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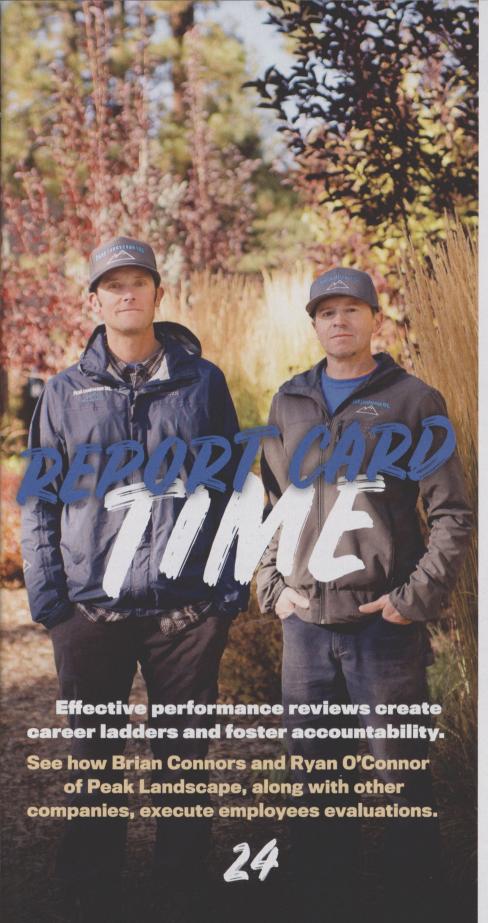
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NOVEMBER 2019

A GIE MEDIA PUBLICATION VOLUME 40, NUMBER 11

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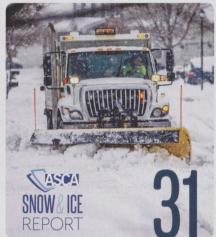
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Ready for robots

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BACKSTAGE PASS
THE HARVESTERS
PG. 44

Cover and above photo: © Lauren Casto



Mark Clodfelter, Bayer Product Marketing Manager

Q&A with the Expert

FINDING THE RIGHT EARLY ORDER PROGRAM

WHAT IS FLEX SOLUTIONS, AND WHY DID BAYER DEVELOP THIS ONLINE PLATFORM?

Flex Solutions is a new way for customers to participate in early order programs like Fall Solutions. Its intuitive design moves away from the notion of pre-assembles PAKs of products and allows customers to purchase only the products they want. Bayer developed this online platform in order to address customer feedback. With this advancement, customers will ultimately be able to purchase only the products they want and need, for the turf they manage.

WHO WILL BENEFIT FROM THE PLATFORM, AND WHAT FEATURES OF THE PLATFORM ARE MOST BENEFICIAL?

Flex Solutions is designed with the end user in mind. We've always wanted to be able to offer additional flexibility and the freedom to choose products specific to a customer's needs – Flex Solutions allows for that. There are several benefits to users who utilize this platform including the ability to look up past order history and find solutions based on growing area, turf type and acreage. Customers will also be able to easily identify

savings through the rebate finder that displays recommendations and tips in real time. Another substantial benefit is that customers will be able to work with their network of trusted advisors for recommendations and support throughout the ordering process. The platform is personal, simple to use, and mobile friendly making it easily accessible. For distributor representatives this platform is particularly attractive because it brings them a better way to guide their customers through early order purchases.

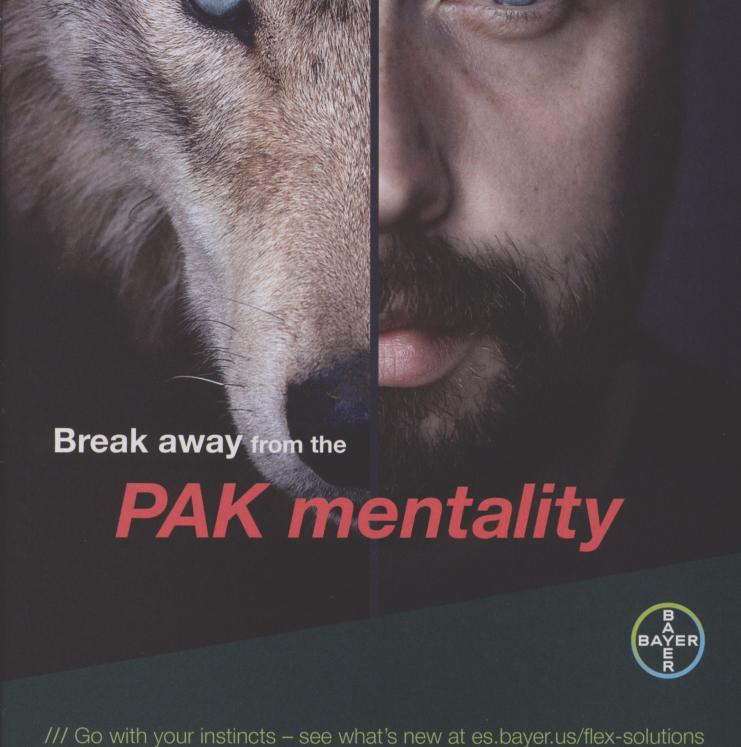
WHEN IS THE PLATFORM AVAILABLE, AND ARE THERE SPECIFIC CREDENTIALS USERS NEED TO CREATE?

The platform launched October 1. The early order program will be available until December 6, so we're encouraging users to get online as soon as possible to maximize their benefits. Distributor representatives and lawn care operators will all need to create login credentials in order to access the site. In order to create credentials, they must have a My Bayer Rewards account. Once this is complete, customers will be able to create their Flex Solutions login credentials, access the platform and start saving.

IS THIS DIGITAL SHIFT FOR BAYER SOMETHING CUSTOMERS CAN EXPECT TO SEE MORE OF IN THE FUTURE?

Yes, this is something we've been wanting to provide to our customers for awhile now. We are thrilled to be able to offer them an online platform that aligns with the current digital shift in today's world. Although the early order program ends on December 6, there are plans to utilize the platform in the future. This is a huge step for us and something we have been looking forward to launching for quite some time.

Learn more at es.bayer.us/flex-solutions



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This fall, break away from the PAK to find the best solutions for your turf.



Brian Horn Editor, Lawn & Landscape

It's good to know that those in the industry are leaving no stone unturned.

The broken labor record

s I sat down to write this month's Editor's Note, I had my thoughts jotted down and was ready to put those random notes into some semblance of a column. But as I thought about recapping what I heard in Louisville at LANDSCAPES 2019, GIE+EXPO and Hardscape North America, I went back to last year's November issue to see what I wrote. I discovered robotic mowers at GIE+EXPO was a main topic and that's going to be the case again.

And I'd be remiss to not mention you can learn more about technology in the green industry at our technology conference – visit bit.ly//lltech20 (end of shameless plug).

I'm not writing this to show you I like to recycle column ideas. It's to show you how something like this continues to grow in popularity. Even though the number of autonomous mowers on display did seem to increase this year on the show floor, I still haven't actually seen any in operation on a lawn.

According to Robin Autopilot, Cleveland, where Lawn & Landscape is headquartered, has the highest concentration of autonomous mowers in the country, so there is a good chance I may have come across one driving around. To me, that's exciting. These are picking up steam, and they still are very uncommon to see in residential neighborhoods, which means they still haven't

even reached their potential.

In our story on pg. 48, Robin's new CEO, Logan Fahey, who acquired the company in July, says within the next two years, there's going to be a flip in favor of autonomous mowers, and it's going to be quick. I look forward to watching this change take place, as the lack of quality labor continues to be an issue for a lot of companies.

Speaking of labor, another interesting concept I learned more about was the National Association of Landscape Professionals' Women in Landscape Network, which was launched in September. The organization is hoping they can encourage a male-dominated industry to look at women as viable members of the hiring pool. When I met with members of the network, they wanted to stress that this wasn't just women recruiting more women into the industry.

The goal is for women and men to work together to make landscaping companies more open to hiring women, and to drive home that women bring skills and an important voice to businesses. They can be productive on a jobsite just like their male counterparts.

Regardless of whether the solutions for one of the biggest problems in the industry involve robots or humans, it's good to know that those in the industry are leaving no stone unturned to solve it. – *Brian Horn*

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WAIBLINGEN, GERMANY – Among a medley of company announcements and happenings, STIHL introduced over a dozen new products at a recent media event.

Roughly 90 members of the media – Lawn & Landscape was one of two U.S.-based media outlets invited – joined STIHL during its annual press event in September.

Most of the products are coming soon to U.S. dealers, and between the blowers, chainsaws and a robotic mowing system, STIHL had plenty to show off at the event.

CHAINSAWS. The MSA 220 battery-powered chainsaw and MS 261 gasoline chainsaw are both coming to the U.S. in 2019, though a production change on the latter saw will push back its availability a bit longer than the MSA 220, which arrives

this winter. The MSA 220 is STIHL's most powerful chainsaw in that range and comes standard with a 3/8-inch Picco Super 3 full chisel saw chain and a guide bar 35 centimeters in length. The company reports that the chainsaw produces 30 percent more cuts per battery charge over comparable saws on the market.

Meanwhile, the MS 261 features a new guide bar and .325-inch chain that other gasoline-powered STIHL models haven't featured. It's a third-generation tool of its kind, and its cutting performance has been improved by roughly 20 percent over previous models. The MS 261 also features STIHL's M-Tronic engine management system that accounts for external factors like temperature and altitude in its ignition

timing and fuel metering. The chainsaw weighs just under 13 pounds.

BLOWERS AND MOWERS. The company also revealed its BGA 86 battery-powered blower, as well as the BR 800 blower that's already on the American market but is new overseas. The BGA 86 aims to reduce noise while also offering a blowing force of 15 Newtons, 40 percent stronger than the BGA 85 model. The speed of the blower can be adjusted directly on the handle, and at maximum strength, it produces 91 decibels of sound. The blow pipe length is easily adjustable and a flat blow pipe is available as an accessory.

Additionally, the company showcased its revised iMow Robotic Mowers, which have some features that won't translate to

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the U.S. market because the country doesn't have the same Innogy SmartHome technology available in Europe. However, the Connected iMow technology will be available to U.S. buyers in early 2020. This means users can control robotic mowers from an app on their mobile phones. Users may also be able to control iMow services by voice control on Amazon Alexa.

STIHL's RMA 756 V lawn mower will not be distributed in the U.S., but it was on display as it is coming to the German market.

OTHER TOOLS. STIHL also introduced a new pruner (GTA 26) and shrub shear (HSA 26) that will enter the American market in the spring and fall of 2020. These lightweight tools are part of STIHL's newest cordless products and feature interchangeable batteries that can be purchased separately or together with a battery and charger.

STIHL's new RG-KM cutting attachment (weed remover) hits the U.S. market this winter, which features a pair of spin-resistant, counter-rotating oscillating blades that can be used on various surfaces and limit damage via thrown stones or chippings. The new Advance X-Vent BT Helmet System is planned for U.S. distribution in 2020 but specific target dates are undetermined.

The MS 360 Chaps – which offer protection on the front, sides and back of an operator's legs – won't come to the U.S. due to high costs on importing fabric.

ODDS AND ENDS. Translators were on site during the company's press conference, which had STIHL executives break down the team's financial picture in Germany and abroad. The company reported slightly higher worldwide sales than last year, and the North American market was no different. Bertram Kandziora, STIHL executive board chairman, cited cordless products as a growing market, though gasoline-powered products remain the company's bread-and-butter.

"We are firmly committed to continuing the development of gasoline power tools and simultaneously accelerating that of cordless products," Kandziora said. "In order to meet the many-faceted needs of our customers as best we can, we will continue to concentrate on a product mix of gasoline and battery-powered tools."

Kandziora also said that many retailers still had excess product stock last season worldwide because of unfavorable weather conditions in critical sales regions. Throw in increasing trade restrictions and uncertainty shrouding Brexit, and there's a lot to manage internationally that affected sales numbers.

"All in all, we have only achieved a slight increase in unit sales in the first half of the year due to the challenging peripheral conditions," Kandziora said. "There are, however, certain differences in the individual markets."

In addition to debuting new products, STIHL also announced expansions to its brand shop and the location of its STIHL TIM-BERSPORTS 2019 world championships. The event will be held at the Industrial Palace in Prague this November.

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BRIGGS & STRATTON OPENS NEW MANUFACTURING FACILITY

The Sherrill, New York, facility offers new growth opportunities and more production flexibility.

By Lauren Rathmell

SHERRILL, NY – Local media, employees and government representatives joined Briggs & Stratton executives who opened a new manufacturing facility in Sherrill, New York earlier this fall. The move is a welcome change, as the previous facility was at max capacity with virtually every inch being used in some way.

The old plant, operating out of an old schoolhouse in Munsville, New York, had

between 500 to 550 employees working out of it. The old gymnasium was even used as an auditorium for holding big meetings. In 2004, the company acquired Ferris, which teed up the company for a large amount of growth. After 20 years of operation, four additions onto the schoolhouse and the Ferris acquisition, the company needed to expand.

Now, the new facility offers double the ca-





pacity for operations. It took about 10 days to move people and product to the 552,000 square foot facility. It also features 28 loading docks.

With the capability to manufacture three different lines, plus the blower line soon, Todd Teske, chairman, president and CEO of Briggs & Stratton, says the team is adapting to the change, and that team is a core reason for the move.

"I could tell these people cared," Teske said. "That's why we moved down the road."

As far as production, the Munsville plant is still producing blowers but Teske says that will eventually stop. The new facility houses more sophisticated machinery and administrative space for training. For instance, during the finishing process, a new



paint machine allows color changes to be made in about 15 minutes versus an hour at the old facility.

The new Sherrill facility manufactures commercial lawn care products from Briggs & Stratton's Ferris, Simplicity, Snapper, Snapper Pro and Billy Goat brands.

The new facility was once used for Oneida silverware production, and the Briggs team found it in disarray. Teske admits it was a sad sight but felt the company could turn it around for the community.

"I thought, we can make this place into something," he said. The process from inception to operation took about three years, and construction took about 18 months. The Briggs workforce was maintained through the transition, and there's room for more, too. Lauren Vagnini, corporate communications manager for the company, says they've created 50 new positions and are looking to hire about 60 more people.









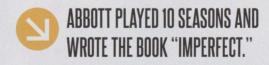
IA ANNOUNCES DETAILS ON 2019 IRRIGATION SHOW

The keynote speaker is Jim Abbott, a former Major League Baseball player who notably played with only one hand.

LAS VEGAS – The Irrigation Association has announced keynote speakers and an event schedule for its 2019 Irrigation Show and Education Week this winter.

From Monday, Dec. 2 to Friday, Dec. 6, attendees can view exhibits, participate in the new product contest, go to the IA General Session and even catch the keynote speech, which features Jim Abbott, a former Major League Baseball player. Despite being born with one hand, he ended up representing Team USA in the 1988 Olympics and threw a no-hitter for the New York Yankees in 1993. He played 10 seasons for four different teams, and he later wrote the book "Imperfect," which includes some of the similar messages he'll share with the audience at the IA show.

Other educational sessions during the show will focus on topics like landscape irrigation design, CAD basics, and more, including a special series called Industry Insights. A full schedule can be viewed on **bit.ly/ia2019lawn**. The exhibit hall opens Wednesday, Dec. 4, at 10 a.m. IA Certification Exams are also available during the show.





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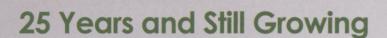
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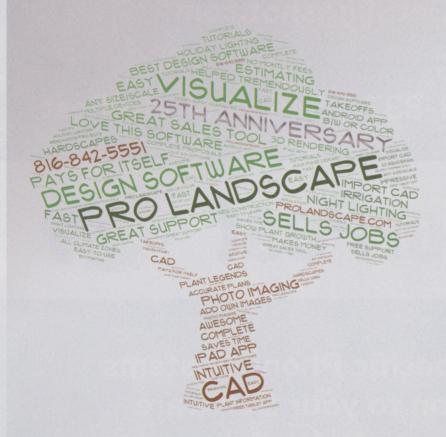
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TURFCO FOUNDER PASSES AWAY

John Kinkead passed away Oct. 1 at the age of 89.





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PRO Landscape MINNEAPOLIS – John Kinkead, Sr., the longtime head of Minneapolis-based Turfco Manufacturing, died on Tuesday, Oct. 1. He was 89 years old.

The company issued the following statement, edited for space:

John Kinkead will be remembered by those in the industries he loved – notably golf and

turf management

– as an innovator
and as a person
whose perseverance
set a tone for how
Turfco continues
to collaborate with
its customers in
products and services today.



In- John KINKEAD

It was in that innovative spirit that

John, working closely with local golf superintendents in the Twin Cities, invented the first mechanized top dresser, bringing top dressing into the 20th century. While still working at National Mower, the company founded by his father Robert Kinkead, in 1919, John spearheaded the introduction of this as well as other turf innovations at Turfco. He launched a company called Kinco as well.

John lived to celebrate the 100th year anniversary of the family's continuous contribution and joy in working in the golf industry. Two of John's sons, George and Scott Kinkead, jointly operate Turfco, and fondly remember the early years of their father's leadership.

John was a longtime member of the GCSAA-Golf Course Superintendents Association; Classic Car Club of America and Rolls Royce Owners Club, the GYRO, an investment club, and the Informal Club. He served as a board member for the Carpenter Nature Center. He was a graduate of Saint Paul Academy and Washington and Lee Universities.

Along with George and Scott, John's grandson John Kinkead, Jr. also works at with Turfco. John is survived by his wife Judy, four children, eight grandchildren and one great-grandchild.



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HOW IT WORKS OUT. A

commercial landscape contractor in New England projected his field truck and equipment (T&E) costs for the year at \$800,000. He projected his billable field-labor man-hours at 80,000. He'd divide the costs by the man-hours and get \$10 average T&E cost per man-hour.

\$800,000 ÷ 80,000 = \$10.00 "average" T&E cost per man-hour

He'd add \$10.00 of T&E costs to every man-hour included in his bids. The year before I worked with this contractor, this faulty mathematical assumption cost him \$500,000 in unallocated equipment costs. Shortly thereafter, it cost him his company.

A general manager of a residential landscape design/build company in Utah insisted that he should put all of his field trucks and equipment costs in his general and administrative overhead and allocate it to jobs by applying a 50% gross profit margin in his bids to his field labor and materials cost – essentially doubling them. Subcontractor costs were marked up separately. Over the next few years, the owner of the company noticed that his net profit margins were steadily declining but



JIM HUSTON runs J.R. Huston Consulting, a green industry consulting firm.

he didn't know why.

A full-service landscape contractor in California was pricing his work using the Dual Overhead Recovery System (DORS) method where he marked up his materials by 1% and his labor by another. Costs for his trucks and field equipment were included in his markups.

However, during the peak of the last recession when he really needed to sharpen his pencil to get any work, he wasn't being competitive or getting any work. He was in a quandary as to what to do.

ANALYSIS. All three of these contractors were essentially making the same mistake. They had a false mathematical assumption in their cost estimating systems. They were averaging their truck and field equipment costs in their bids. The New England contractor would estimate his equipment costs for a

job with 1,000 man-hours in it at \$10,000 (1,000 MHrs x \$10.00 per MHr). A job with 1,000 man-hours that required just pickup trucks and wheel barrows would only need about \$4.00 per man-hour, so he'd over-estimate his equipment costs by \$6,000 (1,000 MHrs x \$6.00). He wouldn't win these bids. Jobs that required all of his equipment (trenchers, skid steers, miniexcavators, etc.) and should have bid with \$15.00 of equipment per MHr, he'd under-price. Guess which jobs he'd win? The more work he did, the less money he'd make. He eventually went out of business.

The Utah contractor realized that his 50% GPM (with all of his truck and equipment costs in it) overpriced some jobs, underpriced others, and occasionally was right on. He realized his mistake, corrected his estimating system and fired his GM. He's doing well today.

The DORS contractor also realized that he had a mathematical flaw in his estimating system. He needed to put equipment costs into his bids as the job required. Some jobs needed lots of equipment costs in them, while others needed much less.

Including his truck and equipment costs in his DORS G&A overhead markups just wasn't accurate.

CONCLUSION. Imagine if your state passed a law mandating that all hotels charge \$100 per night per room - no higher and no lower. Where would you stay? You (and I) would stay at the most expensive hotel that we could find, the one that was underpriced. We'd do so because we're not stupid. Your customers aren't stupid either. If you are foolish enough to underprice your work, you're going to get lots of work. Averaging a direct cost such as your trucks and field equipment costs can get you into a lot of trouble. The solution is accurately calculating the costs for your trucks and field equipment as needed for each and every job.

Averages killed the man in the lake because he got in over his head. Don't get in over your head by including your truck and field equipment costs in your "overhead" – that is your G&A overhead. L&L

Contact Jim Huston at jhuston@giemedia.com



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WHAT THE FUTURE HOLDS

• AS THE GREEN INDUSTRY CONTINUES TO EVOLVE, what will define the way we frame the "landscape economy?" The nature of our business, labor intensive tasks and production and cost efficiencies are all under constant pressure. In conversations across our industry, from tailgate meetings to board rooms as landscape companies prepare their strategic plans for 2020 and beyond, speculation about the impact of automation and artificial intelligence, demographic shifts, operations optimization and smarter workplaces are front and center.

Of these, according to future ready conversations I'm having with clients, the two most powerful disruptors are private equity and automation.

PRIVATE EQUITY. Private equity's impact on our wider industry culture can't be underestimated. On the plus side, investment can be an opportunity for growth and have a measureable benefit to the companies in which it invests. But to an industry built largely by family entrepreneurs, PE-owned companies come with a shift in company culture and less time to adapt to change. The result is a new industry model, with fewer independently-owned companies propelled by a strong sense of purpose competing with equitybacked companies driven by a strong sense of EBITDA.

As we manage the economic impacts of these shifts, how can both landscape business models respond to competitive pressures?

Larger companies have competitive advantages if they:

• Implement scalable training platforms in a more cost-



BRUCE WILSON

is principal of green industry consulting firm Bruce Wilson & Company.

effective manner than smaller companies

- Create purchasing power due to their higher volume of purchases
- Offer distinctive career path opportunities
- Implement sophisticated marketing and communications strategies
- Develop the ability to serve wider footprint via national/ regional accounts
- Remain agile

Smaller, independent companies can compete if they:

- Engage in transformative thinking
- Define and capitalize on their unique attributes
- Emphasize their family culture, which many employees find attractive
- Sustain an ownership ethos
- Maintain a strong focus on work quality, employee and

- customer satisfaction
- Sustain and leverage a relationship- and value-based culture
- Brand their sense of community, an esprit de corps, for high employee and customer retention
- · Have a strong readiness mindset
- Remain relevant

AUTOMATION. Smart systems, robotics, artificial intelligence, and personal and professional effectiveness tools continue to change the way we deliver our services, plus the way we forecast, track, measure and manage data. Additionally, and perhaps more importantly in terms of human cost, a digitally-driven organization will demand a different set of skills and a well-trained workforce that will support higher productivity.

Autonomous equipment and GPS-enabled mowers are being tested by many contractors and manufacturers' investment in advanced research and development will continue to reconfigure machines and equipment.

The central question around technology is: when to buy it and

how to apply it. Being first is a huge advantage. The "wait and see" types, who hesitate or are uncertain about cost and level of difficulty, will fall behind.

As employees work in more decentralized, cloud-driven businesses, with access to a greater menu of options and approaches, a greater emphasis will need to be placed on learning to help all employees work more effectively.

Lots of software and apps are being tried and implemented.
Some work, others struggle to be incorporated. The sheer volume of options require that companies have a solid understanding of what the particular technology can do, how it will impact their organization and how they can leverage a digital mindset to remain competitive.

In a connected world, customers expect fast response, follow through and instant communication. Some companies are getting really good at this and others are lagging. In the future, the mindset we all need to have is: "fast beats slow". L&L

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EMPLOYEE EVALUATIONS

EVERYONE KNOWS THE RHETORICAL IMPORTANCE of conducting employee
performance evaluations: praise strengths, document weaknesses and develop a perfunctory
action plan that will not be reviewed again until next year's performance evaluation meeting.

Developed by Odiorne (1984), a more strategic approach to employee performance reviews requires that all employees be evaluated on their current level of performance effectiveness (i.e., performance), as well as the likelihood that they will be promoted in the next 18-24 months (i.e., potential). Thus, using the diagram to the right, consider evaluating each employee using a 1-5 scale ("1" being low, "3" being average, "5" being high) on current performance and future potential. That two-fold rating paradigm yields four possible combinations of employee value.

DEAD WOOD: Employees who are below average on job performance and below average on potential – these employees are not performing well in their current position and lack any likelihood that they will be promoted in the next 18-24 months. These employees represent significant risk to the company and should be put on a 30-day action plan, with the probability of dismissal being very high in that they possess neither current nor future value to the company.

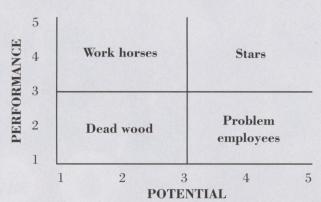
PROBLEM EMPLOYEES: Employees who are below average on job performance and above average on



STEVE CESARE is the Harvest Group's expert for human resources and safety. He has more than 25 years of HR experience.

potential – these employees need ongoing coaching for 3-6 months to overcome some hindrance (e.g., family problem, bad boss, personal issue, no connection to the company, insufficient communication) preventing them from growing with the company and adding future, albeit latent, value.

WORK HORSES: Employees who are above average on job performance and below average on potential – these employees are solid performers, though unlikely to be promoted to the next level. These bedrock employees are critical to company success: steady, responsible, ethical. Stated succinctly: They get the job done, day in and day out. These employees must be appreciated frequently, treated with respect at all times and never ever taken for granted. Employee recognition ceremonies are perfectly designed for them to receive sincere and well-documented gratitude from ownership, peers and staff.



STARS: Employees who are above average on job performance and above average on potential – these employees are transformational, coupling a strong work ethic which positions them as current role models for others, while at the same time demonstrating advanced insight necessary to take the company to the next level.

These employees need a well-designed development plan to keep them engaged and challenged, motivated and rewarded, explicitly underscoring the company's succession plan, organizational culture and growth plan for years to come.

To support this dual-focused performance evaluation model, managers must evaluate their subordinates on both dimensions, though only sharing the job perfor-

mance ratings with the employees at the time of the annual review. The potential ratings are kept strictly confidential to avoid any sense of entitlement or fraternal schism with other employees.

Forward-thinking landscapers can extend the intuitive meaning of this process as a manner upon which they can begin to reconfigure their future organizational chart, redesign anticipated training and development programs and recalibrate their organizational success factors.

A high-quality, non-bureaucratic performance evaluation system that focuses attention on both employee performance and employee potential can achieve all of those goals. L&L

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HERE'S HOW THREE LANDSCAPE COMPANIES EXECUTE EVALUATIONS THAT DRIVE RESULTS.



THE ANNUAL SIT-DOWN. THE 30-DAY CHECKUP.

Employee evaluations can get a bad rap when they're delivered TPS-report style - think the movie Office Space and a stuffy room with The Bobs. How motivating is it to hear about everything that didn't go right? And owners struggling to retain employees might hesitate to even go there.

But done well, employee reviews can empower team members to worker harder, smarter and toward the company's goals. Plus, they don't have to be as traditional as the old sit-down.

For example, weekly truck checks are one important component to reviewing employees' commitment to Peak Landscape's core values, as a landscape maintenance firm focused on professionalism. While a clean truck might not directly impact the curb appeal of a client's property, it does set a precedent for being respectful, responsible and accountable - and those are qualities that clients look for in a service provider, points out president Brian Connors.

"We make sure our guys clean their trucks at least weekly - wipe them down, vacuum," says Ryan O'Connor, operations manager, Peak Landscape, Truckee, Calif.

On weekends, O'Connor spends more time ensuring each truck is properly organized. "I go through the side bins, the racks and make sure trucks are stocked," he says.

The truck checks are part of a 10-item checklist Peak Landscape covers on its employees' performance reviews. Other bullet points include attendance, dedication, presentation (clean uniform), safety and communication. O'Connor and Connors assign a 1 to 10 rating to each key point. An end score is tallied and averaged during the season, and bonuses are paid out as a percentage of employees' scores. So, if a crew member earns an average of 70 points, that's 70 percent of the bonus potential.

"We keep good notes with dates, and that way if an employee says, 'I was in uniform that day,' we can identify the day he did not wear his uniform to work," O'Connor notes, adding that documentation keeps evaluations constructive and detailed.

Plus, there are opportunities for employees to "make it right" and recover bonus dollars if mistakes happen, O'Connor says. "One employee yesterday pinched the taillight of her truck while backing up," he says. "She came directly to me after work, very upset, and said, 'I'm not going to get my bonus this year.' She explained the situation and I said, 'Let's see if you can find a replacement on your own.'

"The more employees can handle on their own, the less it will impact their bonuses," O'Connor continues. "She is in the process now of handling it and asked me if she could get an extra 24 hours to check with another place to get the replacement. I'm fine with that."

The effort shows accountability and commitment. "I'm more than willing to work with her," O'Connor says.

Tying bonuses to employee evaluations emphasizes the importance of the company's 10 expectations, Connors says. "It helps create a culture of accountability, and if we don't have that culture and every truck is beat up and equipment is breaking in the field, that takes away from our professional image," he says.

Performance reviews create career ladders for employees - and they encourage accountability. Consistent evaluations help team members know where they stand. Companies that establish a system for reviewing performance and stick with it see results: more productivity, better quality work and, ultimately, higher profitability.

"Reviews are for the good of the team," Connors says.

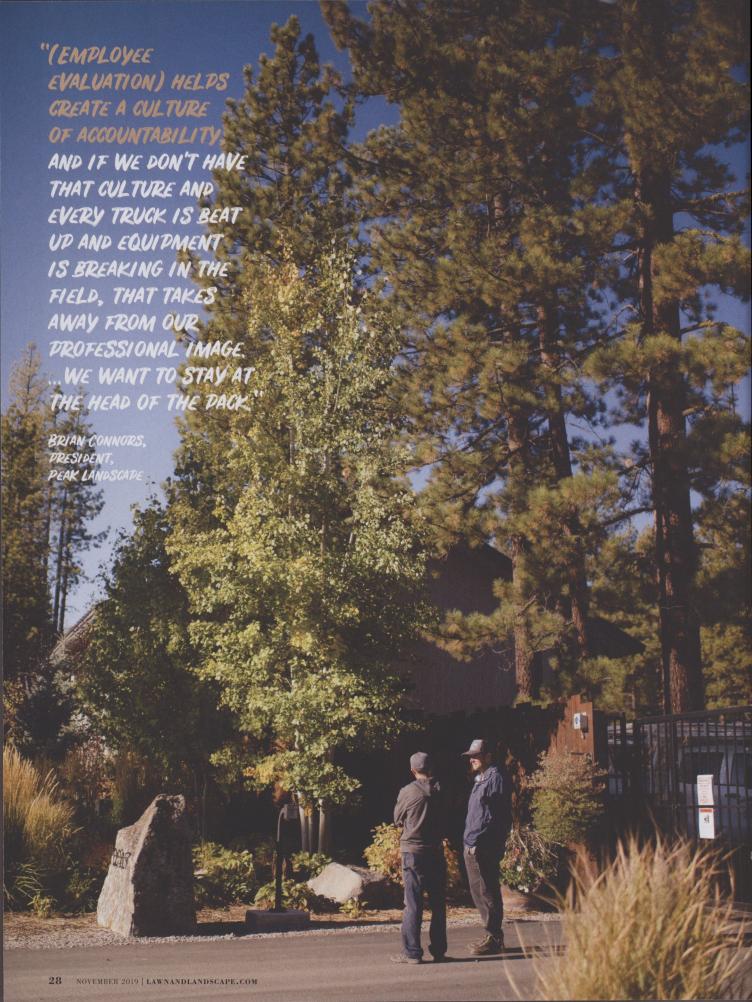
SETTING EXPECTATIONS. "No surprises" is the key to delivering performance reviews, Connors says. "Our employees are very aware of the process," he says, noting that a structured schedule for reviews and the 10-point list of expectations keeps the process transparent.

In fact, understanding the review process is part of the employee orientation. "They see the 10 bulleted items and they know what will affect their bonuses," Connors says. "When we do the initial paperwork at the beginning of the season that outlines their pay and bonus potentials,

OPPOSITE PAGE:

Truck inspections done by O'Connor are tied into Peak's employee performance reviews.





those 10 bullets are on the next page. Every season, we say, 'This is a reminder of what you are evaluated on. These are the 10 things you need to focus on every day."

Ben Carruthers, owner of Carruthers Landscape Management in Dallas, Texas, introduces his review system to employees upon hiring when employees work through the training program. Employees are reviewed by their supervisors 30 days after their start date, and again after 90 days on the job. After this, team members receive annual reviews that address aptitude. "Their reviews are performance based: Did you meet the requirements? Did you exceed the requirements?" Carruthers says.

Managers at Carruthers Landscape Management are evaluated on how well they teach crew members – so, it's all about listening and communication skills. And, Carruthers stays on top of reviews by making the task a checkpoint on his monthly Key Performance Indicators (KPI) spreadsheet, which he reviews and completes monthly.

Generally, review season begins in November at Carruthers Landscape Management after the landscape maintenance schedule slows down. "We rely on the performance evaluations to give us a chance for employees to know what they can work on and accomplish if they come back the following season," he says.

Ultimately, executing reviews requires collaboration and organization. That's why Kyle Germann of Green Lawn Specialists in Lewis Center, Ohio, first meets with the HR manager and employees' supervisors to discuss employees' performance. "We make the evaluation, and we also try to include everyone in the review when we bring in the employee to discuss it," he says.

Employees at Green Lawn Specialists are reviewed 30 days after they are hired, and a pay raise is tied to performance at this point. If a worker is falling short, the review will highlight issues to resolve to earn the pay raise. "We say, 'Here are the things that are holding you back, and if you can get this done, we can move forward," Germann says.

After the initial 30-day review, team members are evaluated at the end of the season. Germann keeps track of when reviews were delivered by maintaining a spreadsheet that lists employees names, current pay rate and pay history. The sheet also includes the date workers signed their employee handbooks and confidentiality agreement. And, one tab is dedicated to reviews so he can log dates and stay on track.

"We also make sure to look at our reviews every year to see if we need to make adjustments," Germann says, relating that working with

\$300-\$600:

The range of a quarterly bonus that Carruthers Landscape Management offers its employees. Salaries also adjust based on performance and skills.

an outside consultant to build a review system helped create a framework and system for reviews, bonuses and pay increases. It's all about consistency – and making sure everyone on the team knows where they stand.

"It's critical for employees to know where they are at, because if they aren't sure or





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"IT'S CRITICAL FOR EMPLOYEES TO KNOW WHERE THEY ARE AT, BECAUSE IF THEY AREN'T SURE OR HAVE QUESTIONS, THAT CREATES MORE ANXIETY FOR THEM."

KYLE GERMANN, GREEN LAWN SPECIALISTS

have questions, that creates more anxiety for them," Germann says.

SPEAKING UP. A three-part list encourages thoughtful conversation during reviews at Green Lawn Specialists. "The most important part of the evaluation is on the back when we list what they should start doing, what they should stop doing and what they should keep doing," Germann says.

For example, if a technician is working toward a foreman position, Germann might note that the crewmember should start practicing management skills and taking the lead – giving other workers helpful suggestions. And, under the "stop doing" category, attendance might be red flagged. "This particular technician had a problem with missing some days," he says. As for keep doing, the employee has a great attitude and work ethic.

The point is to get employees to share their concerns and goals. "It's not always easy to get employees to talk during employee evaluations, and a lot of times they won't tell you there is a problem until it is too late to fix it," Germann says. "This is why we make sure to give them opportunities to give feedback by asking open-ended questions."

After reviewing the three questions, he might ask a technician, "How's it going with the foreman?" Then, inquiries can move from specific to the bigger picture, such as, "Where do you see yourself in one year?"

Always, Germann works to keep the tone positive.

"You always want to be careful with your negatives," Germann says. "The biggest problem for some employees is taking constructive criticism."

Providing that constructive feedback can

be a challenge for supervisors and owners, Germann adds. "The main thing is to always be looking forward," he says. "Here is what happened, here is what I would like to see, here is what we want to see moving forward."

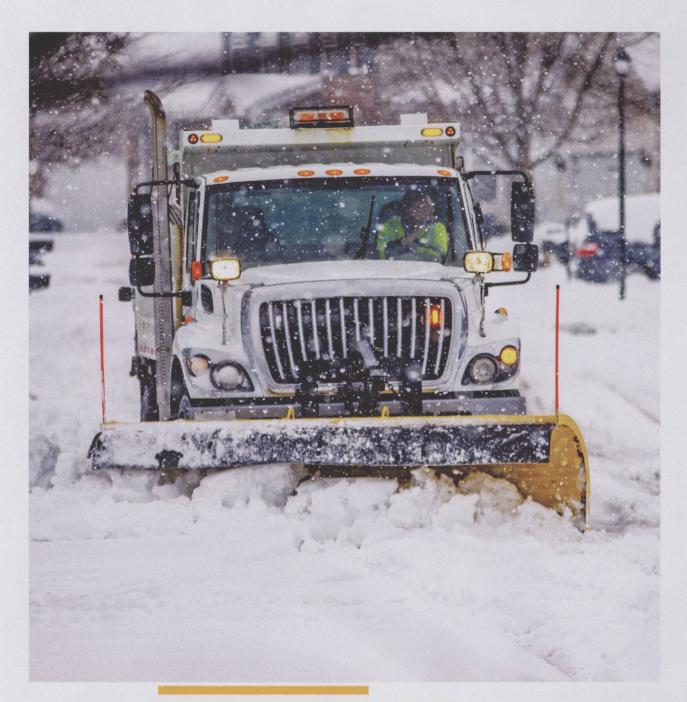
So, rather than focusing on the missed days of work, Germann will highlight the foreman opportunity and note that dependability and expected attendance are necessary to achieve the position. Rather than focusing on what the crewmember isn't doing, the review touches on the point but explains how correcting those issues can result in more responsibility and the compensation that comes along with it.

Germann says the company has learned that employee evaluations must be specific. "If we tell an employee he is not being detailoriented enough, we'd get the feedback,

Continues on pg. 60







HELP WANTED

Snow contractors may seek growth opportunities heading into Winter 2019-20, but the lack of labor could hold the industry back. **32**

COME A LONG WAY

Gradual changes over time have resulted in a more professional industry. **42**



By Mike Zawacki

Snow contractors may seek growth opportunities heading into Winter 2019-20, but the lack of labor could hold the industry back.

emember the good old days ... during the Recession of 2008. Today, many snow and ice professionals look back on that time fondly because the dip in the US economy provided this industry with a surplus of available labor. People were eager to work.

Fast forward a decade and the professional snow and ice industry needs people – desperately. Nearly every contractor is trying to crack the code on how they'll get fully staffed for Winter 2019-20. They're holding open-house events, scouring social media and offering financial incentives to secure

not only frontline sidewalk crews, but plow truck drivers, loader operators and even crew supervisors.

For seasoned snow contractors like Brent Teddy, the president of Teddy's Lawn & Landscape in Livonia, Michigan, each season seems to be a bit more challenging to find enough bodies to fully populate his winter operation.

"It's crazy," Teddy says. "Sure, we need shovelers for sidewalk work, but we're also trying to find good area managers, too."

Even with a cooling of the US economy and an upward adjustment to the unemployment rate, snow contractors must realize that there's been a fundamental change within the work force and things may never return to how they once were, says Fred Haskett, consultant at the Harvest Group and regular Lawn & Landscape magazine contributor.

"I was talking to someone the other day who said they looked forward to the (next) recession so that they would have (an available labor pool) again," Haskett says. "I looked them right in the eye and said: 'Ain't gonna happen.'

"If we don't recognize what has happened and begin to change our ways, even if we do have a recession or (an economic) correction and unemployment goes up three to four points, that work force isn't coming back unless we change our ways."

Brad Caton, founder and CEO of Invictus Professional Snow Fighters, which operates in Vancouver and Seattle, treats attracting and retaining labor as seriously as he does sales. Dealing with the labor question is a full-time endeavor at the company, but this full-time procurement approach alleviates much of the preseason stress contractors have to manage when staffing their winter crews.

"If you can put in the effort... this shouldn't be a problem," Caton says. "The (available labor) is out there. You just need to get to them before someone else does."

One recent trend Teddy has observed is labor looking for long-term financial commitments from snow contractors, which is forcing him to consider placing seasonal labor on the payroll as part-time employees to secure them throughout the winter.

"People are living paycheck to paycheck," he says. "And if you can't pay them (consistently) then they're out looking. So, you're left considering whether to pay them a minimum salary every week in order to keep them."

Another is competing for workers against other labor-intensive industries that pay temporary seasonal help cash "under the table." Teddy explains a potential labor pool of laid-off seasonal workers is available, but they prefer to be paid off the books in cash to avoid interfering with their unemployment benefits.

Keeping good operators, drivers and hand laborers has become more difficult in the last few years, says Stacey Hinson, director of sales at Snow Systems in Wheeling, Ill. However, winter's unpredictability exasperates this labor problem.

"If we have too long of a period with no snow during the winter months, (seasonal workers) lose interest and then are not available when it does snow," she says. "We have to hope for consistent snowfalls each month to keep them on board."

Thinking out of the box financially has helped mitigate this problem. In addition



Treating recruiting as seriously as you do sales could help your company navigate the industry-wide labor shortage.

INDUSTRY AVERAGE

16	Full-time, year-round

Part-time, year-round

Seasonal Seasonal

Service Providers / Subcontractors

to paying a very competitive rate on time, Snow Systems pays seasonal managers a small salary – sort of a small paycheck – to be ready and available.

Financial incentives are also key to Invictus' approach to attraction and retention. Caton says he aims to compensate his service providers with the highest rate possible – around 10 percent more than his competitors are paying in the market.

"This can get tricky, though, because this (compensation) mean a higher price for our customers and is reflected in our contracts," he says, adding that he's able to ensure clients that he has the labor force necessary to fully service the contract.

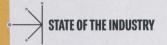
So, how do you bridge this labor gap?

First, recognize what has worked in the past most likely will not work for you in this current labor environment, says the Harvest Group's Haskett. Contractors need to understand what the priorities are of the work force that they'll be engaging with and attempting to secure, whether seasonally or permanently for the long term.

"What worked 10 to 15 years ago will not work now and won't work in the future," Haskett says. "We have to change our ways, and there's a whole variety of things that need to be done with that."

In managing labor matters, business owners and managers are, in some respects, swimming again the current because people no longer see a company as a career. Therefore, Haskett advises to start with ensuring you don't lose your existing key people.

"If you're putting all of your eggs into the recruiting basket, and you're not paying attention to the changes you need to make for the long haul, then all you're doing is continuing the churn," he says. "You have to focus on what it takes to keep people in place, focused on improving their job skills, to keep them happy and provide them a with a good positive experience. This will not only help





LABOR

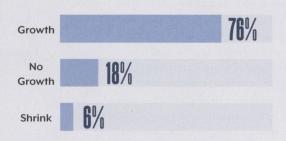
ATTITUDES TOWARD GROWTH

SURPRISINGLY, THOSE CONTRACTORS who cite the inability to attract and retain quality labor were not sheepish on their attitude toward growth, with 76% of respondents anticipating growth for Winter 2019-20. These figures nearly matched the industry average for anticipated growth.

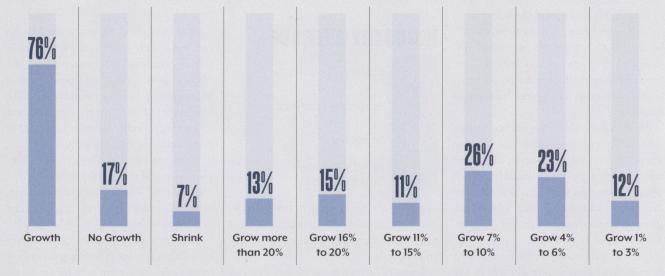
Furthermore, of those companies where labor is the top concern, more than 60% anticipate at least 10% growth heading into next spring. The "sweet spot" for growth seems to be around 7% to 10%, according to the data.

Surprisingly, 15% of this segment of snow and ice professionals anticipate growth between 16% and 20%.

INDUSTRY AVERAGE



LABOR CONCERNED CONTRACTORS



with retention, but also with recruitment."

Many snow contractors feel pressure to use premium wages as a means to secure not only full-time labor, but also seasonal workers. While wages have been on a steep incline, Haskett warns snow contractors that, at the end of the day, it's not just financial compensation.

"It's not all about money," he says. "It's

about experience and engagement.

"If you're not working on the cultural aspects (of your company) and creating a better environment for your people – both existing and future – you can throw a lot of money at a lot of people and it's not going to give you a solution."

Haskett suggests snow contractors offer prospective employees a clear career path

at their company. This can be done in the form of a documented career ladder, where each rung represents the next level within the organization and what you need to do to successfully reach that level.

"That way you can have a document that says here's where you're at today and here are the three to four things you must accomplish to apply for that next-level job," he says.

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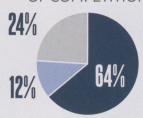
ELEVATED COMPETITION may bring the best out of your snow and ice management operations, or at least may have a positive influence on your bottom line. According to the State of the Industry data, nearly two-thirds (64%) of snow contractors who reported an elevated level of competition in their markets also reported an increase in their gross profits, and more than three-quarters (84%) of contractors in elevated markets project increased growth for the 2019-20 snow season.

MARKET PRESSURE VS GROSS REVENUE

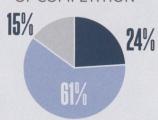
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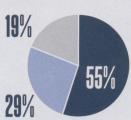
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ROBOTIC FUTURE

NOT SURPRISING, but more than 80% of respondents who indicated labor as their top management worry also indicated they would be susceptible to acquiring labor-saving equipment for their snow and ice management operation. That number is 5% higher than the industry average, according to the data.

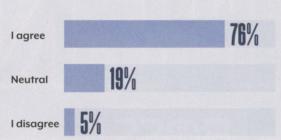
This robotic era may be upon us. Michigan snow contractor Brent Teddy says he's already

seeing robotic mowers in the landscape industry, and there are some companies introducing robotic versions for snow and ice management work.

"What I've seen is mostly geared toward sidewalk work, so we may only be a few years away from autonomous (robots) handling this aspect of site work," Teddy says. "However, I think we're probably light years away from automated plow trucks clearing parking lots."

WILL INVEST
IN EQUIPMENT
THAT WILL
ALLOW ME TO
USE LESS LABOR
IN SNOW AND ICE
MANAGEMENT

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CULTURE

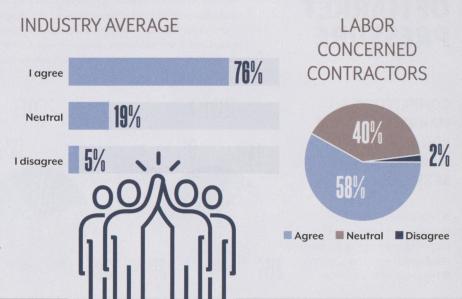
MANAGEMENT EXPERTS SUGGEST

company culture has a direct impact on your ability to retain everyone in your ranks down to the newest individuals on the shovel crew. Fred Haskett, a consultant at the Harvest Group, advises snow contractors need to dedicate time to become well versed on the priorities of not only their existing workforce, but of those they're seeking to hire.

"Engagement is a big thing with the current labor force," Haskett says, adding this starts with a well-established and defined company culture. "They want engagement with the companies that they're working for and engagement with their supervisors ... They want a social relationship with their (superiors).

"We have to change the way we look at culture and approach it from (the worker's/ employee's) point of view," Haskett adds.

I WILL FOCUS ON MY COMPANY'S CULTURE



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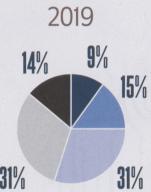
A DEFLATION OF MARKET PRESSURE

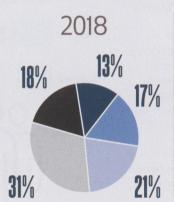
ELEVATED LEVELS OF COMPETITIVE MARKET PRESSURE seem to be easing some for North American snow and ice management contractors. According to recent and historical State of the Industry data, contractors reporting elevated levels of competitive market pressure have been lessening, with the data reflecting a 25% drop from 2012 to 2019.

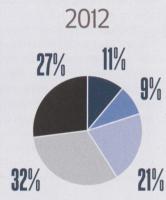
And while those snow professionals reporting an improvement in the competitive level in their market didn't necessarily gain favor at the same rate, the data points to those contractors reporting a healthy amount of competition in their respective markets as absorbing the difference.

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We had no idea that there was actually an industry standard, as far as snow removal goes. We've always just kind of been doing what has been passed down to us, and we've been in this industry for about 15 years."

"The fact that the ASCA has put out this industry standard ... We really need to utilize that for our benefit and there's a lot to learn."

Lauren Severy

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This industry has embraced 'growing up' and representing yourself as professionals to the outside world."

COME A LONG WAY

Gradual changes over time have resulted in a more professional snow industry.

By Kevin Gilbride

his section examines the overall state of our industry, so I looked back at previous State of the Industry reports wondering what trends I'd discover. Not surprising, the top issues facing the industry today are also the major issues this industry has been talking about for years. So, what is the difference today versus perhaps 10 years ago when the general feeling throughout the industry was doom and gloom?

We can all agree the industry has changed over the last decade and improved significantly over the last 20 years. In some areas, that change was drastic, while in other areas it has been subtle. But even gradual changes over time add up to big changes for the whole.

From a product standpoint, equipment

is more advanced and, in many instances, easier to operate and maintain. Likewise, the equipment options are vaster than they were a decade ago. Deicing products have evolved and the application of these products has increased. Companies have become more knowledgeable about how to use these new technologies correctly and in tandem for a more complete approach to snow and ice management. I have witnessed companies embrace these changes.

More importantly, it has been the people who have changed over the past 20 years. What used to be an industry with a "cowboy" mentality, treating plowing like a rodeo, is now an industry that represents itself as professionals. You are business people who provide an invaluable service to your customers. You do it in a way that others can only hope to. This industry has embraced "growing up" and representing yourself as professionals to the outside world.

In embracing the ASCA's ANSI Industry Standards, you've embraced professionalism. You have embraced training, documentation, education and professionalism. The more than 1,000 individuals who have earned their ASCA-C have embraced education and certification. They have embraced being educated on the Industry Standards and risk management to better themselves, their companies, and represent themselves to the outside world as a professional.

In embracing ISO9001/SN9001 certification, you have shown you have the process and procedures to ensure service quality, and you have implemented the standards into your business. You have improved your company and allowed your companies to be viewed differently by the outside world.

Those who have been involved in the legislative process have embraced the fact that there is strength in numbers, and we as an industry have a voice and we are going to use.

As I looked back, the issues you faced are the same today. It is you that has changed and in a very positive way. L&L

Kevin Gilbride is executive director of the Accredited Snow Contractors Association.



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STILL LEVELING UP

Level Green keeps climbing as one of the East Coast's premier landscaping companies.

By Jimmy Miller and Lauren Rathmell

Since 2002, Level Green Landscaping has serviced the Maryland, Virginia and Washington, D.C. markets. Led by head gardener Doug Delano, who started co-owning the company once his previous employer was purchased in a high-profile acquisition, Level Green has reached \$24 million in revenue an has 260 employees. Here's some of what Lawn & Landscape learned on our trip to visit Level Green.

To see Laflamme, left, and Arman, right, go backstage with Level Green, visit **bit.ly/llpass** or take a picture of the QR code to the right. Level Green's episodes go live in December.

1. IT'S OKAY TO SAY NO.

If it doesn't make sense for the business, however hard it may be, you can say no. Joey Schneider, branch manager for Level Green's North branch, says the company is prepped with lists of clients and properties that they want to work for and on.

"It's sort of our top 100 list of customers," he says. He recommends evaluating the prospective client on things like growth opportunities and size. While you may land a small job farther away with one of your top 100 customers, the job lends itself to potentially landing more jobs with the company down the line.



2. SELL STRATEGICALLY.

Finding the right client goes beyond waiting for them to come to you – you must seek them out and secure them accordingly.

"We no longer walk out the front door with a shotaun every year, aim it up in the sky, let it go off and hope that some birds fall down and hoping that they're the right birds," says Larry Leon, director of business development at Level Green. "We have a plan, we understand the market, we analyze our market."

Leon says Level Green studies their markets within each of their segments and have developed a targeted approach to the process of finding clients. The way they bid maintenance work on a cemetery, for example, is going to be different than the way they pitch to a federal government building. Establishing a comprehensive plan to make each diverse client feel like their needs will be met goes a long way in landing the clients you desire.

3. KEEP EVALUATING.

"It's all about treating your people right," says Dave Keffer, branch manager. "Having the same people year over year allows us to service our customers more efficiently." To keep retention a priority at his 85-employee branch, Keffer says the team does annual evaluations, but outside of that, they talk to their employees every day. "We just make sure we're all on the same page," he says. And, about 3 or 4 times a year they have an appreciation event for the employees. During morning huddles and safety meetings, employee anniversaries and birthdays are recognized, and safety awards are sometimes given, too. "And it's not always about work," he says. "We talk about our families, too."

4. IN THE BUSINESS OF RELATIONSHIPS.

Paul Weaver, construction manager, says he won't waste time going after small bids. Instead, the company focuses on large contracts that will lend themselves to more business later on. "We're a relationship company," he says. "I build a relationship with every one of my clients." The company takes on a lot of commercial jobs like shopping centers.

5. SET THE RIGHT TONE ON JOBSITES.

Being out in the field and constantly discussing quality control with your crews is how good managers show they care about what their work looks like, says Paul Wisniewski, a division manager at Level Green. He or others on the Level Green team will often tag along and train in the field so they With the success of the Turnaround Tour. Lawn & Landscape is teaming up once again with Bill Arman and Ed Laflamme from the Harvest Group for a different project - Backstage Pass. We've traveled to three successful companies and pulled back the curtain to learn about how these



AIM CAMERA PHONE HERE

organizations operate. Level Green's episodes will launch in December, but to watch our visit with Earthtones and Park West Companies, visit bit.ly/Ilpass or take a picture of the QR code.

can see what inefficiencies or bad practices are prevalent at their company. Level Green puts an emphasis on job sequencing to ensure all clients get serviced on time, and Wisniewski's job includes checking in with crews to see if they're following the designed sequence appropriately.

"It's going out with the crews, see if they're following the map, and fixing those (inefficiencies) as they're implementing," Wisniewski says. This also includes an acute attention to minor details, like if they're parking the trucks in the right spot. Wisniewski says these small things add up as they measure how well they've trained crews. Measures of good training include watching for jobsite efficiency and customer renewal rates.

Wisniewski admits it takes a lot of work to put plans on paper and to follow up to make sure those plans get implemented, but he says the practice is worth it. "I'd say what's most important is that we are safe, we train our people well, and that we provide great customer service," Wisniewski says. "All that will lead to being more profitable."

6. IT'S ALL HANDS ON DECK.

The company recently transitioned to a new software, so there's a been a learning curve to overcome. But Lynn Garris, office manager, says the growth of the company is reliant on every individual.

"It's more responsibility, but it's on everyone, not just one individual," she says. "There's too much opportunity to not get an invoice paid." To keep everyone detail oriented, account managers meet weekly and go over receivables.

With the new software, she says some employees actually have more time for other tasks. To remedy any feelings about loss of responsibility, she says it's important to explain that a person's skills are better needed elsewhere, and it's not so much a loss of responsibility, just a shift.

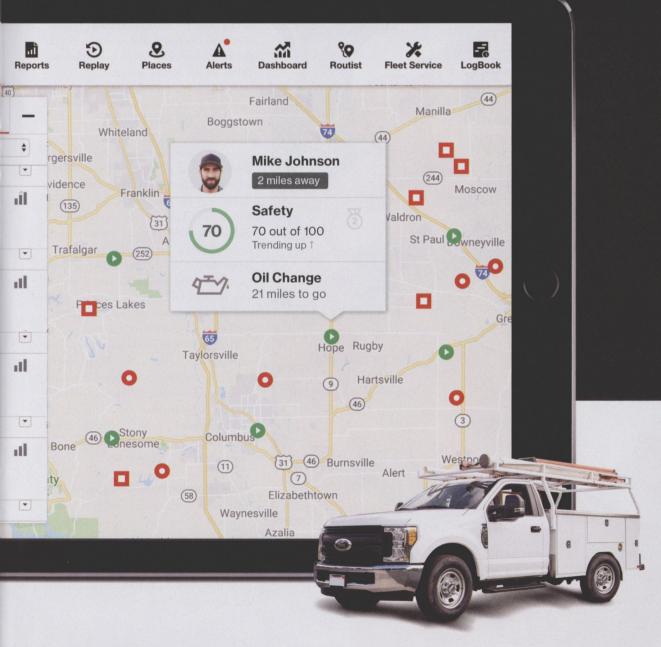
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THEY'RE HERE: Autonomous lawn mowers are popping up in the U.S. more so than ever before. But what does it mean for the industry?

By Lauren Rathmell

THEY'RE A HIT IN EUROPE.

an eye-catching yard toy and maybe a remedy for the labor shortage this industry is facing. Robotic (or autonomous) mowers have been creeping to the American market for the last few years, but manufacturers say things are just getting started.

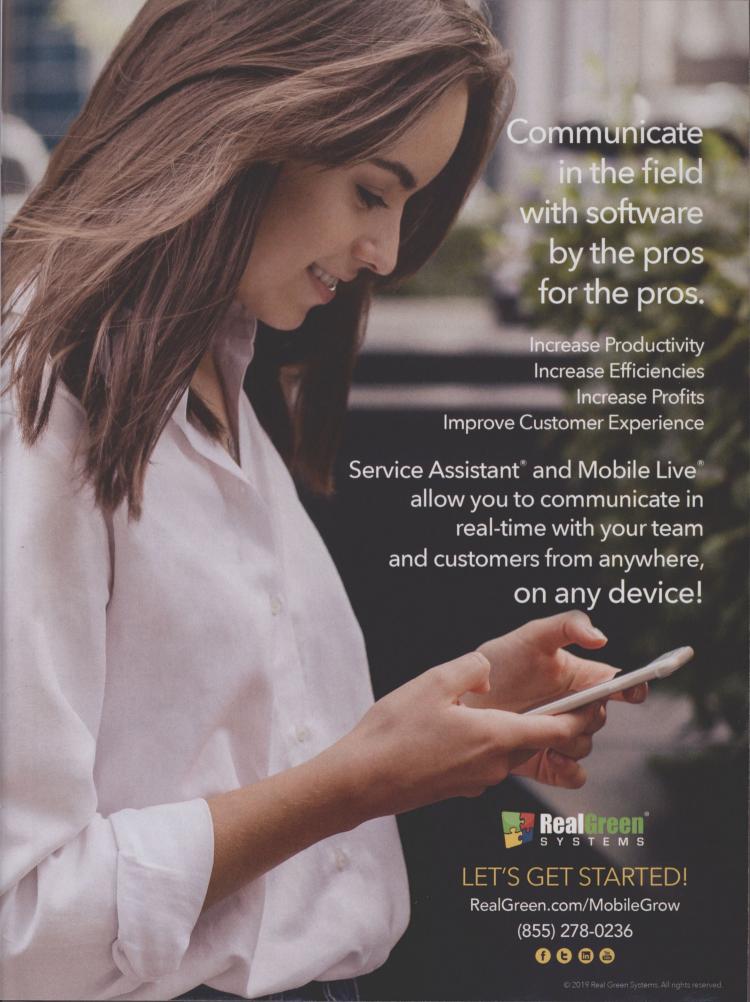
"The time is absolutely now," says Charles Quinn, founder of robotic software company Greenzie. "The robotics and the software are here."

Greenzie manufactures software that allows traditional gas-powered mowers to be transformed into autonomous machines. Quinn says the goal is to remove the monotonous tasks that landscapers perform each day so they can enjoy the other parts of the job. Those are the tasks that may have drawn them to this industry in the first place.

Isaac Roberts, owner of Scythe Robotics, says robotics entering the green industry will lend itself to a better equipment service model and even better landscapes in general.

The time is right for the adoption of this new technology, and Logan Fahey, owner of Robin Autopilot, a franchise focused on the deployment robotic mowers, says within the next two years, there's going to be a flip, and it's going to be quick. "(Robotic mowers) are no longer a gimmick," he says. "The momentum is just picking up."

YOUR NEW EMPLOYEE? Labor has been the headlining issue in the industry for several year, and it's expected to remain high on the list in the future, too. Robotic manufacturers are hopeful, though, that this new technology may be able to alleviate some pains that come along with a lack of skilled and dependable labor.



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"I have yet to meet a landscaper that says, 'I don't have a problem with labor,'" Roberts says. "Even the people that are going into the winter months and they're saying, 'yeah, we are actually OK now'... they're still hiring. I actually see a scenario where robots are going to expand the landscaping market because it's going to not only free up labor, but it's going to reduce the cost of that labor."

Tony Hopp, owner of Mowbot, a robotic mower franchise, says the industry's adoption of robotic mowers might lead to better employee retention.

"When (companies) do find a good employee, they want to keep them," Hopp says. "And (the employees) don't want to be sitting on a mower for six hours a day."

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BATTLE OF THE BOTS: Turn to pg. 52 for a few robotic mowers on the market.

It could also be an opportunity to cut the number of crew strictly mowing lawns, plus your workers could spend more time perfecting their hedge trimming or even getting to know customers, according to Quinn.

"(A robomower) frees up the human labor, which is far more valuable to do the things that are more complicated," Roberts says.

WHAT IT MEANS FOR BUSINESS. Fahey says first and foremost, the industry needs to understand robotics.

"The mowers need to be viewed as a tool in your overall fleet," Fahey says.
"It's not going to be that 24/7 perfect lawn care."
It's essentially going to take a person with technical software and robotics



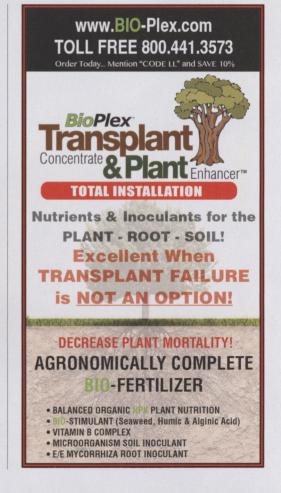


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KEEP YOUR LABOR: Robotic mowers aren't just about replacing a lack of labor; they serve as great tools to retain your current employees, who can now do other tasks instead of mowing.

skills to be able to fully integrate robotics into their fleets, which is why franchise models like Mowbot and Robin Autopilot exist. These companies provide the mowers and their technicians provide the service and install.

And, with this specific type of equipment, it could mean a shift in relationships between manufacturers and end users.

"I think that what you're going to start seeing with robotics is that the entire relationship from manufacturer to land-scaper and everything in between is going to completely upend," Roberts says. Roberts is referencing the model that robotic software giant Tesla utilizes. They go directly to their consumer and eliminate the middle man, which Roberts says is because of the need to have someone who understands the mechanical aspects of the machine and the complex software involved, too.

"If you're going to make a robot, you're not going to want to make a robot that's going to last three years," Roberts says. "You're going to want to extend the life of that robot for as long as possible because it creates a residual revenue because of the software that will continually evolve."

FUTURE BENEFITS. Hopp is looking at the adoption of this technology as a way to have a partnership with landscaping companies. "If it helps the guys out, that's what we want," he says. For instance, a Mowbot franchise nearby can offer mowing services to a landscaper's client while that client focuses on the trimming, cleanup or other maintenance jobs. Still, Hopp does see larger, more established landscaping companies having the resources to deploy the bots on their own.

Pairing software experts with lawn ma-

chinery lends itself to data not currently accessible, Roberts says. He sees the benefits of robotics extending far beyond cushioning labor pains.

"(Robotics) are going to allow landscapers to gather data in a cheap and effective way," he says. "All of this data that's being aggregated for the sake of the robots use, we'll also be getting aggregated for the sake of the landscape." He sees things like more accurate bids based on job size, even breaking down how much of a property is actually grass and how much of the property you'll need to lay seed down on. He says there will be a focus on optimizing the machine to do the job in the best way because the robots' job is to complete the task.

"These things are all possible over time," Roberts says, "and I think within 10 to 20 years we'll see them and they'll be very common." L&L







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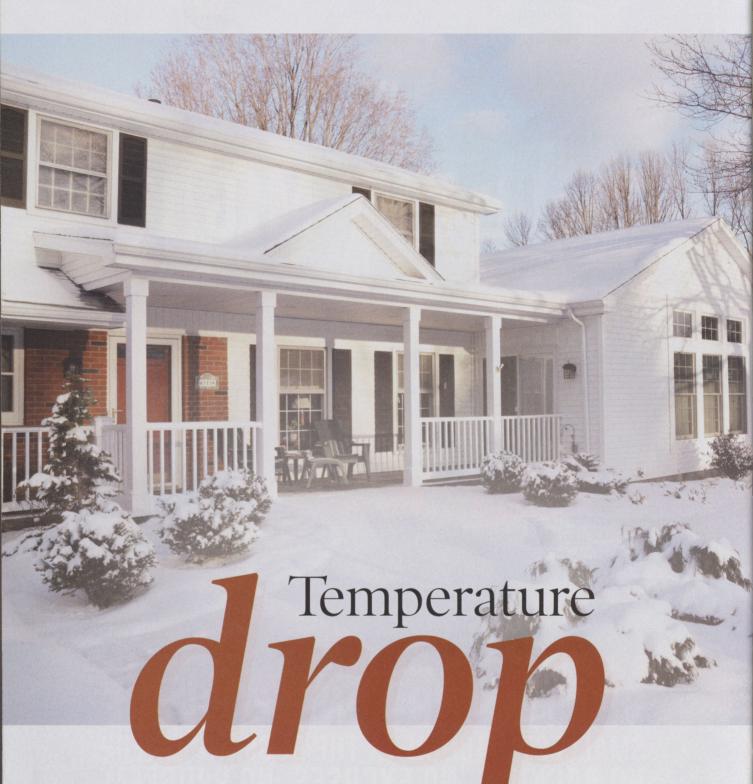


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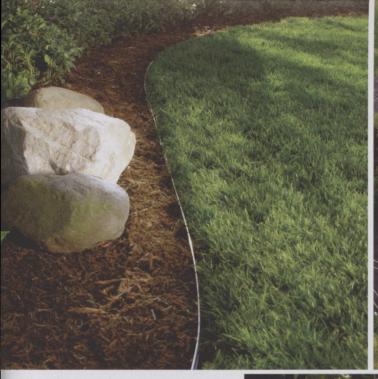
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While not as intense as other seasons, winter turfgrass diseases can pose a problem on lawns.

By Dr. Brad T. DeBels





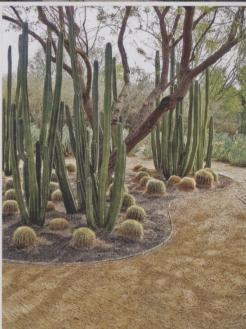


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am fortunate enough to receive a monthly communication from a local turfgrass diagnostic laboratory throughout the growing season. For much

of the summer, it highlights how many weeks or months we have left of warm, humid, disease-loving weather. Almost as if we are children waiting for the last day



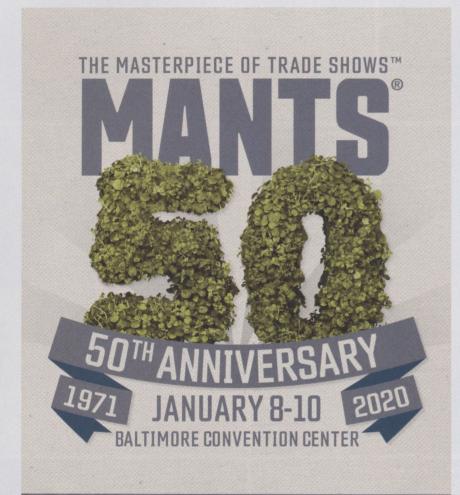
The most common winter disease seen in coolseason turfgrass is snow mold.

of school. Then, all at once in September, there is a green industry sigh of relief that can almost be heard. Does that mean the risk is gone for turfgrass disease? The short answer is no, but the encounters with disease through winter are generally more predictable and less intense than summer.

Disease-causing fungi are largely inactive through winter when temperatures are below freezing. So, while we may classify them as winter disease, the development is more dependent upon our actions in the fall.

The most common winter disease seen in cool-season turfgrass is snow mold and red thread. Both prefer cool, wet conditions. But, contradicting the name, not all snow mold disease requires snow cover for infection. The most common warm-season turfgrass disease is large patch, which becomes most active when soil temperatures fall below 70 degrees Fahrenheit.

The winter diseases considered above can largely be influenced by the same cultural practices. The most critical is unfortunately often out of our control: moisture. In many parts of the upper Midwest, folks have experienced record rainfall through the fall, which will enhance disease pressure. In these areas, encourage proper soil drainage and thatch management through aeration.





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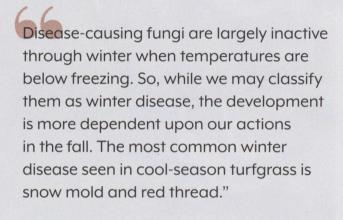
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Fall fertilization is critical for plant maintenance after a stressful summer season. Be cautious with this application as turf can be over-fertilized in fall, leading to overly succulent plants that promote disease.

Weed Man Lawn Care utilizes a slow-release nutrient source that limits nutrient release in cold temperatures to help manage growth and disease pressure. Also, be sure choose your rate carefully. Depending on the product, timing and plant species, your application rate should be considerably lower in the fall compared to other times of the year.

Mowing is also in our control. Continue to mow at proper heights through fall until turfgrass growth has ceased. I have heard many suggest the final mowing should be low, often lower than any other time of the year. I have yet to identify the reasoning. However, it is likely that these reduced mowing heights could increase crown exposure to cold temperatures and winds causing winter desiccation.

The final component of lawn preparation for winter is detritus management. Excessive detritus, most commonly leaves, on the turfgrass surface can harbor fungi that cause disease. Removal of this material can be necessary, but where applicable, mulch the detritus into the canopy as it can reduce weed pressure and recycle nutrients.

Proper management of the turfgrass system helps prevent disease, but it doesn't ensure 100% disease prevention. What we do from here is largely dependent upon the client's acceptable threshold of damage. I generally don't suggest chemical treatment to avoid winter disease damage on residential turf as most will recover naturally, but some high-end turfgrass systems may require fungicidal applications. Choose carefully as many products exist on the market with variable control success. Feel free to consult a local turfgrass laboratory or extension agent, which is always a good idea when managing turfgrass disease. L&L

The author is director of operations for Weed Man.







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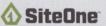














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Continued from pg. 30

'Where?' and, 'When did I not pay attention to detail?' So, we make sure we outline exactly which job it was and what happened."

So, maintaining records is essential so reviews can be informative, constructive and pinpoint exactly what employees should address to achieve goals. "If a worker's efficiency is below average, we show them the numbers that explain how and why," Germann says.

EXTRAS FOR EFFORT. Employees who meet job expectations at Carruthers Landscape Management earn a wage, but those who go above and beyond get a bonus check. Carruthers says the quarterly incentive can range from \$300 to \$600. Salaries are adjusted based on performance and skills. As employees advance, they win opportunities to enhance their pay. "The bonus program is in addition to that," he says.

The company has worked through some trial and error to find a bonus system that's fair and consistent. At first, Carruthers offered bonuses annually. "But that didn't work because you can be a hero one year and then the second year, you're just OK, and the third-year performance tended to decline," he says.

Basically, many employees simply weren't getting a carrot often enough to stoke their appetite for excelling beyond the standard. So, Carruthers tried a "goal card" system that require rating employees on various factors. "But the ratings could depend on how you felt when you woke up in the morning and who you talked to before you showed up at a meeting," he says.

A "yes" or "no" system worked better – did employees fulfill expectations or not? Employee performance based on set standards is figured monthly. But bonuses are paid out quarterly. "That way, you could earn the bonus two months and not get it the third, but the poor month would get cancelled out," Carruthers says. This system provides more flexibility for supervisors and branch managers.

Tying bonuses to performance is an important motivator, Connors adds. "If we were to just do a review and not have it tied to a carrot, I think the evaluation would be taken differently," he says, explaining why Peak Landscape adopted its point system. Also, he says that employees who tend to earn 70 percent of their bonus or less tend to weed themselves out, which helps the company's overall performance.

"Employees know they need to work hard throughout the year to get the bonus," Connors says. And, that hard work has made the company more successful, he points out. "With the accountability, it has helped get us a more professional image." L&L

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Gabby Castaneda

STUDENT SPOTLIGHT

brings you the perspectives of horticulture students and insights into the future of the industry.

By Lauren Rathmell



She's a senior at Sam Houston State University studying plant and soil science now, but Gabby Castaneda has always shown an interest in the world of horticulture and how she could use her talents to support the industry.

"I really got a lot of passion towards (horticulture) in high school," she says. She was a member of her local FFA chapter and worked a lot with the floriculture team. In fact, she credits her involvement in that program for leading her to study at Sam Houston State University. "We would visit Sam Houston for state and regional competitions," she says. "So, I feel like that's what brought me here."

She will graduate in May of 2020 with a Bachelor of Science in Plant and Soil studies, but her interests reach beyond her studies. Castaneda is involved with her school's plant and soil science club, where members collaborate on research with professors. Recently, Castaneda was working on a research project focusing on fertilizers.

"I was doing an experiment on different types of grasses and types of fertilizers and how they both work together and impact the outcome of the grass," she says. She credits her school for giving her the tools for the hands-on parts of this industry. "(The club) really helps me develop more training in when it comes to national competitions," she says. She recently participated in a national competition that focused on pest management. She spent time with her professors going over lecture notes and looking into new areas of research that she didn't learn in class to ensure she was ready.

"I definitely had the help from my professors to help me with that because it was just so much...there are so many different pests and diseases," she says.

A recent biology course sparked an interest in the area of plant

pathology. She says she is looking at furthering her education to get more specialized training in the area and be able to help those in the industry when she graduates. "I'm very passionate about working with these people and helping to help the crops that we eat every day," Castaneda says.

She's set her sights on some potential career options that will combine her knowledge and her passion for social good.

"I would love to be a consultant for these farmers and go out there and tell them, 'Hey, this is what's wrong with the crop' and give them a solution to their problems," she says. "There's more to it than just our economic crops, too... like our landscape crops and even our lawns."

As she enters the work force and continues her education, Castane-da sees many growth opportunities in the industry. "I feel like this industry is just growing so fast and we do need students who are focusing their time on helping out with the bigger picture," she says. "I feel like it's something that we all have to work around even if just getting involved outdoors and learning about these things, I feel like it will go a really long way." L&L



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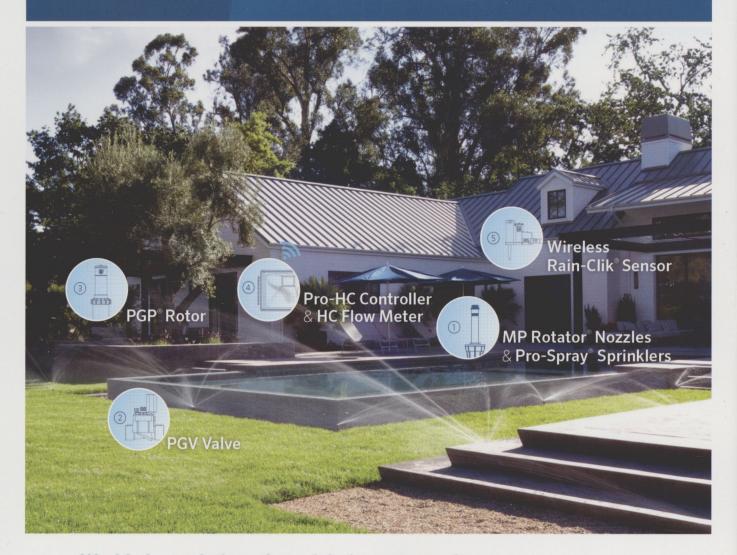


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