

IRRIGATION & green industry

MAY 2018

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TEAMING UP WITH TECHNOLOGY

MORE AND MORE LANDSCAPERS ARE EMBRACING NEW TECHNOLOGIES SUCH AS BATTERY POWER AND ARE USING THEM TO THEIR ADVANTAGE.

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SP-A

DL-A

CA-A

DM-A

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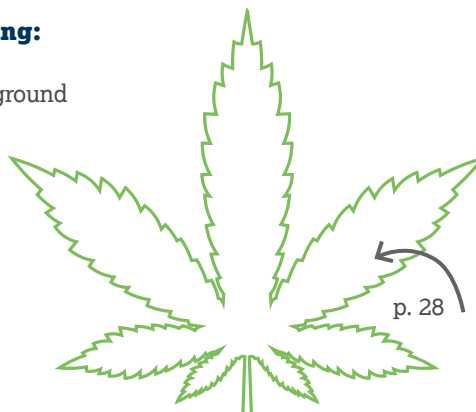


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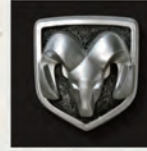
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Failing to respond appropriately to industry advances could leave you in your competitors' dust. You just might look around in a couple of years and realize everyone has surpassed you.

KRISTIN SMITH-ELY

A cautionary tale

The history of Eastman Kodak is fascinating. How did a global company, once so innovative and profitable almost fade into the history books?

Eastman Kodak was always ahead of the curve, inventing, improving and innovating for the first century of its existence. In 1900, Eastman Kodak introduced a \$1 camera and sold its film for 15 cents a roll, putting photography within the financial reach of virtually everyone for the first time.

You can thank Kodak for all those old photo albums probably collecting dust in your attic, but filled with pictures of first birthday parties, graduations, vacations and Christmas mornings — events that otherwise would have been long forgotten. I bet you still remember that feeling of anticipation when you went to the drug store to pick up your photos and opened the envelope for the first time.

As we all know, the photography industry has changed, and the need to develop film or even purchase a camera has practically disappeared. Good old Kodak, which had built its business on film and printing, was forced to file for Chapter 11 bankruptcy.

According to an article in the Harvard

Business Review, the company's real downfall happened when "cameras merged with phones, and people shifted from printing pictures to posting them on social media and mobile phone apps."

Kodak might have been able to salvage its dominant place in the photography world, if only it had thought up Facebook or Instagram.

The HBR article's author, Scott Anthony, says it is not that companies don't see the disruptive forces in their industry or even invest in them. Their real failure is "usually an inability to truly embrace the new business models the disruptive change opens up."

I share this story as a cautionary tale. Our March issue talked about on-demand mowing services and the companies leading that charge. The May issue explores other innovations, including robotic mowers, battery-powered equipment and smart irrigation controllers.

Failing to respond appropriately to industry advances could leave you in your competitors' dust. You just might look around in a couple of years and realize everyone has surpassed you. It's a good thing you still have that photo you took on your 35-millimeter camera that day you started. 🍀

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INVESTORS CORNER

SiteOne makes several business moves

SiteOne Landscape Supply, Roswell, Georgia, has made several business moves in March and April as it expands its footprint and technology offerings. The company has extended its partnership with HydroPoint Data Systems, Petaluma, California.

The expanded partnership enables SiteOne to add HydroPoint's Weather-TRAK and Baseline central irrigation control systems to a large selection of water management solutions now being offered in Texas; Florida; Georgia; South Carolina; North Carolina; Virginia; Tennessee; Arkansas; Louisiana; Mississippi; and Alabama, the company says.

The partnership is also part of SiteOne's continued effort to advance the role of technology in landscape and irrigation management.

SiteOne also purchased Village Nurseries Landscape Centers in Orange, Huntington Beach and Sacramento, California, in March

2018, on the heels of its acquisition of Atlantic Irrigation, North White Plains, New York, in February.

Village Nurseries Landscape Centers are distributors of nursery and related products to landscape professionals. This acquisition further expands SiteOne's footprint and nursery offerings in California.

"Our Landscape Centers are a natural fit with SiteOne as they can now add nursery products to their existing irrigation, agronomic, hardscape and landscape lighting product lines in California," says David House, president of Village Nurseries.

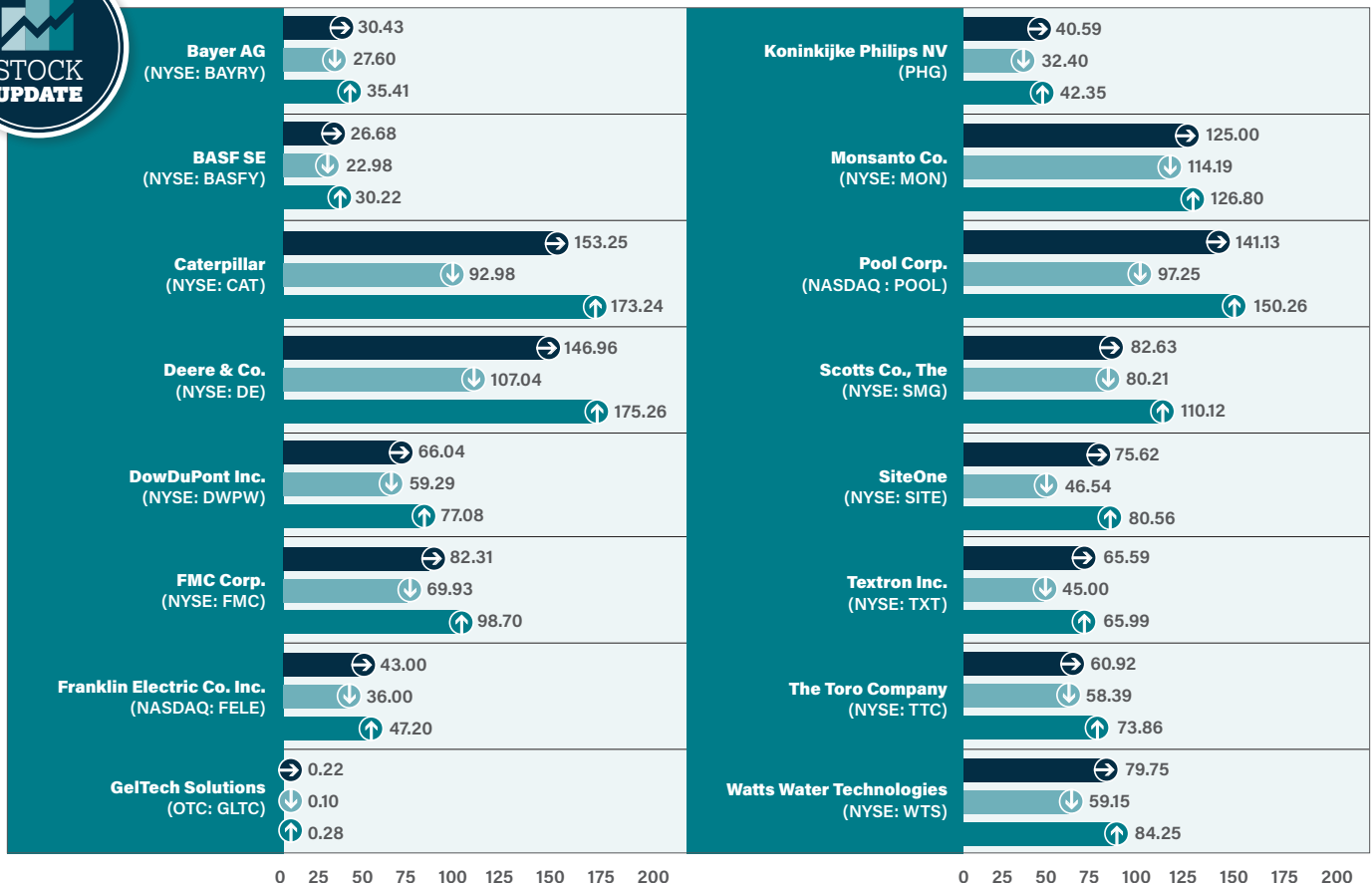
He adds, "At the same time, our Landscape Centers' customers will now have access to SiteOne's full selection of product lines, while still being able to take advantage of the wide breadth of trees and shrubs we offer, many of which are patented or exclusive and



"Our Landscape Centers are a natural fit with SiteOne as they can now add nursery products to their existing irrigation, agronomic, hardscape and landscape lighting product lines in California." - DAVID HOUSE

not available at other wholesale nurseries."

SiteOne also opened its Agronomic Sales Center for the Atlanta area during a ribbon cutting ceremony in Doraville, Georgia, in early April. The 30,000-square-foot facility will enable SiteOne to stock up to 880 tons of bagged agronomic material to better serve the area's customers who frequently purchase large quantities of fertilizer and control products. 🌱



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European Competition Commissioner Margrethe Vestager holds a news conference at the EU Commission's headquarters in Brussels, Belgium, March 21, 2018. Photo: REUTERS/Francois Lenoir

MERGERS & ACQUISITIONS

Bayer AG clears hurdle for Monsanto buy

Bayer AG, Leverkusen, Germany, has cleared a hurdle for its \$62.5 billion purchase of St. Louis-based Monsanto by winning European Union approval for the deal. As of press time, the U.S. Justice Department was still reviewing the merger. If the deal goes through, the combined company would reportedly control more than a quarter of the world's seed and pesticide market.

Bayer AG agreed to bolster rival BASF SE, Ludwigshafen, Germany, by selling its vegetable seeds, pesticides and digital agriculture technology. EU has requested further evidence of BASF's ability to build a competitor for Bayer before approving the \$7.4 billion deal.

RESEARCH

California plants show drought resiliency

Native wildflowers were surprisingly resilient during California's most recent drought, even more so than exotic grasses. But signs of their resilience were not evident with showy blooms above ground. Rather, they were found mostly underground, hidden in the seed bank, according to a study from the University of California, Davis.

For the study, published March 1 in the journal *Ecology*, researchers analyzed more than 22,000 seedlings from soil cores collected at UC's McLaughlin Natural Reserve in Northern California during the fall of 2012 and 2014. They found that seeds from native wildflowers increased 201 percent underground, while above-ground growth increased 14 percent.

Seeds from exotic grasses decreased 52 percent below ground, while above-ground growth decreased 39 percent.



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IRRIGATION

ASIC honors Excellence in Irrigation 2018 award winners

The Royal Oak, Michigan-based American Society of Irrigation Consultants honored its 2018 Excellence in Irrigation winners during its national conference in Quebec City, Quebec, in March.

Six projects were identified as deserving special acknowledgment as examples of unique or outstanding irrigation design challenges and solutions. The winners are: **Commercial and Public Works, Large Projects Honor Award:** Dayton National Cemetery, Dayton, Ohio; Robert Beccard, Aqua Engineering Inc., consultant; **Commercial and Public Works, Small Projects Honor Award:** Eighth and Harrison, San Francisco; Janet Luehrs, Brookwater Inc., consultant; **Parks, Recreation & Sports Fields Honor Award:** Fort Missoula Regional Park, Missoula, Montana; Greg Baer, Baer Design Group LLC, consultant; **Pacific Avenue Athletic Complex, Yuma, Arizona;** Douglas Macdonald, Aqua Engineering Inc., consultant; **Planning & Analysis/Parks, Recreation & Sports Fields Merit Award:** Houston Arboretum & Nature Center, Houston; Jeffrey Bruce, Jeffrey L. Bruce & Co., consultant; **Research Merit Award:** Washington University East Campus, St. Louis; Jeffrey Bruce, Jeffrey L. Bruce & Co., consultant.

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QUICK TAKES

Illinois city approves pilot program

The City Council of Sycamore, Illinois, approved a pilot program to allow the installation of commercial secondary water meters to measure the consumption of water in evaporation cooling and irrigation systems.

City Manager Brian Gregory said in *The Daily Chronicle* that one of the factors that has been discussed when

considering pilot programs in the past is water control and conservation.

Sycamore's current water fee schedule involves a sliding scale where the cost per unit is reduced as consumption increases. The city planned to start the program May 1 and collect results through November 2019.

Detroit park getting landscaping makeover

Cleveland-based nonprofit Project EverGreen has teamed up with the city of Detroit,

local businesses and residents to renovate Detroit's Pingree Park in June.

The makeover will install new walkways and a natural landscape amphitheater to the 18-acre park on the city's east side. The park already received an intensive makeover in the fall of 2017.

The initial phase included updating landscaping for beauty and safety, renovating sports fields and pruning old trees for safety reasons. Funding came from \$176,000 in corporate donations.

Connecticut landscaper pleads guilty

Pasquale Furano, owner of Pasquale Furano Landscaping of Greenwich, Connecticut, has pleaded guilty to tax evasion.

He reportedly evaded the payment of his federal taxes by negotiating approximately 2,436 client checks, totaling nearly \$1.3 million, for cash at the bank rather than depositing them.

He faces a maximum five-year prison term at his sentencing, June 8, 2018.

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BY JEFF CAROWITZ



Planning to sell your business? Get ahead of the tidal wave

Are you ready for the coming tidal wave of retirements? Over a third of the companies in our industry will change hands in the next 10 years. A few owners have already prepared, planning to sell to a family member or manager. They have a roadmap and are ready to deal with the next steps.

But the majority of owners have no plans; only thoughts, worries and misperceptions about the complexities of what's ahead. Even for driven entrepreneurs, it's hard to think of saying goodbye to a business that's been built up over decades of dedication and hard work.

Yet employee, customer and other stakeholder futures hang in the balance. The longer owners put off getting organized, the more likely it will cost them and their stakeholders dearly.

In the last several months, I've been hearing from distributors and contractors who want help with a business exit. Some call because

they "want to sell while the economy is still strong." Others call because they suddenly realize they're ill-prepared to objectively market their companies.

If you're thinking about your exit plan, here are some things to consider:

1 Prepare yourself. Letting go is really difficult. There's often a sense of loss or apprehension. Selling a company is one of the biggest things an owner will face in a lifetime. Before embarking on a sale that could upset your organization, customers or family, ask yourself first, "Am I really committed to following through?" Then take some time to think about your exit priorities: your employees, your customers, your financial well-being and more.

2 Polish your company's value. As you would prepare to sell a house by putting on a fresh coat of paint, making minor repairs and clearing out clutter, many businesses need a similar treatment. Prepare a marketing checklist, identifying actions needed to help your business look its best. Often these will be things that you've intended to do for years: updating your website to reflect your full menu of services; cleaning up customer lists; revising marketing collateral; etc. You also might need to sell off dead inventory, old equipment or even parts of the business that don't fit.

3 Target. Like any marketing plan, you need to be laser-focused on the target customer. Profile the likely buyer, one who shares your core values, culture and business approach. Aim to find someone with the skills and mindset to run your business (and not run it into the ground). Most importantly, your target must have the financial capability to do the deal.

4 You're not just selling financial statements. The strength of your management team, the rigor of your business processes, the efficiency of your operation and the sustainability of your customer list are all critical factors that make a big impact on the potential value of a business. Make sure you can market these with a concise and fact-based offering presentation.

5 Build a team. Avoid rationalizing that "you're too busy running the business to think about how to sell it." Assemble a team that can help you with the process. A great team will bring a reality check and help you with your tune-up plan. Good advice is not cheap, but compared to leaving 30 percent plus of the business value on the table, it's a bargain. Plus, your advisors will help get the paperwork done during the cumbersome due diligence phase.

6 Timing is everything. A sale that gets you full value can take a year or two to prepare for. Get going now so you won't leave your company's future to chance. You want to be able to look back on the sale with satisfaction and no regrets. 🍀

The longer owners put off *getting organized*, the more likely it will cost them and their stakeholders dearly.



Jeff Carowitz advises landscape industry firms on marketing and business strategy. He can be reached at jeff@strategicforcemarketing.com.

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	90°-210°	90°-210°	90°-210°	90°-210°	90°-210°	90°-210°	
	360°	360°	210°-270° 360°	210°-270° 360°	210°-270° 360°	90°-210°	

BY KRISTIN SMITH-ELY

TEAMING UP WITH TECHNOLOGY

MORE AND MORE LANDSCAPERS ARE EMBRACING NEW TECHNOLOGIES SUCH AS BATTERY POWER AND ARE USING THEM TO THEIR ADVANTAGE.



Have you met the newest addition to the city of Newport Beach, California's landscaping crew? She's always on time, mowing away at the front lawn of the civic center building from 9 a.m. to 2 p.m. every weekday. Though she might be a bit shorter and quieter than the rest of the crew, she sure can manicure a lawn and knows just where it needs cutting. Her name is "Mow-ana," and she's not your ordinary employee. If you haven't guessed it yet, she's a robotic mower.

Anthony Petrarca, the city's landscape supervisor, couldn't be happier with Mow-ana's performance. A few months back, he was out at Allen's Lawnmower Service, a local Husqvarna dealer that the city's been working with for years. The owner, Paul Sullivan, suggested the city test out one of the new robotic mowers he was selling.

"We met and came up with a spot that would be a good pilot test site because it is kind of a flat area and there's not much turf there," Petrarca says. The area is made up of four 50-foot-by-30-foot sections of grass in front of the civic center where many of the city employees work and where the public goes to conduct usual civic business such as paying parking tickets and obtaining contractors' licenses.

Mow-ana has been doing her thing for the past few months. "We did a trial there, and so far, it's doing its job, keeping the lawn mowed," says Petrarca.

Doing its thing

He describes the mower as being similar to the little unattended Roomba-style vacuum cleaners that roam around

inside homes sucking up dirt. Instead of chasing dust bunnies, this device, the Automower 450X, runs around the yard mowing grass all day.

And Mow-ana is quite the conversation piece around city hall. "Our mayor loves it," Petrarca says. "Every time I go to check on it and see how it's doing, there are always people taking pictures of it, standing around looking at it."

If you're wondering where the name Mow-ana came from, that was Petrarca's brain child. He had recently watched the Disney film *Moana* with his granddaughter and thought it seemed fitting.

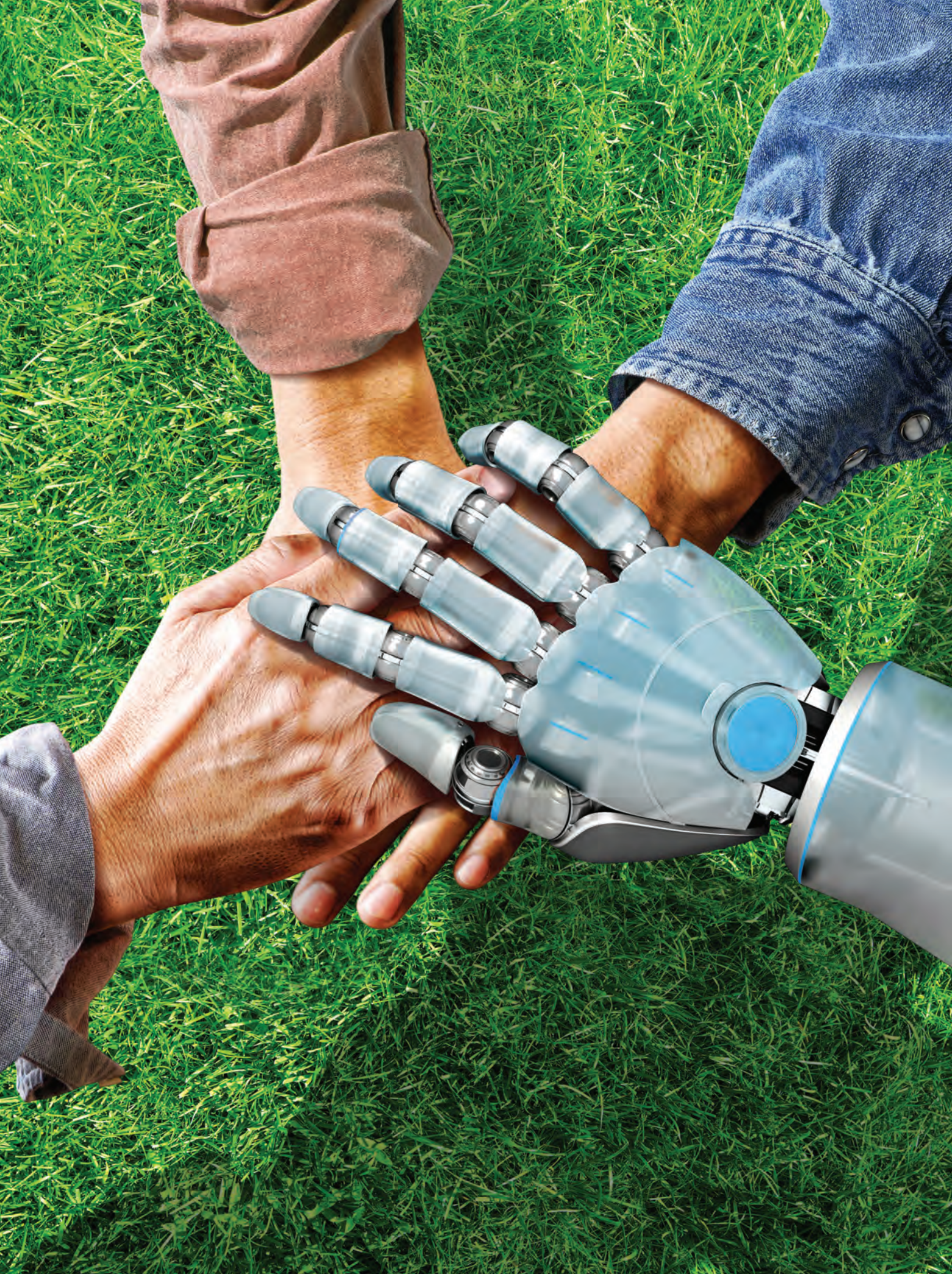
The mower uses GPS to find its way around. A cable-laying machine buried a wire underground outlining the area in front of the civic center. This gives the mower its boundary, outside of which it will not stray. Another underground guidance system runs down the middle of the designated area to help the mower find its docking station when it is ready to charge.

Watching the mower in action, its movements seem random; it'll mow one area, then scoot across to another section and mow there for a little bit. Rest assured, it knows what it's doing. "When all is said and done, it all gets mowed and we're really happy with it," Petrarca says.

After a hard day's work, it's 2 p.m., and time for Mow-ana to recharge her battery, literally. No, she doesn't grab an energy drink; she finds her docking station behind a ficus tree where she'll stay all night, and at 9 a.m. the next morning, she'll be at it all over again.

Petrarca isn't too concerned that any passersby will mess with the mower. The area is highly trafficked, and city employees can keep watch from their windows. Plus,

Illustration: Ryan Etker



Battery-powered equipment is gaining popularity in the landscaping industry, but its adoption has been slow. Pictured at immediate right, Stihl's BGA 100 battery-powered blower; far right, Husqvarna's robotic Automower.



the mower is hooked up to the Automower Connect app with an alarm that goes off on Petrarca's smartphone should anyone try any shenanigans.

The alarm went off a couple of weeks ago when some kids decided to lay down in front of it. Don't worry; the mower detected it and automatically shut itself down. It also doesn't have a typical mower blade; instead, the cutting system is made up of several tiny blades designed to stop at the slightest interference, so the risk of injury is slim. The app also allows the monitoring and programming of every aspect of the mower, such as schedule times, operating time and mowing height. The GPS-assisted navigation system maps the yard and is smarter than we are about where it should be mowing.

Aside from Mow-ana's "cool factor," Petrarca has noticed some additional pluses since he put her to work. "It saves us from a contractor having to mow, so it saves us money and labor. The landscaper can spend more time focusing on other stuff that needs attention more than just mowing the grass."

Landscape workers still have to come in and edge, says Petrarca, "but other than that, they let the mower do its thing."

MOW-ANA ON THE MOVE

Interested in watching the city of Newport Beach, California's robotic mower in action? Visit www.igin.com to view a drone video of Mow-ana trimming the civic center turf.



Another way it has proven beneficial to the city of Newport Beach is that the mower creates a thin layer of "minimulch" out of the grass as it mows, which helps keep moisture in the turf. "I've actually cut the water back since we've had it," Petrarca says.

"All and all, it is a fun little mower that is efficient. We are happy with it," he says.

Not out of the ordinary

While a robotic mower may seem like a rarity, devices that use GPS and battery power are becoming more commonplace, says Nick White, Husqvarna's Automower sales manager for the west region.

"This is by no means a new technology. It seems new to us because we haven't seen it in the U.S., but this has been an ongoing trend in Europe since the late 1990s. We sell hundreds of thousands of these every year in Europe."

According to White, the ideal space for an Automower is a large open grass area, "but we can get very creative and do very complex installations if needed."

Because California residential properties are typically small and gated, it isn't the hottest U.S. market for the Automower. "The biggest area for us right now would be the Southeast: Georgia, the Carolinas, Florida; and also the Midwest: Michigan, Minnesota, Nebraska and Tennessee. These are huge markets."

Two major benefits of the technology that White sees are the reduction in watering because of the minimulch layer the mower creates and of course, the reduced need for human labor.

"You can dedicate labor to more detail-oriented pieces," he says. "The majority of the profit margin in landscaping work is in the higher detail-oriented work. If you take the piece that takes a lot of time out of the equation, you can focus on higher margin tasks. It is much more profitable for them."

White says the owners of commercial properties are looking at the Automower because of the noise reduction. Rather than the roar of a motor, "all you hear are blades of grass being cut."

The advantage of reduced noise benefits not only

the customer but the operator who no longer needs hearing protection. White says it won't be long before California starts requiring battery-powered equipment for that reason.

The Automower is Husqvarna's alternative to a battery-powered zero turn mower. But the company's battery-power technology isn't reserved for just the Automower; the company offers battery-powered versions of all its traditional pieces of power equipment, including chainsaws, hedge trimmers and push mowers.

White says it is only a matter of time before battery power starts booming in the U.S. "We have no doubt it is going to take off because we've seen it elsewhere in the world."

Leading the charge

And White isn't alone in his view. When Greenworks Commercial, Charlotte, North Carolina, and Conniff Sales Inc., Richmond, Indiana, announced their exclusive partnership in April, Tony Marchese, Greenworks' director of independent retail said, "We continue to hear people in the industry say, 'Battery is coming,' but they're wrong. Battery is already here!"

Conniff will now offer dealers a broad line of lithium-ion, battery-powered outdoor equipment, including a selection of stand-on and ride-on commercial grade zero turn mowers later in the year.

Marchese's sentiment seems to corroborate Scott Jardine's observations. The president of Calgary, Alberta-based Arns Equipment and member of the Clayton, Missouri-based Equipment Dealers' Association's Outdoor Power Equipment Council, says, "This is probably the first year where we're really going to start seeing battery being used by some of the commercial guys."

He says trimmers and hedge clippers are among the units that are gaining traction in battery power. And while battery power is not yet a huge draw, it's popularity is increasing. "It is still not widely accepted by everybody, but I think we are going to start to see that. It hasn't been the freakish exception that we've seen in the past."

Jardine has had three or four contractor customers decide to equip one of their crews with battery-powered trimmers to "see how it goes." He says, "I think there's going to be much wider acceptance if these experiments work well."



"THE MAJORITY OF THE PROFIT MARGIN IN LANDSCAPING WORK IS IN THE HIGHER DETAIL-ORIENTED WORK. IF YOU TAKE THE PIECE THAT TAKES A LOT OF TIME OUT OF THE EQUATION, YOU CAN FOCUS ON HIGHER MARGIN TASKS. IT IS MUCH MORE PROFITABLE FOR THEM."

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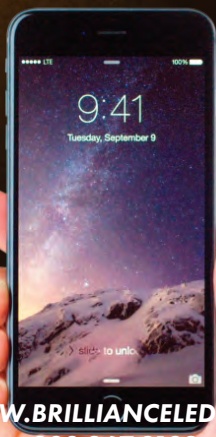
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COVER STORY

There are some valid arguments for making the transition. “To me it makes a huge amount of sense,” Jardine says.

His reasoning is that a crew can start off in the morning without having to stop for fuel, and there is no need to mix fuel or carry cans of it. In addition, there’s no chance of accidentally putting straight fuel



“WHEN YOU THINK OF INSIDE THE HOME, YOU THINK OF PEOPLE ON THEIR SMARTPHONES BEING ABLE TO CONNECT TO THE LIGHTING IN THEIR HOUSES AND THE HEATING AND COOLING SYSTEMS. THAT’S BECOMING A TREND INSIDE HOMES, AND THAT’S ALSO BECOMING A TREND IN THE LANDSCAPING INDUSTRY.” — MIKE POLUKA, STIHL

into a piece of equipment that requires oil in the mix. “And,” Jardine says, “they start every single time.”

The equipment is not only quieter, it produces no emissions, something that’s important to environmentally conscious customers and municipalities. In some areas, clean-air ordinances restrict the use of gas-powered equipment to certain hours of the day or ban it entirely.

“The only downside I can see is they’re a little more capital intensive on the front end, but then you have no gas and no maintenance over the life of them,” Jardine says.

Arns offers Stihl equipment. Jardine says the manufacturer has told him the batteries will take 500 charges before any diminished performance is noticed.

He estimates a battery-powered trimmer could last four to five years without needing a replacement battery if you ran it 25 weeks per year. After four years in service, most commercial landscapers are ready to replace equipment anyway.

Jardine also predicts that customers’ initial foray into battery-operated equipment will be with trimmers. Then, since the other attachments use the same battery, buyers will start to expand into chainsaws and pole pruners. “But the trimmer is going to be the one to get them started.”

A slow shift

The manufacturers of battery-powered equipment agree that it’s starting to gain some traction with professional landscapers, but the demand for gasoline-powered maintenance equipment still dominates.

To understand the coming shift, Mike Poluka, product manager, battery-related products for Stihl, with U.S. offices in Virginia Beach, Virginia, says all you need to do is take a look at how smart technology is becoming a norm inside people’s homes.

“When you think of inside the home, you think of people on their smartphones being able to connect to the lighting in their houses and the heating and cooling systems. That’s becoming a trend inside homes, and that’s also becoming a trend in the landscaping industry.”

The company’s recent product launch-

es include a robotic lawn mower, the Stihl iMow. It also introduced 40 new model designations in 2017 using the Stihl Lighting battery system, among them, the BR 700 X backpack blower and the AP series for professionals. Stihl’s BGA 100 hand-held blower is among the most popular battery-powered pieces of equipment.

“More and more we continue to see a shift toward landscapers adopting these technologies,” says Poluka. “One of the biggest industry trends is the influx of battery-powered products into the professional landscaping market, particularly for pros in municipalities requiring low- to no-exhaust and lower-noise equipment or for indoor projects.”

He does not consider battery-powered equipment to be the proverbial disrupters to the industry just yet. “Although battery power is growing and landscapers are adopting it, there is still a strong professional presence on the gasoline side of the marketplace.”

As the price of battery-powered products continues to go down and their power and technology continues to improve, more landscapers will adopt it, Poluka predicts. Over the life of the products, battery-powered equipment usually ends up costing less.

Just when the pendulum will swing more definitively toward the battery-powered and robotic side of the equipment market is yet to be seen, but early success is an indicator that the landscaping industry is headed in that direction.

It may be taking its time, but it’ll find its docking station someday, probably sooner than we think. 🌱

The author is editor-in-chief of *Irrigation & Green Industry* magazine and can be reached at kristinmithely@igin.com.



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JEFF CARTWRIGHT

THE LAWYER TURNED LANDSCAPER

Jeff Cartwright's experience as a corporate lawyer combined with his inherent creativity has helped him build a reputable high-end landscaping business in Richmond, Virginia.

BY KRISTIN SMITH-ELY

People who start landscaping businesses come from many different backgrounds, but Jeff Cartwright's journey is surely one for the books. He didn't start out as many of his counterparts in the business did by mowing lawns after school for some extra cash.

What he did have was a father who always wanted to keep a pristine lawn and who brought out his son's creative side. It was only after going to law school and becoming a corporate lawyer in Richmond, Virginia, did Cartwright's true calling begin to emerge, and it wasn't pushing paper at a law firm.

The icing on the cake

Cartwright's creativity was nurtured from a young age. One of his earliest memories of his dad was of decorating donuts with him, and it was all about who could make theirs the most enticing.

"My dad used to work for Dunkin' Donuts, and as young kids my dad used to challenge my brothers and me to outdo each other making fancy doughnuts in a variety of flavors with various toppings," recalls Cartwright. As a regional district manager for the doughnut chain, his dad would take his and his brothers' creations around to different shops in his territory to see which ones would be the best sellers. A lot of them sold well and became mainstays at various locations.

Cartwright's father's knack for making things look good extended into other areas of life. "It carried over into

the landscaping at our home, really keeping our property looking dialed in and nice and beautiful," Cartwright says. "My dad took immense pride in his yard and was always a stickler for having our yard look the very best it could."

Unfortunately, in 1999, Cartwright's father passed away of a heart attack at age 52. "I have an immense amount of great memories of my dad," he says. And the man's spirit lives on in the landscapes Cartwright designs.

"That's where it started, way back with my dad. He just instilled in me a little bit of creativity, and taught me to do things once and do them right, not do them halfway."

Lawn and order

Cartwright thought he knew early on what he wanted to do for a living and it was to become a lawyer. He even worked for a law firm during the summers while attending the University of North Carolina, Chapel Hill. After graduation, he worked for the legal department of an energy company in Baltimore during the day, while attending law school at the University of Maryland at night. He then accepted a job with a law firm in Richmond. After about two years he realized, "It just wasn't for me."

While that realization was hitting him, Cartwright was keeping his yard well-manicured, as he always did, just like his father, and people in the neighborhood started to take notice. He would get questions from friends and neighbors about how they could make their yards look as good as his.

He began sprucing up their landscapes in his spare



Jeff Cartwright thought he wanted to be a lawyer and took steps to eventually become one. As it turned out, his true calling was to be a professional landscaper, and he founded Cartwright Landscaping in 2011. Photos: Kip Dawkins.



Jeff Cartwright has an eye for plants and what combinations work together to create a beautiful landscape. Local nursery partners furnish him with the varieties his high-end clients want.

Commitment to the client

Cartwright worked for some high value clients as an attorney, the same sort of people who today are interested in the high-end landscaping services his business provides. His ability to understand his clientele on their level has been a helpful tool in his business.

“I can relate to them. I know what they expect and how they want to engage with my business.” He adds, “I think that sets us apart from other companies, not just in our work, but in our communication and how we interact with our clients. Clients can sense that right off the bat.”

When quoting a job, Cartwright says he knows what information his clients are interested in and provides the exact amount of detail they want in their quotes. “We give them a comfort level about the work we are going to do and avoid surprises.”

The fact that the company handles everything, from the design, to the installation, to the seasonal maintenance builds a level of trust, says Cartwright. “The education we provide people gives them the comfort level to trust us to do the work.”

When taking on a new project, Cartwright will often take his clients around area neighborhoods to show them projects the company has underway or has recently completed. He’ll take them on a nursery tour to teach them about plants, and provide pictures and books for them to look through.

“We are very committed to the design process,” Cartwright says. “We work hard to understand client expectations. We’ll tell them which plant materials will work best in their landscape and we’ll guide them along the way.”

Having a gift

How does Cartwright know what to plant and where? He says it’s just something that comes naturally to him — just as some people can draw really well and others have an inherent talent for interior design.

“You know your plants and have an eye for what looks good together: textures, colors, shapes, big trees, understory plantings and ground covers.” He can weave different landscape elements together seamlessly and is self-taught on what makes each plant flourish. “I learn everything I can about the

“That’s where it started, way back with my dad. He just instilled in me a little bit of creativity and taught me to do things once and do them right, not do them halfway.” – Jeff Cartwright

time. “Then the business started to grow to the point where we were doing so much work, and it started opening my eyes to the quality of the landscape work being done around us,” he says.

Some of the other landscaping work he observed seemed focused on “mowing, blowing and cutting, and on quantity over quality,” he says. “There wasn’t a lot of attention to detail, not a lot of refined landscaping services.”

That’s when a light bulb went off over Cartwright’s head. He talked to his wife about his idea of starting a quality-focused landscape company, and she was supportive. Then he started talking to others in the industry about what he was trying to do. He was amazed at how open and receptive everyone was.

“People are open to sharing their advice and experience with you if you show interest and ask questions,” says Cartwright.

His law school study habits kicked in, as Cartwright researched and absorbed what people were telling him about their experiences and what pitfalls to try and avoid. Soon, he had figured out his game plan.

By 2011, he had everything he needed to get started. Marketing the new business, which he named Cartwright Landscaping, would be a vital component. A logo and website were developed, and a social media presence was established that included photographs of the team and their projects.

“Our pictures, our marketing content

and how we projected ourselves from the outset — everything was focused on showing how we complete upscale work. We paid attention to every detail,” he says.

Promise of perfection

Information on the company’s services, video tips and dozens of images of various projects grace Cartwright Landscapings’ website and social media pages.

Getting the word out about the company has been almost as important as the work itself. As Cartwright puts it, “Although I’d like to think that our work speaks for itself, we recognized the need for a solid marketing strategy to reach clients.”

It helps that he has a solid team, too, averaging 12 employees. “I’ve had the good fortune of having enough time to find very good people. Everyone gets along very well and takes great pride in what they do, while challenging one another to think outside the box.”

Cartwright has partnered with a local lawn treatment company, a sod farm, tree care services and nurseries that closely complement his business. Those relationships have also enhanced what Cartwright Landscaping can offer to its clients, which includes everything from design and installation to irrigation, lighting, hardscaping, grading and tree work.

“We have a lot of great partners,” he says. “There is an inherent sense of trust where we hold the same high standards as we collaborate on projects.”

plants that thrive in our environment. How do they grow? What kind of maintenance do they need? What do they look like at various times of the year?"

Cartwright works extensively with local nurseries to whom he credits part of his success. Of course, the feeling is mutual. "If you don't have good people to help you — employees, partners, suppliers and others that have a vested interest in seeing you be successful, and vice versa — you aren't going to get anywhere."

He says once you find dependable and like-minded contacts, business gets much easier. These relationships strengthen his commitment to being a part of the Richmond community that has contributed to the success of the business. That does not go unnoticed by Cartwright. That is why the company donates money and time to local charities, supporting a variety of causes for children and veterans, among others.

"We try to do the right thing, and we try to be pros at everything we do and make a difference," Cartwright says.

Finding his sweet spot

Cartwright says he doesn't want to grow

his company astronomically. Rather, he says, "Quality to me is the most important thing. I don't have any aspirations to be huge, my goal is to do exceptional work."

To him, growing means finding good people whom he trusts and who share his vision. He says he has "found a sweet spot" with 10-12 employees, bringing on seasonal help as needed. "Growth is very tempered with me," he adds. He constantly asks himself, "How can we be more creative and test the boundaries of projects?"

Being successful, he says, is a combination of inner drive and a desire to succeed. "I work long hours, but now have some perspective because I used to do that for somebody else. Now I do it for myself, my family and my employees."

It looks as if Cartwright has finally found the right profession for himself and one that he truly enjoys. "At the end of the day, you have to love what you do. The legal profession turned out to not be for me, but I love what I'm doing now." 🌿

The author is editor-in-chief of *Irrigation & Green Industry* magazine and can be reached at kristinsmithely@igin.com.

Pushing boundaries

In the eight years since Cartwright Landscaping has been in business, owner Jeff Cartwright can still recall the projects that have really stood out over the years. One of the company's first projects put its capabilities to the test. The company had been doing smaller projects in the \$1,000 to \$2,000 range.

"Then a prospective client called up and said, 'I want you to redesign our front yard. I want you to rip everything out and start from scratch,'" Cartwright says.

The client let him sketch everything out, determine a budget and run with it. It was the company's biggest project up to that point.

The client was ecstatic with the finished result, and the next year, the client called again and asked Cartwright to do his entire backyard. That got people talking. "We were tasked with a pretty tall objective, and we did a great job. It proved to me early on that we can do big jobs, that they are nothing to be afraid of." Cartwright remains very appreciative of this exceptional opportunity having come along in his first year of business.

Fast-forward to 2018, and the company is in the middle of one of its most complex and comprehensive projects to date, doing work on a modern-style Frank Lloyd Wright-designed house. The company and its subcontractors have redone the deck; built custom railings; added custom planters; laid bluestone treads; refinished a pool deck; added numerous retaining walls; and installed stepping stones that will form a path through decorative grass meadows, a variety of tree groves and perfectly placed shrubbery.



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HIGH STAKES FOR LANDSCAPERS

AS MORE STATES
LEGALIZE MARIJUANA,
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BY MARY ELIZABETH
WILLIAMS-VILLANO



We certainly live in interesting times. I used to dismiss the people passing around petitions to legalize marijuana as hopeless dreamers — yet, here we are. Legal pot certainly looks as if it's here to stay. More and more states are legalizing it for medicinal purposes and some for recreational use. Yours could be next.

This presents a conundrum for employers. Unfortunately, the more different state laws that are passed, the more confusion reigns, especially since it remains illegal according to federal law. It is classified as a Schedule 1 narcotic, right up there with heroin. When it comes to marijuana policy, there are more questions than answers.

Employers in the green industry are just as confused as anyone else. Because green industry workers use power tools and drive vehicles, all with a potential for causing property damage, injuries and death, these questions are critical.

Just how stoned is my employee?

You might be of the opinion, "What somebody does in their own time is their own business. I just don't want them impaired on the job." But how do you know?

"That's the risk for our industry," says Richard I. Lehr of Lehr Middlebrooks Vreeland & Thompson P.C., Birmingham, Alabama, legal counsel for the National Association of Landscape Contractors, Fairfax, Virginia. "Say somebody tests positive and is then involved in an accident involving a third party. To what degree is the employer at risk because he allowed the individual to continue to operate machinery or drive a vehicle?"

Even if some tetrahydrocannabinol — THC, the mildly hallucinogenic substance that causes the high — remains in a person's system the next day, or hours later, does that mean he's impaired? No one really knows.

"We don't have a way right now to scientifically test for impairment," says Kar-



en Pierce, managing director of Working Partners, Canal Winchester, Ohio, a firm that conducts drug-free workplace training for landscape and other companies all over the country.

"I can perform a court defensible drug test that will tell me, yes, there's marijuana in this person's system right now," says Pierce. "But that doesn't measure his level of impairment."

"If someone shows up to work with alcohol in his system, that's a sign of fairly recent consumption," says Lehr. "There's also an assessment that that person's judgment and coordination is impaired. But there's no test yet that's that definitive for marijuana, where a positive result equals definite impairment."

You can't tell just by looking at someone if they're high on the job or not. Some people hide it very well. John McCabe, owner of McCabe's Landscape Construction and Nursery in Temecula, California, says he's never observed anyone working for him

who seemed visibly high on pot or anything else.

But he did work with a guy right after college who seemed to break all stoner stereotypes. "He was a foreman, and he would smoke pot on the way to jobs and would be totally functional. You couldn't tell by his work. In fact, he probably worked better while he was stoned than when he wasn't," McCabe recalls.

Lehr says one or two states have laws that say an employer may not discriminate against anyone based on their use of marijuana. But generally, an employer has the right not to hire someone who uses or test positive for marijuana, even though it may be legal in that state.

"For instance, an employer has the right to say, 'Nobody who uses alcohol will be employed here,'" says Lehr. "I don't know of any employer who has such a policy, but that would be permitted. And it's the same for marijuana."

Jessica Hawthorne, senior human re-

sources director and in-house counsel at the California Employers Association in Sacramento, California, says legalization of marijuana hasn't affected an employer's ability to control his workplace. An employer can say you can't drink alcohol while at work, and marijuana is no different, even if medicinal.

"The bigger problem for an employer comes when he tests everyone in his company pre-employment, but then decides to ignore a certain person's positive test result," she says. "Then, something happens involving that person, and that positive test comes to light. They need to know what their exposure is should they choose to ignore a result."

"I've had people fail the pre-employment test or not take it because they have a med card and they know they'll come up hot," says Frank Fontes, co-owner of Casa Verde Landscape Maintenance Corp., Alta Loma, California. "They decide they don't want to be here. But I've never fired any-

body for being under the influence of marijuana, and I've never not hired anybody for that reason either."

He adds, "We do test when there is a suspicion. If you back into a mailbox, then you're going to have to go pee in a cup."

Do you have to let them use?

Ultimately, it's your call if you're going to accommodate someone's use of medical or recreational marijuana. "There are a lot of interesting issues," Pierce says. "For instance, if I let somebody go because they have a medical marijuana card, do I then have to pay their unemployment benefits? And what about workers' compensation? In some states, that comes into play with regard to marijuana."

"If someone has a medical condition that is considered a disability under the Americans with Disabilities Act, and the prescribed use of marijuana is permitted, then firing him because of that prescription is a problem," says Lehr. "That said, an employer is not obligated to put that person at a job where he'd be at a high risk of an accident or injury."

The prescription won't protect the employer if he keeps that person on the job and there's an accident or injury, and it's determined that the use of marijuana was a contributing factor, adds Lehr.

If an employer decides an individual poses a safety risk in his current job, he's not required to take that risk under the ADA. But the employer does have to look for a reasonable accommodation.

If the only other non-safety sensitive job open is bookkeeper, and the person isn't qualified to be one, the employer is under no obligation to create a position just to accommodate him.

But laws vary, depending on what state

"WHEN YOU DECIDE TO BECOME PART OF THE WILD WEST AND PICK AND CHOOSE WHICH LAWS YOU'RE GOING TO FOLLOW, THAT'S WHERE YOU GET INTO TROUBLE."

— JESSICA HAWTHORNE, CALIFORNIA EMPLOYERS ASSOCIATION

you're in. For instance, Pierce says Ohio's law is very different from California's. "Our medical marijuana law is quite employer friendly in that they do not have to accommodate it. It clearly states that employers can have a zero-tolerance policy and can fire or refuse to hire someone who tests positive for it."

NO PRESCRIPTION NECESSARY

As of this writing, marijuana is legal in 30 states. The District of Columbia, California, Colorado, Massachusetts, Nevada, Oregon, Vermont and Washington now permit adults over 21 to buy marijuana, no prescription* needed. A number of states have also decriminalized the possession of small amounts of marijuana.



Recreational pot became legal in California on Jan. 1. Frank Polizzi, public information officer for California's Division of Occupational Safety and Health, says "Landscape contractors in California are required to prevent intoxicated employees from placing themselves or others at risk. This is pursuant to workplace safety regulations, regardless of the legal status of drugs or other intoxicants."

Jennifer Grady is an employment and immigration attorney at The Grady Firm P.C., with offices in Southern California. She is also a partner attorney and member of the board of California Employers Association. (The opinions expressed are hers alone.) She advises updating your written drug and alcohol policies annually to comply with updates in the law and having them reviewed by a lawyer before they are distributed.

Rather than simply stating your drug and alcohol policy in a job application or employee handbook, Grady recommends having employees sign a standalone document that outlines the policies, expectations and circumstances under which they may be tested, along with potential consequences for policy violations. Always get an employee's informed written consent before proceeding with drug or alcohol testing.

As an employer, you need to know exactly what the law in your state specifies and not make assumptions about what you think it says. For additional guidance, contact the National Association of Landscape Professionals, your state contractors' association or your legal advisor.

*Since marijuana remains illegal under federal law, doctors can't prescribe it. All they can do is write a recommendation.

"Then, some other states say that you do have to accommodate medical use. Still others say, 'Well, it depends.' You can imagine the challenge this causes for contractors who work in multiple states."

do it on a random basis; or only test people applying for safety-sensitive jobs; or test only after an accident. Some do pre-employment testing and some don't.

Hawthorne says employers need to decide if pre-hire testing is something they're going to do or continue doing, and what they're going to do with the information.

What should happen if someone tests positive? Lehr has had employers tell him that if an individual tests positive for marijuana, they don't necessarily terminate him. "Which is fine — many employers don't. In a state where there are drug testing regulations, the employer has to have a referral-to-treatment program in place as part of the drug testing protocol."

Carlos Zarraga, a project manager at Richard Cohen Landscape and Construction Inc., Lake Forest, California, says, "We send every applicant for a pre-employment

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drug test. In our manual, it says that we can do drug testing at any time, and I have fired people for being under the influence.”

Another factor that comes into play is the labor shortage. Hawthorne says she’s talked to lots of employers who used to do pre-employment drug testing and stopped because so many applicants failed.

She adds, “Employers need to decide if they’re going to do pre-employment or

reasonable suspicion testing. Whether they test or don’t test, whatever the policy is, make sure it’s applied consistently without exceptions.” That includes management.

Some contractors place marijuana low on the list of drugs they’re worried about. They are much more concerned about opiates, meth, heroin and alcohol.

However, as Andre Zeppa, co-owner of Zeppa’s Landscaping Service Inc., Louis-

ville, Kentucky, points out, anything that distracts someone from the task at hand is a problem. “In the workplace, everything is severe. Even phones can be a distraction. If you’re driving a 25,000-pound truck down the road and slam into a little tiny sedan, you’re going to do some damage.”

Ohio just legalized medical pot, but that hasn’t been a problem for Buck and Sons Landscape Service Inc. in Hilliard.

“Ohio has state-funded workers’ compensation insurance,” explains co-owner and vice president Mandy Buck Rhoades. “There’s a drug-free safety program that all public and private employers who use that system can participate in. Part of the new law says that the Department of Workers Compensation can mandate that marijuana is one of the drugs that are not permitted as part of that program.”

Besides, Buck and Sons has federal contracts, and the feds consider marijuana illegal, prescription or not. “But I’ve had people applying with us get upset because they think that they have the right to use pot and shouldn’t have to get drug tested.”

The Wild West

The mishmash of conflicting laws about marijuana will hopefully be sorted out someday, probably after a whole bunch of lawsuits. Face it, we’re living in a Wild West situation when it comes to this issue.

Pierce says, “The number one challenge for employers is the elephant in the room — the conflict between federal and state law.” Sometimes, it’s easy. For instance, if you employ people with commercial driver’s licenses, federal law prevails because the U.S. Department of Transportation has mandates.

Hawthorne says, “If you’re consistent and you follow your policy, that’s your best protection. When you decide to become part of the Wild West and pick and choose which laws you’re going to follow, that’s where you get into trouble.”

She advises, “If you choose not to do pre-employment testing because you don’t want to know, then don’t ever do it. If you do want to know, do it and follow your policy consistently. Pick a path, and then follow it.”

Whatever path you choose to follow, walk it carefully and get expert advice. 🌿

The author is senior editor of *Irrigation & Green Industry* magazine and can be reached at maryvillano@igin.com.



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IRRIGATION CONTROLLERS ARE NOT ONLY BECOMING EASIER TO PROGRAM; THEY'RE SAVING ON TIME AND WATER FOR LANDSCAPING COMPANIES AND THEIR CUSTOMERS.

WINNING AT WATER

BY LARRY BERNSTEIN

Imagine driving down the street in a suburban development in the wee hours of the morning and it starts pouring. Your windshield wipers are going full blast so you can see clearly the road ahead. As you make your way down the street you look over and see a sprinkler system spraying water on the front lawn of one of the homes.

What a waste! Of water, money and energy.

That homeowner's landscaper clearly hasn't installed any rain interruption device. That sprinkler system must have been on a timer, and maybe the homeowner wasn't home to stop it. He may not have even been aware that he could have saved on his water bill had he not had his sprinkler system running while it was raining. Or if he had just had a smart controller, he wouldn't have needed to be home to stop the sprinklers from starting.

That's where an irrigation specialist can come in and give this homeowner an upgrade. Just as motion sensors have saved countless kilowatt hours of electricity when that same homeowner installed one on his front steps, giving his irrigation a little technology upgrade also will result in savings. What's more, this homeowner also happens to care about the environment so an option that can save water goes deeper than his pocketbook.

A smart controller will ensure his lawn is watered at the correct level for the environment based on the landscape. How is that even possible? Just like every other aspect of life, technology is taking over.

Smart irrigation controllers themselves are not new to the industry. "The big thing is not the change in technology, but the overall increase in the use of it," says Eric Santos, vice president of irrigation services at BrightView Landscapes, a full service commercial landscape contractor headquartered in Plymouth Meeting, Pennsylvania. "Wi-Fi is just about everywhere, and virtually everyone has a smartphone"

Working smarter

Even the smartest of technology is only effective when it is installed and used correctly. If programmed properly, the new smart irrigation controllers can eliminate the guesswork for your customers' lawns. More than ever, the options available to your customers are many. These various controllers on the market ensure that lawns get the correct amount of water at the right time and for the exact duration necessary, no more, no less.

Smart controllers can track a number of variables. Perhaps the most important of these is evapotranspiration. ET is the process of transferring moisture from the earth to the atmosphere by evaporation of water and transpiration from plants. It's actually a complicated calculus equation that the controller figures out for us. The greater-accuracy smart controllers give us saves a great deal of water, which is more and more vital these days. Local water purveyors recognize this and often give rebates for installing them.



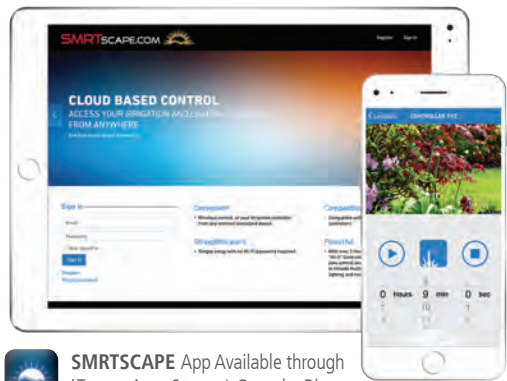
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The controller has settings for soil type, slope, amount of sun and shade and the types of sprinklers and plant material found in each zone. These variables are put into the ET equation, and it's up to the controller to figure out a precise watering schedule based on them.

To create a schedule, smart controllers need access to weather data. Many pull this from local weather stations via the internet or an on-site weather station. Some use historical weather data for that location based on inputting the ZIP code, but that is not as accurate as it's based on what happened last year on that date. Sometimes historical data is used as a backup should there be an interruption in the flow of real-time weather information.

"You can tell them the ZIP code, and they will pull historic ET data to determine a watering schedule. They also take into consideration real-time weather and make real-time adjustments. This makes them practically foolproof," says Orion Goe, marketing manager for residential and commercial irrigation for The Toro Company, irrigation division, Riverside, California.

Here's how the weather data from an outside

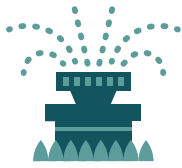
source can work with a controller: if a watering was scheduled for a particular time and day, but the forecast is calling for rain, the watering can be automatically cancelled. Even if the rain is not predicted to fall for a couple of days, the watering may be put off if the probability is high enough. If the rain pattern changes, the watering can be automatically rescheduled to catch up.

Goe says this feature is relatively new in the residential arena with the advent of IoT (internet of things) and the flurry of web-connected devices.

Of course, like any computer, a smart controller must have the right inputs to do its job properly. Sometimes problems occur when an irrigation contractor installs smart controllers, and a groundskeeper who doesn't understand them disables the smart features. He turns them into nonresponsive timers again. Education about how these things work is essential for the people maintaining and monitoring them if they are to do their job of watering efficiently.

Making the switch


No question, smart controllers have joined the Wi-Fi-connected IoT world. Now a client or his



**WHAT TO LEARN
MORE ABOUT
IRRIGATION
CONTROLLERS?**

**TURN TO PAGE 36
FOR THE IRRIGATION
CONTROLLERS
COMPARISON CHART.**

I can make any sprinkler timer do weather-based smart irrigation.

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contractor can schedule, start or stop irrigation or receive notifications all via a smartphone app. If there is an action that needs to be taken, it can be ordered through the app even while the system's owner is on vacation in a foreign country.

"Smart controllers use cloud services to communicate, and that enables us to provide real-time alerts and notifications that can immediately detect and help address leaks as they occur, rather than receiving a painfully large water bill two months later," says Meg Mason, senior director of marketing at Hydro-Point, Petaluma, California.

The apps are intuitive. This sort of control is very appealing to homeowners who are excited about smart home technology; the sprinklers are one more system to put under that umbrella. Some smart irrigation apps include pictures of each zone. You simply tap on the picture to turn on that zone.

"The new breed of Wi-Fi controllers are accessible via smart phone. You can get used to the app quickly, and it's easy to operate," says Mark Stuhlsatz, vice president of irrigation for Ryan Lawn & Tree, a residential and landscaping company with locations in St. Louis; Tulsa, Oklahoma; and Wichita, Kansas.

"The apps are friendly toward the user."

"A customer has the ability to share access with his or her landscape or irrigation professional, which allows for remote access and management of the property through the app," says Niko Poulos, senior business development manager for Denver-based Rachio.

What about those people who are not do-it-yourself or gadget people? Apps, alerts and tapping pictures might be one more thing to have to worry about during a busy day. The desire for a smart system lies at least partially in consumers wanting to use their smarts for other things.

The app caters to that type of customer as well. Stuhlsatz says, "If a pro sets it up, the customer can choose to have nothing to do after that. You can turn it on, and it will take care of itself after the parameters are set." In other words, if a client prefers, he can



Many smart irrigation controllers are Wi-Fi enabled and have smartphone apps, allowing you to program them from just about anywhere you have a signal.

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Many irrigation controller manufacturers offer training programs for irrigation contractors on how to install their controllers.

turn the whole thing over to his landscape contractor.

Time savings

Remote access is a cost and time saver for both the homeowner and the landscape professional. The landscape professional no longer has to coordinate with the homeowner for access to the controller, which is often locked inside someone's garage.

"A professional can sit in his office and program multiple controllers. This type of setup is labor saving, and the controllers are better managed," says Tom Penning, president of Irrrometer, Riverside, California.

Consumers aren't the only ones who appreciate the simplicity of these apps. With unemployment at historically low rates in the U.S., it can be challenging for landscapers to identify and retain employees. Therefore, the easier it is to understand and operate the apps, the easier it is to train crews. Not to mention the upcoming workforce and its propensity toward more technology-driven than

labor-intensive jobs.

Various brands offer different types of training for their products. HydroPoint offers a training program called HydroPoint University, which features video-based instructional content, on-demand courses and how-to instructional videos.

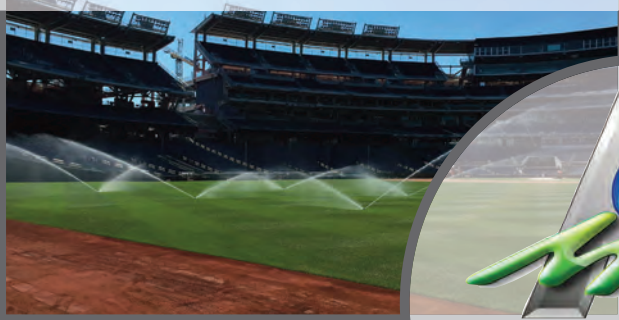
Training is also available from the Rain Bird Academy, both online and through traveling workshops, with continuing education credits available. Rachio's Pro Program allows landscape and irrigation professionals to gain access to training on how to install its hardware and connect its software.

Smart irrigation controllers offer many benefits and greater flexibility for both residential and commercial clients. They can keep landscapes looking beautiful and do it in a way that uses just the right amount of water. 🌿

Larry Bernstein is a freelance writer who writes on various industry topics. He can be reached at lardavbern@gmail.com.

SMART IRRIGATION CONTROLLERS OFFER MANY BENEFITS AND GREATER FLEXIBILITY FOR BOTH RESIDENTIAL AND COMMERCIAL CLIENTS.

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COMPARE AND CONTRAST

BY YELENA TISCHENKO

With the weather warming up across the U.S., landscape business owners are gearing up for another busy season. New irrigation system installations and smart controller upgrades are sure to be on your clients' wish lists.

Clients lean on you to solve their landscaping puzzles, and one of those puzzle pieces is selecting the right irrigation controllers.

Irrigation controllers help landscape contractors manage a variety of irrigation applications for their clients, which in turn saves time and money for both parties. With so many different types of irrigation controllers on the market, which is best for your projects? The many options can make anyone's head spin.

That's where we come in.

Each year, *Irrigation & Green Industry* provides a

chart of manufacturers' available irrigation controllers and a side-by-side comparison of features, such as number of zones and programs, start times, maximum watering periods and other functions.

SHOPPING FOR IRRIGATION CONTROLLERS DOESN'T HAVE TO BE A TEDIOUS TASK.

With the irrigation controllers chart as a reference, you can more quickly see which controllers can meet the needs of a specific job requirement.

The 2018 Irrigation Controller Comparison Guide is one of many equipment-related charts *Irrigation & Green Industry* publishes throughout the year that can assist you in your product research and purchasing decisions.

With this essential market knowledge, your company has one more tool in its toolbox with which to be successful. 🌿

Yelena Tischenko is digital content editor of *Irrigation & Green Industry* and can be reached at yelenatishchenko@igin.com.

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The EPA WaterSense-certified Toro EVOLUTION® Series controller and Wireless ET Weather Sensor automatically pauses your customers' irrigation in the event of rain, and makes automatic adjustments to their watering schedule based on seasonal and real-time weather conditions. The result is your customers save water, and you're saved from having to make return visits to re-program the controller.

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Toro.com/evolution



CONTROLLERS COMPARISON GUIDE

Model and Series	Zones	Programs	Start Times	Water Budget	Max. Water Time (hours)	Remote Control	Rain Sensor	Smart Watering (ET or SMS; DA)	Flow Sensing	2-Wire	Web Enabled
Acclima SC24 Smart Controller	1-24	28	6	yes or SC	18	yes	yes	SMS	yes	no	no
Acclima SC36 Smart Controller	1-36	40	6	yes or SC	18	yes	yes	SMS	yes	no	no
Acclima CS3500 Smart Controller	1-64	WOD	WOD	n/a	18	yes	yes	SMS	yes	yes	no
Baseline BaseStation 1000	100	40	8	yes	18	yes	yes	both	yes	yes	yes
Baseline BaseStation 3200R	200	20	8	yes	23.5	yes	yes	both	yes	yes	yes
Calsense CS3000	1-128	U	U	yes or PC	23.5	yes	yes	both	yes	yes	yes
Cyber Rain XCI WiFi	8,16	smart	8	yes	4	yes	yes	ET	no	no	yes
Cyber Rain XCI Residential Professional	8,16,24,32,40,48	smart	8	yes	4	yes	yes	ET	yes	no	yes
Cyber Rain XCI Residential Commercial	8,16,24,32,40,48	smart	8	yes	4	yes	yes	ET	no	no	yes
DIG 400A Battery Operated Controller	1	1	4	no	6	no	yes	SMS	no	no	no
DIG 400BT Bluetooth Battery Operated Controller	1	1	5	yes	12	yes	no	SMS	no	no	BT
DIG 710A Battery Operated Controller	1	1	5	yes	6	no	yes	SMS	no	no	no
DIG 710AP Battery Operated	1	1	every minute	yes	6	no	yes	SMS	no	no	no
DIG 720A, 740A and 760A Battery Operated	2,4,6	4	5	yes	6	no	yes	SMS	no	no	no
DIG LEIT X Ambient light	10-28	4	3	yes	6	no	yes	SMS	no	no	no
DIG LEIT XRC w/ LEIT Powered	4-28	4	3	yes	6	yes	yes	SMS	no	no	no
DIG LEIT-2ET System Powered	2	4	4	yes	6	yes	yes	both	no	no	no
ETwater SmartBox - Model 105	8-24	U	U	yes	u	yes	yes	ET	yes	yes	yes
ETwater SmartBox - Model 205	16-48	U	U	yes	u	yes	yes	ET	yes	yes	yes
ETwater Smartworks Replacement - 204	16-48	U	U	yes	u	yes	yes	ET	yes	yes	yes
ETwater HermitCrab 2	1-48	U	U	yes	u	yes	yes	ET	yes	yes	yes
Galcon 7101 Bluetooth	1	smart	4 or cyclical	n/a	12	yes	o	n/a	no	no	no
Galcon 9001 Bluetooth	1	smart	4 or cyclical	n/a	12	yes	o	n/a	no	no	no
Galcon 11000 Bluetooth	1	smart	4	n/a	12	yes	o	n/a	no	no	no
Galcon G.S.I.	Up to 24 + MV	8 + F	U	yes	24	yes	c	n/a	yes	no	yes
Galcon G.S.I. AC	Up to 24 + MV	8 + F	U	yes	24	yes	c	n/a	yes	no	yes
Galcon 9001D	1	1	4 or cyclical	n/a	12	n/a	o	n/a	no	no	no
Galcon 11000L	1	1	4 or cyclical	n/a	12	n/a	o	n/a	no	no	no
Galcon 7000 Series	1	1	4 or cyclical	n/a	12	n/a	o	n/a	no	no	no
Galcon 7101 Series	1	1	4 or cyclical	n/a	12	n/a	o	n/a	no	no	no
Galcon 7003 Series	1,2,3	1	4 or cyclical	n/a	12	n/a	o	n/a	no	no	no
Galcon 7103 Series	1,2,3	1	4 or cyclical	n/a	12	n/a	o	n/a	no	no	no
Galcon 6100 Series	1,2,4,6 + MV	1	4 or cyclical	yes	12	n/a	c	n/a	no	no	no
Galcon 8000 Series	4,6,9,12 + MV	1	4 or cyclical	yes	12	n/a	c	n/a	no	no	no
Galcon 6000 Series	4,6,9,12 + MV	1	4 or cyclical	yes	12	n/a	c	n/a	no	no	no
Galcon AC-GQ 8100	4,6,8 + MV	A/B/C + X	4 or cyclical	yes	4	n/a	c	n/a	no	no	no
Galcon AC-GQ 8200	4,6,8 + MV	A/B/C + X	4 or cyclical	yes	4	n/a	c	n/a	no	no	no
Galcon AC 80500	4,6,9,12 + MV	1	4 or cyclical	yes	12	n/a	c	n/a	no	no	no
Galcon AC 800248	Up to 24 + MV	A/B/C, I, F + X	4 or cyclical	yes	12	n/a	c	n/a	no	no	no
HIT Products Logic PLUS S 42 Two Wire	1-42	8	8	yes	25	yes	yes	ET	no	yes	no
HIT Products Logic PLUS S 128 Two Wire	1-128	16	16	yes	25	yes	yes	ET	no	yes	no
HIT Products PRO 2 Two Wire	1-16	8	8	yes	25	no	yes	ET	no	yes	no
HIT Products PRO 2 - 0 Two Wire	1-16	8	8	yes	25	no	yes	ET	no	yes	no
HIT Products RAIN PRO Expandable	3,7,11,15	3	4	yes	6	no	yes	no	no	no	no
HIT BOC Battery Operated	1	3	3	no	12	no	no	n/a	no	no	no
Hunter Industries WVS	1,2,4	4	9/program	no	4	no	yes	n/a	no	no	no
Hunter Industries NODE	1,2,4,6	3	4/program	yes	6	no	yes	n/a	no	no	no
Hunter Industries XC Hybrid	6,12	3	4/program	yes	4	no	yes	n/a	no	no	no
Hunter Industries X-Core	4,6,8	3	4/program	yes	4	yes	yes	ET	no	no	no
Hunter Industries X-Core	2,4,6,8	3	4/program	yes	4	yes	yes	ET	no	no	no
Hunter Industries HC	6,12,24,36	36	6/program	yes	24	yes	yes	ET	yes	no	yes
Hunter Industries PRO-C	4-16	3	4/program	yes	6	yes	yes	ET	no	no	no
Hunter Industries PCC	6,12	3	4/program	yes	6	yes	yes	ET	no	no	no
Hunter Industries HPC	4-16	16	6/program	yes	24	yes	yes	ET	yes	no	yes
Hunter Industries PRO-HC	6,12,24	36	6/program	yes	24	yes	yes	ET	yes	no	yes
Hunter Industries ICC2	8-54	4	8/program	yes	12	yes	yes	ET	no	no	no
Hunter Industries I-CORE Conventional or Decoder	6-42 / 1-48	4	8/program	yes	12	yes	yes	ET	yes	yes	no
Hunter Industries ACC Conventional or Decoder	12-42 / 1-99	6	10/program	yes	6	yes	yes	ET	yes	yes	no
Hunter Industries ACC2 Conventional or Decoder	12-54 / 75-225	32	10/program	yes	12	yes	yes	ET	yes	yes	no
HydroPoint WeatherTRAK ET Pro3	12-96	8	2 (ET, auto)	yes	24	yes	yes	ET	yes	yes	yes
HydroPoint WeatherTRAK LC	6-36	8	2 (ET, auto)	yes	24	yes	yes	ET	yes	no	yes
HydroPoint WeatherTRAK OptiFlow XR	12-96	8	2 (ET, auto)	yes	24	yes	yes	ET	yes	yes	yes
Hydro-Rain HRC 400 WIFI	8,16	3	4/program	yes	4	yes	yes	ET	n/a	no	yes
Hydro-Rain HRC 100 C	4,6,9,12	3	4/program	yes	4	n/a	yes	n/a	n/a	no	n/a
Hydro-Rain HRC 990 DC Controller	1-4	2	4/program	yes	4	n/a	yes	yes	n/a	no	n/a
Irritrol Kwik Dial w/SMART Logic	4,6,9,12	2	3/program	yes	4	yes	yes	ET	n/a	no	yes
Irritrol IBOC Plus	4,8,12	3	8/program	yes	24	yes	yes	SMS	n/a	no	n/a

Model and Series	Zones	Programs	Start Times	Water Budget	Max. Water Time (hours)	Remote Control	Rain Sensor	Smart Watering (ET or SMS; DA)	Flow Sensing	2-Wire	Web Enabled
Irritrol MC-E (Blue) W/SMRT Logic	4-48	8	8/program	yes	10	yes	yes	ET	yes	no	yes
Irritrol Rain Dial-R w/SMRT Logic	6, 9, 12	3	3/program	yes	5.9	yes	yes	ET	n/a	no	yes
Irritrol Total Control -Rw/SMRT Logic	6-48	4	16	yes	10	yes	yes	ET	n/a	no	yes
K-Rain RPS46	4, 6	41	6	yes	13	no	yes	n/a	n/a	no	n/a
K-Rain RPS624	1	2, 18, 246	4	yes	13	no	yes	n/a	n/a	no	n/a
K-Rain Pro EX 2.0 Modular Controller	1-16	3	12	yes	6	yes	yes	n/a	n/a	no	n/a
K-Rain Pro EX 2.0 WiFi Enabled	1-16	31	2	yes	6	yes	yes	n/a	n/a	no	yes
K-Rain BL-24	4, 6, 9, 12	8	8	yes	12	yes	yes	n/a	n/a	no	n/a
Mottech Motorola Irrinet ACE - F7509A	500	400	60/hour	yes	U	yes	yes	both	yes	yes	yes
Mottech Motorola Irrinet MAC - F4860A	200	200	60/hour	yes	U	yes	yes	both	yes	no	yes
Mottech Motorola Irrinet MDC - F4960A	200	200	60/hour	yes	U	yes	yes	both	yes	no	yes
Orbit B-hyve Smart WiFi	6, 12	4	4/program	yes	4	yes	yes	ET	n/a	no	yes
Orbit Easy-Set Logic	4, 6, 9, 12	3	4/program	yes	4	yes	yes	n/a	n/a	no	no
Orbit Easy-Set Logic Remote	6, 12	3	4/program	yes	4	yes	yes	n/a	n/a	no	no
Orbit 2 Digital + 1 Manual Hose	2	1	1	no	4	no	no	n/a	n/a	no	no
Orbit 2 Port Hose Tap Timer	2	1	1	no	4	no	no	n/a	n/a	no	no
Rachio Smart Sprinkler Controller, Generation 2	16	16	yes	yes	10	yes	VWW	ET	yes	no	yes
Rachio Smart Sprinkler Controller, Generation 2	8	16	yes	yes	10	yes	VWW	ET	yes	no	yes
Rachio 3 Smart Sprinkler System	16	16	yes	yes	10	yes	VWW	ET	yes	no	yes
Rachio 3 Smart Sprinkler System	8	16	yes	yes	10	yes	VWW	ET	yes	no	yes
Rain Bird ESP-TM2	4, 6, 8, 12	3	4	yes	6	yes	yes	DA	no	no	yes
Rain Bird ESP-MEI & ESP-ME	4 to 22	4	8/zone	yes	6	yes	yes	DA	no	no	yes
Rain Bird ESPSMTEi & ESP-SMTE	4 to 22	1-22	U	yes	12	yes	integral	ET	no	no	no
Rain Bird ESP-LXME / ESP-LXMEF	4-48	4	32/8	yes	12	yes	yes	ET	yes	no	yes
Rain Bird ESP-LXD	50-200	4	32/8	yes	12	yes	yes	ET	yes	yes	yes
Rain Bird TBOS II	1,2,4,6	3	8/program	yes	12	no	yes	no	no	no	no
Rain Bird ESP9V	1,2,4,6	6	6/program	yes	4	no	yes	no	no	no	no
Rain Master Sentar II	6-36	4	5/program	yes	10	yes	yes	n/a	yes	no	no
Rain Master Eagle	6-36	4	5/program	yes	10	yes	yes	ET	yes	yes	yes
Rain Master Eagle Plus	8, 16, 24, 32, 40, 48	8	8/program	yes	24	yes	yes	ET	yes	yes	yes
Rain Master Eagle Plus Two-Wire Module	200	16	8/program	yes	24	yes	yes	ET	yes	yes	yes
Rain Master DX2	6-48	12	8/program	yes	24	yes	yes	ET	yes	yes	Co
Rain Master DX3	8-96, 200, 2-wire	16	12/program	yes	24	yes	yes	ET	yes	yes	Co
Signature SoloRain 8014 Series	1	1	6	no	12	no	yes	no	no	no	no
Signature SoloRain 8020 Series	1, 2, 4, 6	3	3	yes	4	no	no	no	no	no	no
Signature SoloRain 8030 Series	U	1	16	no	24	no	no	no	no	no	no
Signature Share 8200 Series	4, 6, 9, 12	12	4	yes	12	yes	yes	ET	yes	no	yes
Signature Share 8600, 8700, 8800 Series	8-48	16	4	yes	18	yes	yes	ET	yes	yes	yes
Signature Share Galaxy RT	8-48	16	4	yes	18	yes	yes	ET	yes	yes	yes
Skydrop Sprinkler Controller	8-16	U	U	yes	u	yes	yes	ET	yes	no	yes
Superior Controls Sterling	4-36	6	9	yes	24	yes	n/a	n/a	no	no	no
Toro EVOLUTION	4, 8, 12, 16	3	4/program	yes	12	yes	yes	both	no	no	yes
Toro DDCWP	2, 4, 6, 8	3	3/program	yes	4	no	yes	SMS	no	no	no
Toro TMC-424E	4-24	4	16	yes	24	yes	yes	both	yes	no	yes
Toro Custom Command	9-48	4	16	yes	10	yes	yes	both	no	no	yes
Toro TDC/100/200	100, 200	10	6/program	yes	18	yes	yes	SMS	no	yes	no
Toro Sentinel	12-204	16	8/program	yes	24	yes	yes	both	yes	yes	yes
Tucor RKW+ (wireless)	100	10	12/program	yes	16.7	yes	yes	both	yes	yes	yes
Tucor RKD+	100	10	12/program	yes	16.7	yes	yes	both	yes	yes	yes
Tucor RKS+	100	10	12/program	yes	16.7	yes	yes	both	yes	no	yes
Tucor TWC-NV	50-200	10 + test	6/program	yes	16.7	yes	yes	ET	yes	yes	yes
Tucor LTD	50	10	12/program	yes	16.7	yes	yes	both	yes	yes	yes
Weathermatic SmartLine SL800	4-8	4	8/program	yes	10	yes	yes	ET	no	no	no
Weathermatic SmartLine SL1600	4-24	4	8/program	yes	10	yes	yes	ET	yes	no	yes
Weathermatic SmartLine SL4800	12-48	4	8/program	yes	10	yes	yes	ET	yes	no	yes
Weathermatic SmartLine SL4800PE-PED	12-48	4	8/program	yes	10	yes	yes	ET	yes	no	yes
Weathermatic SL9648TW	48	4	8/program	yes	10	yes	yes	ET	yes	yes	yes
Weathermatic SL9696TW	96	4	8/program	yes	10	yes	yes	ET	yes	yes	yes
Weathermatic SLSOLAR48	48	4	8/program	yes	10	yes	yes	ET	yes	no	yes
Weathermatic SLSOLAR48TW	48	4	8/program	yes	10	yes	yes	ET	yes	yes	yes
Weathermatic SLSOLAR96TW	96	4	8/program	yes	10	yes	yes	ET	yes	yes	yes
Weathermatic SL4800CHARGE	48	4	8/program	yes	10	yes	yes	ET	yes	no	yes
Weathermatic ProLine PL800	4-8	4	8/program	yes	10	yes	yes	no	no	no	no
Weathermatic ProLine PL1600	4-24	4	8/program	yes	10	yes	yes	no	yes	no	yes

BT: Bluetooth; C: compatible; Co: computer; DA: daily automatic runtime adjustment; ET: evapotranspiration (weather-based); F: fertigation I: independent; MV: master valve; O: optional; PC: propagation controller; SC: smart controller; SMS: soil moisture sensors; SP: smartphone; VWW: virtual, wired and wireless; WOD: water on demand; U: unlimited; X: lighting/pond



Moving THE INDOORS OUT

From outdoor pizza ovens to in-ground trampolines, outdoor living spaces are rapidly becoming a bonus area for cooking, gathering and play no matter the climate.

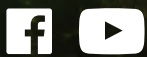
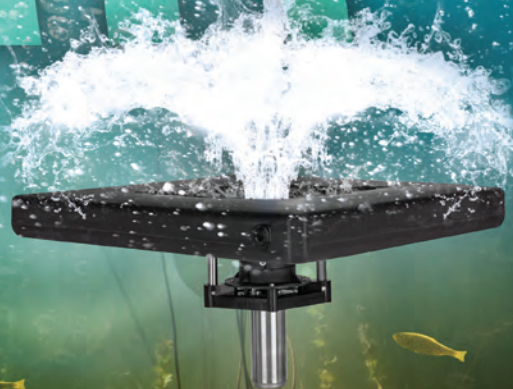
by Mary Elizabeth Williams-Villano

When you hear the phrase, “outdoor living,” what comes to mind? Backpacking in the deep woods? Sleeping on the beach? Being a contestant on “Survivor?” If you’re a landscape contractor, you will likely picture people happily grilling, baking pizzas or watching the game on a big-screen TV, all while being kept warm by outdoor heaters and fire features.



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Pictured above, an outdoor living room and kitchen by Texas Outdoor Oasis. Meg Arnosti, Southview Design Landscape Contractors, designed the outdoor kitchen (top right) and outdoor living room and fireplace (bottom right).

Then you envision a lighting system slowly awakening as dusk approaches, making the backyard glow. You should be picturing something else, too: a hefty profit margin. No other kind of project brings together every category of what you do.

Building outdoor kitchens and living areas involves laying down pavers and doing masonry work to build grill enclosures; pouring concrete for gaming courts, installing outdoor lighting and sound systems, water features, misters and saunas; and putting in the plantings that will wrap things up in a big, beautiful green bow.

If you're looking for a new revenue stream, this is a good, deep one to wade into. With the recession mostly in the rear-view mirror, people are spending again. So strong is this market that even at the height of the downturn, some contractors were lucky enough to barely notice it. Casey Laughlin, owner of Texas Outdoor Oasis in Wylie, near Dallas, is one of them.

"It's funny," says Laughlin, "I bought this company in 2010, and we came out swinging, turning out huge numbers of projects, and it's only increased since then. And even though costs have gone up by about 30 or 40 percent, there's still a high demand."

Chris Smith is co-owner of FLO Grills, a company with six branches in Florida, Louisiana, Missouri and Texas. "We're seeing way more people going toward outdoor living, back to where they were before 2009. Now we're seeing a lot more people in the middle income range go this route. It's become a necessity for homes at a certain price point."

They're surprisingly affordable, too. Meg Arnosti, a landscape architect at Southview Design Landscape Contractors in St. Paul, Minnesota, says the median price for their kitchens is around \$22,000.

Of course, some backyard oases can run up into



the stratosphere. Those kind of projects are the most fun and the biggest moneymakers. Arnosti completed a \$450,000 one last year that included new walls; a driveway; a big covered pool cabana with motorized screens; a lighting system, and a completely redesigned landscape.

And it's not just a Sunbelt phenomenon. These home extensions are wildly popular in our chilliest states. "In Minnesota, we're always looking for ways to extend the outdoor season into early spring and late fall," says Arnosti. "We want to maximize our time outside."

What's cooking?

Outdoor cooking has come a long way from pushing a few hot dogs around on a little kettle grill. Today, your clients have a wide array of options, from gas grills to smokers, Kamado ovens and more, and some want as many as they can afford.

Smith says there's a big trend toward multiple cooking options. "People want a gas grill and a Kamado, or a gas grill and a smoker and a pizza oven, so they're able to do all kinds of things out there, as opposed to having just a one-trick gas grill and that's it."

Wood-burning ovens are hot right now. Although often called "pizza ovens," according to Lou Soto, chief operating officer of Chicago Brick Oven, a company that manufactures them, that's not quite accurate. "They're very versatile," he says.

"One could solely focus on pizza if he so chooses, but they're not limited to that — these things can bake anything an indoor oven can, from cakes

to roasts.” But, while an indoor oven maxes out at around 500 degrees, a wood-fire unit can achieve temperatures as high as 1,000 degrees, perfect for baking crispy handmade pizzas.

These ovens, according to Soto, can become part of the entertainment. “Wood-fire ovens are the karaoke machines of ovens,” Soto says. “They’re very interactive. People get very involved with making their own pizzas, choosing their toppings and watching the pizzas bake.”

There are even hybrid ovens that give a user a choice of using either wood or gas. “That gives you the best of both worlds,” says Soto. “They’re becoming more popular, especially in places where there are no-burn days.”

One of Arnosti’s current projects has an Argentine grill. It uses a small amount of heat and provides precise temperature control. “Essentially, it’s a flat surface with a grate that goes up and down and a sloped cooking surface that uses wood embers for fuel and creates its own charcoal,” she says. “Once you have this little fire burning off to one side, you rake the coals as they’re forming under the meat.”

Kamodos, ceramic grills that look like big eggs,

are catching on because of their sheer versatility. Using natural lump charcoal made from charred hardwoods such as hickory, oak or maple, they are known for being able to smoke meats at low temperatures for many hours without cracking, and can also sear steaks at high temperatures. The round shape creates heat convection, so foods cook evenly on all sides.

“They’re set-it-and-forget-it type things,” says Smith, “fairly idiot-proof, and there are no flare-ups. You can even cook pizzas. Anything that you could do with an oven, a grill, a stovetop or a smoker you can do in a Kamado.” They’re also quite affordable, starting around \$750.

Gaming areas

Outdoor play areas for family fun such as bocce ball and horseshoe courts are more in demand, too. Joey Delmoro, owner of Backyard Dreams in Denver, is a distributor and installer of outdoor in-ground trampolines. These are a safer version of the backyard bouncers, put in at ground level, and, if so desired, concealed behind plantings.

“A lot of homeowner’s associations have started

“Wood-fire
OVENS ARE
THE *karaoke*
machines
OF OVENS.”

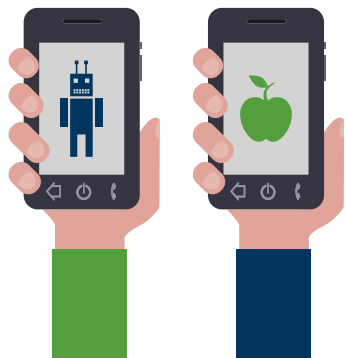
– Lou Soto,
CHICAGO BRICK OVEN

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requiring that any trampoline installed on their premises be this type," he says. "That's been a big market for me."

He insists on adding an extra level of safety, a metal-mesh enclosure around the trampoline that can withstand a 295-pound person falling against it.

Laughlin also installs in-ground trampolines. "We've been averaging about two or three of those a month."

Regional favorites

Some amenities are more popular depending on what part of the country you're in. In mosquito-prone states, screened-in porches and pergolas are popular. After all, it's hard to enjoy yourself when you're constantly swatting at bugs and scratching.

"Outdoor living fits our lifestyle here in the South," says Smith. "Socially, it's typical to invite all your friends and family

over and stay outside all day. Every Easter my family gets together as do many others, and we have a crawfish boil." A special high-temperature gas burner, necessary for heating large pots of water, makes it happen. It's a feature requested by many Texas and Louisiana outdoor kitchen buyers.

"This past year, we sold more outdoor griddles than ever, for people wanting to do stuff like make fajitas or breakfast pancakes," says Laughlin.

Several latitudes north, saunas are the big thing, which Arnosti attributes to the large number of people in her region who are of Scandinavian descent. "People here love them. Hot tubs, too. We did an outdoor living area last year that had a lap pool with a sauna next to it, and a gas fire feature on the other side."

She says a typical Minnesota thing to do is get nice and steamy in the sauna, then jump in a freezing lake or roll around in the snow, then get in the hot tub. "Usually, it's after a day of cross country skiing or if you're having a party." These Midwesterners are tough!

Lights, sound and fire

Outdoor living projects provide lots of opportunity for upselling. There's always something to add or upgrade later on. A good example is lighting. Building an outdoor living area without a low-voltage outdoor lighting system is like baking a cake and forgetting to frost it.

Even if lighting isn't put in during the initial build, many contractors go ahead and set things up so that a system can easily be added later. It almost always will be.

And people want to hear as well as see. "Outdoor sound has become a huge deal," says Arnosti. "We install very high-end speaker systems, with subwoofers to enhance the bass and a control center."

Fire pits and fire features aren't region dependent; everyone likes the warmth of fire to extend the day and the season.

"We build several different kinds, quite a few with gas," Arnosti says. "We also do wood-burning fire pits, because people with kids want to roast marshmallows and hot dogs over the open flame."

Quality and safety

Smith stresses the need for quality control. "You need to use the better materials, so things don't rust out and corrode. It's not like you can just throw out that cheap grill once it rusts, because it's installed into a

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Hot elements

The Washington-based American Society of Landscape Architects' members were asked to rate the expected popularity of outdoor design elements for 2018. Here's the top three predictions per category.



Outdoor design elements: fire pits/fireplaces; lighting; seating/dining areas



Outdoor recreation amenities: dog-related recreation area; designated area for other outdoor recreation; bocce courts



Multifamily outdoor amenities: flexible use space; mobile device charging stations; bike storage



Outdoor structures: enhanced railing systems; pergola; decks

For a list of all ASLA member rankings, check out the infographic on our Twitter page @iginmagazine.

granite countertop.”

Outdoor kitchen cabinets have to be built differently than the indoor variety. “An engineering company custom builds our cabinets with all-steel framing and Hardie board, then we finish them out with stone veneer,” says Arnosti.

Quality isn't cheap; higher-end gas grills start at around \$1,600. For that, you get all-stainless-steel construction, sturdier burners and longer warranties. “People are used to buying that \$700 grill, which has a lifetime expectancy of five years or so,” says Smith. “Then they throw it away and get another one. When you step up to an outdoor kitchen, you can't do that.”

“The biggest thing I tell people is to not skimp on the gas grill. That's the worst thing that you could do,” says Smith. “You really have to spring for better materials, because you can't just take one out of the hole and throw it away.”

These projects have to be built correctly. “Every grill manufacturer out there says not to build them inside a cabinet made of combustible materials, such as wood,” says Smith. “Yet just in the last six months I've

replaced at least three outdoor kitchens that burned down. Even if they build the enclosure out of stone, they don't ventilate it properly, and the grill overheats and burns up.”

He's started an Outdoor Kitchen Institute to show contractors how it's done. “We train people how to do a proper layout, to use welded 5051 aluminum framing, stone furnace bricks and where you need to have

proper trimming and wind blockage.”

Smith continues, “It's a great revenue stream for these guys to add on; it's a real moneymaker and we want to teach them how to do it properly.”

Want to join the party? 🌿

The author is senior editor of *Irrigation & Green Industry* magazine and can be reached at maryvillano@igin.com.

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Through a variety of efforts, the IA furthers its mission to promote efficient irrigation

The Fairfax, Virginia-based Irrigation Association is dedicated to promoting efficient irrigation. One of the ways it does that is through outreach. It also provides opportunities for industry stakeholders to come together. Landscape contractors can play a part, and here are some ways you can participate now and later.

KEEP UP WITH THE IA ON SOCIAL MEDIA



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Investing in the future

The Irrigation Foundation has selected 21 students as recipients of the 2018 Irrigation Foundation scholarships. The recipients are from two- and four-year institutions across the nation and will receive scholarships ranging from \$1,000 to \$2,500. This is the second year the Foundation has awarded these scholarships, which go to students with an interest in the irrigation field.

A list of the winners and more about the Foundation's scholarship program can be found at www.irrigation.org/scholarships.

Make plans to promote smart irrigation in July



Smart Irrigation Month is the month of July. The initiative was developed by the IA to promote the social, economic and environmental benefits of efficient irrigation technologies, products and services in landscape, turf and agricultural irrigation. First launched in 2005, it continues to gain traction as stakeholders recognize the positive impact of efficient irrigation.

Irrigation Technology Tuesday. Irrigation Technology Tuesday kicks off the Smart Irrigation Month campaign July 10. Anyone who wants to join in can use the hashtag #smartirrigationmonth on social media.

Additional resources. Visit www.smartirrigationmonth.org for information, tips and resources about incorporating Smart Irrigation Month into marketing, using social media, engaging policymakers and more.

Bringing the industry together



The Irrigation Show and Education Conference brings together irrigation industry professionals from across the country and around the world. New products and technologies offer attendees solutions to their landscape, golf and turf irrigation issues.

The 2018 edition of the event is Dec. 3-7 in Long Beach, California. Stay tuned for more updates on the 2018 Irrigation Show in *Irrigation & Green Industry* magazine and at www.irrigationshow.org.

Swarming in on Washington

Representatives from the IA and 11 of its member companies headed to Capitol Hill March 7-8 to promote the importance of efficient irrigation. The fly-in was part of the Water Resources Congressional Summit hosted by the IA in partnership with the National Ground Water Association, Westerville, Ohio, and the Water Quality Association, Lisle, Illinois.

The farm bill, the country's infrastructure and the U.S. Environmental Protection Agency's WaterSense program were main topics of discussion as IA members met with 30 congressional offices.

Contact the IA at 703.536.7080 or at elizabethmccartney@irrigation.org for more information about the fly-in and future similar events.



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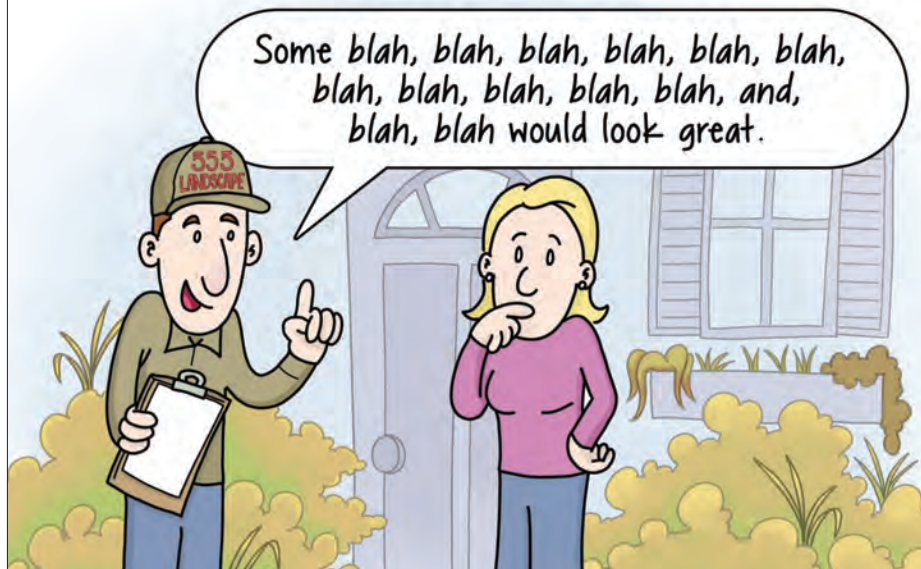


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VERDANT VOICE



BY JUDITH GUIDO

Focus on your 'main thing'

This is the time of year when the rubber meets the road, or should I say when the mower blades meet the turf? Spring is here, and all hands are on deck including employees, customers, suppliers, your clients and your competitors. We're all focused on the "main thing" that will ultimately lead to everybody's collective success, right?

If you didn't respond with a resounding "yes" to that critical question, it's not too late. Better to stop and figure out what your main thing is now, rather than waiting until year-end when you're commiserating over your failures and trying to figure out where you went wrong.

How can we ensure we're focused on the main thing and are doing the right things? Ask yourselves, what are the two or three critical goals we've identified that will grow all stakeholders while scaling the company? Hint: you've got to solve problems and differentiate yourself in order to grow profitably. Identifying key constraints within your company (and industry) and solving those first will get you there.

Identify any bottlenecks and remember that most of these start at the top. Do an objective assessment of yourself and your management team. If you've identified the problems, have you provided simple solutions for your team? If not, stop and get it done now — no excuses. This saves lots of time, money and aggravation, and prevents insomnia. If you don't know how to get this done, seek help.

Assemble your entire team and communicate your 2018 success goals. Make certain you've clearly identified the goals and their importance, as well as the metrics and the persons accountable for them along with timetables. Attach rewards as this solidifies buy-in and ensures that each person knows how his role and his performance of it affects these goals.

Most companies fail at execution. Execution is where the blades really meet the turf. Your initial 2018 success goals meeting is only the beginning. Many companies fail at this by assuming that everybody knows what to do and how.

Winning companies make it part of their DNA, discussing, measuring, fixing and rewarding the steps taken toward achieving these goals daily, weekly, monthly, quarterly and annually. It's so important to establish a meeting rhythm that's tied to these goals. That "main thing" I spoke of should always be top of mind, front and center, and waiting at the finish line. It should drive all the decisions, be the reason resources are allocated and grow everybody (or become the exit path for some), while moving the company forward into a leadership position. 🌱



Judith M. Guido is chairwoman of Guido & Associates, a business management company. She can be reached at judy@guidoassoc.com.

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NIGHT LIGHTING



BY KEVIN SMITH

It's shrimp on the barbie time

Outdoor kitchens are a great place for friend and family gatherings. These areas can be as simple as a portable barbecue grill or as elaborate as a covered structure with all the enhancements. To optimize this outdoor living space, it is important to design with the appropriate lighting in mind, so the area can be used day or night.

Outdoor kitchens require task and mood lighting. The first area to design will be the cooking surface and food preparation areas. Lighting these surfaces from above will be the best way to handle the task. Taller adjustable fixtures can be mounted to the counter tops aiming at the grill and prep areas.

For covered structures, fixtures can be installed on the overhead beams or recessed into the ceiling. Take care in the placement to avoid shadows. A good practice is to design this down lighting with a higher wattage and higher CRI (color rendering index) light sources. Superior color rendition on meats and produce will be key to an amazing food presentation. All fixtures for these areas should be controlled with a switch or a dimmer. Hard-scape bar lights can be mounted above the accessories drawers and in the cabinets.

Now it's time to set the mood. Many outdoor kitchens are built with bars which double as serving areas. Decorative pendants can be installed over these areas to illuminate the buffet and then dimmed to create a romantic ambiance. If there's no overhead area to install the pendants, consider surface-mounting some standard path lights on either side of the bar.

Strip lights mounted to a cantilevered back splash can provide soft light on the counter top. Diffuser lenses and dimmers may be needed, depending on the reflectivity of the counter surface. Louvered or translucent step lights can be mounted to the walls one foot off the ground to provide pathway lighting.

Small post lights can be installed to the bar wall to provide path lighting and allow the bar stools to be seen in silhouette. When entertaining around an outdoor kitchen, you may encounter some flying insects. Several manufacturers have created low voltage mosquito repelling devices. Many of these devices can be powered by a normal 12-volt landscape lighting transformer.

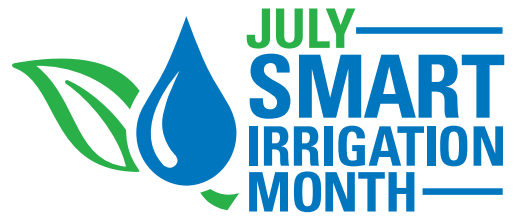
Lastly, add some drama with fire! Many lighting designers choose a fixture that combines a garden torch with an electric downlight. These can be filled with citronella oil and will normally burn for about 3-5 hours depending on the wick and tank size.

The mood is now set; throw that shrimp on the barbie. And bon appétit! 🌿



Kevin Smith is the national technical support and trainer at Brilliance LED LLC, Carefree, Arizona, and can be reached at kevin.smith@brillianceled.com.

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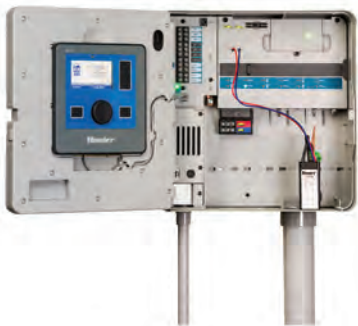
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Smart Irrigation Month is an initiative of the Irrigation Association, a nonprofit industry organization dedicated to promoting efficient irrigation.



1 Two-wire decoder controller. The ACC2 two-wire decoder controller from San Marco, California-based Hunter Industries is designed to manage Hunter ICD decoders in large-scale commercial irrigation systems.

Capable of safely operating up to 30 solenoids simultaneously, the controller is expandable to 225 stations.

Built-in flow monitoring provides quick diagnostics of abnormal flow conditions and accurate histories for up to six flow zones.

The full-color, backlit LCD display has a reversible face, allowing operation of all functions in either position.

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2 Crew cab. Isuzu Commercial Truck of America Inc., Anaheim, California, is introducing a new seven-seater Crew Cab version of its Class 5 cab-over-engine NRR.

The new model was announced as part of Isuzu's model year lineup for 2018 and 2019. Production began in January.

It has a gross vehicle weight rating of 19,500 pounds and wheelbases ranging from 109 to 212 inches with body lengths up to 24 feet.

The powertrain includes an Isuzu 5.2-liter 4HK1-TC turbocharged intercooled four-cylinder diesel engine capable of generating 215 horsepower at 2,500 rpm and 452 pound-feet of torque at 1,850 rpm.

Isuzu's IDSS (Isuzu Diagnostic Service System) allows diesel owners to receive a detailed health report with performance data from dealers.

 **Isuzu**
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3 Stick edger. Greenworks Commercial, Charlotte, North Carolina, has expanded its 82-volt battery-powered commercial landscape tool system with the new GE 080 stick edger. The GE 80 is designed for professional edging jobs in noise-sensitive areas.

The stick edger runs on the same proprietary 82-volt lithium-ion battery pack that all the tools in the Greenworks Commercial family uses.

The unit's 8-inch heat-treated steel blade is driven by a direct drive brushless motor that provides high torque, needs zero maintenance and produces no exhaust fumes. Features include an instant-on start switch and variable-speed trigger that helps conserve battery life and reduced vibration compared to gas-powered units.

The edger's quiet operation can allow crews to start earlier without violating noise ordinances.

 **Greenworks Commercial**
www.greenworkscommercial.com

SUPPLIER IN THE NEWS

Stihl breaks ground on administration facility

Stihl Inc. held a groundbreaking ceremony for a new administration building at its Virginia Beach, Virginia, headquarters on March 29, 2018. The \$25 million project is part of the worldwide company's continual investment in infrastructure in support of its growing U.S. operations. The new 80,000-square-foot building will house a Stihl museum and a customer welcome center.

Significant improvements to an outdoor demonstration area for hands-on training and updates to traffic flow and security at the main entrance gate are also planned.

"Stihl Inc. has enjoyed more than 40 years of growth and expansion in Virginia Beach," said president Bjoern Fischer. "This groundbreaking is a sign of our confidence in a continued positive economic environment for modern manufacturing in the city of Virginia Beach, and signals our ongoing

investment not only to the region but our network of more than 9,000 servicing dealers and their customers."

The expansion will replace the former 21,000-square-foot administration building. Since its inception in

1974, the campus has grown from a single 20,000-square-foot rented warehouse to well over one million square feet of manufacturing and administrative space on more than 150 acres.

The anticipated completion date of the new building and other campus improvements is mid-2019.



Left to right, Bruce Pritchard, HBA Architecture Interior Design; Bjoern Fischer, Stihl; Mayor Will Sessoms, Virginia Beach, Virginia; and Nathan Leonard, Hourigan Construction.

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4 Robotic mowers Alexa function. Husqvarna USA, Charlotte, North Carolina, is adding a “Just ask Alexa!” functionality to its Automower Connect-equipped robotic mowers.

Beginning Sept. 1, 2018, users will be able to tell Alexa to “start” “stop” and “park” the units, and they will obey.

The mowers are known for their ability to handle steep slopes.

Used by professional turf maintenance contractors around the world, the autonomous mowers can be controlled from anywhere in the world via existing mobile applications, according to the company.

 **Husqvarna**
www.husqvarna.com



5 Porous paver sealant. Black Diamond Coatings, Tampa, has designed a new sealer coating for porous pavers that protects them and enhances their color, called Paver PreTreat.

It uses advanced color-enhancing nanotechnology to block the pavers’ pores, but at a lower cost. The sealant can be used with older and newer porous paving products.

Some new pavers have more colors and textures and are more porous than pavers of years past, requiring more sealer to achieve a necessary protective coat.

This product was designed to act as a base coat primer that fills the pores and makes it easier to apply a coat of color-enhancing sealers on top of it for greater shine and easier maintenance.

 **Black Diamond Coatings**
www.blackdiamondcoatings.com



6 Zero-turn mower. Gravelly, Brillion, Wisconsin, is introducing a new series in its line of professional zero-turn mowers, the Pro-Turn Z, offering premium features at a more affordable price point, says the company.

The Hydro-Gear ZT-3100 transmission is designed to reduce downtime. All models are available with new Gravelly 23.5-horsepower engines, serviced directly by Gravelly. It’s available in two sizes, 52 or 60 inches.

The mower is built on a large formed tubular frame rail for extra load support. A constant belt tensioning system minimizes heat and wear and prolongs belt life with minimal adjustments, according to Gravelly.

Other features include a flip-top foot pan, 15 cutting positions and a rollover protection system.

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SUPPLIER IN THE NEWS

The Toro Company acquires L.T. Rich Products

The Toro Company, Bloomington, Minnesota, has announced its acquisition of L.T. Rich Products, Lebanon, Indiana, a manufacturer of commercial zero-turn spreader/sprayers, aerators and snow and ice management equipment.

The terms of the transaction were not disclosed.

L.T. Rich Products is known for its Z-Spray line of stand-on spreader/sprayers for landscape contractors and grounds professionals.

The company’s other products include the Z-Plug stand-on aerator, designed to convert to a slicer/seeder, snow plow or dethatching rake; and the stand-on Snowrator for snow and ice management.

“This acquisition builds upon many of our core strengths valued by professional contractors as we strive to help them drive greater productivity, profitability and efficiency in their

operations,” says Richard M. Olson, chairman and CEO of The Toro Company.

He continues, “The Z-Spray line complements our current spreader/sprayer product offering to contractors, golf and grounds customers, while the Snowrator is an addition to our professional snow and ice management line. With our continued focus on innovation and technology, we believe these products have broad application across many of our professional markets.”

“With a shared commitment to innovation and serving customers, we look forward to having our products become a part of The Toro Company,” says Tom Rich, president of L.T. Rich Products. “We believe that Toro’s strong history, market leadership and resources will further enable our continued growth in the market.”

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Irrigation & Green Industry editor takes to the airwaves

Irrigation & Green Industry's editor-in-chief made a special appearance on a nationally syndicated radio show about gardening. Kristin Smith-Ely was a guest on “Things Green With Nick Federoff” during a taped two-hour show that is broadcast across the country.

The show taping was streamed live on Facebook. During the show, Federoff and Smith-Ely discussed a range of topics, including water efficiency, drought-resistant grass, and even a few items from Smith-Ely’s personal life, like her recent wedding at a zoo and recipe ideas that include flowers.

The radio segment aired in April.

Federoff’s national award-winning weekly radio show has been on the air since May 1988. The video of the broadcast of Federoff and Smith-Ely is also available at www.igin.com. Federoff also appears in weekly television segments on KCAL 9 News and a regular show on PBS Station KLCS in Los Angeles. Others can find his shows on the website www.thingsgreen.com.

You can read more about Federoff and his road to green industry stardom in the April 2018 issue of *Irrigation & Green Industry* magazine, where he is the subject of the Close-up Profile.



Watch the video at: www.igin.com



Hydrangea mania

Azusa, California-based Monrovia says the hydrangea will cement its “must have” status as the plant of the decade in 2018 with a slew of new varieties available to the market that solve lots of consumer woes.

According to the national gardening brand, breeders have built a better hydrangea, reblooming, right-sized for pots, simpler to prune, with sturdier stems that don’t flop under the weight of large flower heads and thicker leaves that are more tolerant of heat, humidity and wind.

Monrovia also is predicting a “roses and rhodies Renaissance” due to their year-round beauty, container compatibility, and tales of low-effort/big rewards.

They are particularly popular in the U.K.



TIPS OF THE TRADE: MULCH, MULCH, MULCH

As many areas of the country brace for what could be another year of drought, University of California, Davis, offers some advice on its website. Published in 2014, the “Seven Tips for Landscape Survival During Drought,” still applies today. And Cary Avery, associate director of grounds and landscape services, UC Davis, says the most important piece of landscaping advice during drought is to mulch.

“If I could only give one recommendation it would be mulch, mulch, mulch,” he says. “Mulching not only keeps the ground moist, but as the mulch breaks down, it provides good nutrients for your plants, improves your soil quality, and looks attractive in areas where there’s little landscaping or your plants have not filled in.”

ON THE CALENDAR

JUNE 15-20



APPA National Conference
New Orleans
www.publicpower.org

JUNE 18-20



Outdoor Power Equipment Institute Meeting
Bonita Springs, Florida
www.opei.org

AUGUST 16-18



Nursery/Landscape Expo 2018
San Antonio, Texas
www.nurserylandscapeexpo.org

SEPTEMBER 24-28



CitiesAlive Green Roof & Wall Conference
Brooklyn, New York
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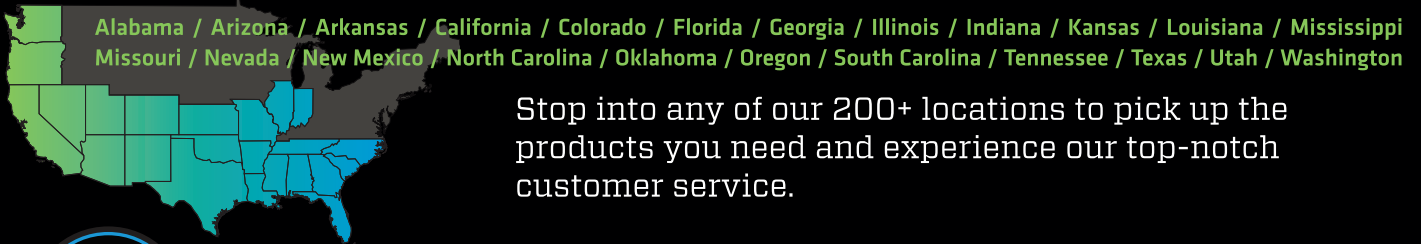
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