work. To me, that's where the reward comes."

OVERCOMING CHALLENGES

According to Schlutt, MAAC's location is one of its biggest challenges. Due to its proximity to Lake Michigan, the area is prone to heavy lake-effect snow, which can be difficult to predict. "We have the luxury of that wonderful body of water to our west. It's either 110 inches, or 30," Schlutt jokes.

To combat the unpredictability, the company does a lot of upfront training on topics such as safety, deicing, software, equipment and routes. Schlutt says he would

MAAC ensures crew members are ready for every possible scenario through upfront training. rather have his crew members go into an event knowing it may be four hours but could turn into 16. He also tries his best to staff accordingly per event, erring on the high side when possible.



You treat each event as a catastrophic event, and you try to make it work ... that's where the reward comes. ""

-ADAM SCHLUTT, MAAC PROPERTY SERVICES

"We try to be as proactive as possible knowing it's going to be reactive anyway," he says.

Finding employees who are willing to work the long, unpredictable, cold hours associated with snow removal is often one of the challenges many company owners speak about, but not Schlutt.

"We're more mission than profit centered," he explains. "We're known in the area as the second-chance company. We have a lot of guys that are considered by the state or larger companies to be unemployable due to criminal histories or past histories. Our view is they're human. There are limits, I understand that, but for the most part, we're always willing to give them a chance."

Schlutt explains the company's goal is always focused on education, and training is centered around personal development rather than simply learning a new skill.

He says this employment model does two things. Either his firm hires an individual who didn't know he or she could be successful, and that person becomes a great employee at MAAC. Or he goes on and finds a better job and does better for himself and his family. This type of approach to employment also fosters loyalty to the company.

"I'll tell guys to go somewhere else to do better for themselves if they need to," Schlutt says. "But they won't leave even though they don't make that high of pay. They feel comfortable where they're at, and they respect the situation. It's greatly appreciated."

Certain correctional facilities and parole officers recognize MAAC Property Services as a place where individuals recently out of prison can find employment.

"I have more parole officers' numbers in my phone than I do friends, but the state loves us for that reason," Schlutt says.

Schlutt says that you can't always expect perfection out of these individuals, but MAAC Property Services tries its hardest to give them a voice and an opinion.

"The biggest thing for me is always I'm not in this to make money anymore. My goal is to educate my guys as well as possible," Schlutt says. "I always tell them I'm trying to find someone to replace me."

PRODUCTS



BUYERS PRODUCTS SNOWDOGG PLOWS

The new Buyers Products MDII and VMDII SnowDogg snow plows are designed for half-ton trucks. They feature full-power hydraulic blade angling and robust grade-50 steel frames. Features like the floating A-frame, municipal-style chain lift and standard 304 stainless steel blades have been carried over from SnowDogg's EXII, HDII and VXFII lines. A new Rapid-Link attachment system allows plow operators to quickly attach and detach the plow from the driver's side of the truck without circling around to the other side of the plow. A hydraulically operated jack switch changes the plow's mounting height on the fly to ease plow-to-vehicle alignment. The SnowDogg MDII and VMDII will be available for the 2019-20 winter season.

BERLON MELTRR

Berlon's salt spreader is ideal for spreading salt on icy sidewalks, driveways and parking lots. Its selfloading bucket is designed to make it easy for the operator to scoop and go - saving manual labor and time. The Meltrr is available in two different sizes: 60 inches (26 cubic feet) and 72 inches (32 cubic feet). It is equipped with a stainless steel spinner; the speed is adjustable with the engine rpm. Each unit comes standard with the universal skid-steer mount, hoses, couplers and a hose saver.





2018 and redesigned since then, quickly deploys to plow and deice sidewalks and walkways - reducing the need for shovelers and allowing the operator to brine, spread and plow at the same time to maximize on-the-job productivity and profitability. Boss-engineered improvements include a 4-foot hydraulic snow plow with 20-inch polyethylene skin and improved electrical and plow attachment systems. The Snowrator also now accepts all Boss ATV plow accessories and common parts for better parts availability and convenience of service.



SNOWEX POWER PUSHER

SnowEx introduced its Power Pusher TE snow pushers for skid-steers, wheel loaders, backhoes and tractors. Available in 8- and 10-foot widths, the new snow pushers feature steel trip edges to deliver cleaner scrapes and help operators get down to the pavement. The steel trip edges use four extension springs along with two outer double ribs at the trip springs to handle heavy-duty loads and stresses. Six vertical support ribs maximize bucket impact strength and structural integrity, while 10-gauge steel moldboards offer strength. Side support posts help prevent bending from hitting curbs or other accidental impact. Interchangeable attachments allow a Power Pusher TE to attach to any compatible skid-steer. wheel loader, backhoe or tractor. Accessories include a top-mounted, rubber back-drag edge for pulling snow away from loading docks, doors and other tight spaces. High-wear shoes are also available.

5 1 1 E GUIDE

SNOW STRATEGY



BY PHIL HARWOOD

The author is president and CEO of Pro-Motion Consulting. Reach him at phil@mypmcteam.com.

Reduce your financial risk in snow management

he approach of many snow contractors is like a Las Vegas bet, commonly phrased something like this: "One year I win,

one year you win. In the end, it all works out." I don't know about you, but this approach doesn't strike me as a particularly sound business strategy. There shouldn't be a winner and a loser. In fact, snow and ice management professionals should always win, regardless of the situation. Don't you agree?

The problem is many snow contractors leave themselves vulnerable, either because they don't know any better or they are knowingly entering into a gambling scenario. In this article, I challenge you to think twice about such risky business. I believe there are a handful of areas where you should be able to reduce or eliminate your exposure.

Early- and late-season events. When a snow or ice event occurs before your service start dates, your customers expect you to perform as if you've been waiting around all summer for this event to show up. The same thing happens with storms that occur well into the spring, after your service window has closed. Some of you do not have service start and stop dates in your contracts. Events outside of your service dates are freak storms that you

and your customer never anticipated. You deserve to be paid extra for these storms.

Blizzard events. When a blizzard occurs, it's probably not something you planned on or built into your estimating model. Your blizzard clause should include the definition of a blizzard according to your governmental weather service, depending on where you reside. If a blizzard occurs, you'll be protected financially by billing over and above for the event. A best practice is to bill on a time and materials basis.

Drifting snow. Similar to blizzards but more frequent, drifting snow is not usually included in estimating models. In the right conditions, snow may drift continuously and be a major challenge. Including language in your contracts to specify how drifting will be addressed and paid for is necessary.



Relocating or hauling.

Customers asking for or demanding snow to be relocated on-site or hauled away should also be prepared to pay for these additional services. It's always best to address this early in the sales process; in addition, your contracts should clearly explain these extra service charges so there are no disagreements when the need arises.

Thaw and refreeze. If your customer expects you to monitor and treat for thawing and refreezing, you need to be paid for these services. Depending on conditions, this service may be required every day for the entire winter. You simply cannot give it away or hope it doesn't occur. Protect yourself and include language in your contracts to address this scenario.

Daytime events. Daytime snow and ice events are unique because of the challenges related to traffic, full parking lots and the need to come back overnight to clean up. A daytime snow event that requires a full push overnight is really two separate events. Are your customers paying for two events or one? Why not two?

If you would like to win every year, take a look at your contracts and make some changes in these areas to protect yourself. Now go forth. (

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DESIGN BUILD + INSTALLATION

COMPANY SPOTLIGHT

Continued from page 64

development markets. Currently, the company's average job prices at \$13,000, and at 750 to 800 mostly residential jobs per year, the company is work-

Kurt LaButte's sons (from left, Austin, Keegan, Mikal and Zakary) are or have been involved in the business.

ing hard — but not overly so. "We used to work a lot of hours," Robinson says, "but now a family-friendly atmosphere is more of a draw because competition for workers is so steep."

Todd's Services began to track its numbers and purchasing more than before and became focused on its bottom line. It began a relationship with consultant Jeffrey Scott in 2013 and joined one of Scott's peer groups. As a result, Todd's Services is much more open about its numbers and adopted a consensus management style rather than a single management style, Kurt LaButte says.

"That helped," he says. "Monthly meetings, growing our financials, open-book management. (Employees) see the numbers where prior, they never did. It was what Todd and I shared. We work off a budget — we never did that before."



The company's approach to management and budgeting has changed its outlook for the better. This year is its 40th year, and it's poised to cross the \$13 million mark. Kurt LaButte's sons Austin and Mikal work full time for the company, and his sons Zakary and Keegan have worked or currently work summers.

After all the ups and downs of Todd's Services over 40 years, Kurt LaButte finally feels a little freedom to look toward the future of the company.

"I'd like to stay in this chair until our 50th anniversary," he says. B





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EXPERTS' TIPS

Skid-steers

QUICK CHANGE
Skid-steer attachments
make machines more
versatile and help mitigate
the labor problem.



Skid-steer efficiency: Tips for selecting attachments

hoosing the right equipment and attachments gives contractors better efficiency and versatility on the job.

James Jones, operations manager at the Phoenix branch of Gothic Landscape, says using skid-steer attachments helps save labor.

"We are in such a labor crisis that if we can add more equipment, maybe instead of having eight crew members, we could have five," Jones says. "That's the whole point of attachments and skid-steers. It sayes a boatload of labor."

Out of 60 crews at the Phoenix branch, Jones says nearly half have a

truck equipped with a skid-steer and three attachments: a trencher, a bucket and forks. This setup gives each job site the capability of four pieces of equipment. "It only takes 30 seconds to switch out the attachment for a different application," Jones says.

The Gothic fleet has a variety of Caterpillar, Bobcat and Kubota skidsteers. The attachments, Jones says, are universal and interchangeable.

Reid Altavilla, corporate fleet manager for Ruppert Landscape, based in Laytonsville, Md., says skid-steers and their attachments offer a lot of versatility on a job site. "Their adaptability can

make jobs go more quickly, freeing up time and manpower to perform other tasks," he says.

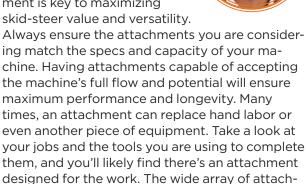
Ensuring versatility starts with choosing the right attachments for the job. "Ruppert selects specific attachments for skid-steer loaders based on job scope and efficiencies," he says.

Altavilla says crews at Ruppert mainly use attachments such as forks, toothed buckets, hydraulic augers and, occasionally, mounted rotary cutters.

Four experts from different skidsteer manufacturers share some advice for selecting the right attachments at your company. $\textcircled{\textbf{G}}$

ASV Buck Storlie

Product line manager
Selecting the right attachment is key to maximizing
skid-steer value and versati



ments now available for compact track loaders and skid-steer loaders makes them one of the



most versatile tools available.

Product marketing manager, skid-steers & compact track loaders

Skid-steers can be versatile machines with the right education and applications. Contractors can utilize various attachments on their skid-steers to complete different tasks on-site. To select the right attachment for your skid-steer, it's important to understand what type of job the attachment will be used for, as well as the environment and terrain. Attachments can perform a number of tasks and have weight and performance limits. Understanding the needs of the job site will ease the selection process. It's important to be aware of the hydraulic power that skid-steers offer and take the time to learn which attachment and machine capabilities are required to complete the task at hand. Knowing the attachment's specifications and limits will help contractors make the most of their selected attachment.



CASE CONSTRUCTION EQUIPMENT George MacIntyre

Product manager - compact and service equipment

Any attachment for a skid-steer should be something that expands the utilization of the machine to increase the services you offer. Attachments ultimately lower the lifetime owning and operating costs by increasing its profitability. While there are also practical considerations related to the machine's auxiliary hydraulics and the size/weight of an attachment that each machine can handle, attachments should align with your business growth plan and serve to add more services to your business without having to buy additional machines.



BOBCAT Jason Boerger

Marketing manager
Contractors need to have a
good idea of how often they
will operate an attachment. Uti-

lization is critical to determine if selecting an attachment makes sense. Contractors also need to consider the jobs they will be working on. This will help them make a more informed decision about whether their machine's engine horsepower and hydraulic flow will be sufficient to power the attachment. Be sure to assess the value of high-flow auxiliary hydraulics for skid-steer loaders and attachments that can benefit from an extra power boost. If an attachment is expected to make up a significant portion of a contractor's operational time, it increases productivity and overall return to use machines and attachments with high-flow hydraulics capabilities.

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COMPANY Andy's Sprinkler, Drainage & Lighting

DETAILS When an irrigation installation project popped up at Texas Christian University (TCU), Andy's Sprinkler, Drainage & Lighting was sure to raise its hand.

The multiphase job involved creating more than 100 zones that separated out beds, turf and trees while considering the area's shady and sunny areas. To begin the project, the four- to six-person crew from Andy's worked alongside a local landscape company, Site Planning Site Development, to haul off excess soil. They then marked bed lines and grass locations, installed the sprinkler pipe with the help of a Ditch Witch SK755 with a trencher attachment (and sometimes hand shovels in tight spaces), removed excess rock and finally, backfilled the trenches with fresh soil.

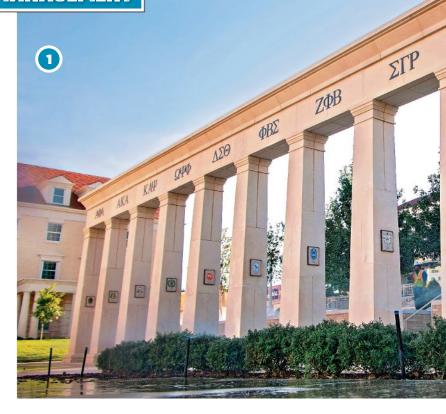
Initial challenges included coordinating efforts with the landscape company and university and contending with the site's rocky soil. The team overcame these by maintaining open lines of communication and bringing in new soil.

The team used Toro's Sentinel Controller, as well as Toro valves and heads, with the Toro 570Z-6P-SI as the main head.

All in all, Andy's installed the Toro irrigation system throughout 3 acres of TCU's campus, according to Matthew Chapman, division owner for the company's Southlake division.

"It's been a fun project working with the landscapers," Chapman says. "We've got teams that work really well together."

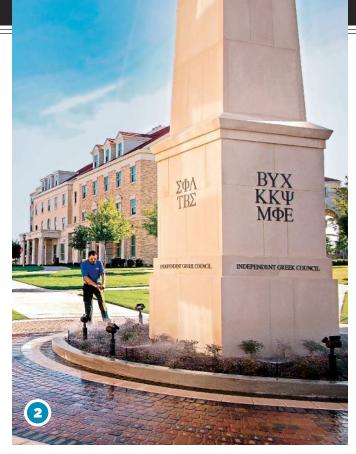
See more photos from this project at LandscapeManagement.net/waterworld.













Captions | 1. The team implemented about 100 different zones to accommodate the irrigation requirements of beds, trees and turf. 2. The team at Andy's was careful to take into consideration which areas of the campus received more sun than others and planned the zones accordingly. 3. Andy's Sprinkler, Drainage & Lighting made use of Toro heads and valves, as well as a Toro controller. 4. Once the team at Andy's completes the multiphase project, Matthew Chapman, division owner of the company's Southlake division, says he hopes TCU will rely on Andy's for future irrigation work.

5. In some instances, the team had to make do with hand shovels to get the job done.

EVERY DROP COUNTS

3 things that impact precipitation rates

These factors may seem minor, but over time, they can add up to many gallons of water BY ERIC SANTOS

n a previous article, I discussed how sprinkler precipitation rates vary between manufacturers and the impact that variability has on watering times and water use. In addition to variations between manufacturers, water managers need to be aware of three items that impact precipitation rates.

1. NOZZLE FLOW RATE

The variation in water flow rate through sprinkler nozzles accounts for variation in precipitation rates between manufacturers. If every manufacturer produced spray nozzles with the same flow rate, the precipitation rate of all spray nozzles would be the same, regardless of the manufacturer.

As flow rates increase, precipitation rates increase as well. The table below illustrates the difference in flow rates between leading manufacturers for the same size nozzle, both operating at 30 PSI.

Sprayhead Brand	Nozzle Size and Arc Pattern	Flow Rate (Gallons/Minute)	Corresponding Precipitation Rate (Inches/Hour)
А	12-foot half-arc	1.09	1.47
В	12-foot half-arc	1.30	1.74

The 0.21 gallon per minute (GPM) difference in nozzle flow rate between these two sprinklers seems minor, but when multiplied across 30 sprinklers on a single zone, the difference is 6.3 gallons for a single minute. When we multiply this across 60 minutes of watering per week in the summer, it amounts to a difference of 378 gallons in one week, just for one zone.

2. SPRINKLER OPERATING PRESSURE

As sprinkler operating pressures increase, nozzle flow rates will increase. As mentioned above, as nozzle flow rates increase, precipitation rates increase. In a perfect system, the operating pressure at every sprayhead would be exactly the same, resulting in the same flow and precipitation rates at each sprinkler in a zone. The table at right illustrates the impact pressure has on spray nozzle flow rates for a leading manufacturer's 12-foot, half-arc spray nozzle.

Sprayhead Brand	Nozzle Size and Arc Pattern	Operating Pressure (PSI)	Flow Rate (Gallons/Minute)
А	12-foot half-arc	20	0.95
А	12-foot half-arc	30	1.09
А	12-foot half-arc	40	1.30

The use of sprinklers with in-stem pressure regulation devices maintains consistent operating pressures between sprinklers and uniform precipitation rates. In real-world conditions, system operating pressures that are significantly higher than the manufacturers' recommended operating pressures result in misting and wind drift, which will result in lower precipitation rates to the targeted area.

3. SPRINKLER SPACING PATTERNS

Most systems are designed with sprinklers spaced in either square patterns or triangular patterns. When sprinklers are spaced in a triangular pattern, the spacing is tighter with more overlap, resulting in a higher precipitation rate when compared to square spacing. Irrigation systems sometimes are designed with tighter spacing and more overlap to combat the impact of wind. Tighter sprinkler spacing will result in higher precipitation rates.

The items that impact the precipitation rate of a sprinkler can seem minor, but over time, across systems with hundreds of zones and thousands of sprinklers, the long-term impacts become enormous. Proper nozzle selection, correct sprinkler operating pressures and sprinkler spacing are important factors, especially when programming and managing smart controllers. To be a



and managing smart controllers. To be an effective water manager, having a solid understanding of the items that impact precipitation is critical. \oplus

Santos is the vice president of irrigation services for BrightView.

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Mike is director of customer engagement and marketing automation at Nearmap. Prior to arriving at Nearmap, he has been leading, and part of, global marketing and demand generation functions for multiple SaaS and Top 50 organizations for over a decade. He holds a bachelor's degree in journalism/advertising from Central Michigan University, along with a handful of industry certifications.

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FIVEQUESTIONS

INTERVIEW BY SETH JONES | LM EDITOR-IN-CHIEF

Bob Grover

PRESIDENT

PACIFIC LANDSCAPE MANAGEMENT, HILLSBORO, ORE.

Tell me about your family and how you got started in the industry.

I am a lifelong Oregonian and chose this industry because of my love for the outdoors. I went to Oregon State University and graduated in horticulture. That's where I met my wife. We are true OSU Beaver believers as all three of our children have graduated there as well. I started my career working for a local landscape contractor, and then after 15 years, they sold out to a national company. After a few years, I started up my own company.

In your 35 years in the industry, what do you think has changed the most?

When I entered the industry, I was the first horticulture graduate working for what was at the time the most sophisticated, largest landscape contractor in Oregon. At that time, the industry was not that sophisticated. Over the years, the technical aspect of the business has developed dramatically. We now have 15 on staff with horticulture-related degrees.

What's your favorite tool to get the job done?

I love the camera and especially love the camera on our phones today. The ability to share information and tell stories with pictures has been tremendously effective. I tell my team, "When you see something you like or don't like, it's easier to snap a pic." A lot of times, I'll drive by something, maybe a plant combination I like, and I'll take a photo and show it to our clients and say, "This is a great solution!" We sell visuals in this business ... being able to use a picture rather than words is great.

What is the weirdest thing you can remember seeing while you were out on the job?

The first thing that pops into my mind is once, while taking my son to school as a kindergartner, I drove by one of our job sites and saw a very tall weed — a big thistle, it really stood out. I stopped

and took a picture of my son with his lunchbox standing next to the weed and posted it in our office saying, "Pull all the weeds taller than my son David." I should mention, it was a big

weed with my previous company ... we don't have any weeds like that today! But I still do have that picture today, 24 years later.

Bob Grover told employees, "Pull all weeds taller than my son David."

Seven years ago you had a near-death experience when you fell into a canyon. Now that it's several years in the rearview, what have you taken away from it?

Most people talking to me after my accident assume that it was because I was a thrill-seeker. I'm not a thrill-seeker — I just love the outdoors, was on a hike and fell. My comeback was "I'm not reckless; I'm clumsy." Hearing me say that repeatedly, my wife challenged me one day saying, "If the result's the same, does it matter?" She helped me under-

stand that I need to be more careful. Throughout my life and business, I've learned that while striving for adventure and fulfillment, I need to be careful personally and professionally.

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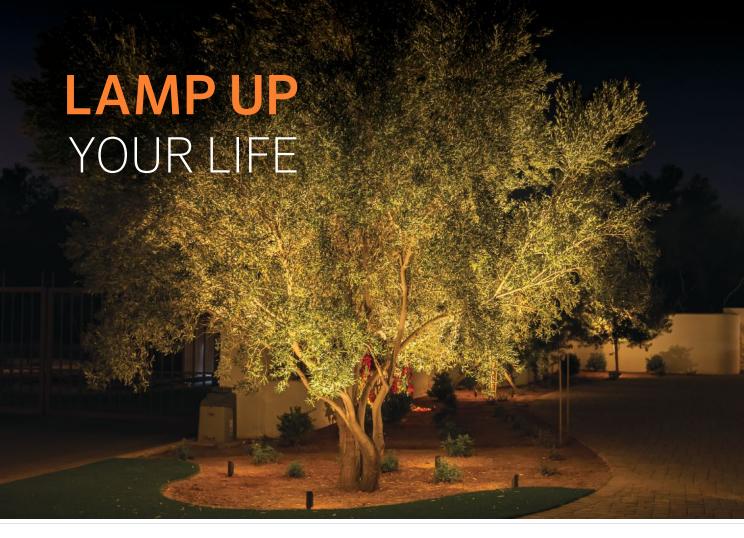
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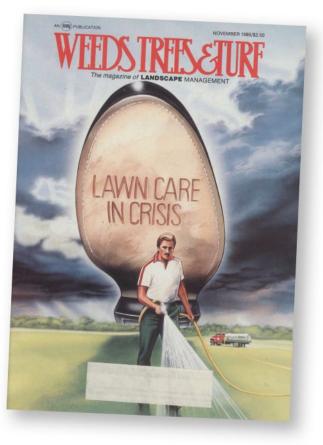


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A LOOK BACK

A tough choice then and now

"Let's face it: Choosing a mower is not an easy task," wrote Heide Aungst, associate editor of *Weeds, Trees and Turf* (*Landscape Management*'s former name) in the November 1986 issue of the magazine. With so many new innovations, choosing a mower can be as tough today as it was then. One thing that has certainly evolved to make mowers more efficient and environmentally friendly: engine technology. Check out our cover story on page 12 to learn about the latest and greatest in mower engines.





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The accounting process



BY DANIEL GORDON

The author is a CPA who caters to lawn care operators and landscape contractors. He can be reached at dan@turfbooks.com.

ver wonder what an accountant in the landscape industry really does each month to produce accurate financial statements that give an accurate picture of how a business is performing? It all begins with recording transactions and ends with closing the books.

During the month, you record these transactions:

REVENUE

- In your routing or operational software, you create work orders that get posted into customer invoices, which become accounts receivable. The invoice records the type of service the customer receives as well as the proper sales tax where required.
- When the customer pays, a payment is recorded, which relieves the account receivable. These payments are batched together and deposited to the bank.
- These customer charges, payments and accounts receivable are brought over to your general ledger software such as QuickBooks in batches so all revenue for the period is broken down by service code, division type and branch location for presentation on the profit and loss statement (P&L).
- Sales tax is accumulated in your routing or operational software and recorded as a liability in the general ledger software that will show up on your balance sheet and is relieved by paying the government.



EXPENSES:

- Purchases are made. Materials are ordered from your distributor, delivery is verified and the vendor issues his or her invoice. That invoice gets recorded in your accounts payable system. It is either keyed into the computer or quickly scanned and recognized through artificial intelligence. The expense is properly coded, and the amount is properly recorded in the accounts payable system.
- Vendor payments are made by recording checks that relieve the accounts payable balance. Many of our clients use Bill.com that we administer, which gives them a dashboard where they can "click off" vendors to pay, which saves a tremendous amount of time avoiding check printing, stuffing, etc.
- Payroll is entered using a payroll service, ensuring all employees are properly coded by department and payroll taxes are recorded and transferred to the general ledger.

MONTH END:

- Reconciliations of the routing or operational software balances are done, including revenue, payments and accounts receivable to the general ledger program to ensure integrity of revenue numbers.
- Reconciliations are performed for each cash account, loan account and credit card accounts. This process ensures that the balance we believe is correct coincides with what the bank, finance companies and credit card companies show as their balances.
- Month-end journal entries are posted to record interest, depreciation and other accruals.
- Trial balance is printed to ensure P&L and balance sheet accounts are correct and look reasonable. Where there are anomalies in balances, they are researched and confirmed or corrected.
- A financial and operational report package is created once all the above work is completed. This package includes the P&L, balance sheet, statement of cash flows as well as operational and other financial dashboards.

As your firm grows, there are several other aspects of management accounting that should be explored and implemented. But the firm that successfully uses the principles of management accounting outlined above will accumulate much more in terms of wealth than the firm that operates by shooting from the hip. (



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BY BEN GANDY

The author is principal of
Envisor Consulting. Reach him at
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n sports, halftime is a great time to review the first-half results and make any adjustments to the game plan to finish strong in the second half. The coaching staff pulls the first-half score and all of the statistics (numbers) that contributed to it and lays out the story of what went right and what went wrong. OK, you get it. This is a halftime talk. July is over, and there are a few months left to make or break your financial year. What do your numbers tell you and what are you doing about it?

Lack of financial literacy is one of the leading causes of business failure. Leaders need to know not just what the numbers are, but what they mean. The numbers tell a story. Understanding the story means understanding your business.

The universal scorecard in terms of financial reporting in business is the profit and loss statement (P&L).

A well-structured P&L is a record of past financial performance over a period of time, usually a month (month to date) or several months starting at the beginning of the year (year to date).

The P&L is usually broken down into four main categories: revenue, direct costs, overhead and net profit.

The first key to understanding the operational story behind the numbers is that a number by itself doesn't mean anything. A number must be compared to another number to be meaningful.

A P&L for the current year is meaningful if the numbers (actuals) are compared to an operating budget or to the prior year's results.

If revenue is higher than the prior year, or higher than budget, it

indicates you're growing! The story is starting to take shape. If this year's revenues are lower than those in past years or the budget, it could indicate a problem that needs further analysis and evaluation.

The direct expenses are mostly labor and materials that can be tracked directly back to specific jobs. Rental equipment, dump fees and other miscellaneous items also may be direct expenses if they are related back to specific jobs, but usually labor and materials are the big items. Subcontractor expense is another part of the direct costs, but we'll get to that later.

The money remaining after all direct costs are covered is called the gross profit (GP). The GP number tells the stories of estimating proficiency and/or production efficiency.

For example, if my GP goal on a job is 50 percent, then I am planning to earn 50 cents on every dollar of revenue I sell. If I sell a \$10,000 job and spend \$5,000 in labor and materials, I will earn a 50 percent GP. Nice job! But if I can do the same job but manage my direct cost to \$4,500 by being more efficient with my labor and/or more aggressive in material buy-in, I can earn more GP (55 percent). Better job! The idea is that by examining the job numbers (job cost), I can learn how to improve performance going forward.

The P&L is a cumulative look at all jobs in a period and lays out a story of performance. Are we estimating properly? Are we purchasing in line with our estimates? Are we hitting labor hours? The P&L doesn't always reveal the culprits

behind missed numbers, but it points the experienced business person to the areas of concern for further investigation.

Gross profits earned through subcontractor-performed work are often less than profits earned through selfperformed work as a percent of the revenue, so it makes sense to look at self-performed versus subcontractorperformed work separately.

The plot thickens with the overheads. Are they more than prior years' overheads? More than the operating budget? If revenues are growing, overheads will naturally increase, but in well-run businesses, overheads tend to grow at a slower pace than revenues, which is why strategic revenue growth can lead to greater profitability. If overheads are growing faster than revenues, the story is not going to turn out well, and the P&L is telling us something is out of balance.

At the end of the day, the target is what shows up at the bottom of the page: the net profit. The ability to read the P&L and understand what is impacting the net profit either positively or negatively empowers us to take targeted action to improve results. Without that, we're doomed to work really hard and not make money — the fate of too many businesses in our industry.

As you review your first-half numbers, take the time to understand the story behind the numbers in order to reset the second-half game plan for success. This may mean changing up the players, the plays or your leadership approach. Understanding your numbers is the first step in winning the game!

①

HOW TO BEAT HEAT STRESS

BY JASON LUNN AND REBECCA L. SCHUMANN

Summer is here. A lot of us have been waiting all winter for this weather, but if you have to work in the heat and humidity, you may not share those same feelings. Not only can it be uncomfortable, but it also can be downright dangerous if not taken seriously. That's why it's important for everyone in your

crew to recog-

A lot waitthis ou he
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nize the signs and symptoms of heat stress, especially among one another since you're less likely to recognize the signs in yourself. To avoid heat stress, wear light personal protective equipment.

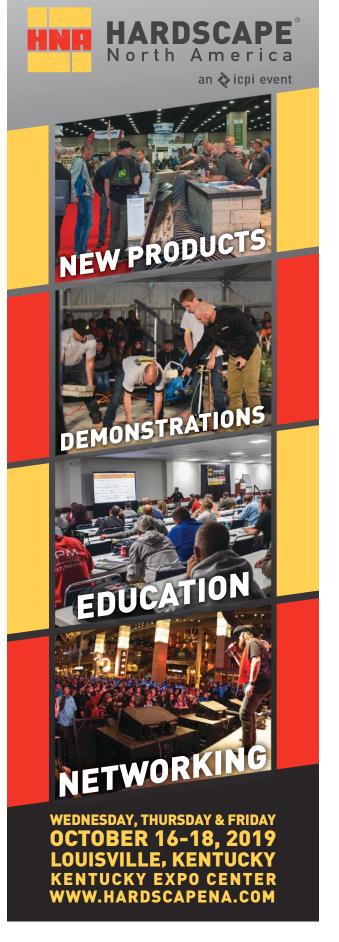
Some symptoms to watch for include confusion, headache, dizziness, excessive sweating, irritability and nausea. If you recognize these in a co-worker, remove him or her from the hot work environment immediately and get help.

To help prevent the onset of heat stress symptoms, keep your workers cool and well hydrated. Among other things, this means keeping water nearby and encouraging people to take frequent breaks, preferably out of direct sunlight. Another option is to adjust the work schedule to the cooler parts of the day.

Finally, if you wear safety products while working outside, choose products designed for comfort (and of course, make sure to choose appropriate personal protective equipment based on hazard assessments and Occupational Safety & Health Administration regulations). For safety glasses, consider using a pair with an antifog coating and a gray lens for sunny conditions. If you wear a high-visibility vest, choose a mesh style for more breathability. For hearing protection, consider earplugs if earmuffs are too hot. If you wear a hard hat, perhaps a vented version will work.

It doesn't necessarily require a complicated heat stress program to help provide relief for your workers. With some knowledge and preplanning, you can help your crew stay safe in the summer heat. (4)

Jason Lunn is 3M's senior application development engineer, and Rebecca L. Schumann is 3M's industrial hygienist, personal safety division.





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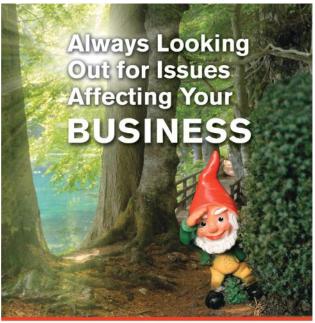
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BY MARTY GRUNDER

The author is president and CEO of Grunder Landscaping Co. and The Grow Group, based in Dayton, Ohio. Reach him at marty@growgroupinc.com.



What landscape industry winners always get right

n my 35 years of leading Grunder Landscaping and another 20 or so running a green industry consultancy, I have gone behind the scenes of more landscaping companies than I can count. I have learned many lessons from this experience, chief of which is that no company is perfect. Even our industry's biggest success stories struggle with many of the same challenges the rest of us do — finding reliable workers, operating efficiently, standing out in a sea of sameness and raising prices without losing customers. In my experience, what separates the winners from the also-rans is that the winners know and consistently do two things:

Smart companies think ahead and plan accordingly. With the economic boom we've seen the last few years, many landscaping companies are thriving. Commercial businesses are building new sites that need our services, and homeowners have the money to spend on patios, pools and enhancements. When demand is at its peak, there is a real temptation to take on more and more work and to expand into new markets that you think hold great potential. It's easy to get greedy and to think you have it all figured out. But as the saying goes, "Pigs get fat; hogs get slaughtered."

The companies that succeed and endure over time grow with deliberation and discipline. They calibrate their own capacity with demand and are careful to deliver on what Smart companies capitalize on good economic times, but they also plan for what they'll do if fortune shifts.

they promise. They do their research before moving into a new market — whether it's opening another branch, acquiring a subcontractor or offering a new product or service — and they think through all the costs, possible returns, risks and rewards. As I write this, the U.S. remains in its longest economic expansion in its history, but no one knows for certain when that will change. Smart companies capitalize on good economic times, but they also plan for what they'll do if fortune shifts.

2 strong leadership team. One of the shrewdest feats an owner can accomplish to grow the value of his or her company is to foster other leaders in their ranks and to develop a true senior-level management team. Doing so shifts reliance off you as the owner and increases your capacity exponentially. If you ever want to sell your company, you will be much better positioned to demand and secure a higher price.

How do you go about doing this? Start by identifying who on your current team has potential, and when you hire, hire with an eye for potential — knowledge can be taught, but the ability and the sheer drive to learn and excel cannot. Give

promising team members controlled opportunities; delegate, but don't abdicate. Be clear about your expectations, provide them with direction but leeway too and check in regularly on their progress.

Not everyone will approach projects or tasks the same way you would, and that's OK; what's ultimately important are the results. Your goal is to develop other leaders, not followers. Paint a picture for them of your vision for the future and their role in it. Provide them with the information they need to understand how your company succeeds or fails and invest in their training. Give them this magazine and the best business books to read, send them to industry educational events and talk to them, regularly and repeatedly, about the business side of your business.

These are simple lessons, but they're not easy. Yet if you commit to them, I can promise you'll grow far. ©

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