

IRRIGATION & green industry®

JULY 2020

THE BUSINESS MAGAZINE FOR LANDSCAPE, IRRIGATION AND MAINTENANCE CONTRACTORS • WWW.IGIN.COM

Grassroots strategy

Balboa Park's crew used small steps
to upgrade to **smart irrigation**.

+ INSIDE

Understanding soil health, p. 18

4 tips to build your employer brand, p. 22

Control outdoor safety risks, p. 28

Protect your budget and prepare
for the future, p. 36.



CONNECT TO YOUR CUSTOMERS AND THEIR SMART IRRIGATION SYSTEMS FROM ANYWHERE.

ALL FROM THE CONVENIENCE
OF YOUR BACK POCKET.

Monitor, adjust and receive notifications for multiple sites from anywhere with the B-hyve Pro™ app and smart HRC 400 Wi-Fi/Bluetooth controller. Now you can finally manage your work the same way you manage everything else — from your phone.

INTRODUCING
THE HRC 400 CONTROLLER WITH
THE B-HYVE PRO™ APP.

BHYVE.HYDRORAIN.COM

HYDRO•RAIN®
Built for Speed®



IRRIGATION & green industry®

July 2020 | Volume 24 | Issue 7



18



36



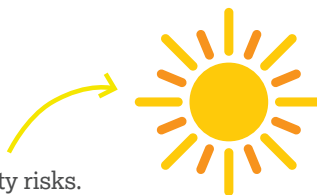
ON THE COVER

14

Cover image: Chris Roesink

Features

- 14 Cover Story: Grassroots strategy**
Balboa Park's crew used small steps to upgrade to smart irrigation.
- 18 Close-up Profile: Larry Cammarata**
His research in water management shows how plants, soil and water work together.
- 22 Show your values**
Use these 4 tips to develop your employer brand in a crisis.
- 24 Keep weeds covered**
Control customers' weeds year-round with chemical applications in fall.
- 28 Beat the heat**
Protect your team from summer's outdoor safety risks.
- 32 Dealing with drought**
Contractors work with customer expectations and water usage in extreme weather.
- 36 Make a change**
Take control of finances and evaluate customers as businesses reopen.



page 40

Irrigation companies talk about what makes smart irrigation important.



In this issue

From the Editor.....	4
Market Watch	6
Green Business Brief	8
Industry Insights	10
Night Lighting.....	12
Associations in Action.....	42
Product Spotlight.....	44
Classifieds.....	49
Ad Index	49
Branching Out	50

Expanded coverage

Follow Smart Irrigation Month updates and shared professional stories at www.igin.com.





It starts with you
having a discussion
with your customers
about smart irrigation.

KYLE
BROWN

Photo: Nikki Avramovich

Show your smarts

July is Smart Irrigation Month, when the industry comes together to recognize the experts working to improve efficient water-use systems and to share the benefits of smart irrigation with customers. It's an effort that affects the entire industry, and it's encouraging to see everyone spread such an important message.

It starts with you having a discussion with your customers about smart irrigation. As July is a peak month for water use across the country, it's a good reason to start the conversation about efficiency. Given this year's financial impacts to retail, restaurant and hospitality markets, chances are good commercial customers are already thinking about it. Residential customers, especially those who have been struggling with employment, are in a similar situation.

Many customers are already looking for ways to reduce overall expenses as they reopen after pandemic shutdowns. They may not be up for expanding services while trying to get a handle on finances, but it could be the right year to suggest doing an irrigation audit to see where the existing system could be made more efficient. There's some investment, definitely, but the payoff will help customers handle future bills. It also happens

to help preserve a limited natural resource, which is a nice bonus.

Educating the customer about smart irrigation also gives you a chance to show off your knowledge and personal experience. That institutional knowledge could help protect your business when a cheaper contractor comes along.

Approaching smart irrigation issues with customers could also help your business in another way this year. Not many landscape and irrigation professionals are hurting for work right now. But eventually, the irrigation system maintenance and lawn care will get caught up, and those customers will be looking hard at contracts as the budgets start to tighten. Getting customers started now on smart irrigation could ensure that your team will have enough work upgrading and working on systems going into next year.

If you don't know where to start, the Irrigation Association has put together a collection of resources, including social media posts and information on how to market your business as a leader in smart irrigation. Find it online at www.smartirrigationmonth.org and share it with colleagues. Let's work together to show how our industry is smart about water use. 🌱

IRRIGATION & green industry

The business magazine for landscape,
irrigation and maintenance contractors

Irrigation & Green Industry is published
monthly by the

Irrigation Association
8280 Willow Oaks Corporate Dr., Ste. 400
Fairfax, VA 22031
T: 703.536.7080 • F: 703.536.7019

Publisher
Deborah Hamlin

Associate Publisher
Trisha Klaus

Editor-in-Chief
Kyle Brown
330.353.8874
kylebrown@igin.com

Senior Editor
Anne Blankenbiller

Digital Content Editor
Sarah Bunyea

Senior Account Manager
Alan Scott - East and West
310.593.1928
alanscott@igin.com

National Sales Representative
Tom Schoen - Central
952.905.3214
tom.schoen@bock-assoc.com

Creative
Sean Burris

Database Manager
Ellen Turner

Database Coordinator
Andreina Orozco-Rodriguez

IGIN Advisory Council
Judy Guido, chair
Sharon Vessels, vice chair
Eric Santos, board liaison
Norm Bartlett
Alexis Bookman
David Crary
David Dubois
Bruce Moore Jr.
Dawn Norris

Founder
Denne Goldstein

Irrigation & Green Industry (ISSN 1521-7620 [print] and ISSN 2689-8675 [online]) is published monthly by the Irrigation Association, 8280 Willow Oaks Corporate Dr., Ste. 400, Fairfax, VA 22031. Subscriptions are free to qualified landscape and irrigation professionals; publisher reserves the right to determine qualification. Subscribe online at www.igin.com/subscribe. Nonqualified subscription rates: one year: \$55; two years: \$80; one year surface mail foreign: \$95; single copy: \$8. Copyright 2020. All rights reserved. No part of this publication may be produced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher. Postmaster: Send address changes to: Irrigation & Green Industry, 8280 Willow Oaks Corporate Dr., Ste. 400, Fairfax, VA 22031.

Follow us!

Facebook
[@iginmagazine](https://www.facebook.com/iginmagazine)

Twitter
[@iginmagazine](https://twitter.com/iginmagazine)

LinkedIn
Irrigation & Green Industry

Instagram
[@iginmagazine](https://www.instagram.com/iginmagazine)

ON THE CUTTING EDGE OF CUTTING.

Kawasaki
— ENGINES —

MEET THE FIRST LINE OF SAE CERTIFIED TURF ENGINES.

Become a true turf master with help from our innovative and efficient line of EFI engines. No turf, temperature, or terrain condition can stand up to what you get when you combine Integrated Electronic Throttle Control and advanced ECU to continuously match mower engine power to cutting load and ground speed. Get pro-grade results when you mow with Kawasaki EFI.



SAE J1995
CERTIFIED
POWER™
An SAE International Standard

Visit your local dealer or
KawasakiEnginesUSA.com/Engines/EFI
for more information.

INVESTORS CORNER

Scotts Miracle-Gro expects to emerge from the pandemic a stronger company

Company changes in the past few months in response to the coronavirus could permanently alter and strengthen Scotts Miracle-Gro Co. and its brands, says CEO Jim Hagedorn.

Consumers and cannabis companies turned their attention to plant life during stay-at-home orders, resulting in spring

“Scotts Miracle-Gro won’t merely survive the challenges of 2020, we’ll be a better company, too. The creativity, agility, collaboration and passion have been humbling to watch.”

— Jim Hagedorn, CEO of Scotts Miracle-Gro Co.

sales increasing for the Marysville, Ohio, company, according to an article by *Columbus Business First*.

In late March, Scotts abandoned the product advertising campaigns it had designed for the spring to instead talk about why gardening and being outside matter.

Sales for its busiest quarter ending in March rose 16% to \$1.38 billion, and that’s in comparison to a strong performance during the same period last year. That reflects an 11% increase in its consumer gardening business and 60% growth in its horticultural supply unit.

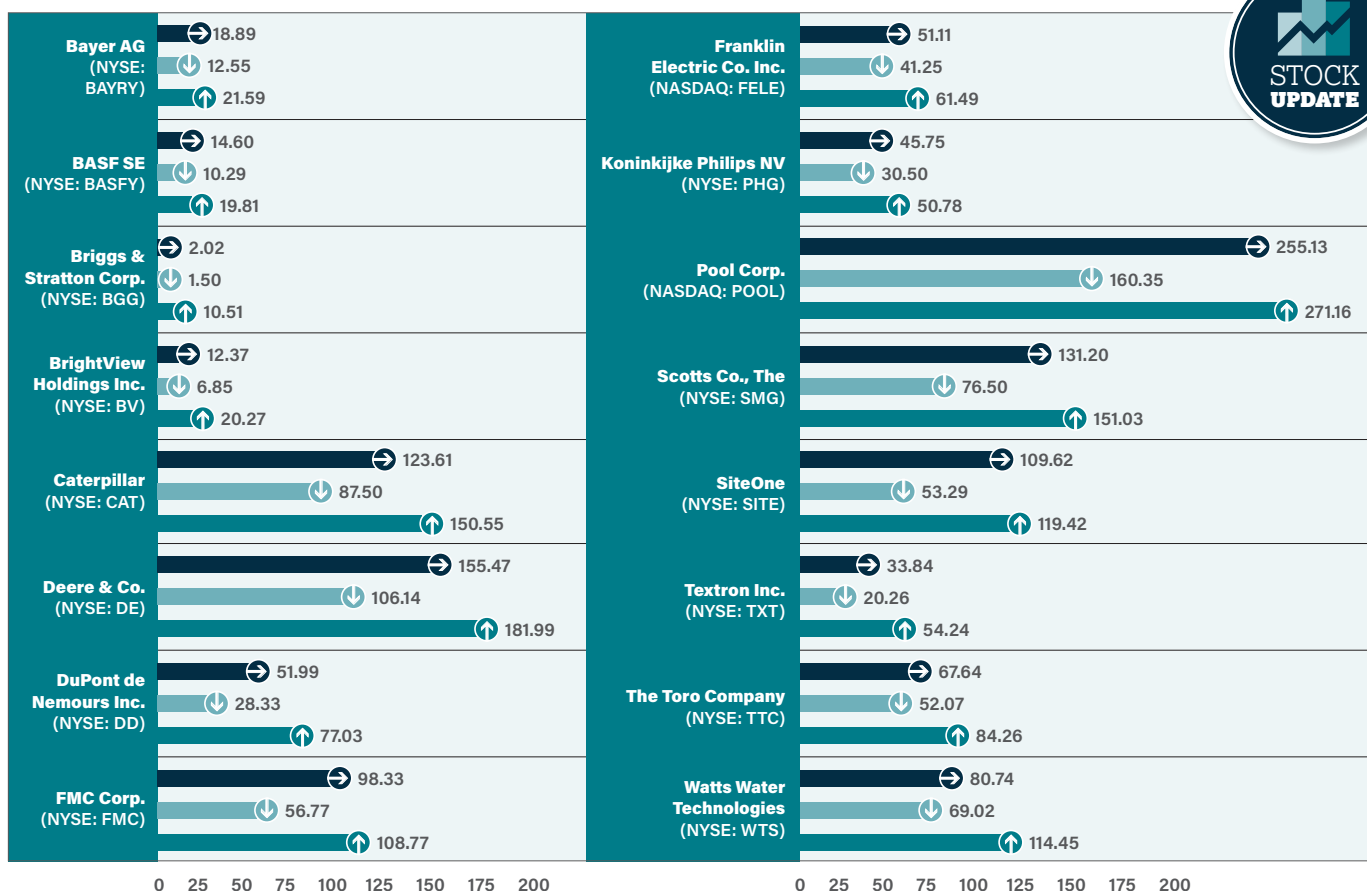
Through April, online sales through retailer websites and Amazon already had topped the 2019 total. The surge continued into the third quarter. In-store sales at its



Maksim Kostenko / stock.adobe.com

four largest retailers were \$190 million the first week of May — the highest seven-day total in company history.

“Scotts Miracle-Gro won’t merely survive the challenges of 2020, we’ll be a better company, too. The creativity, agility, collaboration and passion have been humbling to watch,” says Hagedorn. “If we manage this the right way, I believe we can impact the way consumers see our company, our brand and our category for the next decade.”



➡ Last trade (6-15-20) ➡ 52-week low ➡ 52-week high; Source: Bloomberg.com

KwikTap™
Professional Quality

**A SUPERIOR TOOL-LESS SADDLE TEE
FOR POLYETHYLENE PIPE AND
PVC CLASS 160 & 200 PIPE**



- PE: 3/4" to 1 1/2"
- Metric: 25mm & 32mm
- 3/4" & 1" Class 160 & 200 PVC pipe
- Outlets available: 1/2" & 3/4" FPT, Funny/Swing Elbow, Straight Adapter or 17mm Drip Adapter

- No Tools Required
- No Snaps or Straps
- Swing & Drip fittings pre-installed and are removable for onsite customizations

THE MOST SECURE FITTINGS ON THE MARKET



www.dawnindustries.com
800.321.7246

Patent Number 7150289





Photo: Takeuchi

Equipment

Takeuchi announces management, board changes; new facilities under construction worldwide

The board of directors of Takeuchi Mfg. Ltd. made several changes to the worldwide management structure of Takeuchi and membership of its board of directors, approved during the annual shareholder meeting held May 28.

Clay Eubanks, current president of Takeuchi US, will be relocating to the company's headquarters offices in Japan to assume the role of director of global sales and will have responsibility for overseeing global machine and parts sales. In addition, Eubanks has also been appointed vice chairman of the board of Takeuchi US.

Jeff Stewart has been named as the next president of Takeuchi US with the departure of Eubanks. Stewart is currently vice president of operations at Takeuchi US and has served in numerous roles in his extensive career with the company, from regional business manager to product support manager.

"I am excited for what lies ahead for Takeuchi," says Eubanks. "There are many good things happening at Takeuchi, and I know all of our staff here in the U.S. and around the world are committed to taking the company to the next level over the coming months. I look forward to seeing Jeff implement his vision for Takeuchi US."

Takeuchi also announced plans to establish a European parts center in the Netherlands. In conjunction with the new parts center, a European support office will be established in Germany to support parts customers throughout Europe. There are plans to expand the technical support roles of this office in the future. Both facilities should be operational early in 2021.



Landscape

Jobber report outlines state of home service businesses amid COVID-19

Home service management software Jobber, Edmonton, Alberta, released findings from its latest report focused on COVID-19's economic impact on the home service category. Utilizing Jobber's proprietary data gathered from 90,000-plus home service professionals

across more than 50 industries, the Home Service Economic Report: COVID-19 Edition analyzes how the category overall, as well as key segments within home service including cleaning, contracting and green, have performed from the start of the year through May 10.

"This year has been extremely bumpy for home service businesses," says Sam Pillar, CEO and co-founder of Jobber. "Though the category was not as deeply impacted as others, like clothing stores and restaurants, it still experienced a 30% drop in revenue overall, which is the difference between signing a paycheck, paying off a loan or buying a new piece of equipment."

Though the report reveals that home service has experienced a revenue loss in March and April, early indicators in May, such as new work scheduled, show positive signs that the industry is beginning to recover.

A few key findings from the report include

- home service sees strong growth — In 2018 and 2019, home service businesses grew 12% and 11%, respectively, whereas the overall U.S. gross domestic product grew 2.9% in 2018 and 2.3% in 2019.
- COVID-19 impact started in mid-March — Up until then, the home service category grew an average of 13%. Toward the end of March, revenues fell 30% compared to earlier in the year.
- turning a corner — New work scheduled and median revenue for home service year-over-year began to climb again by the end of April, a trend expected to continue.

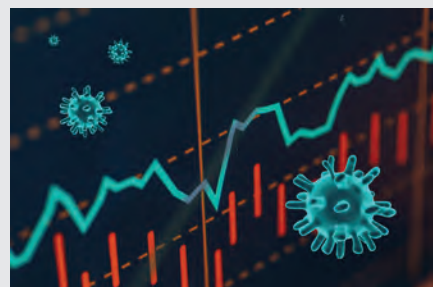


Photo: Shutterstock / stock.adobe.com

Irrigation

Conserva Irrigation debuts in Utah; expands across Colorado and Texas

Conserva Irrigation, Richmond, Virginia, added seven new territories, bringing four new franchisees to the system, expanding across Texas and Colorado and debuting in Utah. Partnering with franchisees possessing corporate and maintenance experience, the company is slated to expand throughout the following territories:

- Fort Collins, Colorado, and southeast Denver, Colorado
- southern Salt Lake City, Utah
- north Frisco, Texas

With the addition of seven territories in three states, Conserva Irrigation has now grown its footprint across 90-plus territories in markets throughout the country. The brand's sales were up 65% year-over-year in the first quarter, and Conserva Irrigation has surpassed revenue goals for the year by 20% year-over-year.

"We've been fortunate enough to sustain success during the economic downturn because of continued strong consumer demand for our services, the ability to continue to operate as an essential service, and our hardworking franchisees, technicians and corporate staff. We're looking forward to launching in our newest territories," says Russ Jundt, founder of Conserva Irrigation.

To onboard new franchisees, Conserva Irrigation has launched a virtual franchisee training that includes in-depth videos showing franchisees how to use the equipment. Sample equipment is shipped to the franchisee, so the training is interactive.



Photo: Conserva Irrigation

Tree Care

Davey Tree partners with Certified Employee-Owned

The Davey Tree Expert Company, Kent, Ohio, has partnered with Certified Employee-Owned, a certification program for employee-owned companies.

To become a member of Certified EO, companies must pass a certification process to demonstrate that their employees own at least 30% of the business (exclusive of company founders), access to ownership is open to every employee, and the concentration of ownership is limited.

The Davey Company had been established, owned and managed by the Davey family since its founding in 1880, but in the late 1970s, the family decided to sell the company. An employee-ownership committee was created and met with the family to explore the possibility of the employees purchasing the company.

A financial commitment was made by 114 employees who participated in a direct purchase of stock on March 15, 1979. To make the acquisition possible, the company redeemed thousands of shares of stock but reserved some to be sold to the newly created Davey Employee Stock Ownership Plan.

Today, Davey is one of the oldest and the 9th-largest employee-owned company in the United States, according to the National Center for Employee Ownership. Since 1979, the company's revenues have grown from roughly \$60 million to more than \$1 billion, and the number of employees has gone from 2,800 to over 10,500.

Irrigation

WaterSmart Innovations Conference and Exposition cancels 2020 event

The Southern Nevada Water Authority, organizers of the annual WaterSmart Innovations Conference and Exposition, is canceling this year's event, originally scheduled for Sept. 30-Oct. 1 in Las Vegas.

"After much deliberation, we've decided the conference would be less effective and appealing if social distancing measures are still in effect," says Doug Bennett, WSI program chairman and SNWA conservation manager.

Bennett says social distancing makes networking and classroom-style professional sessions impractical for WSI participants.

Organizers will offer a series of webinars this fall, featuring leading water-efficiency professionals who were slated to speak at the event.

The inaugural not-for-profit WSI was held in 2008 and brought together professionals around the issue of urban water efficiency. With a typical audience of 1,000 attendees from across the country and around the globe, WSI has grown into the world's preeminent event where professionals can share their successful water-efficiency practices, policies and experiences.

Despite the cancellation of this year's event, Bennett said the conference is on track to return to Las Vegas in fall 2021.



QUICK TAKES

Weathermatic announces new director

Weathermatic, Garland, Texas, welcomes Paul D. Anderson as director of distribution, East Coast region, to lead business development in the East Coast region of the U.S. market.

Anderson brings 20 years of industry experience and will be responsible for building and managing a regional sales team while growing and maintaining existing and new business relationships with professionals in landscape and irrigation industries.

ASABE publishes new test protocol

The American Society of Agricultural and Biological Engineers, the St. Joseph, Michigan, has published ANSI/ASABE S633, Testing Protocol for Landscape Irrigation Soil Moisture-Based Control Technologies.

This new standard provides manufacturers a test method to validate the responsiveness to changing soil moisture conditions of soil moisture sensing devices that integrate with irrigation controllers to better manage water resources in landscape settings.

HydroPoint remembers Tom Ash

Petaluma, California-based HydroPoint remembers an important member of the irrigation community with the passing of Tom Ash, former HydroPoint director of conservation.

The company says that Ash was a pioneer of water sustainability and was loved for reasons beyond his expertise. Ash was a water horticulturist, who championed early smart irrigation technologies, and an educator who worked to influence efficient water infrastructures.

Landscape

LMN launches Estimating Marketplace connecting vendors with contractors

Markham, Ontario-based LMN, a provider of business management software for landscape companies, launched a new tool to bridge the gap between contractors and vendors. The LMN Estimating Marketplace connects landscaping contractors directly with a network of wholesale suppliers within a single digital platform.

Suppliers on the LMN Estimating Marketplace gain an audience of more than 85,000 users. The marketplace enables suppliers to showcase their product lineup to contractors.

In 2019, more than \$3.5 billion of materials were estimated using LMN software by users. The launch of the Estimating Marketplace gives suppliers new opportunities to gain brand recognition, develop contractor relationships for repeat business and increase profitability.

Contractors can search thousands of products and materials, obtain up-to-date pricing, and build accurate estimates for customers inside the platform. With the Estimating Marketplace, both parties can save time and money.



BY GARY HORTON

Resiliency facing continued COVID-19



My father was 18 months old when his dad, then 32 years old, died from the Spanish Flu pandemic in 1918. Grandfather William Horton's untimely death left our family impoverished and set us for hardship lasting through the Great Depression all the way through to World War II. My dad, with his brother and mom Emma, faced a daunting post-World War I world without a provider and without the comfort of a father and husband. All this changed the trajectory of our family's future for two generations.

That's the impact of a pandemic. These are life- and society-altering events raising challenges and obstacles we never could imagine. Suddenly, our assumptions about life and business and "the rules of the game" are turned on their heads and, where we used to have answers, we now have mostly questions.

The U.S. has been tangled with COVID-19 stay-at-home orders and social distancing and all the personal protective equipment paraphernalia for four months. We re-jiggered our companies to allow office staff to work from home. We've social distanced our crews. Some have had to cease field operations for weeks or months, others have been able to continue, but with restrictions and all the productivity friction working with masks and reduced crew sizes entail.

And I believe we've pretty much made it to the other side. All of America is "opening up." Restaurants, stores and workplaces are firing back up, albeit with the frustrating restrictions like masks and occupancy limits. Diligence and continuing reengineering of our operations are required to both limit disease and preserve profitability. We're in an existential balancing act. We must take all steps to ensure employee and client safety, yet we must also remain profitable.

Now, we're increasingly hearing of new "hot spots" spiking up all over the country. Some cities have floated the need to lock down again. You, me, our industry and America are weary of it all, and we want it to just go away. But if deaths skyrocket, as scientists say could happen, local governments will again drop the hammer.

My grandfather died in October 1918. He was a "second-waver." Far more deadly than the Spanish Flu's initial slaughter from early 1918, the "second wave" hit in late summer and took down hundreds of thousands of Americans rapidly. Yet, then came a third wave late in the year, and again a fourth in 1919. By the end, nearly 750,000 Americans died. And through each of the four waves people thought it was over.

It appears with COVID-19, we don't know what we don't know. We do know 2020 will be a year unlike any other, and it's our job as business managers to navigate the unknowns ahead.

This is a landscape column. Why so much on the COVID-19 virus?

My grandmother's family had to tough it through their own virus-impacted lives. For years, they were forced to adapt, improvise, do with less, make new plans and gut it out until finally they emerged with sustainable, "normal" lives.

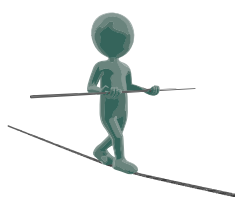
In our businesses we're facing something similar. We need to develop business resiliency and toughness to navigate this. Our companies must be reengineered to be adaptable to the unknown, (as odd as that sounds) and quick to respond to change.

Resiliency is the key word. Our policies, our practices and our employees must be bolstered and made resilient against the unknowns that may come our way. Now's the time to write up contingency plans for enhanced PPE, for further social distancing, for potential lockdowns. It's the time to stash up cash, to tighten up spending, to plug margin leaks, to search out every potential efficiency.

If we're lucky, after all our planning and fine-tuning, 2020 will end quietly, the virus will retreat and maybe a vaccine will come along. That would be lovely.

Quite possible, however, are potential second and third waves. They could come with a vengeance, truly alarming the public and politicians and resulting in outcomes we still only imagine.

Are you prepared for shock-change? Good advice is to build your resiliency now and get prepared. The worst that could happen if waves don't come is that you've built a tighter, more efficient company. 🌱



We do know 2020 will be a year unlike any other, and it's our job as business managers to **navigate the unknowns** ahead.



Gary Horton, MBA, is CEO of Landscape Development Inc., a green industry leader for over 35 years with offices throughout California and Nevada. He can be reached at ghorton@landscapedevelopment.com.

Smart practices. Smart technology. Smart business.



The people behind smart irrigation.

This Smart Irrigation Month, we're saluting the professionals who make our industry great. It's time to share with the world the importance smart irrigation has in food production and sustaining landscapes.



This July, visit our website for smart ideas and free resources:
www.smartirrigationmonth.org



irrigationassociation



IrrigationAssoc



irrigationassociation

Share your Smart Irrigation solutions with us:
#SmartIrrigationMonth

BY KEVIN SMITH

Pioneers of landscape lighting – Part 1



All industries have a unique origin. The stories of these origins are usually quite interesting, and our landscape lighting industry is no exception. When looking back into our past, we can't help but recognize several great American entrepreneurs who pioneered the landscape lighting industry.



Nightingale developed fixtures that could be **hidden in plain sight**, a trait of a very skilled magician.

The inventor of garden lighting

Frank B. Nightingale was born in New York on Dec. 26, 1885. At an early age he developed a passion for magic. When Frank was 16 years old, he began working the stage as "Nightingale the Mystifier." He would be known to many people as the "Magician of Light" as he was known to merge nature and lighting together.

Frank began his career working for General Electric in 1912. His career would take him from New York to Los Angeles. It was there he developed a love of the wilderness, even building a cabin in the Sierra Madre mountains. On his 47th birthday in 1932, he was discharged from GE. It was after this that he would begin manufacturing the first 120-volt garden lighting fixtures in his garage.

Nightingale developed fixtures that could be hidden in plain sight, a trait of a very skilled magician. Most would look like a standard piece that you would find in any garden. One was a bird house. It could be mounted on a pole and placed in the middle of a lawn area or flower bed. From the front view it looked like a normal bird house; however, an adjustable flood holder with a special moon light lens would pour light into the area below. He also developed a hanging bird house that could be hung from a tree to produce the same type of moon lighting effect.

Electrical receptacles to power these fixtures would be disguised as mushrooms or rocks. In 1934 his 98 Series of garden lighting fixtures only had seven featured products. It cost just six cents to get his product catalog titled "Fairyland Is Just Beyond the Windowsill."

During that same year in an article featured in *Electrical West* magazine, Nightingale writes, "Garden lighting should not be thought of as a means of lighting up the backyard so that one may run out and pick a few sweet peas or to shoo the neighbor's cat off the back fence. The garden should be considered as a part of the home, an extended living room filled with interesting lights, shadows and personalities of living, friendly, growing things. It should be lighted every evening in the same manner as the living room, for atmosphere, for enjoyment. Picture windows over the garden should never have curtains drawn."

In 1936, the California Pacific International Exposition in San Diego hosted "The Palace of Electricity." This expo featured the latest modern appliances as well as some of Thomas Edison's inventions. Nightingale's "Attractive Garden Lighting" exhibit would be one of the first of its kind to appear at such a renowned show.

Nightingale also developed some of the first control methods for outdoor lighting. Using mechanical timers, he was able to control different zones to create a magical effect. He also incorporated music through loudspeakers. At his home he would often play Beethoven's "Moonlight Sonata" with lighting effects to create an enchanting evening for his guests.

Nightingale wrote many other articles that would appear in newspapers and trade publications. He also wrote two books on lighting. He published his first book in 1958 simply titled "Garden Lighting." In 1962 he published "Lighting as an Art." Several years ago, two talented contractors, Mark Carlson and Michael Gambino, republished Nightingale's original "Garden Lighting" book. I recently purchased a copy and highly recommend it!

To learn more about Frank Nightingale, visit www.frankbnightingale.com. I wish to thank my two lighting industry colleagues, Mark Carlson and Mike Gambino, for allowing me to reference their material to bring you this article. Stay tuned for part 2 of the article series coming in August when we will discuss the beginnings of the 12-volt lighting system. Until then, stay creative! 🍀



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

EQUIP YOUR CREW



TEST, COMPARE & BUY NEW PRODUCTS

EXPLORE ROBOTICS, CONNECTIVITY & SOFTWARE

FLY DRONES, DRIVE UTVS & WATCH IN-TREE ARBORIST DEMOS

NETWORK & LEARN FROM EXPERTS AND PEERS

GIE-EXPO

OCTOBER 21-23, 2020

LOUISVILLE, KY
WWW.GIE-EXPO.COM
800-558-8767

BY KYLE BROWN

Grassroots strategy

Balboa Park's crew used small steps to upgrade to **smart irrigation**.

Taking on a big job can provide a real adrenaline rush for landscape and irrigation professionals. It's the challenge of bringing a wide-open space to life and seeing a complicated plan come together.

But for some, especially those working with municipal departments, finding the resources to make a big change can mean taking many small steps. Mario Llanos, district manager of Balboa Park in San Diego, California, used smaller projects and community effort to update the park's infrastructure with smart irrigation in mind.

The park covers 1,200 acres of ground with open public spaces and landscaped areas. It includes gardens and walking paths and includes landmarks like the San Diego Zoo as well as museums and theatres. It has a long history, stretching back to the first steps toward landscaping just before 1900, and its first water systems installed a little more than 10 years later.

Those water systems had been updated and added onto through the years, leaving mismatched and outdated equipment in use. The irrigation systems saw some replacements and additions around the 1960s, but in some cases it added to the confusion. As water use became more and more scrutinized during California's recent droughts, updating the park's irrigation system became a priority, Llanos says.

Public challenges

Several years ago, San Diego created an app that allows the public to submit complaints about water waste. When that started, Llanos saw a heavy influx of email about wasted water on the park grounds, he says.

"It's great in that it really got us looking at how we irrigate the park," he says. "Every walker that comes by, and everyone who walks their dog, being able to lob an email really quickly with their smartphone, saying, 'There's water waste here, and here are the coordinates.'"

The app gave Llanos' team a continuous eye from the perspective of the public on the park's water systems, he says. Because the park's irrigation system is older, it isn't able to use flow sensors to track problems. The public involvement allowed them to catch issues right away and take care of problems before they got out of hand.

"As we go through capital improvements, we're adding master valves and flow sensors where we can, to at least shut down valves by sensing an overflow in an area," Llanos says. "But we don't have the infrastructure now. We really rely on the public and our grounds maintenance staff who go out there every day and do irrigation checks."

His visitors are really responsive, especially during times of severe drought, he says. While Balboa Park is exempt from water restrictions as a public space, the team has a responsibility to still be water friendly.

"We've got to keep green spaces for tourists and San Diego citizens," he says. "We've really got to lead by example and get in front of it. We really had a rush to shape up this park and get it looking good, but also get it as water-wise as we can given the aging infrastructure."

Working with a mix of older systems meant doing a lot of careful exploration, since Llanos' team ran into everything from PVC to copper pipes underground.

"It was just kind of a pain as we kept running into these odds and ends down there," he says.





The Balboa Park team took on the task of swapping out sprinkler heads and updating the irrigation system with the help of local nonprofits and volunteers.

Another challenge was that much of the older irrigation hadn't been effectively mapped out during the last several decades, leaving the team running into lines that shouldn't have been in those places as they dug. Some of those historical plans just hadn't been passed down with institutional knowledge.

"You've got grounds maintenance workers and folks who are ambitious and some who aren't," he says. "So they're doing things in the field that don't always make their way to the one trying to do the planning in the park. It's really just a mismatch."

As the team worked on the older irrigation system, it led to larger capital improvements, including some to replace the older cast iron, Llanos says. They're also slowly updating what they can find and working with the park designer to map a more accurate representation of the irrigation lines.

The team is also always working around the public (on the scale of about 20 million visitors per year), which includes a large transient population, Llanos says. The park is open 24 hours a day, and transient visitors often know the irrigation schedule and stay ahead of it by going to different parts of the park. However, some will just cover a sprinkler head with a bucket or break the head outright.

"You're wondering, 'Why is the maintenance person not taking care of this area?' You look at the dry spots, and the irrigation test is looking good, it looks like it's getting water. It's got to be something like the clock," Llanos says. "Then you come to find out, someone's put a five-gallon bucket over the sprinkler."

Another aspect was sharing water resources with other municipal customers, such as local schools and hospitals, causing heavy fluctuation in water pressure and output at usual watering times.

"What we were seeing during the day was different than what was going on at night," Llanos says. "We were seeing a lot of dry patterns in our irrigation, with the distribution and uniformity of the water."

There were brown spots where some areas weren't receiving water, and overspray when the water pressure was high.

Building momentum

Balboa Park Conservancy and Friends of Balboa Park, two organizations that work to develop the park, assisted in projects updating the irrigation systems and retrofitting sprinkler heads.

Volunteers from the Friends of Balboa Park, along with some city leaders and park staff, formed a committee to watch water use at the park, as well as create outreach to local companies to form partnerships in about 2012. Working with those companies got things moving in terms of finding the right product choices for swapping sprinkler heads and replacing valves throughout the park. When Llanos was approved to start swapping nozzles for newer, more efficient models, he ran events with groups like the California Landscape Contractors Association and others. Working together, they developed updated plans and hosted "nozzle swap" parties, where volunteers would join in to do the work of changing out nozzle heads.

"For me, I'm taking advantage of all this labor because I don't have the staffing to do all this," Llanos says. His frontline staff was inspired by the passion they saw in those volunteers and started looking for small installation and update projects throughout the park to improve water usage.

"It's really got them motivated to start doing smaller areas around the park," he says.

It also led to finding funding through philanthropic partners and the local water authority to do landscape conversions to install drip irrigation in the park. The project removed turf and managed soil levels while maintaining the roots of existing fully mature trees, then worked with an in-house tailored landscape plan to improve water efficiency in the gardens throughout the park. It also included choosing a plant palette that was more water-conscious in the landscaped spaces. Llanos and others have worked together over time to replace about 95% of the manual and battery-operated valves with smart controllers.

“When you have little wins, people get excited, especially the people involved in it.”

– Mario Llanos,
Balboa Park



"At the time, our project manager estimated a 500-gallon-per-year savings in water," Llanos says.

Llanos' team also maintains a set of medians with plants and trees along Park Boulevard, which surrounds Balboa Park. The traffic around those medians caused a lot of drift with its previous sprinklers, as watering was done when locals were driving to work.

"It was causing a lot of drift and runoff, and not much was making it onto the plants," Llanos says.

Moving the watering time back wasn't an option because the park had to operate in a tight watering window, so the team had to get creative. Changing sprinkler heads in the medians from spray to Hunter's MP Rotators allowed them to run multiple valves simultaneously to fit in the water window, Llanos says. The retrofit also helped with fluctuating water pressure by setting a lower rate of application over a longer period of time. Testing the newer heads in the medians showed an estimated water savings of about 20% compared to the traditional spray nozzles.

"That's really improved the dry spots and watering issues we've had," he says.

Balboa Park's irrigation didn't get set up with a smart controller until the last few years, with the help of some of the park's philanthropic partners and donations, Llanos says. That led to upgrading to a computerized smart controller that uses information from a weather station to water more responsibly.

"Everything that we have programmed is run off of plant factor, crop coefficient or real-time weather station. That's how we irrigate Balboa Park," Llanos says.

Maintaining motion

The funding projects have continued to build as the previous projects show results, he says. Balboa Park has even started an adoption program, where local landscapers adopt areas and come up with designs working with the horticulturalist to implement new landscaping in the park while keeping things historically accurate.

"It's really created a level of community involvement in the local landscape industry," Llanos says. "It's been a really cool process watching it unfold organically."

Building that involvement throughout the committee and wider community has allowed Llanos' team to achieve higher water savings and finish projects he wouldn't have expected to accomplish otherwise, he says.

"That's really hard to do in a municipality," he says. "You've got to have some pretty ambitious upper management and support, not to mention a really good base of nonprofits supporting the park."

The park is continuing to work on new improvements and projects going forward, Llanos says.

"We've never stopped. As much as we've done, there's still a lot to do," he says.

One of the principles he's focused on throughout the updates is setting small goals that are able to be accomplished. Especially as a municipal landscape management team, having smaller goals that are attainable not only kept him moving but helped him build momentum among volunteers and committees.

"When you have little wins, people get excited, especially the people involved in it," he says. "If you can get the word out, people get more excited and it just snowballs from there."

As those small victories start getting more attention, it's easier for municipal landscapers to get local committees and authorities behind larger projects and to convince local donors to support future goals.

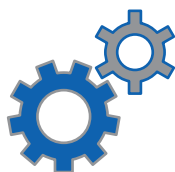
"It's really good to have a good base of support, either by nonprofits or local businesses," he says. "We don't have the resources to just do it ourselves, but we know we can be more efficient." 🌿

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

Getting the community involved in improving the park's irrigation system developed the drive to start even larger projects like a landscaping adoption program.

~~~~~  
**Using proven water savings from past improvement projects helped build momentum for future plans.**





Larry Cammarata

# SEEING THE BIG PICTURE

His research in water management shows how plants, soil and water work together.

BY SARAH BUNYEA

**D**esigning irrigation and water management solutions is more than just a job for Larry Cammarata, CIC, CID, CLIA, CLIM, CLWM. It's a path that has taken him from his home city of Indianapolis around the world and back on a mission to help people understand the important relationship between plants, soil and water.

Cammarata is principal of Certified Consultants Ltd., where he's worked as a horticultural sustainability and water management consultant for the last 40 years designing, managing and installing water management systems.

His journey began at Purdue University in 1976 where he studied turfgrass and landscape architecture.

"My vision was to find a unique niche within the horticultural industry that would allow me to make a huge difference," says Cammarata. "I found that my interest in water management was relevant to the entirety of the landscape industry, including agricultural, stormwater and rainwater management."

Summers in college were spent interning in Chicago surveying golf courses and nurseries, where he began to notice a pattern.

"Clients I serviced showed a tremendous interest in acquiring sustainability and water management knowledge," he says. During these summers, he realized the industry lacked proper training in horticultural knowledge, which motivated him to become an expert.

After graduating from Purdue, he designed irrigation for vineyards, orchards, greenhouses and nurseries. In these agricultural settings, he began to see how irrigation was more than simply getting water to crops. It was dependent on the soil and plants.

"For example, in vineyards, if I took one certain grape variety and I found them using it in four different soil types, the production of the grape development was completely

different in every soil," explains Cammarata. "I began to notice that it wasn't so much how much water I put on to make the plant grow. It was a combination of the type of soil, how it does or doesn't hold water and how it releases water. It depended on whether the plants were on a hill or flat plain, and on growing stages, whether it was in a flowering stage or crop development stage."

Taking his agricultural-based understanding of soil, he took a holistic approach called the plant-soil-water continuum and applied it in the landscape irrigation industry. After working several years for Brickman Group, now Brightview Holdings Inc., he opened Certified Consultants in 1988, where he continues to use and teach this same approach today.

## BRINGING ELEMENTS TOGETHER

Cammarata believes the biggest issue the green industry faces is approaching plants, soil and water separately. In landscape design, he says the big focus tends to be on aesthetic beauty, like flower and plant types, but he rarely sees designs intersecting with a great soil understanding. Similarly in irrigation, he says there are some contractors who focus on getting jobs done as quickly and cheaply as possible.

"Everywhere within the field, we have our own little piece, but we have never developed an understanding of the big picture," he says.

His initial step to irrigation design doesn't have anything to do with water, but it has everything to do with studying the soil and plants. When hired to do an irrigation design, the first questions he asks are: What are the plants being grown? Where are they placed within the landscape? What kind of soil will they be grown in? What side of the building are they on? What's the sun exposure?

"I get all the plants and soil configuration questions done before I even talk one word about irrigation and water supplementing it," says Cammarata.



Larry Cammarata, CIC, CID, CLIA, CLIM, CLWM, is principal of Certified Consultants Ltd. in Indianapolis. For the last 40 years, he's worked as a horticultural sustainability and water management consultant teaching others about the relationship between plants, soil and water. Photos: Jordan Whitt







When Cammarata starts a new irrigation design project, his first step doesn't have anything to do with water. He begins by studying the soil at the project site. This gives him a clear understanding of what kind of plants will grow well in the soil and how the landscape needs to be supplemented by irrigation.

“

*Because I have taken the plant-soil-water approach, it has given me greater opportunities to learn and teach and go places where people need that combination and they don't know how to put it together.*

— Larry Cammarata, Certified Consultants Ltd.

Cammarata describes a site he recently worked at in Illinois where the turf quality and overall condition of a landscape was in decline. He was hired to do a landscape sustainability audit, where he studied the soil, the irrigation system and reviewed the plant material.

“What I found was the soils had a high water retention rate because the site was actually a housing development that was built upon a swamp,” says Cammarata.

Because the soil at the site was never studied prior to construction, they installed a typical landscape design using plant material that would never grow properly in the highly saturated soil. The irrigation system was also set up to simply throw water and get everything wet, he says.

First, Cammarata showed the client how to mend the soil, give it a little bit more airspace and make it more usable. Then they found plants and trees that would work in the soil conditions. Last, he addressed the irrigation issue by using soil moisture monitoring to really know the soil conditions before applying water to it.

### **KEEPING SOIL HEALTHY**

If you want a landscape to be truly green on the outside, the best method is to make sure the soils are alive and active, says Cammarata.

Many management practices focus on making landscapes look good on the outside. But, Cammarata says this is often done in a way that makes the soil unhealthy because they block off air from all the beneficial organisms. When these organisms can't

breathe, they die, and after five to 10 years of this, the soils are dead, the root systems are shallow, and fungus, mold and mildew take over.

“We want the outside to look good. But while the outside looks good, we're killing the inside,” he says. What he teaches through sustainable practices is that by improving the soil environment for those organisms, the healthier the soil will be. That will in turn show itself on the outside of the landscape.

“The irrigation system is not the savior of the landscape, the soil is,” says Cammarata. “We're not talking about dirt. We're talking about thousands of different types of bacteria and microbes and things that live in every square foot of soil. We're talking about all those microorganisms designed to attach the root systems to care for the plants.”

He explains that if an irrigation system is designed correctly and managed well, you'll use that irrigation system less and less every year. This is because you'll have a landscape that will have deeper root systems and require less pesticides, herbicides and nutritional development.

“The irrigation is to be a supplemental tool to give the soils the water it needs when it needs it and only in the quantities that it needs and nothing more,” says Cammarata.

### **TEACHING OTHERS**

Consulting is just one of the roles Cammarata has in the industry. He is also an adjunct professor at College of DuPage in Glen Ellyn, Illinois, where he teaches irrigation design and sustainability. For the past seven years, he's shown landscape management





*If an irrigation system is designed correctly and managed well, the landscape will have deeper root systems, require less nutritional development and use less water each year.*

students how to understand these subjects from the plant-soil-water approach.

In addition to Cammarata's teaching experience in the classroom, he develops training programs for national green industry companies. From local one- to two-branch operations to companies with upwards of 90 branches, his training focuses on helping employees develop in the art of water management.

Cammarata also travels the country speaking at different industry association events and teaching workshops on the plant-soil-water continuum. Cammarata serves on the Irrigation Association Certification Board and serves as the board chairman and formerly served on the board of directors for the association from 1993 to 1996. He is also a member of the U.S. Green Building Council, helping to refine LEED processes.

Through his involvement with these associations and organizations, Cammarata hopes to make a positive impact on industry-wide water management standards and practices. It's also allowed him to form many relationships with people along the way. Cammarata welcomes the opportunity to be a resource and regularly talks to contractors around the country who contact him with questions about plant, soil and irrigation issues.

While Cammarata has worked for corporations, resorts, hospitals and more, one of his most personally meaningful projects took place in his own Indianapolis neighborhood, Brookside.

"One of my neighbors bought a dilapidated house that had two empty lots next to it," he explains. "He redid the house and then a couple other neighbors said, 'Hey, let's build a baseball field on the other two lots.'"

More neighbors joined in, paying for a fence, bleachers and a concession stand.

"I designed the irrigation system and got manufacturers to donate all the products. I got three irrigation companies, one from Ohio and two from Indianapolis, to help come and put the system in," he says. "Basically, neighbor helping neighbor, we've developed a baseball and whiffle ball field for the kids to use and play in the neighborhood."

Using his experience and knowledge, Cammarata has volunteered for many of what he calls "passion projects." Every year, he travels internationally, completing agricultural irrigation designs, cistern designs and rainwater collection projects. Different schools and organizations regularly reach out to him asking him to design projects for orphanages, schools and prisons, in countries that include Belize, India, Kenya, Nicaragua, Haiti and Zambia.

One of these projects was completed last year for Global Orphan Foundation, a nonprofit in Indianapolis, that reached out to him to design a rainwater collection system and irrigation system in the Democratic Republic of the Congo.

The rainwater collection system gathered water from 16 buildings in an orphanage, which was then stored and transferred to a larger facility using solar power. Here, they were able to purify it, clean it and, by gravity, send it back to the same houses to use for drinking water and showers. The irrigation system was used to water a village vegetable farm. Cammarata says these projects are about more than just providing an answer to a problem. It's about teaching the people working alongside him about the solution, whether it's how to maintain water quality, collect rainwater or any of the other water-related challenges they face.

Cammarata knows without his background in agriculture and horticulture, he wouldn't have had such a unique career and be able to travel the country and world sharing his knowledge and experience.

"Because I have taken the plant-soil-water approach, it has given me greater opportunities to learn and teach and go places where people need that combination and they don't know how to put it together," he says. "It's my passion that, before God takes me home, I've trained thousands of people to do it right. That's my biggest motivation." 🌱

The author is digital content editor of *Irrigation & Green Industry* and can be reached at [sarahbunyea@igin.com](mailto:sarahbunyea@igin.com).

**BRILLIANCE**  
A HIGHER LIGHT FORM™



**Wi-Fi Smart Socket 2**



**RGBW Lamps**



**Wi-Fi Low Voltage Zone Control**

**Get SMART**  
with Brilliance Smart  
Products & Controls

more info at  
[www.brillianceled.com/smart-products](http://www.brillianceled.com/smart-products)





# SHOW YOUR VALUES

BY KATE KJEELL

**USE THESE  
4 TIPS TO  
DEVELOP  
YOUR  
EMPLOYER  
BRAND IN  
A CRISIS.**



**W**arren Buffet is credited with the quote, “It takes 20 years to build a reputation and five minutes to ruin it. If you think about that, you’ll do things differently.” This has never been more true than in the COVID-19 crisis. The news is full of companies behaving badly, be it the restaurant that called in servers to clean and disinfect their location and then laid them off, the airline that promised plenty of room for physical distancing while travelers found packed planes and tight quarters or the cinema chain that summarily terminated their staff “with immediate effect” but stated it “hoped they would return when the cinema could reopen.” With that little notice and unsympathetic messaging, employees returning seem unlikely!

Whether you realize it or not, your company has an employer brand. It is defined by how potential and existing employees view your organization as a place to work. If you are not actively cultivating your employer brand, it will be defined for you by what is said about your organization in the marketplace, news and on social media.

Your employer brand is important for talent attraction but also key to the employee experience that is encountered day to day in your organization. How current and future employees feel about your organization and your response to this crisis will shape your organization in the future, either positively or negatively.

Aaron McEwan, vice president of advisory at Gartner, a research and advisory company, wrote that in this pandemic, “how [companies] respond could have enormous implications for their employer brand, corporate reputation and even their financial survival. ... Even in normal times, workers want to see employers acknowledge their financial concerns and respect their unique family circumstances.”

More than ever, employees are looking to their employers for hope and support. Many companies have stepped up with messages of compassion and care that focus on our shared humanity and need for authentic human connection. Other companies have put out cringeworthy boilerplate marketing messages that make it clear they care more about transactions than relationships.



In addition, our work-life blend has become even more intertwined with pets and family coming into the frame as remote work becomes even more prevalent. Your employer brand needs to be authentic and focus on the people that matter most, your employees and customers. An employer brand that is written in a backroom and doesn't ring true will be easily identified and disregarded. Tap into your employees, customers and social media feeds to see what people are really saying about your company and then measure it. The Net Promoter Score is a good way to quickly get a pulse on your employer brand. By asking employees the question, "How likely are you to recommend this organization to a friend?" you can gather some good data. That, overlaid with employee retention and applicant quality, paints a pretty clear picture.

An employer brand requires continued focus and attention, particularly in uncertain times. Here are four areas to help you develop and keep an authentic employer brand.

## 1 MAINTAIN CONNECTION AND COMMUNICATION

With uncertainty swirling all around us, everyone is craving information and guidance. The cadence and substance of communication should increase. Regular touch points are critical to keeping employees and future employees updated on your policies and processes as well as sharing uplifting and encouraging content during the COVID-19 crisis. Use all your various channels to speak to a range of audiences including current employees, those furloughed or laid off and those evaluating your company as a potential employer. Use email, your company intranet, website and career page to share what is going on, both practical and inspirational. Don't forget to leverage social media as well. Your social feeds are a great way to emphasize your care and concern for current and future employees, customers and your community at large.

## 2 REVISIT YOUR MESSAGING

Now is not the time to present a superficial company facade. Ditch the marketing spin and keep the communications about your company, approach to COVID-19 and plans for the future real and human. Be transparent and empathetic. Acknowledge the situation, what your organization is doing and monitor the conversation on your social feeds to make sure you are addressing the needs of your employees and customers.

Storytelling is always a compelling way to get your message out. Consider creating videos that focus on employees and customers telling their stories

that support or emphasize your brand, approach to the crisis and plans for the future. This will gain more traction and win more hearts and minds than your typical marketing hype. Walmart hit the right note with their "Walmart Neighbors" video featuring employees and a message of hope.

## 3 STRENGTHEN YOUR CULTURE

As Winston Churchill wrote, "Never let a good crisis go to waste." One of the silver linings in this global pandemic is that it provides the opportunity to repurpose some time and focus on strengthening your culture for the future. Organizations have been investing in developing and cross-training employees with great results. A large employer that has a downturn in hiring has shifted recruiters to sales and put them on the front line answering inbound calls. This has met with great success as recruiters are learning the business they support while sales is getting an extra lift.



# YOUR EMPLOYER BRAND IS IMPORTANT FOR TALENT ATTRACTION BUT ALSO KEY TO THE EMPLOYEE EXPERIENCE.

Companies are being more creative in how they are supporting employees. Benefits are being extended and policies adjusted to meet the needs of this unique time. Fun events like virtual happy hours, lunches or virtual tours of home offices including pets are a great way to build teams and provide a deeper level of understanding between co-workers. Above all, leaders need to ask people how they are doing and mean it! Nothing strengthens culture like shared humanity and concern for co-workers that goes beyond a plaque on a wall.

## 4 BE OPTIMISTIC AND PLAN FOR FUTURE

Don't let this crisis paralyze you. Keep moving forward with confidence that, as with other setbacks, we will get through this. Whether it was the Great Depression or the Great Recession, businesses have always transformed and rebounded. In fact, the darkest days of the Spanish flu epidemic in 1918 were followed by the Roaring '20s and some of the most prosperous times in American history.

While things may never return to the way they were, there will be new opportunities. Balance your message about the current state of the coronavirus with a message of encouragement and planning for the future. As your employer brand starts to emphasize future aspirations as well as current realities of our situation, you might just find a few more silver linings amongst the clouds of COVID-19. 🌱



**Kate Kjeell** is president of TalentWell, a recruiting firm that specializes in helping small and mid-sized businesses thrive by finding and hiring the right people. The firm's approach can be described in three words: find, fit, flourish. She can be reached at [kate@talentwellinc.com](mailto:kate@talentwellinc.com).

**MAKE SURE YOUR MESSAGING IS SINCERE AND EMPATHETIC.**





# KEEP WEEDS COVERED

CONTROL CUSTOMERS' WEEDS YEAR-ROUND WITH CHEMICAL APPLICATIONS IN FALL.



## BY LAUREN SABLE FREIMAN

**M**any landscape contractors look ahead to fall as one of the most effective times to apply herbicides to handle problem weeds. Customers likely won't be as willing to wait for that window, however.

Imagine assuring your clients that you'll handle the dandelions, the creeping thistle, the clover, the annual bluegrass and the chickweed in the early fall. You could encourage them to sit back, relax and embrace a plethora of weeds throughout the spring and summer months, when they're most likely utilizing their outdoor living spaces and admiring their beautiful grass and flowering landscapes. David Gardner, PhD, professor of horticulture and crop science at The Ohio State University, admits it can be a very challenging sell.

"Agronomically, it always makes more sense to apply herbicides in the fall, but if you're a businessperson, it is hard to say to your clients, 'Enjoy these

## APPLYING HERBICIDES IN THE FALL ALLOWS MORE HERBICIDE TO GET INTO THE PLANT STRUCTURES BELOW THE GROUND, WHICH CAUSES THE WHOLE PLANT TO DIE.

dandelions in the spring and summer, and I'll control them in the fall," Gardner says. "When you spray in the spring to get rid of them, it is usually only temporary."

In fact, when Gardner begins academic research trials in the fall, he says the areas often remain weed-free until the summer months. Sometimes, the weeds stay at bay for an entire year. That's because applying herbicides in the fall allows more herbicide to get into the plant structures below the ground, which causes the whole plant to die, Gardner says.

In stark contrast, trials beginning in spring typically translate to between 50 to 90 days of good weed control, depending on factors like the specific herbicide used, the rate at which it's applied and the weather. That's because you're only killing the top growth while leaving roots underground that will grow new plants within a matter of months.

So begins a vicious game of catch-up, and according to the experts, it is one that you'll be hard-pressed to win. In the proverbial game of weed control for client landscapes and lawns, the early bird definitely catches the worm.

"There are a complement of weeds that are emerging in late summer into fall, which will regrow in the spring," says Mark Loux, PhD, a professor and extension weed scientist at The Ohio State University. "The goal is interrupting their life cycle in the fall, which is the ideal time to control them. If you wait until spring, they'll regrow and you'll have to deal with them in the spring when they're bigger and harder to control."

## WINTER ANNUAL WEEDS

By late summer, summer annual weeds have set seeds, but those seeds will die after the first frost. While summer annual weeds are no longer a concern, winter annual weeds like common chickweed, henbit, purple deadnettle and hairy bittercress are just beginning their life cycle. These winter annuals produce seeds that germinate late in the year, when temperatures begin to cool. Then, they persist as tiny vegetative plants as they survive the winter. When spring arrives, the plants become larger, more visible and much more challenging to combat.

"By the time they are visible, they've overwintered," Gardner says. "The tissue is hardened off due to cold temperatures, and it becomes more difficult to control those weeds effectively with herbicides."

For severe infestations, Gardner recommends a preemergent herbicide with active ingredients like dithiopyr or prodiamine in late August or early September, but as these applications are typically more costly than a post-emergent, their best use is for more severe infestations. In

Purple deadnettle



Henbit



Common chickweed



Photos: The Ohio State University





ANYWHERE THE LAWN IS THIN IS WHERE WEEDS COME IN, AND ANYTHING YOU SPRAY IN MID TO LATE FALL WILL TAKE MOST OF THAT OUT.

— MARK LOUX, THE OHIO STATE UNIVERSITY

late October, when the plants are young, a three-way post-emergent herbicide is an effective choice.

When spreading a post-emergent herbicide in October, landscape professionals should make sure it is at least 60 degrees. If it's cooler, Gardner says he has had good success controlling weeds using an ester-based formulation in temperatures down to the low 40s.

Winter annual weeds in a landscape bed are a different story. If they germinate and become entwined with desired plant material, there are no herbicides on the market that will selectively kill the unwanted weed growth. In this case, a preemergent herbicide is the best option.

In landscapes where spot spraying is possible, glyphosate is another option. While glyphosate has been reviewed to be non-carcinogenic, be certain to use proper protective gear and follow label instructions when using it. As a contact herbicide, it kills most plants it comes into contact with, so be very precise in application, even when spot spraying.

"In a landscape, you can't use residual herbicides," Loux says. "You're going to wait until they come up, then hit them in mid to late fall so they're not there in the spring."

The window for controlling weeds in a landscape is a bit wider. Loux says that you have until Thanksgiving to attack that growth, which is late enough in the season that most other plant material has gone dormant.

Annual bluegrass, or *Poa annua*, is one winter annual that presents a formidable challenge. Once annual bluegrass, with its characteristic canoe-shaped leaf tips, begins to grow, it is resistant to post-emergent products, leaving preemergent herbicides as the best option for control.

"It's just a pain," says Berni Kurz, an extension educator at the University of Arkansas. "You think you have it whooped, and then in February or March, it comes back."

Kurz says there are at least six or seven preemergent herbicides that will conquer annual bluegrass, including active ingredients such as trifluralin, prodiamine, pendimethalin, dithiopyr and oryzalin. Many of the options are granular, which makes for convenient spreading. It is also harder to overdo a granular application. But once again, getting the preemergent down early is the key to effective control.

"We recommend applying it in August because here in Arkansas, we typically get the cold front in late August or early September," Kurz says. "So if you get it on in early to mid-August, the preemergent material is ready and



White clover



Creeping Charlie

## THE ORGANIC APPROACH

While chemical applications are the most effective way to control weed outbreaks, the options for organic weed control are not so robust.

"There are some organic products, but they are just not consistent enough for me to go out on a limb to recommend those products," says Berni Kurz, an extension educator at the University of Arkansas. "But mulch, we know that works. I never let my mulch get depleted. That is my weed control in my landscape."

Landscape professionals can't go wrong by encouraging clients to keep a healthy layer of mulch in their landscape beds. Kurz says a minimum two-inch layer of organic mulch alone does an amazing job of weed prevention. If a few weeds manage to poke out of the mulch, the growth is so minimal that hand-pulling isn't difficult.



waiting for the grass seeds to germinate. There are a slew of chemicals that work, but the key is getting them on early. If you miss the window for application, you're in trouble and you've got a lot of catching up to do."

## PERENNIAL WEEDS

Perennial weeds are flowering plants that reproduce by seeds or grow back from roots or tubers. They do not die when the frost rolls in. Instead, they lay dormant through the winter, only to come back with a vengeance when spring arrives. For perennial weeds like dandelion and white clover, the same three-way post-emergent herbicides used to combat winter annual weeds will work effectively. Florasulam is another choice for use in temperatures down to 45 degrees.

The addition of more stubborn broad-leaf weed varieties like creeping thistle, ground ivy and wild violet present more of a challenge. In this case, the addition of a protox inhibitor like carfentrazone or sulfentrazone will be more effective, says Gardner.



As for timing, the strategy is the same for both perennial weeds and winter annuals. In the fall, perennials are getting ready for winter by storing carbohydrates underground. Applying an herbicide in the fall makes it more likely that it will travel underground and affect the tissue that makes the plant a perennial, Gardner explains.

In addition to stopping weeds in their tracks, the application of herbicides in the fall also allows time for lawns to fill in and become thick and healthy, a natural form of weed control.

"Anywhere the lawn is thin is where weeds come in, and anything you spray in mid to late fall will take most of that out," Loux says. "You've taken care of them. They won't be there in the spring and that gives the lawn time to fill back in. In thin areas, that is your chance to put more grass seed in there."

Loux also recommends avoiding one common, and detrimental, mistake: cutting the lawn too low. When cutting, be sure to cut only the top 1/3 of the grass blades at one time. Cutting too aggressively, also known as scalping the lawn, allows weeds to creep in.

Anything that keeps the lawn healthy will also help prevent weeds from taking root, Loux says. Dethatching and aer-

ating will keep a lawn in prime shape, along with two fall fertilizations — one in September and one in early November. A decent lawn fertilizer with nitrogen, phosphorous and potassium should do the trick. 🌱

Lauren Sable Freiman is a freelancer writer based in Cleveland and can be reached at [laurensable@gmail.com](mailto:laurensable@gmail.com).



## Maybe It's Selling Your Business

**RETIRING? REACHING CAPACITY? BURNED OUT? SEEKING GROWTH CAPITAL?**

We are interested in purchasing manufacturing companies in the landscape/irrigation industry with revenues between \$1 and \$10 million and EBITDA in excess of \$200,000. We understand the emotional and financial investment you have made into your company. Our goal is to give you maximum value for your company and to retain your current management team for the long term.

**Let's take the  
next step together.**

Contact Jack Miller, VP, Landscape Products  
216-678-9900 or [jack@elvisridgecapital.com](mailto:jack@elvisridgecapital.com)  
[www.elvisridgecapital.com](http://www.elvisridgecapital.com)



**ELVISRIDGE**  
CAPITAL





# Beat the

# HEAT

**BY LINDSEY GETZ**

Protect your team from  
summer's outdoor  
safety risks.

**K**eeping your crews safe in summer months means being aware of some of the outdoor hazards they may face. This includes heat-related illness, stinging insects, vector-borne disease from pests like ticks and mosquitoes, and poisonous plants. These are all serious concerns. According to the Centers for Disease Control and Prevention, about 600 people in the United States are killed by extreme heat every year. Fortunately, with proper safety training and follow-through, many of these risks can be mitigated.

Brenda Jacklitsch, PhD, a health scientist at The National Institute for Occupational Safety and Health, part of the CDC, says that for every potential threat your workers could face (keeping in mind these can vary by region), you should consider the preventative steps that you can take as an employer. What tools or equipment can you provide, how can you educate crews on safety, and what should they do if they are faced with an emergency? As with safety in general, preparedness is key.



Regular and ongoing training is an important piece of being prepared. This might include one big training session, but it also requires daily reminders.

“We recommend that employers have an annual training on heat stress,” says Jacklitsch. “For training we suggest that employers cover how to recognize symptoms of heat-related illness, first aid related to heat-related illness and preventative measures that can be taken. We also encourage employers to explain acclimatization (the initial period of adapting to the conditions where more breaks may be needed) and that it’s important for workers to report heat-related illness symptoms.”

Peter Amato, president and managing director of Site Safety LLC, a safety consulting, management, and training organization headquartered in Manhattan, New York, agrees. He says that it comes down to creating a “culture of safety throughout the entire organization.”

“Ownership should be involved in meeting and discussing the common dangers that your workers face — heat stress being a common one across the country,” Amato says. “There should be daily reminders about the ways that risk can be reduced with the proper preventative measures.”

## PREPARING CREWS FOR PROTECTION

Part of prevention means providing crews with the proper gear and supplies.

Green industry consultant Fred Haskett, head harvester with The Harvest Group, says that crews



**“There should be daily reminders about the ways that risk can be reduced with the proper preventative measures.”**

*– Peter Amato, Site Safety LLC*

should have sunscreen, a first-aid kit, hornet and wasp spray, and plenty of water available to them at all times on the job site. Issuing lightweight long-sleeve shirts for sun protection and wide-brimmed hats is also important.

“Heat is obviously one of the biggest concerns, but you can implement smarter practices to prevent problems,” Haskett says. “As an owner or manager, you should always be watching the weather. Start earlier and finish earlier on the hottest days. Double-check with crews around the mid-point on high heat days to make sure that everyone is OK. As an owner, the hottest days were the times that I ramped up my site visits along with my managers.”

Jacklitsch adds that whenever possible, workers should also have access to air conditioning for breaks, even if it’s in a work vehicle. She also suggests that workers make a natural habit of scouting for shade on work sites. When there isn’t any, she suggests a canopy, or a tent be put up for a shaded break spot.

“It’s also really important that workers be able to recognize the symptoms of heat-related illness,” she says. “For this, we recommend a buddy system. Heat stress is one of those things that as soon as you start



Summer outdoor safety training should be revisited in morning meetings before heading to job sites. All employees should have lightweight long-sleeve shirts and wide-brimmed hats for sun protection. Photos: Level Green Landscaping.







## Pairing crew members through a buddy system can help catch the early signs of heat exhaustion or heatstroke.

having symptoms, you can begin to decline rapidly. It helps to have people watching out for one another. Of course, we do also suggest that the workers, to some extent, conduct some self-monitoring. If they know they are starting to feel the effects of the heat, they need to be aware that it's time to take a break and drink some water."

Signs of heat stress or heat exhaustion include heavy sweating, clammy skin, fast and weak pulse, nausea or vomiting, muscle cramps, tiredness, dizziness, headache, or fainting.

Signs of the more-serious, potentially deadly, heatstroke include high body temperature, hot or damp skin, fast and strong pulse, headache, dizziness, nausea, confusion, and loss of consciousness. Jacklitsch says that the cognitive decline piece of this can make it difficult for someone to recognize they're experiencing a medical emergency, which is why the buddy system is so important.

At Level Green Landscaping, a landscape maintenance company in Washington, D.C.; Maryland and Virginia, these possibilities are taken quite seriously. It's why Brad Butler, the company's chief safety officer, says that crews are educated on when it's time to call emergency services.

Butler says the OSHA-NIOSH Heat Safety Tool app has been really helpful in helping crews assess risk, identify signs and symptoms, and administer first aid in a heat-related illness situation.

In addition to the app, Butler says they're always training as well.

"People need to know the symptoms, how to react based on the symptoms they're seeing, and what phone calls need to be made and in what order," Butler adds.

Use a buddy system to monitor for heat-related illnesses such as heat stress or heatstroke, which can be difficult to recognize alone. It's important for workers to have a space at the site to get out of the sun and cool off. If employees are feeling the effects of the heat, it's time to take a break and drink some water.



## ENCOURAGING COMPLIANCE

When it comes to making sure that workers follow through, putting someone in charge of safety on each crew will help. For most companies, this might naturally fall under the crew supervisor's responsibilities.

Whoever is designated to be in charge of safety should be certain that workers are taking regular hydration breaks on hot days. It's easy to lose track without constant attention, says Amato.

"Those breaks are so important, but they can get forgotten if someone isn't paying attention to the time," he says. "That designated person can also be responsible for paying close attention to any symptoms that might be indicating someone is experiencing heat stress, or even worse, heatstroke."

Haskett says that "leading by example" is important too.

"I'm a staunch believer that if managers and crew leaders are practicing good safety, everyone else follows suit," he says. "You can't take shortcuts in safety as a supervisor and then expect your people to embrace it. Safety needs to be part of your core values. Make sure that crew leaders are well-versed on heat protection and hydration so that they're setting the expectations in their own actions."

At Level Green, Butler says that compliance is encouraged with ongoing reminders. Safety is not a "one and done" scenario. Reminders are part of everyday work life.

"Safety should be talked about constantly," he says. "And everyone should be aware of the risks — keeping in mind that they do change. The goal is no surprises."

## PESTS AND PLANTS

While heat safety is likely one of your biggest concerns, risks like stinging insects, disease-carrying pests or even poisonous plants like poison ivy or poison sumac should also be on your radar in the summer.

Butler says a crew's best defense against both insects and poisonous plants is the uniform. Minimizing skin exposure is key.

"One thing that we've learned with COVID-19 is that the neck gaiters we use to make sure workers' necks are not exposed can also double as a mask, so that's been useful," he says. "Of course, even when covering up, bee stings do happen and sometimes we also have an allergic reaction occur. So, knowing what to do in those situations is really important too. If a doctor prescribes an EpiPen to one of our team members after a sting, we do ask that they make us aware that they have an allergy."

In poisonous plants, it's the urushiol oil that causes a reaction, so Butler says that prevention wipes, which help remove the sticky oil promptly, is also a standard part of crews' personal protective equipment gear.





"If someone does get infected seriously, they know they need to get to the doctor for a steroid shot promptly," Butler says.

Jacklitsch adds that the oils can be spread not only from direct contact with a poisonous plant but by indirect contact too. So that means cleaning clothing and tools that may have come into contact with poisonous plants.

"Of course, one of the biggest concerns is burning these plants," she continues. "Poisonous plants should never be burned. If you burn something like poison ivy, those oils can become particles that you breathe in and that's an immediate medical emergency."

With disease-carrying pests like ticks and mosquitoes, Jacklitsch says that education is important. Recognizing common habitats where ticks and mosquitoes are likely to thrive can help crews to be more cognizant of their risk. Removing any standing water at the job site such as overturning wheelbarrows or dumping buckets can help reduce mosquito breeding. Also, keep in mind that ticks are often found on rodents and wildlife, so taking steps to discourage animals from hanging around the site can help. Remove leaf litter or overgrowth when possible.

Of course, keeping skin covered and potentially even using netting to cover the face can help minimize the risk. Jacklitsch also suggests that insect repellents be another regularly supplied item for workers to use.

There's no question that summer safety is a big responsibility. But taking steps to mitigate risks will provide you with valuable peace of mind that you're doing everything you can to keep your team healthy and safe.

If you're struggling with safety or wondering if you're doing everything you can, Amato suggests hir-



Top: Crew members should gear up with protective clothes as a regular part of preparing for each job. Along with the standard work equipment, each crew should have sunscreen, a first-aid kit, hornet and wasp spray and plenty of water available. Left: A mask is still a useful part of personal protective gear, even as states are relaxing COVID-19 guidelines.



ing a safety consultant to set benchmarks. They can roam around job sites and look for potential hazards. A safety consultant can also be hired to do a company-wide training or run training classes in small groups.

At the end of the day, focusing on training is not only the right thing to do, but it's also good for business.

"If you're a company that truly cares about the team's safety, your people will want to stay with you," Amato says. "Couple that with fewer insurance premiums and peace of mind that your people aren't getting harmed on your watch and it's easy to see why it's worth investing in safety." 🌿

Lindsey Getz is a contributing editor to *Irrigation & Green Industry* and can be reached at [lindsey.getz@yahoo.com](mailto:lindsey.getz@yahoo.com).

**"If managers and crew leaders are practicing good safety, everyone else follows suit."**

*- Fred Haskett,  
The Harvest Group*



A photograph of a suburban house with a grey roof and light-colored siding. The house has a two-car garage with white doors. The front yard is green with a sprinkler system in operation, with water spraying from several heads. A black mailbox is visible on the left. The foreground shows a concrete sidewalk and a flower bed with pink flowers.

# Dealing with DROUGHT

**Contractors work with customer expectations  
and water usage in extreme weather.**



BY RITA KUEBER

**T**he annual growth/dormancy cycle is a sure thing, but always getting it to work to your advantage is not. The independent business owner immersed in landscaping, irrigation and related services knows a bountiful spring growing season can turn with the flap of a butterfly's wing, and a solid contract becomes tinder with a hiccup in the stock market. The prepared contractor has a plan in place for drought, flooding, extreme heat or other adverse conditions, and that plan must be a combination of hard-won experience and client communication.

Jerry Sroka's plan is two-pronged — test the soil every spring and communicate with customers all year round. "In spring, my customers go through an irrigation audit," he says. "We go through the system to make sure it's effective and not wasting precious resources. We make sure the nozzles aren't hitting the sidewalk and the filters aren't clogged. We do rotors and sprays, and drip lines for shrubs." Sroka, the principal of J&L Landscaping Inc. in Raleigh, North Carolina, has spent 22 years in the industry. His clients range from residential to commercial, including hotels, restaurants and day care centers.

In summer 2020, North Carolina is experiencing an overabundance of rain with several tropical storms possible. In and around Raleigh, a transition area with growing zones 5 through 8, it's almost been too wet to work. However, once summer temperatures hit the normal 100 degrees with 80% humidity, lush landscapes can change quickly. "Every year our fescue browns out," he says. "In July and August we get just two days of rain, but it's not considered a drought because the lakes are still full."

Sroka dealt with severe drought conditions in 2007 when the Raleigh area went 96 days with no rain. Because he tests the soil for every client each spring, he was aware of all the elements present but also what the soils were lacking. Working with information from John Havlin, PhD, department of soil science at North Carolina State University, Sroka applied potassium and boron to soils, which break

down to thicken the cells of the roots, creating better drought tolerance.

An additional challenge this year is the shutdown and the economy. Sroka had services and products such as plantings and flowers canceled left and right this past spring. Worse, long-standing clients were not even turning on their irrigation systems, in order to save water. "You can't make up for the water you didn't apply," he states. "I met with property managers, general managers, I wrote letters explaining step by step what's going to happen and how the plants are going to look, and so far I'm right." He says that in a way property owners are putting themselves through a self-imposed drought by doing just the bare minimum of mowing and weeding.

"It's their money," he says. "Nothing we can say. It's going to be a weird year."

**"THE BIGGEST CHALLENGE IS EDUCATING THE CUSTOMER ON HOW TO PROPERLY WATER. EVERY YEAR IS DIFFERENT, A LITTLE BIT MORE CHALLENGING."**

**— DOUG HELLER,  
NORTHWEST IOWA SPRINKLER**

#### PLAY BY THE RULES

Andy Slack, owner of Slack Landscape and Irrigation Consulting in Phoenix, has 25 years of experience working all over the country. He was the national irrigation engineer for Veterans Affairs, completing projects in Florida, the Carolinas, California and the Northwest. He now lives in Phoenix, which faces droughts on a regular, ongoing basis.

"A lot of drought conditions depend on a city and its source of water. That's the way it is out west. It comes down to whoever the water purveyor is — the district or the city that typically affects restrictions

like watering," Slack says. "In Phoenix we rely on well and cap (canal) water, and we have Lake Mead and multiple water sources, so even though it's dry we don't have a lot of water restrictions implemented. There's also a push for not using turf for landscaping, but instead, using rocks and plants with irrigation to conserve water."

Slack explains how on the commercial side, if there's more than 10 acres of grass on one site, the property manager must abide by the Arizona Department of Water Resources rule, which allows 4.9 acre-feet per acre of groundwater use for irrigated turf every year. Golf courses can have no more than five acres of turf per hole, which allows for more but not larger courses.





"Parts of Southern California and Las Vegas have implemented a plan, for winter mainly, that allows you to water so many days per week — three or five depending on what part of the city you're in," he adds.

Slack has found the general mentality on the commercial side is that drought conditions and water management fall to the landscaper. "Without regulation, there's not much incentive to pour money into a system to conserve. Some contractors will use this to push the business of smart controllers," Slack says. "It goes back to what you're paying for water, but controllers are not the be all and end all. You need a human being involved who's paying attention. Controllers will only get you partway there. A human can save you even more water."

Management District. "A few years ago we were down to watering on just one day a week," he says. "But there is some leeway for these fields because there's a lot of money at stake. We can water after a game, for example, no matter what the day of the week."

Hewett works with a two-wire irrigation system and can run up to 225 zones with the unit. He irrigates even on the synthetic fields, which need to be washed for hygienic purposes and to cool the surface as well. "A synthetic field can get up to 120 or 130 degrees, much hotter than the ambient temperature," he says. "We run a lot of water."

His biggest job, though, is to teach people how to grow the St. Augustine and Bahia grasses that can



Because of the pandemic shutdowns, Sroka saw services and plantings canceled. Some long-standing clients skipped even turning on the irrigation systems to save money, despite his advice. Photo: Jerry Sroka



While drought hasn't been a problem for Heller, water restrictions are still a concern because of system capacity. He stays in communication with his clients about irrigation issues. Photo: Doug Heller



## COMMUNICATION WITH CUSTOMERS ABOUT SMART IRRIGATION CHOICES IS AN IMPORTANT STEP IN HANDLING DROUGHT.

### WATER EFFECTIVELY

Jeff Hewett, owner of Sprinkler Solutions of Florida, Plant City, Florida, relies on the eyes, ears and experience of the workers and groundskeepers for the professional, college and high school athletic fields he oversees. "When you have properties as big as ours across Central Florida, we can't be everywhere," he says. While he uses monitors, his team fine-tunes and adjusts the programs, including handling the timing and settings.

The company's specialty is large irrigation system troubleshooting and repair with clients including the 110-acre Southeastern University campus in Lakeland, the Tampa Bay Rays ballclub, and the Tampa Bay Rowdies professional soccer team.

Tampa is unique in that its water is sourced from groundwater, river water and desalinated seawater. Lakeland, further inland, depends on 350-400-foot wells. Usually, water is not scarce, but Hewett recalls some restrictions several years ago and is familiar with the regulations of Southwest Florida Water

flourish if raised and treated properly. "This is what I tell my customers: It takes a year and a half — one good growing season to train the grass," he says. "You do that by watering one time a week. If you water every day, the roots are only sitting in the top 6 inches of soil. Instead, water once for an extra 30 minutes that day. Make the roots chase the water, and they go deeper."

That way, when there's a drought or high heat, the grass is still moist and cool. Hewett doesn't rely on sensors but does monthly inspections on properties and fine-tunes the system until he finds the right levels for the environment.

"We've had very good luck with the commercial people we deal with," he adds.

### CONNECT WITH CUSTOMERS

Doug Heller is the owner of Northwest Iowa Sprinkler in Milford, Iowa, close to the Minnesota/Iowa border. Heller has 28 years of experience in design, installation and maintenance of sprinkler systems



and other services, and his clients include vacation property owners from all 50 states plus commercial clients including hotels, banks and restaurants.

The challenge here is not the lack of water, but the ability to move it. Drought is rare, but mechanical issues are not. "About five years ago we did have restrictions placed, requiring us to use a schedule of even and odd days based on even and odd numbered sides of the street," Heller says. "The problem wasn't the lack of water but the pumping capacity — the system was overloaded."

"We get quite a range of weather here, with 90-degree summer days. When it gets that hot, the grass, mostly bluegrass and some fescue, goes dormant. Then I start getting calls. For high-end customers in the resort communities who come up once a month or just on weekends, the freakout factor is significant," he says.

At that point Heller and his crew of nine take steps to alleviate homeowner concerns. "It's consulting, really," he says. "We give them an education on how grass works, the growth and germination process and how different seeds germinate at different times, and how it's better to water longer but less often." He estimates he talks to half of his 1,000 customers any time the grass starts to flag.

His education process starts in spring. From May to June the crew is checking heads and setting controllers, replacing parts as needed. In fall, given this part of Iowa sees 30 to 50 inches of snow, winterizing and preparing for colder weather goes from Labor Day to October, as owners close up their cabins.

"We have a unique situation with about a third of our customers getting their water directly from the lakes with pumps. They're not paying for the water, so they tend to overwater, and that leads to the pump going down." He explains that watering an average yard here can cost \$400-\$800 a month, and for commercial customers it's more. Costs are high, he says, due to the measures undertaken to control zebra mussels that were accidentally introduced into the lakes several years ago.

"The biggest challenge is educating the customer on how to properly water. Every year is different, a little bit more challenging," Heller says. 🌱

Rita Kueber is a freelance writer in Cleveland, Ohio, and can be reached at [ritakueber@gmail.com](mailto:ritakueber@gmail.com).

## Drip or spray, this is the way.



PR25-9  
Pressure  
Regulating  
Drip Manifold  
Made in the U.S.A.

The PR25-9 converts standard sprays or bubblers to low-volume water-conserving micro irrigation.

- Pressure controlled outlets allow for 1 GPH to 20 GPH from each outlet
- Separate pressure regulation is *not* necessary

Call (951) 737-6822 for more innovative flow control, pressure regulation, and micro-irrigation products.

**HENDRICKSON BROS.**

2931 Rimpau Ave. Corona, CA 92881 • (951) 737-6822 • Fax (951) 737-9151 • [www.hendricksonbros.com](http://www.hendricksonbros.com)

**Making Every Precious Drop Count. Since 1976.**

## Family time.



Brought to you by irrigated landscapes.  
[www.irrigation.org](http://www.irrigation.org)

**Irrigation**  
ASSOCIATION®



# Make a CHANGE



Take control of finances and evaluate customers as businesses reopen.

**A**s businesses reopen and states relax pandemic guidelines, landscapers are getting back to servicing customers. The shutdowns gave many landscape professionals a reason to take a hard look at finances, both in terms of recovery and preparing for future emergencies.

Much of the landscape and irrigation industries fared decently especially compared to markets such as hospitality and restaurants, considering the shutdowns and pandemic, says Ken Thomas, principal at Envior Consulting, Alpharetta, Georgia. Landscaping was considered essential business in several states throughout the shutdowns, and many companies were eligible for Paycheck Protection Program loans.

But the potential for widespread shutdown was an eye-opener for many landscapers who quickly realized how vulnerable their companies were, he says.

"Most of the industry is fairly optimistic that they're going to survive, but they're still anxious about their finances," Thomas says.

Being able to plan quickly is a key quality for businesses recovering from the first half of the year, says David Wagstaff, founder at Entrepreneur's Network, Philadelphia.

"Some businesses are going to come out of this in a very, very strong position, and some are going to struggle," he says. "I think the biggest distinction

is those that can plan rapidly and make changes."

Contractors who were able to recognize the potential impacts of COVID-19 quickly and looked at ways to either shut down briefly or move business to a digital space were best situated, Wagstaff says. For many, the shutdowns were an incentive to do more customer contact via telephone or videoconferencing.

Embracing a more robust digital strategy for connecting with customers can give contractors a leg up on those who don't as businesses start to reopen, Wagstaff says. It also gives those contractors the ability to go back to work with new digital capabilities in place, which could make new markets and customers available.

"Today, many landscapers still produce a paper invoice, and it's sent to the customer or the customer sends a check," says Wagstaff. "But a lot of this can be digitized."

Landscapers need to have a solid understanding of their current finances on a regular basis, says Matt Roberge, CEO and sales for SLC Bookkeeping, Holladay, Utah. That means having a bookkeeping system that provides regular updates, from a daily to weekly basis. Though monthly reports can be helpful, shorter updates will help you make better-informed decisions quickly.

"We all know the numbers are important, but many are so intimidated

by it or it's not in their wheelhouse," Roberge says. "I think you need a regular cadence of at a bare minimum twice per month, but I'd really love to see a weekly bookkeeping routine."

If a landscaper doesn't want to handle the numbers on a daily or weekly basis, try outsourcing to an employee or bringing on a bookkeeper, and keep them accountable to that update routine, Roberge says. When planning, he tries to look ahead about three months, where he feels he can be accurate in estimating expected sales and expenses. That way, he's not caught off guard by problems like cash flow.

## BUILDING A BUDGET

One of the helpful aspects of the landscaping industry is that much of the pricing doesn't have heavy fluctuation, which gives business owners some stability to build budgets around, Wagstaff says. Managing a lawn is likely to cost about the same this year as it did the year before. Be aware of which expenses are increasing and by how much.

Planning this year's budget is a good opportunity to look at your own costs and pricing to customers to make certain they're appropriate for the level of work your team does. Increasing prices by even a small amount, around 10%, can boost income significantly, Wagstaff says. With many fixed expenses, much of the increase will go straight to the bottom line. Increasing prices







can cause concerns over potentially losing customers, but start by comparing the level of service and relative costs to other local businesses. It might also be worthwhile to offer longtime customers a deal for extending service in advance at the lower price.

Being proactive with customers right now in discussing pricing and the right scale of work for what they can afford can win them over for life, says Thomas. If a customer comes to you in need of help and you're able to find a plan that fits well for both of you, it creates a lot of goodwill for future work.

"That shows your sincerity and your partnership with that customer," Thomas says.

Business owners should look beyond just the basics of profit and loss when budgeting to think more in terms of a percentage of income, says Roberge. Keep those percentages in mind when considering new work and overall development. For example, bringing on new employees or a new job should be justified by additional growth in the company's profit margin percentage. If that's not the case, the company might be better off staying smaller and more profitable.

"Understand what is most likely going to happen in your business in the next 2-3 months, and make the necessary adjustments to keep your profit margin healthy," Roberge says.

### CONSIDERING CUSTOMERS

At least in the short term, think hard before bringing on new, large contracts, Roberge says.

"It's really a golden rule in my business," he says. "Large customers are very risky, no matter what stage you're at."

As a guideline, no single customer should make up more than 5% of total revenue, he says. While it might look impressive to have a client that makes up 30% of the annual revenue, it can also be dangerous. If you lose the client when a competitor underbids

the contract, it has a huge impact on your company. Also, service to other customers could suffer as you spend more effort making certain the large client is happy with your efforts.

"This might be a really good time to take a look at your customer list and see who might be a trouble point for you," Roberge says. "It really comes back to understanding your target customer and what you're trying to accomplish."

Taking the time to consider your customer isn't just limited to size, but also market spread, says Thomas.

"We're recommending that everybody rethink and rebalance their portfolio of maintenance accounts," Thomas says. "Not that you're going to make any big changes, but there are certain segments that are more vulnerable to shutdown."

Depending on your company makeup, consider whether maintaining a shopping center that's struggling to bring shoppers back is the right fit for recovery, he says. Consider what the trickle-down of reorganizing customers might be, because it might change the overall direction for your company. Rank maintenance contracts like a stock portfolio, and aim to have a balance that will provide stability even if one segment isn't doing well. If your customer list is heavy in retail locations or hotels, it might be time to think about replacing some of those customers.

"A lot of times when we consult with people, they have accounts for businesses they've been doing for years, but it's really not making any money. But they're afraid to let it go," Thomas says. "It's OK to cull nonperforming business so you open up the opportunity for better business models."

It's also a good time to inspect operations for efficiency, he says. If your company is doing less work overall, that work should be bringing in more money. Make certain good labor management and job estimation systems are in place to be as accurate and effective as possible.

### FUTURE PLANNING

Most customers aren't likely to look for an increase in services in the upcoming year, so plans should take that into account, says Thomas. Make sure client relationships are solid, and stay in contact as you develop next year's budget. Plan for some customers to come back asking for reductions in scope and services, rather than just reducing prices for current services.

"I don't think our industry can give up very much margin anymore," Thomas says. "We don't have that luxury. It's got to be a two-way negotiation."

Going into the next year, as other industries that landscape and irrigation professionals rely on are still recovering, decreases in spending will likely continue, Thomas says.

"Next year, going into budget season, I don't think we're going to see a lot of budget increase in exist-

“

UNDERSTAND WHAT IS MOST LIKELY GOING TO HAPPEN IN YOUR BUSINESS IN THE NEXT 2-3 MONTHS, AND MAKE THE NECESSARY ADJUSTMENTS TO KEEP YOUR PROFIT MARGIN HEALTHY.

— Matt Roberge, SLC Bookkeeping







## THIS IS A GOOD TIME TO LOOK OVER YOUR CUSTOMER LISTS AND DETERMINE WHAT BALANCE OF CUSTOMER TYPES AND SIZES WILL PROVIDE THE MOST STABILITY GOING FORWARD.

ing accounts,” he says. “New business is going to come from new growth rather than customer increases.”

Wagstaff says business owners shouldn't just be thinking of how to make it to the next year's budget. Instead, think about how you'd run your business if it were 10 times larger than it is now.

“It totally shifts your mindset,” Wagstaff says. “You have to think about more than about how you've always done it.”

Thinking in terms of long-term planning is a way to work toward your own personal business goals as much as it's a way to safeguard your business in the case of an emergency, Wagstaff says.

“If you're thinking about these things ahead of time, then it's not a scramble when something happens,” he says.

Coming out of this first wave of shutdowns, it might be a good time to invest in your infrastructure if possible to make sure you're positioned well for the future, whether it means a pandemic or economic slowdown, says Thomas.

“There is no better time to rethink how you do business and to make sure that you eliminate some of the waste in your organization,” he says.

This year might not be the time to invest 100% of your profitability in new trucks and equipment, Wagstaff says. Though no one can predict a future shutdown or emergency, it helps to make sure you have a cash reserve available.

“When things do happen, you can ride the storm out a little bit,” he says.

Cash savings are important, but so is overall access to cash, says Roberge. Look for ways to establish recurring revenue throughout the year, even if the majority of your contracts are finalized before the start of the season.

Business owners need to treat a line of credit responsibly, but every business needs to have one, says Roberge, preferably for the highest amount the bank will authorize.

While a line of credit can make sense for a lot of landscapers, make sure that the business is fundamentally profitable before pursuing it, Wagstaff says.

“You don't want to take out loans to make it profitable,” he says. “If you understand what's happening with your numbers, there can be times when you need this line to just get us through these two months. But what I'd rather see a business owner do is figure out if they can change billing practices to cover that rather than a loan.”

A savings program will go a long way to helping endure problems in the future as well, says Roberge. Though it might not always be possible, aim to have 2-3 months' worth of average expenses held back in case of emergencies.

“If you have that, and a line of credit, you are so much more versatile,” he says. “You would have so much more confidence in your business. I know it's hard, but it should be a goal.” 🌱

The author is editor-in-chief of *Irrigation & Green Industry* magazine and can be reached at [kylebrown@igin.com](mailto:kylebrown@igin.com).

## Easy-to-use landscape and irrigation design software.



Visit us online today at  
[www.RainCAD.com](http://www.RainCAD.com) for details!



Trusted by thousands of green industry professional contractors, consultants and architects in over 30 countries.

Email: [sales@raincad.com](mailto:sales@raincad.com) | Phone: (936) 372-9884



# JAIN

Leave this world better  
than you found it.

Visit us at [www.jainsusa.com](http://www.jainsusa.com)



# The people behind smart irrigation

Irrigation companies talk about what makes smart irrigation important.

"Our industry is moving into a direction that is a coming of a new age for water conservation."

— Clare Gerow,  
Gerow Enterprises LLC

Smart Irrigation Month is an initiative of the Irrigation Association, Fairfax, Virginia, celebrated throughout July to promote the social, economic and environmental benefits of efficient irrigation technologies, products and services in landscape, turf and agricultural irrigation.

This year, the IA is celebrating the people who make the irrigation industry great. From manufacturers to water utilities to landscape and irrigation professionals, each individual plays an important role in the practice and promotion of smart irrigation.

Throughout the month of July, the IA is sharing stories that irrigation professionals have shared about what smart irrigation means to them and how they've used it and promoted the benefits of efficient irrigation with their customers. Share your story at [www.smartirrigationmonth.org](http://www.smartirrigationmonth.org).

Here are just a few of the stories at the heart of promoting smart irrigation.

## GACHINA LANDSCAPE MANAGEMENT

Menlo Park, California

Smart irrigation at Gachina starts with smart people. Having a great team that understands the whole irrigation system is the key to our success. Great products fail to deliver the outcomes we promise when we fail to educate and train properly. Smart irrigation means saving money, time and important water resources.

## WEATHERMATIC

Garland, Texas

Our team at Weathermatic believes and is actively promoting that every landscape maintenance professional can also be in the water management business. With both water and labor rates at all-time highs, there has never been a better time to "become a water management company" in order to bring solutions to their clients' largest budgets, landscape and water. We are seeing a wave of landscape leaders including smart irrigation systems as a standard part of their maintenance agreements, and it is changing the world!

## EARTH ELEMENTS

Huntsville, Ontario

With climate change and increasing energy costs, companies should be looking at investing in adaptive irrigation systems. At Earth Elements, we believe that education and research are the two tools that will ensure that maintaining flourishing landscapes can be done sustainably. This begins with the right irrigation equipment. When we evaluate irrigation equipment, we are actively looking for the equipment and technology that will respond to the evolving needs of the environment and our customer. As part of our continued move to increasingly sustainable solutions, Earth Elements expanded our irrigation lineup to include a variety of smart systems including Wi-Fi-based controllers that pair irrigation to a smart phone application. The integration of this type of system allows us to make changes remotely, easily adjusting the watering schedule to accommodate for temperature and weather variations. We also incorporate MP Rotators, micro and drip zones in every system.

Weathermatic



ISC Group



Gerow






**Earth Elements**

**Ryan Lawn & Tree**
**#SmartIrrigationMonth**

**Gachina**

**UF IFAS**

### **GEROW ENTERPRISES LLC - Clare Gerow**

*Powhatan, Virginia*

When I first got into the business of irrigation, smart controllers were just coming out and becoming popular. I'm a part of the generation that values conservation very highly, and to be in an industry where I was able to make a dedicated effort to conserve water is awesome! Once we began installing Hunter's PRO-HC controller with smart watering capabilities, it became real that I was able to help make a difference in contributing to everyday water savings! It really does add up and gone are the days where every zone gets a certain amount and there's no difference throughout the yard and even day-to-day watering. With features out there that can help measure the soil moisture and even predict the weather, our industry is moving into a direction that is a coming of a new age for water conservation.

### **UF IFAS EXTENSION HILLSBOROUGH COUNTY**

*Seffner, Florida*

Efficient irrigation is important for conserving water and protecting water quality. Our irrigation evaluation program teaches both residential and commercial property owners how to balance irrigation with rainfall for their plant's biological needs, and we show them how to evaluate and maintain their irrigation systems. By the end of the process, clients are delighted to learn how easy it can be to conserve water and save money in their landscapes. Efficient irrigation is environmentally friendly irrigation, and it is becoming more essential as population and new developments continue to increase.

### **ISC GROUP INC.**

*Simi Valley, California*

ISC Group Inc. believes smart irrigation is fundamental. We embrace smart irrigation technologies and principles and implement them in our designs every day. Smart equipment that adjusts irrigation frequencies is a constant conversation in the office. ISC likes to speak water conservation through frequency before runtime adjustments in all conversations regarding programming for healthy plant material and eliminating overwatering.

### **RYAN LAWN & TREE**

*Merriam, Kansas*

Over the last eight years, Smart Irrigation Month has provided our marketing and field teams an educational tool to highlight some of the true costs to both the customer and environment when failing to maintain both residential and business sprinkler systems. We feel a sense of purpose knowing we can help our customers dramatically improve the performance of their green spaces while preserving hundreds of gallons of water resources each and every year. Paired with the money savings, smart irrigation is a serious game-changer. Mark Stuhlsatz, vice president of irrigation, our marketing team and service managers each play a critical role in acting as advocates for improved watering practices while providing the best resources and smart irrigation solutions.

The author is digital content editor of *Irrigation & Green Industry* and can be reached at [sarahbunyea@igin.com](mailto:sarahbunyea@igin.com).





## ASIC announces 2020 Excellence in Irrigation award winner

The American Society of Irrigation Consultants, Royal Oak, Michigan, named its 2020 Excellence in Irrigation Honor Award winner. Water Concern Ltd., Rancho Santa Margarita, California, received an Honor Award in the commercial and public works (large projects) category for the Offices at Santa Clara Square project. The project was cited and awarded for work with an ASIC professional in addressing unique or critical irrigation challenges.

The large commercial technology campus landscape area is 15.1 acres and includes volleyball courts, basketball courts, outdoor amenity spaces and spacious open event lawns.

The role of the irrigation consultant was master planning irrigation services for the entire project, including ensuring that the Sequoia (Redwood) trees within the property be preserved.

The irrigation system includes

- a combination of spray and inline drip irrigation.
- tree irrigation systems that are isolated by species, each with its own control valve to accommodate differing water requirements.
- 13 weather-based evapotranspiration controllers with advanced irrigation parameter programming.
- basket strainer filtration and master valve assemblies that filter and control mainline pipe flow with sensor technology to monitor for high or low flows.
- fertilizer injection assemblies which are utilized at each point of connection to allow microdosing of nutrients as needed.

The award was slated to be presented during the 2020 ASIC National Conference Awards Banquet that has since been rescheduled due to COVID-19. Steven Hohl, FASIC, Water Concern, will be officially presented with the award during the 2021 National Conference in New Orleans.



Photos: ASIC



## NALP announces national campaign to promote the **green industry**

The National Association of Landscape Professionals, Fairfax, Virginia, with support from the Industry Growth Initiative, is engaging in a national public awareness campaign to let the public know that lawn care, landscape, tree care, irrigation companies and nurseries are working hard this season. As the country reopens, NALP is focusing attention on how, collectively, the industry is working safely, keeping healthy people employed and supporting the economy.

The association has created resources, including videos, infographics, social media images, an article and a press release template for industry professionals to share on their social media channels, website or client emails. NALP says it wants to help industry companies promote the ways they are continuing to work safely.

NALP also has shareable content resources for companies that are currently hiring, including a video that lets unemployed workers know that the industry offers safe and rewarding career opportunities.

The Public Awareness Campaign Toolkit is housed in the Toolkits and Resources section at [www.landscapeprofessionals.org](http://www.landscapeprofessionals.org).



## IA cancels Irrigation Show, plans for virtual Education Week

The Irrigation Association, Fairfax, Virginia, announced the cancellation of the 2020 Irrigation Show and Education Week, scheduled for Nov. 30-Dec. 4 in San Antonio, Texas.

After thoroughly examining its options, the Board of Directors determined the IA could not guarantee the positive and rewarding experience that its attendees and exhibitors have come to enjoy each year. The decision is in part due to the fact that the Irrigation Show relies on in-person networking, face-to-face business meetings and hands-on instruction that will not be possible, given the continued social distancing measures that are anticipated to be in place through the remainder of this year.

Certain aspects of the Irrigation Show and Education Week will still be delivered safely and virtually, like the new product contest. The IA and its exhibitors will work together to still offer opportunities to connect, delivering information on cutting-edge technologies, products and services.

The IA is developing its first-ever virtual Education Week, including the IA University classes normally offered in person. While the schedule for the classes will be announced soon, they will still be held during the week of Nov. 30-Dec. 4.

The IA looks forward to seeing irrigation professionals from around the world in person at the 2021 Irrigation Show and Education Week in San Diego, California, Dec. 6-10.



## GGIA announces new executive director

The board of directors of the Georgia Green Industry Association, Blue Ridge, Georgia, named Lanie Riner as the next executive director of GGIA. Lanie brings experience, knowledge and a passion for the industry as she steps into this position. Through her time as owner/operator of Woodbury, Georgia-based Thunderwood Farms, volunteer service to the green industry, and service on other boards and advisory councils, Lanie has developed a skill set that will benefit GGIA in her new leadership role.



GGIA's board of directors is greatly appreciative of the time and effort put into the search by the Search Committee and their careful consideration of all qualified applicants.

"Lanie brings a lot to the table that will benefit GGIA as we move forward," says Jeremy Oxford, GGIA chairman. "I am excited to see her leadership in action as she steps into her new role as GGIA's executive director."

Riner will be joining a GGIA team that already includes Jennifer Addington, GGIA director of administration, and Ashley Prater, GGIA director of membership services. These hardworking team members keep the day-to-day operations going and oversee GGIA's WinterGreen Trade Show and Education Conference held each January.

## RISE and AMCA promote mosquito prevention with the start of hurricane season

With hurricane season beginning June 1, Responsible Industry for a Sound Environment and the American Mosquito Control Association are promoting awareness about the importance of preventing, removing and treating standing water to combat the spread of disease through mosquitoes.

Follow these steps to prevent or lessen the chance of contracting a mosquito-borne disease before and after a storm:

- Drain all standing water and prevent water accumulation when possible. Check all areas that might hold water, such as tire swings, buckets, bottles, birdbaths, pet bowls, flowerpot saucers, pool toys and even bottle caps. Cover trash containers and store boats covered or upside down, or remove rainwater weekly from boats.
- Fill in or drain low places in yards (e.g., puddles, ruts, hollow stumps), and keep grass cut short and shrubbery well-trimmed to eliminate harborage for mosquitoes and other potentially harmful pests.
- Keep roof gutters free of leaves and other debris.
- Dress appropriately in long sleeves and pants.
- Defend yourself against mosquitoes with an EPA-approved repellent.



Maren Winter / stock.adobe.com





**1 Trencher.** E-Z Trench, Loris, South Carolina, introduces its Groundsaw line of mini trenchers: EZ9000 and EZ9100. The Groundsaws will dig a 2.5-inch wide trench from 0 to 13 inches deep with minimal backfill and turf disturbance. Both Groundsaw models can trench 100 feet in approximately five minutes, depending on soil conditions.

The Groundsaw EZ9000 includes a belt drive. The EZ9100 has a centrifugal clutch drive that is bathed in oil, which provides protection against extreme conditions and abuse. Both models include high-speed carbide cutting bits that evenly cut through roots and hard soils. Both models include Honda engines, with the EZ9000 providing 8 horsepower and the EZ9100 providing 6.5 horsepower.

Weighing 250 pounds, Groundsaw trenchers are compact and easy to handle in small spaces.



**E-Z Trench LLC**  
[www.eztrench.com](http://www.eztrench.com)



**2 Cooling vest.** StaCool Industries, Homosassa, Florida, introduces its StaCool Vest Core Body Cooling System, which keeps users cool, comfortable and productive while working in the summer heat, without compromising mobility.

Each vest is made from comfortable, breathable Airprene material for comfort and flexibility and includes ThermoPak inserts that cool the body core. The lightweight cooling vest provides up to three hours of cooling per ThermoPak set (four Thermopaks per set), depending on activity type, environmental conditions and body heat.

The StaCool vest includes a thermal barrier that is built in to ensure the wearer does not get too cold. Models can be worn under clothing or as an over-vest. They are 5-5.5 pounds with ThermoPaks installed and are available in a wide range of sizes to accommodate any body type.



**StaCool Industries**  
[www.stacoolvest.com](http://www.stacoolvest.com)



**3 Controller kits.** Hunter Industries, San Marcos, California, introduces two new kits designed to expand the capabilities of the Pro-C controller. The kits allow users to expand station counts and bring the power of two-wire technology to residential or small commercial projects.

The PCM-1600-Kit enables control for up to 23 conventional stations. If contractors need to expand the system, they plug in the PCM-1600 output module, rather than replacing the controller to add more zones.

The PC-DM-Kit includes a PC-DM decoder output module for use with EZ-1 decoders. The PC-DM can be plugged into a PC-400 to enable control for up to 32 stations (+P/MV). The PC-DM can coexist with conventional stations for hybrid conventional/decoder operations. Both kits are compatible with modular PC-400 models.



**Hunter Industries**  
[www.hunterindustries.com](http://www.hunterindustries.com)

## **SUPPLIER IN THE NEWS**

### **Arborjet and Ecologel support GreenCare for Troops**

Arborjet and Ecologel Solutions LLC will once again be an official Silver sponsor of Project EverGreen's GreenCare for Troops program.



"We are proud to support Project EverGreen as their mission aligns with our philosophy of preserving green spaces, including lawns, trees, parks and communities in a sustainable way," says Ecologel President Rick Irwin. "We look forward to working with them to help support our troops during this especially challenging time. Helping them maintain their lawns is just one small way we feel we can make a meaningful contribution."

As part of this sponsorship, Ecologel has committed to provide free Hydretain products, its soil moisture management technology that is designed to significantly reduce watering requirements of turfgrasses, trees, shrubs, flowers, indoor and outdoor container plants, and agriculture by as much as 50% or more.

"We feel fortunate to have Ecologel on board as a sponsor working toward the common goal of preserving 'green spaces' while supporting GreenCare for Troops across the country," says Cindy Code, executive director at Project EverGreen.

Through GreenCare for Troops, military personnel can request lawn and landscaping services during their period of deployment. Lawn and landscape professionals volunteer to provide these services and once they are matched, volunteers receive access to coupons for free Hydretain products.





**4 Pumps.** Goulds Water Technology, a Xylem brand, Auburn, New York, recently launched the e-HME and e-SVE pumps with integrated and variable speed control and intelligence. The pumps are preprogrammed for quick installation and have a stainless steel casing and inner components for minimal noise levels and long service life. The products are certified to the NSF/ANSI 61 Drinking Water System Components standard and are rated NEMA 3R for outdoor installation.

The IE5 ultra-premium permanent magnet motor operates single- or multi-pump systems of up to three pumps without an external control panel or programmable logic controller. No external drive or controller is required.

The e-HME delivers up to 130 gpm and 540 feet total dynamic head, and the e-SVE delivers up to 85 gpm and 710 feet total dynamic head.



**Goulds Water Technology**  
[www.goulds.com](http://www.goulds.com)



**5 Tred.** Wooster Products, Wooster, Ohio, introduces its die-cut Flex-Tred anti-slip tapes to enhance safety around the workplace by providing a higher coefficient of friction on the applied surface, whether wet or dry.

The Flex-Tred is available in standard die-cut sizes or in custom die cuts. The heavy-duty safety surface provides pedestrian safety on slippery surfaces. It bends over sharp 90-degree angles without fracture and can be bent repeatedly without cracking or failure of the bond.

When applied, Flex-Tred is resistant to motor oil, detergent and hydraulic oil. It will tolerate steam and detergent cleaning and is essentially unaffected by climactic exposure and mild acid or alkali exposure under normal conditions. Flex-Tred has a useful temperature range of -40 F to 220 F, and limited exposure to temperatures above 220 F will not harm the product.



**Wooster Products**  
[www.woosterproducts.com](http://www.woosterproducts.com)



**6 Mower.** The Toro Company, Bloomington, Minnesota, introduces its new Greensmaster eTriFlex series riding greens mowers. The new Greensmaster eTriFlex models carry no hydraulic fluid and utilize all-electric components for traction, steering, lift and cutting. These EnergySmart models are operationally friendly with noticeable noise reductions and operational cost savings.

Combining the Double A-Arm Suspension System with Flex technology, the cutting units float freely over any terrain. The new Radius Dependent Speed System, in combination with the Lift-In-Turn cutting unit leveling feature, virtually eliminates the putting green effect known as triplex ring.

Additional new features include the patented Lift-Gate Footrest, Tool-Free QuickChange cutting units, Automatic "Slow-in-Turn" during transport and auto-brake on operator dismount.



**The Toro Company**  
[www.toro.com](http://www.toro.com)

## SUPPLIER IN THE NEWS

### Honda makes vital ventilator parts for Dynaflo to help COVID-19 patients

Honda is producing and delivering critical components for the production of ventilators to Dynaflo Inc. of Reading, Pennsylvania. Honda teamed up with Dynaflo to increase Dynaflo's production of diaphragm compressors, a key component of portable ventilators that are used in hospitals and by first responders throughout the country to help those who have COVID-19. Dynaflo had been making compressors at the rate of about 75 per week prior to the pandemic. The companies are aiming to produce 10,000 compressors per month once production reaches capacity, and they expect to maintain production of compressors through the end of August.

Honda has transformed a 6,000-square-foot area of its Technical Development Center in Marysville, Ohio, into a space for associates to assemble the compressors. The process was developed using production know-how from Honda's

experienced manufacturing associates. To ensure consistency and quality, Honda associates also have worked closely with Dynaflo personnel to learn best practices in compressor assembly and to test the devices.

Dynaflo and Honda partnered with Stop the Spread, a coalition of more than 1,500 volunteer CEOs working in Washington, D.C., and around the U.S., to catalyze actions and support the government in response to COVID-19. Stop the Spread connected Dynaflo to Honda and the two companies teamed up to meet the critical need for more portable ventilators.



Photo: Honda





**7 Pond pump and products.** Aquascape Inc., St. Charles, Illinois, is offering new adjustable flow pumps and deluxe kits. The Aquascape SLD Adjustable Flow Pond Pump includes asynchronous motor technology offering reliability and longevity and solids-handling capability for less pond maintenance. Wi-Fi connectivity and smart control capabilities allow the pump to be controlled using a smartphone or tablet.

The Aquascape Deluxe Pond and Pondless Waterfall kits include all the components to create a pond or waterfall. Deluxe kits include Wi-Fi-compatible pumps and color-changing lights, which can also be controlled via smartphone or tablet.

The Pump Cleaner Maintenance Solution quickly cleans and lubricates water pumps to extend their lifespan and keep them operating properly. The solution does not contain any harmful acids.



**Aquascape Inc.**  
[www.aquascapeinc.com](http://www.aquascapeinc.com)



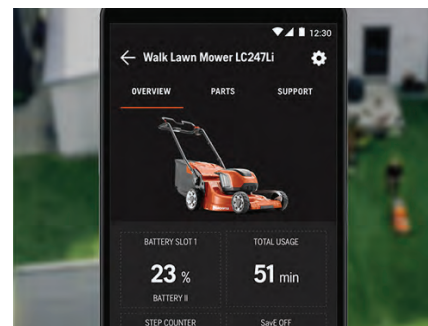
**8 Drop-in valves.** Febco, a Watts brand, North Andover, Massachusetts, offers its new MasterSeries valves for drop-in replacement. The MasterSeries valves are available from 4- to 10-inch in N- and Z-pattern configurations and are designed with the new lay lengths for easy retrofits.

Ready for drop-in replacement, the Febco MasterSeries models have all the features of existing MasterSeries products. Investment-casted stainless steel internal components provide extended valve life and reduced maintenance, and the stainless steel check valve design reduces pressure loss. The Advanced ArmorTeck coating technology mitigates corrosion of internals.

A compact N-pattern is available for installation in tight quarters, and a small form factor reduces enclosure size for cost savings. The MasterSeries products are constructed lead-free to comply with national plumbing regulations.



**Febco - A Watts Brand**  
[www.febcoonline.com](http://www.febcoonline.com)



**9 App.** Husqvarna Professional Products, Charlotte, North Carolina, has launched its new Husqvarna Connect application. This app connects users to their Husqvarna power equipment and provides immediate access to information about their tools from a mobile device.

Once users download the app, they will have access to product overviews that provide technical specifications, various parts and accessories lists (including part numbers and descriptions), dealer information, and operator's manuals and troubleshooting guides. Users will have access to a digital service book to create a log of maintenance activities to keep track of their maintenance history and ensure equipment is running at its best.

Additional features to be added to the app include a "buy now" option, how-to videos and push notification reminders for service activities.



**Husqvarna Professional Products**  
[www.husqvarna.com](http://www.husqvarna.com)

## **SUPPLIER IN THE NEWS**

### **TreePlotter Jobs estimating software free until Nov. 1**

PlanIT Geo, Arvada, Colorado, is waiving all subscription fees for its newest map-based estimating software, TreePlotter Jobs, making it free for all users until Nov. 1, 2020. The cloud-based platform enables tree care companies to create digital estimates of any work they propose to a customer and send an interactive map via email for their approval. PlanIT Geo aims to help tree care businesses perform estimating and invoicing while adhering to social distancing protocols as economies gradually reopen.

Customers of tree care companies using TreePlotter Jobs can explore an itemized list, map and photos of any recommended work and pricing on any device. They can approve estimates in full or piece by piece. Once approved, work orders can be scheduled on a calendar, assigned to a crew foreman, tracked, recorded and invoiced through a paperless

process, eliminating unnecessary contact. TreePlotter Jobs also will integrate with QuickBooks Online for accounting and payment collection.

The company plans to use feedback from additional users to prioritize key new features to incorporate into the software through updates over the course of the coming year. The newly released Jobs platform is the latest addition to the suite, which includes three other solutions designed for arboriculture, urban forestry and park management.



Benjamin Clapp / stock.adobe.com





**15% OFF Everything @ bio-plex.com**



**FREE KN 95 Masks  
with  
PRODUCT ORDERS!**

**#1 Product - #8 Different Applications!**



**toll free: 800.441.3573**  
**eMail: bioplex@earthlink.net**  
**order on-line: bio-plex.com**

## TAKE YOUR GREEN INDUSTRY BUSINESS

TO THE NEXT LEVEL

Strengthen your company culture and build your profitability through our:

- Consulting
- Coaching
- Scientifically validated instruments
- Training

Helping your leadership team connect, communicate and work together better without all the drama.

**TomBorgConsulting.com | tom@tomborg.com**  
**734.404.5909**



## Full Flow Swivel Coupling

• **Full Flow Interior** – Prevents material build-up due to the absence of an interior hose shank. Instead, our coupling screws easily and securely over the outside of the hose to provide full flow.

• **Swivel Joint** – Stainless steel ball bearings ensure smooth swivel action, reducing instances of hose twisting.

• **Versatile 2-Piece Design** – Coupling consists of male and female ends connected by NPSM threads. Male portion also sold separately.



**Fits the following  
Tigerflex™ series hoses:**

- MULCH™
- MULCH-LT™
- BARK™
- LK™
- UV1™



**Kuriyama of America, Inc.**

(847) 755-0360  
sales@kuriyama.com  
www.kuriyama.com



## MAXIJET®

The Standard of Quality in Low-volume Irrigation

## The Wing Jet for Landscapes

3 GPH's: 10.5 16 23.5 4 Patterns:



*Proudly*  
**Made in the USA!**

**For samples:**  
(800) 881-6294  
sales@maxijet.com

**DABMAR LIGHTING**

1000s of Fixtures to choose from

ALL OF OUR FIXTURES AVAILABLE IN LED

LV235 Brass      LV-LED102-SS Stainless Steel      LV-LED120 Cast Aluminum

ph: 805.604.9090 • fax: 805.604.9050      [www.dabmar.com](http://www.dabmar.com)

**No more irrigation in the rain!**

✦ Timer with MAX moisture control, reliable.  
✦ Stop irrigation when MAX wet is reached.

915MHz wireless 1968 ft.      915MHz wireless relay up to 1.49 mile

Li-ion battery powered, last about 1 year, low battery alarm. Pressure meter check to report open/close status wirelessly.

WIFI/3G Remote control Anywhere. Anytime.

Order from [www.anctech.com](http://www.anctech.com) or call 1-877-822-3958 Email: [sales@anctech.com](mailto:sales@anctech.com)

**Cutting Edge Performance from Billy Goat!**

**A Hardscaper's dream.**  
Exclusive laser clad cutting blade's hardened leading edge offers precision cut & up to 3x blade life.  
Variable-speed hydro transmission plus reverse. Match cutting speed to ground condition.

For more information contact your Billy Goat Representative or call **1-800-776-7690**

"Text to Video" feature offers quick view of operating instructions on your mobile device†

† Data rates may apply

**Take the chore out of the chore with Billy Goat!**      [www.billygoat.com](http://www.billygoat.com)

*We help seasonal companies build successful holiday decorating businesses.*

**Christmas Decor**

**We provide:**

- Comprehensive Training
- 24/7/365 Support
- Consistent Product Availability
- Marketing and Sales Plans
- Proprietary Industry Software

**Red, White, & Blue**

Call 1.800.687.9551 for a No-Obligation Territory Analysis  
[www.christmasdecor.net/franchise](http://www.christmasdecor.net/franchise)

Brighten your business outlook.

**SUBSCRIBE FOR FREE.**

**Subscribe today!**

[www.igin.com/Subscribe](http://www.igin.com/Subscribe)





## HELP WANTED

**Natural High**

Are you enlivened by landscaping? Empowered by excelling? Motivated by managing? Tuned in to teamwork? Turn your energy into a successful long-term career at one of Southern CA's premier firms and help us reach new heights.

- Maintenance Account Managers
- Branch Managers
- Tree Care Managers
- Business Development (Sales)

Branches in Los Angeles, Oxnard, San Fernando Valley, Santa Clarita and San Diego.

Two years experience required.



email: [humanresources@staygreen.com](mailto:humanresources@staygreen.com)  
Fax: 877-317-8437 Website: [www.staygreen.com](http://www.staygreen.com)

**Florasearch, Inc**

In our third decade of performing confidential key employee searches for the landscape and irrigation industries and allied trades worldwide. Retained basis only. Candidate contact encouraged, confidential and always free.

Florasearch, Inc.

1740 Lake Markham Road  
Sanford, FL 32771

Ph: 407-320-8177 Fax: 407-320-8083

Email: [search@florasearch.com](mailto:search@florasearch.com)

Website: [www.florasearch.com](http://www.florasearch.com)

## PRODUCTS

**DISCOUNT  
Small Engines &  
Parts**

Small Engines & Parts  
From Briggs & Stratton, Kohler,  
Tecumseh, Robin  
and more.

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

Also, look up your own parts  
And buy online at

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

## EQUIPMENT FOR SALE

DitchWitch 410SX Sale (10 machines Fleet serviced) all units with trencher plow and boring unit. Located in Florida and New York.

Also selling Maxi and Mini Sneakers, dedicated trenchers, missiles and compressors.

Any questions email [jlawlor@agcirrigation.net](mailto:jlawlor@agcirrigation.net)  
or call 631-218-0901.

Also visit us on the web at  
[www.agcirrigation.net](http://www.agcirrigation.net).

Check out the digital edition  
of *Irrigation & Green Industry*  
online at [www.igin.com](http://www.igin.com).



# GROW YOUR BUSINESS BY PLACING AN AD TODAY!

**CONTACT YOUR ACCOUNT  
MANAGER FOR MORE DETAILS.**

**Tom Schoen**

Central

[tom.schoen@bock-assoc.com](mailto:tom.schoen@bock-assoc.com)

952.905.3214

**Alan Scott**

East and West

[alanscott@igin.com](mailto:alanscott@igin.com)

310.593.1928



IRRIGATION &  
**green industry**

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

|                               |                                                                                      |        |
|-------------------------------|--------------------------------------------------------------------------------------|--------|
| ANC Technology -              | <a href="http://www.anctech.com">www.anctech.com</a> .....                           | 48     |
| Billy Goat Industries -       | <a href="http://www.billygoat.com">www.billygoat.com</a> .....                       | 48     |
| BioPlex Organics -            | <a href="http://www.bio-plex.com">www.bio-plex.com</a> .....                         | 47     |
| Brilliance LED -              | <a href="http://www.brillianceled.com">www.brillianceled.com</a> .....               | 21     |
| Christmas Decor -             | <a href="http://www.christmasdecor.net">www.christmasdecor.net</a> .....             | 48     |
| Dabmar -                      | <a href="http://www.dabmar.com">www.dabmar.com</a> .....                             | 48     |
| Dawn Industries -             | <a href="http://www.dawnindustries.com">www.dawnindustries.com</a> .....             | 7      |
| Elvisridge Capital -          | <a href="http://www.elvisridgecapital.com">www.elvisridgecapital.com</a> .....       | 27     |
| Ewing Irrigation -            | <a href="http://www.ewingirrigation.com">www.ewingirrigation.com</a> .....           | 52     |
| FX Luminaire -                | <a href="http://www.fxl.com">www.fxl.com</a> .....                                   | 51     |
| GIE+Expo -                    | <a href="http://www.gie-expo.com">www.gie-expo.com</a> .....                         | 13     |
| Hendrickson Bros. -           | <a href="http://www.hendricksonbros.com">www.hendricksonbros.com</a> .....           | 35     |
| Hydro-Rain -                  | <a href="http://www.hydorain.com">www.hydorain.com</a> .....                         | 2      |
| Irrigation & Green Industry - | <a href="http://www.igin.com">www.igin.com</a> .....                                 | 48, 49 |
| Irrigation Association -      | <a href="http://www.irrigation.org">www.irrigation.org</a> .....                     | 35     |
| Jain Irrigation -             | <a href="http://www.jainsusa.com">www.jainsusa.com</a> .....                         | 39     |
| Kawasaki -                    | <a href="http://www.kawasakienginesusa.com">www.kawasakienginesusa.com</a> .....     | 5      |
| Kuriyama of America -         | <a href="http://www.kuriyama.com">www.kuriyama.com</a> .....                         | 47     |
| Maxijet Inc. -                | <a href="http://www.maxijet.com">www.maxijet.com</a> .....                           | 47     |
| Smart Irrigation Month -      | <a href="http://www.smartirrigationmonth.org">www.smartirrigationmonth.org</a> ..... | 11     |
| Software Republic -           | <a href="http://www.softwarepublic.com">www.softwarepublic.com</a> .....             | 39     |
| Tom Borg Consulting -         | <a href="http://www.tomborgconsulting.com">www.tomborgconsulting.com</a> .....       | 47     |

## ●● BRANCHING OUT



Anastasia Crowley / stock.adobe.com

### TRUGREEN ANNOUNCES LIST OF TOP U.S. BUGGIEST CITIES

Memphis, Tennessee-based TruGreen, a lawn care company whose services include mosquito, flea and tick control, released its 2020 list of cities most bothered by bugs based on compiled customer data from 2019.

1. New York, New York
2. Boston, Massachusetts
3. Chicago, Illinois
4. Atlanta, Georgia
5. Dallas-Fort Worth, Texas
6. Detroit, Michigan
7. Washington, D.C.
8. Philadelphia, Pennsylvania
9. Hartford-New Haven, Connecticut
10. Minneapolis-Saint Paul, Minnesota



## A SMELLY SURPRISE



peter / stock.adobe.com

*Amorphophallus titanum*, also known as the “corpse plant” for its unpleasant aroma, is native to Sumatra. But one recently bloomed in New York City at Barnard College’s Arthur Ross Greenhouse for the first time in a decade, according to *Live Science*.

When this particular *A. titanum* arrived at the Barnard greenhouse seven years ago, it only weighed about 1 pound. Today, the corpse plant weighs more than 40 pounds and sports

a flower standing over 5 feet tall.

It takes about seven to 10 years for a corpse plant to generate its first bloom. As the bloom opened up on May 31, it unleashed the pungent, trademark odor that earned it the name “corpse plant.”

The corpse plant’s aroma doesn’t last long, but the bloom lingers for several more weeks. Once it starts to wither, the greenhouse dries the blossom intact, to preserve it as a specimen for display or study. The tuberous part of the plant that’s beneath the ground is dug up, cleaned, inspected and repotted. And if conditions are favorable, it just may bloom again within a few years.



ungvar / stock.adobe.com

## MAN CAUGHT ON CAMERA MOWING LAWN FOR KANSAS WOMAN

In Topeka, Kansas, a family is looking to thank a man for his random act of kindness. According to an article by KSNT News, Ann Darby and her mother, Rebecca Cox, got an unusual alert from their outdoor motion alert app.

It was a man mowing the lawn on a zero-turn mower, Darby says, and she assumed it was the city.

The next day when Darby’s husband called the City of Topeka, they said it wasn’t them who mowed Rebecca’s lawn. Rebecca is blind, so Ann and her husband have been caring for her at their home in Caney, Kansas, during the stay-at-home order.

Darby says they had planned to make the nearly three-hour drive to mow the lawn themselves, but things have been busy since her husband is an essential worker and she’s having to home-school her children.

She says none of them recognize the man on the mower but expressed their thanks to him.

Darby says they’d love to find out who he is so they can thank him and let him know they’re happy to pay him if he wants to keep mowing Rebecca’s lawn.

## Did you know ...

There are around 10,000 species of grass, and about 1,400 are seen in the United States.

(Source: Oregon State University)



Zoning, dimming, and 30,000 colors.  
Now controlled from *anywhere*.



*With new Luxor® Cloud management*, you can control lighting systems from the palm of your hand — anywhere, anytime. This means no more costly site visits for you and total remote access for your customers. *Welcome to cloud nine.*



# *July is Smart Irrigation Month* **What's smart?**



**Container Irrigation**



**Drip Irrigation**



**Smart Controllers**



**Sensors**



**Soil Amendments**



**Water Efficient Nozzles**



**Service**

Follow us on  
social media:



## **Get Smart and Save Water**

Ewing has the latest smart irrigation products, expert advice, classes and videos, so you can get smarter and save water on every install.

