Explore. Connect. Learn.

REGISTER NOW for the world’s biggest irrigation show!

www.irrigationshow.org

IRRIGATION SHOW | Dec. 4-5, 2019
EDUCATION WEEK | Dec. 2-6, 2019
Las Vegas Convention Center
Las Vegas, Nevada

Co-located with NGWA and ARCSA.

NEW! Industry Insights
See pg. 13
ATTENDEES AGREE

94%
“I LEARNED ABOUT NEW PRODUCTS AND TECHNOLOGIES.”

85%
“DURING THE SHOW, I MADE NEW BUSINESS CONNECTIONS.”

91%
“THE IRRIGATION SHOW IS A GOOD PLACE TO GET INSIGHT ON HOW MY ORGANIZATION CAN IMPROVE IRRIGATION PRACTICES.”

About the Irrigation Show

The Irrigation Show and Education Week is a program of the Irrigation Association, a nonprofit 501(c)(6) organization dedicated to promoting efficient irrigation. Unlike for-profit trade shows, revenue from the Irrigation Show supports IA initiatives to benefit members and the irrigation industry by

- improving industry proficiency through continuing education.
- recognizing and promoting experience and excellence with professional certification.
- ensuring industry standards and codes reflect irrigation best practices.
- influencing water-use public policy at the local, state, regional and national levels.
One location. Unlimited opportunities.

It’s not often an industry brings together everything it offers under one roof, but those in irrigation know the Irrigation Show and Education Week does just that. Once a year the show gathers the best in the industry for a weeklong event with all the education, networking and technology you need to fuel your business. Join us as the industry comes together to explore, connect and learn.

And this year’s Irrigation Show takes the opportunities even further by co-locating with the National Ground Water Association and American Rainwater Catchment Systems Association. The collaboration provides a truly action-packed week focused on the resource we all strive to manage responsibly — water.

Whether you are a first time attendee or a seasoned vet, the 2019 Irrigation Show has something for everyone. It’s not every day you can get together with 10,000 of your industry peers under the spectacular backdrop of glimmering Las Vegas. It is a surefire way to enhance yourself and your business with 600 total exhibitors who have the solutions you are looking for. Sharpen your skills by attending dozens of educational sessions, and make valuable connections with others in your profession through the numerous special events.

Those who’ve attended the show say they’ve come away with meaningful connections from potential new suppliers and gained a better understanding of where the irrigation industry is headed. If irrigation is part of how you make your living, then the 2019 Irrigation Show and Education Week is the place to be. We will see you there! 

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On the Show Floor

**Wednesday, Dec. 4 | 10:00 a.m.-5:00 p.m.**

Browse the show floor to get a firsthand look at all of the latest products, services and technologies in agriculture, landscape, golf and sports turf irrigation to help you expand your business, satisfy customers and grow your bottom line.

With two days to explore the exhibits, be sure to
- inspect the latest technologies at the new product contest and watch the judging.
- visit potential new partners in precision ag irrigation.
- find solutions to ancillary landscape markets such as ponds and waterscapes and outdoor lighting.

**ARCSA Rainwater Harvesting Pavilion**

Predating the Old Testament, rainwater harvesting is an affordable, environmentally friendly solution to many water challenges. Explore the latest equipment and available services to collect this increasingly popular water source at the ARCSA Rainwater Harvesting Pavilion.

*Sponsored by*

![ARCSA](image)

**Pond & Waterscape Pavilion**

The Pond and Waterscape Pavilion is a must-see for those doing business in this growing market segment. Discover cutting-edge products and technologies for pond and waterscape installation and maintenance.

*Water feature sponsored by*

![Atlantic](image)

**Student Poster Competition**

The future of the irrigation industry is bright and will shine this year on the Irrigation Show floor. Students from various colleges and universities will showcase their latest irrigation projects. Attendees are encouraged to interact with and learn from these bright young minds and the future of the irrigation industry when visiting the show floor on Thursday, Dec. 4.

**Thursday, Dec. 5 | 10:00 a.m.-3:00 p.m.**

**Harley-Davidson Motorcycle Raffle**

Picture yourself cruising down the road on a shiny new hog. The IA will be raffling a brand-new Harley during the show. Proceeds will support workforce development efforts.

**Live From the Show Floor!**

The IA is bringing some of the Industry Insights presentations to the show floor! While browsing exhibits, don’t miss out on these unique live presentations. The sessions will offer interesting and thought-provoking information on a variety of topics, highlighting issues that are timely and relevant to the industry.

**Radio Row**

The IA is excited for Radio Row to return to the Irrigation Show floor. Radio Row is a dedicated space for radio stations and podcasts from across the United States to either broadcast live or conduct interviews with irrigation professionals and experts attending the show. Radio Row is a great opportunity for all attendees to see some of their favorite ag radio and podcast hosts live and in action.

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**IA Resource Center**

If you have a question about the Irrigation Show or the IA, the Resource Center has your answer. The Resource Center is also your source for the numerous agriculture, turf-landscape and golf irrigation books and resources available through the IA, as well as information about the association’s two printed publications: *Irrigation & Green Industry* (landscape-focused magazine) and *Irrigation Today* (agriculture-focused magazine).

While you are there, check out the resume wall stocked full of resumes from recent and upcoming graduates. If you are looking to hire, this a great place to find top-notch candidates.

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See the latest innovative products to hit the irrigation and lighting markets. The new product contest puts the spotlight on technologies and products introduced during the past year.

Attendees not only have the opportunity to see these products up close any time on the show floor, but they can also listen to the product creator present to the expert judges during the new product contest presentations on Wednesday, Dec. 4, 2:00 p.m.-5:00 p.m. **This year, the contest judging will take place on the show floor, giving more people the opportunity to hear about these great new products and technologies.**

The contest includes new products in categories covering agriculture, landscape and golf irrigation, landscape lighting, and specialty areas. Each product is evaluated by a panel of judges, and winners in each category are announced during the general session.

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**New Product Contest Judging 2019 – Seeking Volunteer Judges**

**Wednesday, Dec. 4, 2:00 p.m.-5:00 p.m.**

Are you interested in being a judge in one of the new product contest categories? The IA is collecting applications for new product contest judges for agriculture irrigation, landscape and golf irrigation, landscape lighting and a specialty category that covers products that are not an integral part of the irrigation or lighting system.

The IA is looking for individuals who have an open mind to innovation and an expertise in one of the product categories. To be eligible to serve as a judge, an individual must be an IA member. Ideally, a judge is an end user, installer, specifier, or water agency or academic institution employee. Those working for manufacturers or who have a direct connection to a product in the contest are not eligible. Judges must be available early afternoon Dec. 4 in Las Vegas.

For additional details, see www.irrigationshow.org or contact Brent Mechem, CID, CLWM, CIC, CLIA, CAIS (brentmecham@irrigation.org).
Special Events

Keynote Address
Wednesday, Dec. 4, 8:30 a.m.-9:45 a.m.

Keynote Speaker Jim Abbott
Making it to the pitcher’s mound in a Major League Baseball game is a major accomplishment that few young baseball players achieve. Jim Abbott did. And he was born with only one hand.

You won’t want to miss hearing this former MLB pitcher as he shares his story about adapting and overcoming adversity to achieve his goals and have a successful pitching career.

As a child growing up in Flint, Michigan, Abbott remembers always enjoying sports and wanting a career in professional sports in some capacity. He could always throw well — and even played quarterback on his high school football team in addition to being a top pitcher.

Although he was drafted by the Toronto Blue Jays in 1985, Abbott declined and went to play baseball at the University of Michigan. As the first baseball player to win the Sullivan Award as the nation’s outstanding amateur athlete in 1987, Abbott went on to represent Team USA and became the first American pitcher in 25 years to beat a Cuban team on Cuban soil. The team won a silver medal at the Pan-American Games, and Abbott won the U.S. Baseball Federation’s Golden Spikes Award as the best amateur player in the country.

In the 1988 Olympics, Abbott was the winning pitcher in a 5-3 victory over Japan that brought the United States its first gold medal in baseball. He was then drafted by the California Angels in the first round (8th pick) and was one of only three pitchers during the 1980s to win his first professional game at the major league level. His most famous high point came in 1993 when he threw a no-hitter for the New York Yankees at Yankee Stadium. Abbott played for 10 seasons on four different teams, ending his big-league playing career in 1999.

Abbott will share how he was able to overcome perceived limitations and reach his dreams. He encourages audiences to find something they love and to go after it with all their heart. He is the author of his autobiography titled Imperfect. His story has been featured in numerous magazines, and he has appeared on several television shows.

The keynote address is open to all attendees and exhibitors. Coffee will be provided. Join us for a book signing in the resource center immediately following the keynote address.

General Session
Thursday, Dec. 5, 8:30 a.m.-9:45 a.m.

The general session marks the culmination of a year filled with progress and innovation in the industry. The event celebrates the success of the past year, while looking forward to the bright future ahead.

The session includes valuable information about the IA’s strategic plan and recognizes those who have made significant contributions in the industry with the annual awards.

During the session, the IA will present the Industry Achievement Award, Innovator Award, Board of Directors Award, Vanguard Award and the Excellence in Education Award. We are proud to celebrate the excellence in the industry represented through the recipients of these awards. Come and hear more about their valuable contributions to irrigation.

The finale of the session is the anticipated announcement of the winners of the new product contest. After seeing these new technologies firsthand on the show floor, come hear which products the panel of judges chose as the best in each category.

The general session is open to all attendees and exhibitors. Coffee will be provided.
Exhibitors (as of July 31, 2019)

Action Machining Inc.
Action Technology – Tekiro Inc.
Advanced Drainage Systems Inc.
Agri-Inject Inc.
Airmar Technology
Alliance Outdoor Lighting
American Lighting Inc.
Amiad Water Systems USA
Andros Engineering
Anhui Irritech Agriculture Equipment Corporation Limited
Anjon Manufacturing
Antelco Corporation
Applied Engineering Products Aquaflex Inc.
Arborjet/Ecogel
Armada Technologies
Association of Outdoor Lighting Professionals
Atlantic Water Gardens
B.A. Fischer Sales Co. Inc.
BALDR International
Barrett Engineered Pumps
Bauer North America Inc.
Berdac Inc.
Blackburn Manufacturing Co.
Blue Planet Environmental
Bluelab Corporation US
Bowsmith Inc.
Brilliance LED, LLC
Buckner Superior
Bushman Rain Harvesting
Carlisle SynTec Systems
Center for Irrigation Technology, California
CLS Outdoor Environments
CMF Global Inc.
Cornell Pump Company
Corona Tools
Cresline Plastic Pipe Company Inc.
Danner Manufacturing Co. Inc.
Davis Instruments
Dawntex Industries Inc.
DeWitt Company
DIG Corporation
Dragon-Line
Dura Plastic Products Inc.
Dynamax Inc.
Earth Science Labs
Ecoturf Midwest Inc.
Effebi USA
Epic Plastics
Everlift
Ewing Irrigation Products Inc.
E-Z Weld Group LLC
EZ-FLO Fertilizing Systems
Fernandez Review Africa
FB Balzanelli USA Inc.
FEBCO – A WATTS BRAND
FIBOX Enclosures
FLOMEC
Focus Industries Inc.
Fresno Valves & Castings Inc.
Ghen Irrigation Works
Greentek Energy Systems
GroGuru
Ground Cover Industries Inc.
Gulf Agriculture
HARCO Fittings
Hastings Irrigation Pipe Co.
Hendrickson Bros.
Heritage Plastics
Highline Products
HintSoftware
HIT Products Corporation
Horizon Distributors
HSTI
Hubbell Enclosures
Huntier Industries Inc.
HydroPoint Data Systems Inc.
Hydro-Rain Inc.
Illumece Group Limited
In-Situ
Inject-O-Meter Mfg. Co. Inc.
International Sustainable Irrigation Expo
Irrigation Components International Inc.
Irrigation Listings
Irrigation Solutions
Irrigation Training & Research Center
Irrigazette
Irritec USA Inc.
Irritol
Irometer Company Inc.
JCM Industries Inc.
JM Eagle Inc.
Kasco Marine Inc.
Kifco Inc.
King Innovation
KJ Ketterling Enterprises LLC
K-Rain Manufacturing Corp.
Kroy Industries
Kurutoga of America
KZ Valve
Lake Company
Land F/X
Landscape Products
LASCO Fittings Inc.
Lawn & Landscape
Leemco Inc.
Lindsay Corporation
LX Pumps North America Inc.
Matco-Norca Inc.
Maxjet Inc. & Mister Landscape Inc.
Maximum H2O
Mazzel Injector Co. LLC
MCC USA Inc.
McCrometer Inc.
Miller-Leaman Inc.
Morrill Industries Inc.
Motorola/Motech USA Inc.
Munro
MurCal, Inc.
Murray Corporation
N-Drip Ltd.
NDS – National Diversified Sales Inc.
Nebraska Irrigation
Nelson Irrigation Corp.
Neptune Chemical Pump Co.
New Ag International
North American Pipe Corp.
Oldcastle Infrastructure
Olson Irrigation Systems
Ormi Gear
Orival Inc.
Paige Electric Company, LP
Philmac
Phoenix Specialty Manufacturing, Co.
Pierce Corporation
PM Group Irrigation Technologies
Ponaflex Hose Manufacturing Inc.
Potato Grower Magazine
Praxis
Precision Laboratories
Precision Pumping Systems
Pro Products LLC
Rachio Inc.
Rain Bird Corporation
Rainwater Management Solutions
Ranch Systems LLC
Realm Five Inc.
Reef Industries Inc.
Regency Wire & Cable
Reinke Manufacturing Company Inc.
Responsive Drip Irrigation LLC
Revista Deriego
Robbco Pumps
Roth North America
Seametrics Inc.
Senninger Irrigation Inc.
Sensoterra
Shine On Lighting
ShinMaywa
Sistemas de Filtrado y Tratamiento de Fluidos S.A.
SiteOne Landscape Supply
SNI Inc.
Soileu Industries Inc.
Sollos Landscape Lighting
Southern Nevada Water Authority
Spagetti Sticker
Sears Manufacturing Company Inc.
Spectrum Technologies Inc.
Spiio Inc.
Sprinkl
SRW Products
Strongbox Manufacturing
Subeca Inc.
Sun-Flow Inc.
Sure-Flo Fittings
T&C Mfg & Operating Inc.
T. Christy Enterprises Inc.
TECO Sri
Tempo Communications
Texas A&M AgriLife Extension Service
The Dotev Company
The Toro Company
T-L Irrigation Company
Travis Pattern & Foundry
TrynEx, a Douglas Dynamics Company
Tsurumi America Inc.
Tucor Inc.
Underhill International Corp.
Unique Lighting Systems Inc.
Universal Irrigation
Sales Corp.
Universal Motion Components
USDA – NASS
Valley Irrigation
Valplastic USA LLC
Vitaculic
Volt Lighting
WAC Lighting
Wade Rain
Walrus America Inc.
WaterBit
Waterman Valve LLC
Watertronics
Weathermatic
Winin Enterprise Co. Ltd.
Wiscon Engineering Inc.
XCAD Valve & Irrigation Inc.
YAMIT USA
Yardney Water Management Systems Inc.
Zotexa LLC
Zurn Wilkins
When partnering with NGWA and ARCSA, the number of exhibitors available to you doubles! Please visit www.ngwa.org to see their exhibitor list.

Featured Products & Systems
Aerators
Alternate water sources equipment
Backflow prevention equipment
Canal automation equipment
Center pivot/lateral move systems & components
Chemical & fertilizer equipment
Clamps & pipe restraints
Computer software design & management
Consulting services
Controllers
Couplings
Data loggers
Drainage systems & fittings
Drip/microirrigation systems & components
Electric motors & components
Enclosures
Fittings
Flags, tape & marking products
Flow controls, sensors & meters
Freeze protection
Gated pipe systems & components
Gauges
Global positioning systems
Geographic information systems
Greenhouse/nursery products
Hand move systems & components
Hand tools
Landscape lighting & products
Liners & moisture sealant products
Locators – electrical/pipe & metal detectors
Misting & cooling systems
Pipe & accessories
Pond & water features equipment & supplies
Pressure fittings, gauges & regulators
Pumps & pump drives, stations & controls
Rain sensors
Rainwater harvesting equipment
Remote control products
Side roll systems & components
Soil moisture sensors
Solid set systems & components
Spray nozzles
Sprinkler systems & components
Storage tanks
Swing joints
Travellers – hose, reels & components
Valves & valve boxes
Wastewater
Water disinfection equipment
Water features & fountains
Water filters, strainers & sand separators
Water resources management
Water treatment
Weather monitoring equipment
Well screens
Wire & wire connectors

Register for the 2019 Irrigation Show & Education Week today! | www.irrigationshow.org
# Schedule of Events (subject to change)

## SUNDAY, DEC. 1

<table>
<thead>
<tr>
<th>Event Event</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>REGISTRATION OPEN</td>
<td>4:00 p.m.-6:00 p.m.</td>
</tr>
</tbody>
</table>

## MONDAY, DEC. 2

<table>
<thead>
<tr>
<th>Event Event</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>REGISTRATION OPEN</td>
<td>7:00 a.m.-6:00 p.m.</td>
</tr>
<tr>
<td>IA University (see pg. 20-24)</td>
<td>8:00 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>ARCSA Annual Conference (coffee at 8:00 a.m.)</td>
<td>8:00 a.m.-5:20 p.m.</td>
</tr>
<tr>
<td>Exhibitor Move-In</td>
<td>8:00 a.m.-6:00 p.m.</td>
</tr>
</tbody>
</table>

## TUESDAY, DEC. 3

<table>
<thead>
<tr>
<th>Event Event</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>REGISTRATION OPEN</td>
<td>7:00 a.m.-6:00 p.m.</td>
</tr>
<tr>
<td>Certified Low Voltage Lighting Technician (CLVLT) Exam (see pg. 26)</td>
<td>7:30 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>IA University (see pg. 20-24)</td>
<td>8:00 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>ARCSA Annual Conference (coffee at 8:00 a.m.)</td>
<td>8:00 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>Exhibitor Move-In</td>
<td>8:00 a.m.-6:00 p.m.</td>
</tr>
<tr>
<td>Irrigation Consumer Bill of Rights</td>
<td>8:00 a.m.-8:30 a.m.</td>
</tr>
<tr>
<td>SWAT &amp; Apps for Water Conservation on Turfgrass</td>
<td>8:00 a.m.-8:30 a.m.</td>
</tr>
<tr>
<td>Lessons From the 2019 Green Industry Benchmark Report</td>
<td>8:00 a.m.-9:00 a.m.</td>
</tr>
<tr>
<td>A Novel System for Designing Lay-Flat Irrigation Pipe Systems for Flood &amp; Furrow Irrigation</td>
<td>8:35 a.m.-9:05 a.m.</td>
</tr>
<tr>
<td>Comparing Weekly Irrigation to Rain Sensor Performance</td>
<td>8:35 a.m.-9:05 a.m.</td>
</tr>
<tr>
<td>Social Media: Stop Pushing &amp; Start Engaging!</td>
<td>9:05 a.m.-10:05 a.m.</td>
</tr>
<tr>
<td>Timed Flooding Yields Significant Gains in Rice Farming</td>
<td>9:10 a.m.-9:40 a.m.</td>
</tr>
<tr>
<td>Rain First – Maximizing Effective Rainfall for Conservation</td>
<td>9:10 a.m.-9:40 a.m.</td>
</tr>
<tr>
<td>Fewer Drinks for the Links</td>
<td>9:45 a.m.-10:15 a.m.</td>
</tr>
<tr>
<td>Soil Water Sensing From Afar: How the Cloud Is Enabling Remote Data Collection</td>
<td>10:00 a.m.-10:30 a.m.</td>
</tr>
<tr>
<td>Why a Certified Professional Beats Its Competitors</td>
<td>10:10 a.m.-10:40 a.m.</td>
</tr>
<tr>
<td>Soil Moisture Sensor-Based Irrigation Scheduling on Fairways</td>
<td>10:20 a.m.-10:50 a.m.</td>
</tr>
<tr>
<td>Sensor Feedback &amp; Variable Rate Irrigation for Potatoes</td>
<td>10:35 a.m.-11:05 a.m.</td>
</tr>
<tr>
<td>Leveraging Water Agency Incentives by Smart Site Selections</td>
<td>10:45 a.m.-11:15 a.m.</td>
</tr>
</tbody>
</table>

## WEDNESDAY, DEC. 4

<table>
<thead>
<tr>
<th>Event Event</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>REGISTRATION OPEN</td>
<td>7:00 a.m.-8:00 a.m.</td>
</tr>
<tr>
<td>IA Certification Exams (see pg. 25)</td>
<td>8:00 a.m.-12:00 p.m.</td>
</tr>
<tr>
<td>IA University (see pg. 20-24)</td>
<td>8:00 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>ARCSA Rainwater Catchment Systems Designer Workshop</td>
<td>8:00 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>Keynote Address (coffee at 8:00 a.m.)</td>
<td>8:30 a.m.-9:45 a.m.</td>
</tr>
<tr>
<td>EXHIBIT HALL OPEN</td>
<td>10:00 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>Live From the Show Floor! Radio Row</td>
<td>10:00 a.m.-10:30 a.m.</td>
</tr>
<tr>
<td>New Product Contest Judging</td>
<td>10:00 a.m.-10:30 a.m.</td>
</tr>
<tr>
<td>Sprinkler Drop Characteristics via Weather Monitoring System</td>
<td>10:00 a.m.-10:30 a.m.</td>
</tr>
<tr>
<td>Rainwater Collection</td>
<td>10:00 a.m.-11:00 a.m.</td>
</tr>
<tr>
<td>Panel Discussion: Sustainable Manufacturing</td>
<td>10:00 a.m.-11:00 a.m.</td>
</tr>
<tr>
<td>How to Come a Leader in Water Conservation</td>
<td>10:30 a.m.-11:00 a.m.</td>
</tr>
<tr>
<td>Center Pivot Application Uniformity</td>
<td>10:35 a.m.-11:05 a.m.</td>
</tr>
<tr>
<td>Regulatory Precipitation Rate Limits – Water Saver or Waster?</td>
<td>11:05 a.m.-11:35 a.m.</td>
</tr>
<tr>
<td>Designing &amp; Building Landscapes Using Only Rainwater</td>
<td>11:05 a.m.-12:05 p.m.</td>
</tr>
</tbody>
</table>

Industry Insights: Agriculture Track | Landscape Track | Bonus Track | Live From the Show Floor!
**WEDNESDAY, DEC. 4 (continued)**

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporating Wi-Fi Technology Into Your Business Plan</td>
<td>11:05 a.m.-12:05 p.m.</td>
</tr>
<tr>
<td>A More Efficient Way to Collect PSI During Drip Assessments</td>
<td>11:10 a.m.-11:40 a.m.</td>
</tr>
<tr>
<td>Water Hazard Ahead! Assessing Aging Irrigation Systems</td>
<td>11:40 a.m.-12:10 p.m.</td>
</tr>
<tr>
<td>Certification Luncheon (certified individuals only, RSVP required)</td>
<td>12:00 p.m.-1:00 p.m.</td>
</tr>
<tr>
<td>IA Certification Exams (see pg. 25)</td>
<td>1:00 p.m.-6:00 p.m.</td>
</tr>
<tr>
<td>Options for Estimating Plant Water Requirements for Irrigation Scheduling in Louisiana</td>
<td>2:00 p.m.-2:30 p.m.</td>
</tr>
<tr>
<td>Rainwater BMPs: Plants, Soil Irrigation &amp; Regulations</td>
<td>2:00 p.m.-2:30 p.m.</td>
</tr>
<tr>
<td>Protect the Heart of the Irrigation System – The Pump</td>
<td>2:00 p.m.-2:30 p.m.</td>
</tr>
<tr>
<td>Use Satellite Imagery to Calibrate Crop Coefficient</td>
<td>2:35 p.m.-3:05 p.m.</td>
</tr>
<tr>
<td>Pumps – Long-Term Thinking vs. Short-Term Cost</td>
<td>2:35 p.m.-3:05 p.m.</td>
</tr>
<tr>
<td>LID &amp; Landscape: Best Design Practices for Stormwater BMPs</td>
<td>2:35 p.m.-4:05 p.m.</td>
</tr>
<tr>
<td>State Association Roundtable</td>
<td>3:00 p.m.-4:00 p.m.</td>
</tr>
<tr>
<td>Water Needs for Irrigated Mombaça Grass</td>
<td>3:10 p.m.-3:40 p.m.</td>
</tr>
<tr>
<td>Pump Station Retrofits – When Might It Make Sense?</td>
<td>3:10 p.m.-3:40 p.m.</td>
</tr>
<tr>
<td>Water-Energy Footprint in Blueberry Crops in Argentina</td>
<td>3:45 p.m.-4:15 p.m.</td>
</tr>
<tr>
<td>Energy Efficiency vs. Water Efficiency: What’s the Difference?</td>
<td>3:45 p.m.-4:45 p.m.</td>
</tr>
<tr>
<td>Surface Water vs. ET, in the Southern San Joaquin Valley</td>
<td>4:20 p.m.-4:50 p.m.</td>
</tr>
<tr>
<td>Women in Irrigation Social</td>
<td>5:00 p.m.-6:00 p.m.</td>
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</tbody>
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**THURSDAY, DEC. 5**

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>Drip-Micro Common Interest Group</td>
<td>7:00 a.m.-8:00 a.m.</td>
</tr>
<tr>
<td>Young Professionals Breakfast</td>
<td>7:30 a.m.-8:30 a.m.</td>
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<tr>
<td>ARCSA Rainwater Catchment Systems Designer Workshop</td>
<td>8:00 a.m.-5:00 p.m.</td>
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<tr>
<td>IA General Session (coffee at 8:00 a.m.)</td>
<td>8:30 a.m.-9:45 a.m.</td>
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<tr>
<td>Regulating Valves: Overview &amp; Best Practices</td>
<td>10:00 a.m.-10:30 a.m.</td>
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**EXHIBIT HALL OPEN**

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
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<tbody>
<tr>
<td>Live from the Show Floor! Student Poster Competition</td>
<td>10:00 a.m.-3:00 p.m.</td>
</tr>
<tr>
<td>Radio Row</td>
<td>10:30 a.m.-12:10 p.m.</td>
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<tr>
<td>Radio Row</td>
<td>10:30 a.m.-2:00 p.m.</td>
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<tr>
<td>Radio Row</td>
<td>10:30 a.m.-3:00 p.m.</td>
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<tr>
<td>Developing Systems That Are Repeatable &amp; Scalable</td>
<td>10:00 a.m.-10:30 a.m.</td>
</tr>
<tr>
<td>WaterSense Update</td>
<td>10:00 a.m.-11:00 a.m.</td>
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<tr>
<td>IPS Weld-On ECO ASTM D2855 Solvent Cement Welding Seminar</td>
<td>10:30 a.m.-11:30 a.m.</td>
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<tr>
<td>Manufacturers’ Representatives Common Interest Group</td>
<td>10:30 a.m.-11:30 a.m.</td>
</tr>
<tr>
<td>Basics of Backflow Prevention Systems</td>
<td>10:35 a.m.-11:35 a.m.</td>
</tr>
<tr>
<td>Understanding Pressure Regulation</td>
<td>10:35 a.m.-11:35 a.m.</td>
</tr>
<tr>
<td>Sustainability Common Interest Group</td>
<td>11:00 a.m.-12:30 p.m.</td>
</tr>
<tr>
<td>Irrigation Innovation Consortium: First-Year Data Unveiled</td>
<td>11:05 a.m.-12:35 p.m.</td>
</tr>
<tr>
<td>Know the Facts – H-2A &amp; H-2B Guest Worker Program Updates</td>
<td>11:35 a.m.-12:05 p.m.</td>
</tr>
<tr>
<td>Panel Discussion: Subsurface Irrigation Solutions: Forced vs. Responsive</td>
<td>11:40 a.m.-12:40 p.m.</td>
</tr>
<tr>
<td>Irrigation LABS, Leadership &amp; Business Success Peer Group (see pg. 11)</td>
<td>1:00 p.m.-6:00 p.m.</td>
</tr>
<tr>
<td>IA Certification Exams (see pg. 25)</td>
<td>1:00 p.m.-6:00 p.m.</td>
</tr>
<tr>
<td>Irrigation Scheduling Methods for Drip Irrigated Potato</td>
<td>2:00 p.m.-2:30 p.m.</td>
</tr>
<tr>
<td>Lighting Design – Beyond the Basics</td>
<td>2:00 p.m.-3:30 p.m.</td>
</tr>
<tr>
<td>Precision Irrigation Management in Young &amp; Mature Almonds</td>
<td>2:35 p.m.-3:05 p.m.</td>
</tr>
<tr>
<td>IA University (see pg. 20-24)</td>
<td>3:00 p.m.-5:00 p.m.</td>
</tr>
<tr>
<td>Irrigation Scheduler for Soybean in the Mississippi Delta</td>
<td>3:10 p.m.-3:40 p.m.</td>
</tr>
<tr>
<td>The Missing Link in Irrigation Efficiency</td>
<td>3:45 p.m.-4:45 p.m.</td>
</tr>
<tr>
<td>Exhibitor Move-Out</td>
<td>3:30 p.m.-9:00 p.m.</td>
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**FRIDAY, DEC. 6**

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
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<tbody>
<tr>
<td>REGISTRATION OPEN</td>
<td>7:00 a.m.-10:00 a.m.</td>
</tr>
<tr>
<td>IA University (see pg. 20-24)</td>
<td>8:00 a.m.-12:00 p.m.</td>
</tr>
<tr>
<td>Irrigation LABS, Leadership &amp; Business Success Peer Group (see pg. 11)</td>
<td>8:00 a.m.-12:00 p.m.</td>
</tr>
<tr>
<td>IA Certification Exams (see pg. 25)</td>
<td>8:00 a.m.-1:00 p.m.</td>
</tr>
<tr>
<td>Exhibitor Move-Out</td>
<td>8:00 a.m.-1:00 p.m.</td>
</tr>
<tr>
<td>Hoover Dam Discovery Tour</td>
<td>8:30 a.m.-1:30 p.m.</td>
</tr>
<tr>
<td>Behind-the-Scenes Tour of Bellagio Fountains</td>
<td>10:30 a.m.-12:00 p.m.</td>
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**Industry Insights:**
- Agriculture Track: ![A](image)
- Landscape Track: ![L](image)
- Bonus Track: ![B](image)
- Live From the Show Floor: ![S](image)
Connections & Networking

Use the Irrigation Show and Education Week to connect with current and potential business partners and develop peer contacts for resources throughout the year.

• Explore common challenges and gather effective solutions with like-minded professionals.
• Find quiet nooks to host impromptu meetings while information is fresh.
• Catch up with old friends and make new ones at numerous social events.

Opening Night Party
Tuesday, Dec. 3 | 7:00 p.m.-9:00 p.m.

You've arrived! It's time to get this exciting week jump-started. The opening night party is a great opportunity to catch up with colleagues and make new business connections. This year’s event will capture the exciting and entertaining lights and colors of Las Vegas, a glitzy city like no other. Come and take it all in while enjoying good food, good drinks and great conversation. If it is your first time to attend the show or if you are taking a business class, watch for special designated areas to meet and connect during the party.

The opening night party is open to all IA exhibitors and attendees with a full registration. Tickets can also be purchased separately.

Sponsored by Ewing

Certification Luncheon
Wednesday, Dec. 4
12:00 p.m.-1:00 p.m.

Celebrate your certification by attending the Certification Luncheon! The IA wants to thank you for your commitment and dedication to the industry. Please plan to attend!

Luncheon attendance is limited to certified individuals in good standing. Invitations will be sent; RSVPs are required.

Women in Irrigation Social
Wednesday, Dec. 4
5:00 p.m.-6:00 p.m.

This social is quickly becoming a must-attend event for women of all areas of expertise in the industry. Join us as we gather together like-minded business-women to connect, exchange valuable ideas, and discuss the unique challenges and opportunities in this industry.

The social is open to all female attendees and exhibitors.

Young Professionals Breakfast
Thursday, Dec. 5 | 7:30 a.m.-8:30 a.m.

Are you under 40 years old? This breakfast is for you. The young professionals breakfast is open to all attendees under the age of 40 and interested in networking with and learning from other rising stars of the irrigation industry. Each year, attendees at the breakfast hear from industry leaders about their career success and advice they have for those in the beginning phase of their career. This year, IA CEO Deborah Hamlin, CAE, FASAE, will discuss the importance of leadership development, serving as ambassadors of our industry and the personal benefits that come from volunteering with the IA.

The breakfast is open to all young professionals 40 years old and younger.

Women in Irrigation Social & Young Professionals Breakfast sponsored by Hunter®
Common Interest Groups

Expand your personal network at an Irrigation Association common interest group meeting. Common interest groups bring together irrigation professionals to discuss shared issues related to a specific technology, specialty or end-use market.

No advance registration required.

Drip/Micro Irrigation
Thursday, Dec. 5 | 7:00 a.m.-8:30 a.m.

This common interest group focuses on opportunities to promote and grow the drip/micro market in agriculture. Learn what is new in the world of research at various universities across the country. Discuss the current advocacy issues and standards concerning our industry. Join your peers at the Drip/Micro CIG.

Manufacturers’ Representatives
Thursday, Dec. 5 | 10:30 a.m.-11:30 a.m.

This meeting will feature a presentation focused on how to market your business and services in the academic world. Manufacturers’ representatives and manufacturers — IA members and nonmembers — are all welcome. Take advantage of this opportunity to network and problem-solve with other irrigation professionals.

Sustainability
Thursday, Dec. 5 | 11:00 a.m.-12:30 p.m.

The future of the irrigation industry is at our fingertips. Does our future account for the economic, social and environmental benefits of our society? In other words, are we sustainable? Join the IA as we launch our new Sustainability CIG. Focusing on solutions to our industry’s challenges, this group will look at everything from product end life to recycling to the role irrigation plays in our everyday lives. Whether you are a manufacturer, dealer, distributor, consultant, contractor or water provider, you play a role in the long-term sustainability of the irrigation industry. Come see how you can be part of the solution.

State Association Roundtable
Wednesday, Dec. 4 | 3:00 p.m.-4:00 p.m.

New in 2019, this interactive roundtable is open to staff and volunteer leadership from state and provincial turf, landscape, agriculture and/or irrigation associations. Moderated by IA staff, this roundtable is an opportunity to learn more about state-driven advocacy initiatives, public affairs campaigns and other partnerships available with the Irrigation Association.

Irrigation LABS
A Leadership & Business Success Peer Group
Thursday, Dec. 5 | 1:00 p.m.-6:00 p.m.
Friday, Dec. 6 | 8:00 a.m.-12:00 p.m.

Attention all landscape irrigation contractors! Are you worried about finding and retaining good staff? Are you hoping to set your business apart from your competition? Do you want new strategies on how to identify and close on solid leads for new business? On Dec. 5-6, we will attempt to answer these questions and more.

One of the best ways to grow and improve your irrigation business is by hearing the experiences of others who face the same challenges. To facilitate discussion and identify tools to help your company succeed, the Irrigation Association is launching an exciting new Leadership and Business Success peer group, known as Irrigation LABS. With your success in mind, Irrigation LABS will open doors to resources you didn’t know existed: a network of business experts and peers who face the same challenges as you.

Join us for an informational session and sample a LABS peer group meeting to learn more about this new opportunity. IA board member John J. Newlin, CIC, CIT, CLIA; irrigation business leader Christopher J. Pine, CIC, CID, CIT, CLIA, CLWM; and business consultant Jim Huston will host this event, which will span over an afternoon and a morning session, to begin the learning process, to test the waters on Irrigation LABS and to begin unlocking your future business success.

Cost: $99 (open to IA members only)
Tours

The IA is taking advantage of being in the Las Vegas area and the exciting famous landmark water attractions this location has to offer. Two tours are available for you and your co-workers to get a rare behind-the-scenes look at the inner workings of these world-famous sites. Joining other like-minded irrigation professionals for one of these events is not only a great way to connect with others in the profession, but it will also allow the tour to be more focused on your interests as a water professional, leading to interesting discussions among colleagues.

**Hoover Dam Discovery Tour**
Friday, Dec. 6 | 8:30 a.m.-1:30 p.m.

Enjoy a history-filled ride as you travel from the Las Vegas Strip, 30 miles east to Boulder City, to the location of the Hoover Dam. Upon arrival to the dam, you will begin the self-guided tour making several stops, including a brief video introduction followed by a trip down 530 feet through the rock wall of the Black Canyon to view eight of the 17 generators.

A stroll on the observation deck is essential, as it offers the perfect panoramic views of the Hoover Dam, Colorado River and Lake Mead. You will also enjoy seeing the O’Callaghan/Pat Tillman Memorial Bridge that was built to alleviate the traffic caused by 15,000 people passing through each day. Additional stops on the tour include the Winged Figures of the Republic, the spillways (large enough to float a WWII battleship) and the intake towers.

Participants will have approximately two hours at the Hoover Dam to leisurely tour and learn about this masterful site. Snacks and beverages will be provided. The tour departs from the Las Vegas Convention Center.

Cost: $115 per person

**Behind-the-Scenes Tour of the Bellagio Fountains**
Friday, Dec. 6 | 10:30 a.m.-12:00 p.m.

Get an in-depth look at what it takes to put on one of the famed fountain shows at the Bellagio Hotel and Casino. A fountain control engineer will take you on a one-hour behind-the-scenes tour of the Bellagio fountains and show you what it takes to make sure that this iconic attraction stays operational day in and day out.

Please note that there is a fair amount of walking, so please wear comfortable walking shoes.

Cost: $20 per person

*NEW – Join us!*
We’ve taken this year’s education at the Irrigation Show to a whole new level! Yes, you will still hear about the latest cutting-edge research covering a variety of irrigation topics, but the new Industry Insights sessions take it a step further and offer you even more.

Here’s a taste of new and different topics you can hear about during this year’s Industry Insights:

• the Irrigation Consumer Bill of Rights
• mobile apps for water conservation in turfgrass
• the H-2A & H-2B guest worker program
• severe weather and ways to protect your crew and clients
• social media and how to use it in your business
• rainwater collection
• Wi-Fi technology and how to incorporate it in your business
• research updates and reports around the country

These sessions vary from 30- to 90-minute formats and include everything from single presentations to panel discussions. There are four tracks to choose from: agriculture, landscape, bonus and live from the show floor. Browse the presentations in each track and customize your schedule with those that interest you.
Agriculture Track

Tuesday, Dec. 3

Consumer Advocacy
8:00 a.m.-8:30 a.m.
Irrigation Consumer Bill of Rights
Charles Burt, PhD, PE, CAIS, CID, ITRC

Endorsed by the Irrigation Dealers Association of California and the Irrigation Association, the Irrigation Consumer Bill of Rights was developed over 20 years ago with support from the California Energy Commission. Explore the benefits of supporting this program, including customer satisfaction and improved quality of irrigation systems. | 0.5 CEU

Surface Irrigation
8:35 a.m.-9:05 a.m.
A Novel System for Designing Lay-Flat Irrigation Pipe Systems for Flood & Furrow Irrigation
Chris Henry, PhD, PE, University of Arkansas

The lay-flat pipe system uses a low-pressure polyethylene pipe of 7-20 millimeter thickness to distribute water to surface irrigation systems. Gain an understanding of the lay-flat pipe system, learn about computerized hole sizing options and selection, and receive an introduction into the system that translates those plans to the pipe during installation. | 0.5 CEU

9:10 a.m.-9:40 a.m.
Timed Flooding Yields Significant Gains in Rice Farming
Leif Chastaine, WaterBit, and Greg Van Dyke, Kanpeki Rice

Rice provides 60% of the world’s caloric daily intake. During this interactive session, learn how a fifth-generation rice farmer successfully implemented timed flooding using precision ag irrigation solutions. Chastaine and Van Dyke will discuss how growers of all crops can benefit from these solutions. | 0.5 CEU

Remote Sensing & Data Collection
10:00 a.m.-10:30 a.m.
Soil Water Sensing From Afar: How the Cloud Is Enabling Remote Data Collection
Steven R. Evett, PhD, USDA-ARS

Soil water sensors and systems are becoming ubiquitous and are increasingly requested by growers, but there is a lack of robust solutions for transmitting data wirelessly from the field to where it can be accessed for decision-making. The cloud offers a solution. | 0.5 CEU

10:35 a.m.-11:05 a.m.
Sensor Feedback & Variable Rate Irrigation for Potatoes
Susan O’Shaughnessy, PhD, USDA-ARS

Potatoes are a high-value crop that require a moderate amount of water. Their yield is sensitive to stress from water deficit, yet they are also susceptible to disease and rot due to over-irrigation. This session will explore three irrigation treatments to accomplish the best crop water productivity. | 0.5 CEU

11:10 a.m.-11:40 a.m.
The Case for IoT Data – ROI & How to Reach It
Bas van der Velden, Sensorterra

Growers and landscapers from around the world are working with "internet of things" solutions to optimize land and freshwater resources. Learn how smart IoT data is beneficial for land management, review best practices and determine how to define the moment when real ROI is reached. | 0.5 CEU

Mobile Drip Irrigation
2:00 p.m.-2:30 p.m.
Mobile Drip Irrigation: What We Know So Far
Jonathan Aguilar, PhD, Kansas State Research & Extension

Mobile drip irrigation, which integrates drip line onto a mechanical irrigation system such as a center pivot, has attracted attention lately. After four years of conducting research, including data and observations from water technology farms, there is now enough information to share with the public regarding this technology. | 0.5 CEU

2:35 p.m.-4:05 p.m.
Monty J. Teeter, Dragon-Line LLC

What is mobile drip irrigation? It is not your conventional sprinkler head! Monty Teeter, developer of successful mobile drip irrigation in 20 states and five countries, will welcome a panel to discuss the truth about this technology. | 1.5 CEUs
Agriculture Track (continued)

Wednesday, Dec. 4

Agriculture Irrigation System Performance
10:00 a.m.-10:30 a.m.
Sprinkler Drop Characteristics via Weather Monitoring System
Bradley King, PhD, PE, USDA-ARS, Northwest Irrigation and Soils Research Laboratory
Sprinkler drop size is an important consideration when selecting center pivot sprinklers for maximum water-use efficiency. Techniques used to obtain accurate sprinkler drop size distributions with each system will be presented, along with measured drop size distributions of some common center pivot sprinklers. | 0.5 CEU

10:35 a.m.-11:05 a.m.
Center Pivot Application Uniformity
Troy J. Ingram, MS, University of Nebraska-Lincoln
Center pivots are designed to operate within a certain set of parameters, such as pressure and flow rate, which are unique to each system. This session will look at how pressure affects application uniformity and how users should assess the pressure at the end of the system. | 0.5 CEU

11:10 a.m.-11:40 a.m.
A More Efficient Way to Collect PSI During Drip Assessments
Kris Loomis, CID, CLIA, CLIA-D, Santa Rosa Junior College and Mendocino Community College
This hands-on session will demonstrate how drip pounds per square inch can be collected without having to use a pitot tube, saving time and effort while providing data in an expedited fashion. | 0.5 CEU

Plant Water Requirements
2:00 p.m.-2:30 p.m.
Options for Estimating Plant Water Requirements for Irrigation Scheduling in Louisiana
Stacia L. Davis Conger, PhD, LSU AgCenter
The determination of whether to apply irrigation to agronomic crops in Louisiana was historically instinctive rather than by plant water requirement. Indicative results will be presented from soil moisture sensor studies and the ongoing ET gauge study to summarize overall progress and next steps. | 0.5 CEU

2:35 p.m.-3:05 p.m.
Use Satellite Imagery to Calibrate Crop Coefficient
James Han, PhD, Lindsay Corporation
Crop coefficients (Kc) are widely used for predicting crop evapotranspiration for irrigation management; however, the spatial and temporal variation of Kc for different crops can significantly affect ET estimation. Using satellite imagery to calibrate Kc has the potential to solve the issue due to cloud-based technologies and hi-res satellite imagery being more cost-effective. | 0.5 CEU

3:10 p.m.-3:40 p.m.
Water Needs for Irrigated Mombaça Grass
Gustavo H.S. Vieira, PhD, IFES, Santa Teresa Campus
Explore the water consumption by sprinkler-irrigated Mombaça by means of the water balance and to evaluate the impact of the use of irrigation management on water consumption, energy expenditure and cost by comparison between two different irrigation use conditions (with and without water balance). | 0.5 CEU

3:45 p.m.-4:15 p.m.
Water-Energy Footprint in Blueberry Crops in Argentina
Alejandro A. Pannunzio, Universidad de Buenos Aires
This session highlights the drip system evaluation performance done in a blueberry commercial crop of 10 years in Argentina. The shallow roots of blueberry crops combined with the sandy soil of Argentina present a particular challenge regarding irrigation. | 0.5 CEU

Thursday, Dec. 5

Pressure Regulation
10:00 a.m.-10:30 a.m.
Regulating Valves: Overview & Best Practices
Kyle E. Feist, MS, PE, CID, CAIS, ITRC
Many pressurized irrigation systems are fitted with automatic regulating valves for on/off functions and maintaining relatively constant target flow rates or pressures. Get an overview of how regulating valves work in different applications as well as practical design and best practices. Data collected from the Irrigation Training and Research Center will be discussed. | 0.5 CEU

10:35 a.m.-11:35 a.m.
Understanding Pressure Regulation
Mark Fletcher, CID, CAWM, CAIS, CIT, Senninger Irrigation, and Gene Ross, CID, Nelson Irrigation
Irrigation systems are designed to distribute a predetermined amount of water over a specific area. Applicators operate within a specific range of flows and pressures. Discover the basics of pressure regulators and learn how to install pressure regulation in different types of irrigation systems. | 1.0 CEU
Learn.

Agriculture Track (continued)

Thursday, Dec. 5 (continued)

Scheduling & Irrigation Management

2:00 p.m.-2:30 p.m.
Irrigation Scheduling Methods for Drip-Irrigated Potato
Clinton C. Shock, PhD, Oregon State University, Malheur Experiment Station
Irrigation scheduling for potatoes can use soil water tension, soil water content or crop evapotranspiration estimates. This session will review several irrigation scheduling methods for potatoes using evapotranspiration estimates. | 0.5 CEU

2:35 p.m.-3:05 p.m.
Precision Irrigation Management in Young & Mature Almonds
Isaya Kisekka, PhD, University of California Davis
Almonds are currently the largest irrigated crop in California with over 1.2 million acres. Almond production in California has unique water issues, including post-harvest irrigation and the presence of different almond varieties. Take an in-depth look at irrigation management, as it pertains to the almond crop. | 0.5 CEU

3:10 p.m.-3:40 p.m.
Irrigation Scheduler for Soybeans in the Mississippi Delta
Saseendran S. Anapalli, PhD, USDA-ARS
Develop an understanding of smartphone-based irrigation scheduling software for soybeans in the Mississippi Delta. | 0.5 CEU

3:45 p.m.-4:15 p.m.
The Missing Link in Irrigation Efficiency
Donald A. Spier, Precision Laboratories
Maximum efficiency is the goal for any consumer of limited resources and water, which are under constant demand and require a comprehensive approach to utilization. Innovations in chemistry are enhancing water-use efficiency, linking the path between delivery and monitoring. | 0.5 CEU

Landscape Track

Tuesday, Dec. 3

Landscape Irrigation Management

8:00 a.m.-8:30 a.m.
SWAT & Apps for Water Conservation on Turfgrass
Bernard Cardenas, University of Florida
Smart Water Application Technologies (known as SWAT) and mobile apps could improve irrigation efficiency on turfgrass. Get a better understanding of how these tools are reducing environmental impacts and promoting water conservation. | 0.5 CEU

8:35 a.m.-9:05 a.m.
Comparing Weekly Irrigation to Rain Sensor Performance
Charles Swanson, MAgri, Texas A&M AgriLife Extension
Creating irrigation schedules based on historic or seasonal rainfall can be challenging to irrigation professionals when determining weekly run times. A recent study was initiated to help address this predicament by evaluating what effect rain sensor operation has on controller operation and the resulting irrigation schedule. | 0.5 CEU

9:10 a.m.-9:40 a.m.
Rain First – Maximizing Effective Rainfall for Conservation
Mark Crookston, PE, CAIS, CIC, CID, CIT, CLIA, CLWM, Northern Water
Improved management of irrigated landscapes can increase effective rainfall and provide significant water conservation benefits. Learn the steps to using rainfall to your advantage, while, in return, reducing watering requirements and improving landscape vigor and health. | 0.5 CEU

9:45 a.m.-10:15 a.m.
Fewer Drinks for the Links
Ariana C. Wilfley, CLIA, California Water Service
California Water Service, committed to responsibly reducing water use specifically during a drought, partnered with some of their heaviest users: golf courses. Learn how this innovative project helped assist golf course management reduce water use, without sacrificing beauty or playability of their turf. | 0.5 CEU

10:20 a.m.-10:50 a.m.
Soil Moisture Sensor-Based Irrigation Scheduling on Fairways
Mark S. Nakatsui; Priti Saxena, PhD; Alan Moss; and Sean McLaughlin; California State Polytechnic University
In recent years, California has been significantly affected by drought conditions, leading to the adoption of soil moisture sensor technology to measure and conserve water. This session focuses on solutions the industry can implement using soil moisture sensors to conserve water. | 0.5 CEU
Landscape Track (continued)

Tuesday, Dec. 3 – Landscape Irrigation Management (continued)

10:55 a.m.-11:25 a.m.
**Autonomous Turfgrass & Groundcover Irrigation Management Using Smart Irrigation**
Amir Haghverdi, University of California, Riverside

This session will analyze the findings of several landscape irrigation research trials in Southern and Central California, including performance evaluation or evapotranspiration-based and soil moisture sensor-based smart controllers and response of turfgrass to multiple deficit irrigation strategies. | 0.5 CEU

11:30 a.m.-12:00 p.m.
**Fundamentals of the Smart Water Triangle**
Rich Miller, CIC, CLIA, Rich Miller Landscape Service Inc.

Knowledge of available water, system design and installation best practices avoids problems. This session highlights the importance of knowing your equipment offerings and applying best practices and more fundamentals to controlling water. | 0.5 CEU

Wednesday, Dec. 4

Rainwater Harvesting

10:00 a.m.-11:00 a.m.
**Rainwater Collection**
Matthew Finch, Rechsand

Low-impact development and core technology can contribute to the innovation of LID as a best management practice to manage stormwater runoff, as well as improve water quality through sustainable and cost-effective land planning and engineering design. Delve into the need for LID and core technology as it pertains to rainwater collection and reuse. | 1.0 CEU

11:05 a.m.-12:05 p.m.
**Designing & Building Landscapes Using Only Rainwater**
Darrel McMaster, Sustainable Homes Inc.

Sustainable Homes has the largest number of homes that use rainwater catchment as their sole source of water than any other builder in the nation. Get a better understanding of how these houses are changing the way water is being used in and around the home in times of limited water availability. | 1.0 CEU

2:00 p.m.-2:30 p.m.
**Rainwater BMPs: Plants, Soil, Irrigation & Regulation**
Russell Ackerman, CLIA-D, SITES AP, City of Santa Monica

Learn how green infrastructure and rainwater best management practices address runoff water pollution by filtering rainwater on-site through the use of green roofs, rain gardens and biotreatment areas that meet local, state and federal stormwater requirements. | 0.5 CEU

2:35 p.m.-4:05 p.m.
**LID & Landscape: Best Design Practices for Stormwater BMPs**
Mari Garabedian, EPIC Total Water Solutions

Have you ever wondered how planting and irrigation are affected by stormwater best management practices and what requirements must be met by the landscape and irrigation design professional? This session will review how stormwater BMPs are selected, sized and designed by the civil engineer. | 1.5 CEUs

Thursday, December 5

Irrigation System Management

10:00 a.m.-10:30 a.m.
**Developing Systems That Are Repeatable & Scalable**
Jake Mathre and Russ Jundt, Conserva Irrigation

Taking a business to new heights can be challenging in the lawn and irrigation industry. Are you setting your business up for failure if you do not have the right systems in place to accommodate incremental growth? Receive key insight on how properly employed systems will help overcome and avoid common pitfalls that lawn and irrigation contractors face. | 0.5 CEU

10:35 a.m.-11:35 a.m.
**Basics of Backflow Prevention Systems**
Sean Perry, FEBCO, a WATTS Brand

This session will provide an introduction to further the understanding of basic backflow principles, the agencies associated with water protection and the various hydraulic systems used to protect the environment from hazardous cross-contamination regarding irrigation systems. | 1.0 CEU

11:40 a.m.-12:40 p.m.
**Panel Discussion: Subsurface Irrigation Solutions: Forced vs. Responsive**
David Conklin; Tam Le; Jan Gould; and Mike Mackerer; Responsive Drip Irrigation LLC

Most SDI systems deliver water based on a timer, controller or human control, while responsive delivery of irrigation use signals from individual plant roots. Learn the pros and cons of these competing irrigation delivery systems. | 1.0 CEU

Landscape Lighting Session

2:00 p.m.-3:30 p.m.
**Lighting Design – Beyond the Basics**
Lisa Ruggiers, Association of Outdoor Lighting Professionals

Let outdoor lighting take your business to the next level! Outdoor lighting has become very competitive, and it’s important for green industry professionals to have proper training and education to be successful. Learn how to position and market yourself as a lighting designer, not just a contractor, and see the difference in your sales! | No CEUs earned
### Tuesday, Dec. 3

#### Business Tracks

**8:00 a.m.-9:00 a.m.**

**10 Lessons From the 2019 Green Industry Benchmark Report**  
Chad Reinholz, HindSite Software

Being a green industry business owner is isolating, and it can be hard to compare your business to others. The Green Industry Benchmark Report, created by HindSite Software, surveyed nearly 300 green industry businesses about best practices and typical issues they currently face. This session takes the received data and turns it into actionable insight that the green industry can use to improve their business. | Landscape | 0.25 CEU

**9:05 a.m.-10:05 a.m.**

**Social Media: Stop Pushing & Start Engaging!**  
Warren Weeks, Weeks Media

Social media has become the fastest growing free tool for business owners and manufacturers, yet so many do not take advantage of these platforms. Learn tips on using social media to engage with your audience and stakeholders, while promoting your business. | Agriculture & Landscape | 0.25 CEU

**10:10 a.m.-10:40 a.m.**

**Why a Certified Professional Beats Its Competitors**  
Jay Gray, CIC, CID, CIT, CLIA, CLWM; Jake Mathre, CIT, CLIA; and Russ Jundt; Conserva Irrigation

While many business owners are focused on solely growing within their industry through expansion, it is just as important to focus on personal growth. Learn the importance of certification in your respective field. | Landscape | 0.125 CEU

**10:45 a.m.-11:15 a.m.**

**Leveraging Water Agency Incentives by Smart Site Selections**  
Andrew Pirrone, Town of Gilbert

We know irrigation rebates and incentives exist in almost every major service area, but why deal with the hassle? Learn how incentives and upgrades can help with customer retention, water savings and your own management by reducing irrigation and plant health issues. | Landscape | 0.125 CEU

#### Weather Management

**2:00 p.m.-3:30 p.m.**

**Severe Weather Safety: Protecting Your Crew & Clients**  
Brad Jakubowski, Penn State University

Each year people are killed or seriously injured by thunderstorms despite advanced warning. Become more aware of the potential hazards, learn to spot signs of impending severe weather and create guidelines for making storm-related safety decisions by attending this session. | Agriculture & Landscape | 1.5 CEUs

**3:35 p.m.-5:05 p.m.**

**Understanding Meteorology & Making Weather-Based Decisions**  
Brad Jakubowski, Penn State University

Weather is a critical component of our daily responsibilities. We can make better decisions and provide consistent growing conditions by better understanding weather patterns and concepts. This interactive session introduces fundamental weather concepts and provides the tools to interpret weather reports, maps and forecasts. | Agriculture & Landscape | 1.5 CEUs

### Wednesday, Dec. 4

#### Business Tracks

**10:00 a.m.-11:00 a.m.**

**Panel Discussion: Sustainable Manufacturing**  
Gregg Roesink, CIT, CLIA; Bryce Carnehl; and Warren Gorowitz, CLIA; Hunter Industries Inc.

This panel session will cover topics including recycling and reuse programs in a manufacturing facility, recycling programs with industry partners, the sustainability of the way we power factories, and the things our industry professionals can do to empower the sustainability push in our industry. | Agriculture & Landscape | 0.25 CEU

**11:05 a.m.-12:05 p.m.**

**Incorporating Wi-Fi Technology Into Your Business Plan**  
John Newlin, CIC, CIT, CLIA, Quality Sprinkling Systems

Incorporating new technology and products into your company can provide a new revenue source. Take a look at new trends that point to continuing consumer demand for off-site monitoring, as well as the importance of software integration in the office without the need to add staff. | Landscape | 0.25 CEU

#### Pumps & Pump Stations

**2:00 p.m.-2:30 p.m.**

**Protect the Heart of the Irrigation System – The Pump**  
Jim Phene, Epiphene

Often in irrigation design, the system’s water source and water quality issues are overlooked and detrimental to the crop or appearance of the landscape. This session will examine existing and new solutions addressing pump issues along with different types of water sources and key issues with each. | Agriculture & Landscape | 0.5 CEU

**2:35 p.m.-3:05 p.m.**

**Pumps: Long-Term Thinking vs. Short-Term Cost**  
Guy Collins and Gail Mueller, Munro

The irrigation system is a great enhancement to any property and a critical part of creating a beautiful landscape. The pump is an integral part of an irrigation system; however, it is often considered last. This session will provide some thoughtful advice on the equipment that pressurizes the water in an irrigation system. | Agriculture & Landscape | 0.5 CEU
Bonus Track (continued)

Wednesday, Dec. 4 - Pumps & Pumping Systems (continued)

3:10 p.m.-3:40 p.m.
**Pump Station Retrofits – When Might It Make Sense?**
Guy Collins and Justin McDaniel, Munro

The pump station is often one of the more expensive items in the irrigation system. Technology improvements, site change and equipment fails are all reasons to consider a new pump. Get a better understanding of when it makes the most sense to retrofit your pump station. | Agriculture & Landscape | 0.5 CEU

3:45 p.m.-4:45 p.m.
**Energy Efficiency vs. Water Efficiency: What’s the Difference?**
Robert L. Welke, Tallemenco Pty Ltd.

Energy efficiency should not be confused with water efficiency. Explore the parameters for both and see how they relate and differ. | Agriculture & Landscape | 1.0 CEU

Thursday, Dec. 5

Special Topics

10:00 a.m.-11:00 a.m.
**WaterSense Update**
Stephanie Tanner, U.S. Environmental Protection Agency

WaterSense is a voluntary partnership program sponsored by the Environmental Protection Agency. The EPA will provide an update on WaterSense activities related to irrigation products, specifically EPA’s review of the WaterSense specification for weather-based irrigation controllers and soil moisture-based control technologies. | Landscape | 1.0 CEU

11:05 a.m.-12:35 p.m.
**Irrigation Innovation Consortium: First-Year Data Unveiled**
Stephen Smith, PhD, FASIC, Irrigation Innovation Consortium

This session will be an overview of the research results to date from the first inaugural research year. Several projects were funded, and preliminary results will be shared on topics including satellite- and unmanned aircraft system imagery-driven irrigation, developing an artificial intelligence model for estimating crop water demand and next generation soil moisture technology. | Agriculture & Landscape | 1.5 CEUs
## IA University

**Monday, Dec. 2-Friday, Dec. 6**

IA University is the core curriculum for irrigation professionals. These classes are offered every year to ensure you have the fundamental and practical skills necessary to design, install or maintain an irrigation system, as well as the business skills to manage a small irrigation company.

IA University classes include:
- real-world applications and irrigation case studies.
- current techniques, field-tested results and best practices.
- instructors with industry expertise and proven teaching experience.

Choose the class that’s right for you:
- **Beginner** — for individuals with no or very limited irrigation experience.
- **Intermediate** — for individuals with basic knowledge of irrigation concepts and techniques and some experience in the field.
- **Advanced** — for individuals with an in-depth understanding of irrigation concepts and techniques and extensive experience in the field.

IA University classes are priced separately and are not included in the full registration fee. Each class registration includes a free exhibits-only pass, which includes exhibits, Live From the Show Floor! presentations, the new product contest, general session and keynote address.

Register by Nov. 1 and take advantage of our early bird rates. Register for three or more classes by Nov. 1 and save 5% on your total registration fee. When prompted, enter coupon code “3classes” in your shopping cart to receive the discount. Early registration is encouraged to receive discounted pricing and a guaranteed seat. Class pricing is based on registration by Nov. 1. Classes are taught in Imperial units.

### Pumps & Soils

<table>
<thead>
<tr>
<th>Course</th>
<th>Instructor(s)</th>
<th>Date &amp; Time</th>
<th>Fee</th>
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</thead>
<tbody>
<tr>
<td><strong>Understanding Pumps</strong> (formerly Pumps &amp; Pumping Systems)</td>
<td>Rick Arena, SiteOne Landscape Supply &amp; John Maxwell, Maxwell Irrigation</td>
<td>Wednesday, Dec. 4 8:00 a.m.-12:00 p.m.</td>
<td>Member $125 Nonmember $165 (includes manual)</td>
</tr>
<tr>
<td><strong>Pump Controls &amp; Package Systems</strong> (formerly Advanced Pumps)</td>
<td>Rick Arena, SiteOne Landscape Supply &amp; Don Franklin, Hunter Industries Inc.</td>
<td>Wednesday, Dec. 4 1:00 p.m.-5:00 p.m.</td>
<td>Member $125 Nonmember $165 (includes handouts)</td>
</tr>
<tr>
<td><strong>Irrigated Soils</strong></td>
<td>Andy Veatch, Retired &amp; Don Franklin, Hunter Industries Inc.</td>
<td>Thursday, Dec. 5 3:00 p.m.-5:00 p.m.</td>
<td>Member $80 Nonmember $105 (includes handouts)</td>
</tr>
<tr>
<td><strong>Soil-Plant-Air-Continuum</strong></td>
<td>John Raffiani, Raffiani’s Automatic Sprinkler Service &amp; Larry King, USDA-NRCS West National Technology Support Center</td>
<td>Thursday, Dec. 5 3:00 p.m.-5:00 p.m.</td>
<td>Member $80 Nonmember $105 (includes handouts)</td>
</tr>
</tbody>
</table>

**Learn.**

IA University is the core curriculum for irrigation professionals. These classes are offered every year to ensure you have the fundamental and practical skills necessary to design, install or maintain an irrigation system, as well as the business skills to manage a small irrigation company.

Register for the 2019 Irrigation Show & Education Week today! | [www.irrigationshow.org](http://www.irrigationshow.org)
## Agriculture

<table>
<thead>
<tr>
<th>Course</th>
<th>Instructor(s)</th>
<th>Date &amp; Time</th>
<th>Fee</th>
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<tbody>
<tr>
<td><strong>Agricultural Drip/Micro Design</strong></td>
<td>John Maxwell, Maxwell Irrigation &amp; Kyle Feist, ITRC, Cal Poly State University</td>
<td>Monday, Dec. 2 8:00 a.m.-5:00 p.m. (Day 1)</td>
<td>Member $295  Nonmember $395 (includes manual)</td>
</tr>
<tr>
<td>Advanced</td>
<td>Agriculture</td>
<td>16 CEUs</td>
<td>Design efficient, economic irrigation systems for orchards and row crops. Two full days cover crop requirements, filtration, pumping, pressure regulation and emitter/sprayer selection. Recommended review for the certified irrigation designer drip/micro specialty exam.</td>
</tr>
<tr>
<td><strong>Center Pivot Design</strong></td>
<td>Steve McCoon, Nelson Irrigation Corp. &amp; Blake Reid, Reid Brothers Irrigation &amp; Equipment Co. LLC</td>
<td>Monday, Dec. 2 8:00 a.m.-5:00 p.m. (Day 1)</td>
<td>Member $250  Nonmember $330 (includes manual)</td>
</tr>
<tr>
<td>Advanced</td>
<td>Agriculture</td>
<td>16 CEUs</td>
<td>Understand center pivot design and system management. Two full days cover theory and practical applications, including nozzle selection, application rates and scheduling. Recommended class preparation includes Principles of Irrigation.</td>
</tr>
<tr>
<td><strong>Principles of Irrigation: Agriculture</strong></td>
<td>Larry King, Retired &amp; Clarence Prestwich, USDA-NRCS West National Technology Support Center</td>
<td>Monday, Dec. 2 8:00 a.m.-5:00 p.m. (Day 1)</td>
<td>Member $250  Nonmember $330 (includes manual)</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Agriculture</td>
<td>16 CEUs</td>
<td>Master theory and application principles for agriculture in this intensive session. Two full days cover soil-water-plant relationships, advanced hydraulics, electricity, pumps, valves and irrigation equipment. Recommended review for the certified irrigation designer general agriculture exam.</td>
</tr>
<tr>
<td><strong>Agricultural Irrigation Specialist</strong></td>
<td>Kyle Feist, ITRC, Cal Poly State University &amp; Larry King, Retired</td>
<td>Tuesday, Dec. 3 8:00 a.m.-5:00 p.m. (Day 1)</td>
<td>Member $250  Nonmember $330 (includes manual)</td>
</tr>
<tr>
<td>Advanced</td>
<td>Agriculture</td>
<td>13 CEUs</td>
<td>Master irrigation management for surface (furrow and border strip) and pressurized (micro and sprinkler) systems. This one-and-a-half-day session includes irrigation volume and frequency, evapotranspiration and crop coefficients, scheduling, and salinity effects. This class is recommended as a review for the certified agricultural irrigation specialist exam.</td>
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## Landscape & Golf

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<tr>
<th>Course</th>
<th>Instructor(s)</th>
<th>Date &amp; Time</th>
<th>Fee</th>
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</thead>
<tbody>
<tr>
<td><strong>Electrical Troubleshooting: Diagnosing Field Wiring Problems</strong></td>
<td>ENGLISH Craig Borland, The Toro Company &amp; John Eggleston, Service First Irrigation</td>
<td>ENGLISH Monday, Dec. 2 8:00 a.m.-12:00 p.m.</td>
<td>Member $125  Nonmember $165 (includes handouts)</td>
</tr>
<tr>
<td>Beginner</td>
<td>Landscape &amp; Golf</td>
<td>4 CEUs</td>
<td>ENGLISH Save time and money with this practical course in electrical troubleshooting. This half-day class covers diagnosing field wiring problems and proper use of volt-ohm meters. Learn to systematically assess and resolve confusing electrical problems.</td>
</tr>
<tr>
<td>SPANISH Jaime Bayona, Ewing Irrigation and Landscape Supply</td>
<td>SPANISH Friday, Dec. 6 8:00 a.m.-12:00 p.m.</td>
<td>SPANISH</td>
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</tr>
<tr>
<td>Beginner</td>
<td>Landscape &amp; Golf</td>
<td>4 CEUs</td>
<td>SPANISH Learn about evaluating local weather, soil moisture, flow control, water volume and valve operation with electricity, using irrigation controllers, solenoids, sensors and electric wires. Discover how these components operate and how to repair or replace them.</td>
</tr>
<tr>
<td><strong>Irrigation Components for Residential/Small Commercial Systems</strong></td>
<td>John Raffiani, Raffiani’s Automatic Sprinkler Service &amp; Don Franklin, Hunter Industries Inc.</td>
<td>Monday, Dec. 2 8:00 a.m.-12:00 p.m.</td>
<td>Member $125  Nonmember $165 (includes handouts)</td>
</tr>
<tr>
<td>Beginner</td>
<td>Landscape</td>
<td>4 CEUs</td>
<td>Increase your understanding of components for residential and small commercial irrigation systems. This half-day course covers system components from the point of connection to the point of water application, including how control systems, valves, sprays and rotors work.</td>
</tr>
<tr>
<td><strong>Landscape Irrigation Auditor</strong></td>
<td>Eric Olson, City of Fort Collins – Parks &amp; Andy Slack, Slack Landscape &amp; Irrigation</td>
<td>Monday, Dec. 2 8:00 a.m.-5:00 p.m. (Day 1)</td>
<td>Member $250  Nonmember $330 (includes manual)</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Landscape</td>
<td>16 CEUs</td>
<td>Learn how to assess irrigation system performance. This two-day session covers field tests and calculating accurate watering schedules based on plant water use, soils and local weather data. Recommended review for the certified landscape irrigation auditor exam.</td>
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</tbody>
</table>
**Landscape & Golf (continued)**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Instructor(s)</th>
<th>Date &amp; Time</th>
<th>Fee</th>
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</thead>
<tbody>
<tr>
<td><strong>Landscape Irrigation Contractor</strong></td>
<td>Kurt Thompson, K. Thompson and Associates LLC; Kevin McCaleb, City of Lake Oswego; &amp; Andrew Chase, Brightview Landscape Services</td>
<td>Monday, Dec. 2 8:00 a.m.-5:00 p.m. (Day 1) / Tuesday, Dec. 3 8:00 a.m.-5:00 p.m. (Day 2)</td>
<td>Member $250 / Nonmember $330 (includes manual)</td>
</tr>
<tr>
<td><strong>Landscape Irrigation Design</strong></td>
<td>Don Davis, SiteOne Landscape Supply &amp; Nick Millward, City Rain Inc.</td>
<td>Monday, Dec. 2 8:00 a.m.-5:00 p.m. (Day 1) / Tuesday, Dec. 3 8:00 a.m.-5:00 p.m. (Day 2)</td>
<td>Member $250 / Nonmember $330 (includes manual)</td>
</tr>
<tr>
<td><strong>Principles of Irrigation: Landscape</strong></td>
<td>Keith Schweiger, SiteOne Landscape Supply &amp; Brian Vinchesi, Irrigation Consulting Inc.</td>
<td>Monday, Dec. 2 8:00 a.m.-5:00 p.m. (Day 1) / Tuesday, Dec. 3 8:00 a.m.-5:00 p.m. (Day 2)</td>
<td>Member $250 / Nonmember $330 (includes manual/handouts)</td>
</tr>
<tr>
<td><strong>Advanced Irrigation Wiring Methods &amp; Troubleshooting</strong></td>
<td>Craig Borland, The Toro Company; John Eggleston, Service First Irrigation; &amp; John Raffiani, Raffiani’s Automatic Sprinkler Service</td>
<td>Monday, Dec. 2 1:00 p.m.-5:00 p.m.</td>
<td>Member $125 / Nonmember $165 (includes manual)</td>
</tr>
<tr>
<td><strong>Two-Wire Technology Systems for Landscapes</strong></td>
<td>Craig Borland, The Toro Company &amp; Christine Hawkins, Hunter Industries Inc.</td>
<td>Tuesday, Dec. 3 8:00 a.m.-12:00 p.m.</td>
<td>Member $125 / Nonmember $165 (includes handouts)</td>
</tr>
<tr>
<td><strong>Advanced Landscape Irrigation Design &amp; Management</strong></td>
<td>Marvin Pascual, Reinke Manufacturing Company Inc. &amp; Christine Hawkins, Hunter Industries Inc.</td>
<td>Wednesday, Dec. 4 8:00 a.m.-5:00 p.m.</td>
<td>Member $190 / Nonmember $250 (includes manual)</td>
</tr>
<tr>
<td><strong>Alternative Water for Landscape Irrigation</strong></td>
<td>Kevin McCaleb, City of Lake Oswego &amp; John Raffiani, Raffiani’s Automatic Sprinkler Service</td>
<td>Wednesday, Dec. 4 8:00 a.m.-5:00 p.m.</td>
<td>Member $190 / Nonmember $250 (includes manual)</td>
</tr>
<tr>
<td><strong>Landscape Drip Irrigation Design &amp; Management</strong></td>
<td>Nick Millard, City Rain Inc. &amp; John Eggleston, Service First Irrigation</td>
<td>Wednesday, Dec. 4 8:00 a.m.-5:00 p.m.</td>
<td>Member $190 / Nonmember $250 (includes manual)</td>
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**Math Tutorial**

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<thead>
<tr>
<th>Date &amp; Time</th>
<th>Fee</th>
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<tbody>
<tr>
<td>Tuesday, Dec. 3</td>
<td><strong>FREE</strong></td>
</tr>
<tr>
<td>6:00 p.m.-8:00 p.m.</td>
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</table>

Don’t let anything stand in the way of exceptional performance in the field, in IA University classes and on certification exams. This two-hour tutorial is an intensive review of the most common calculations and formulas used in irrigation system design, installation, audits and maintenance.

Chris Pine, C. Pine Associates Inc.; Andy Veatch, Retired; Christine Hawkins, Hunter Industries Inc.; & Andrew Chase, BrightView Landscape Services
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Instructor(s)</th>
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<tbody>
<tr>
<td><strong>Landscape &amp; Golf (continued)</strong></td>
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</tr>
<tr>
<td><strong>Landscape Irrigation Technician</strong></td>
<td>ENGLISH Keith Schweiger, SiteOne Landscape Supply &amp; Scott Knowles, Wolf Creek Company Inc.</td>
<td>Wednesday, Dec. 4</td>
<td>Member $190 Nonmember $250</td>
</tr>
<tr>
<td>(English &amp; Spanish Versions)</td>
<td>SPANISH Jaime Bayona, Ewing Irrigation and Landscape Supply</td>
<td>8:00 a.m.-5:00 p.m.</td>
<td>(includes manual - English only)</td>
</tr>
<tr>
<td>Beginner</td>
<td>Landscape &amp; Golf</td>
<td>8 CEUs</td>
<td></td>
</tr>
<tr>
<td>Learn the basics of hydraulics and irrigation system installation and maintenance, including an overview of irrigation system components and how they operate. Learn about gluing and repairing PVC pipe, installing nozzles and adjusting heads, setting and repairing electric valves, and field and controller wiring techniques. Recommended review for the certified irrigation technician exam.</td>
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<tr>
<td><strong>Landscape Water Management &amp; Planning</strong></td>
<td>Kurt Thompson, K. Thompson and Associates LLC &amp; Mark Crookston, Irrigation Innovation Consortium</td>
<td>Wednesday, Dec. 4</td>
<td>Member $190 Nonmember $250</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Landscape</td>
<td>8 CEUs</td>
<td>8:00 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>Learn how to create water budgets, develop irrigation schedules, document water usage, and plan for periods of drought. This full-day class will help attendees maximize the benefits of smart technology and work effectively with water providers.</td>
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<tr>
<td><strong>Valve Troubleshooting (Spanish Version)</strong></td>
<td>Jaime Bayona, Ewing Irrigation and Landscape Supply</td>
<td>Thursday, Dec. 5</td>
<td>Member $80 Nonmember $105</td>
</tr>
<tr>
<td>Beginner</td>
<td>Landscape</td>
<td>2 CEUs</td>
<td>3:00 p.m.-5:00 p.m.</td>
</tr>
<tr>
<td>Review the essentials of valves for properly working landscape irrigation systems. Learn about valve operation, identifying the parts, and maintenance and repairs.</td>
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<tr>
<td><strong>Hydraulic Troubleshooting</strong></td>
<td>Craig Borland, The Toro Company &amp; Andy Veatch, Retired</td>
<td>Friday, Dec. 6</td>
<td>Member $125 Nonmember $165</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Landscape</td>
<td>4 CEUs</td>
<td>8:00 a.m.-12:00 p.m.</td>
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<tr>
<td>Review the essentials of hydraulics for properly working landscape irrigation systems. This half-day class covers troubleshooting, design, system upgrades and more.</td>
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<tr>
<td><strong>The Business of Landscape Irrigation Contracting</strong></td>
<td>Chris Pine, C. Pine Associates Inc. &amp; John Newlin, Quality Sprinkling Systems Inc.</td>
<td>Monday, Dec. 2</td>
<td>Member $190 Nonmember $250</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Business</td>
<td>8 CEUs</td>
<td>8:00 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>Be exposed to current business practices in strategic planning, business finances and marketing through presentations, group discussions and exercises on best practices. This is designed to be an engaging day focused on business management that irrigation contractors can use to successfully grow their companies.</td>
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<tr>
<td><strong>Managing a Landscape Irrigation Service Company: Technicians, Pricing &amp; Marketing</strong></td>
<td>Chris Pine, C. Pine Associates Inc. &amp; John Eggleston, Service First Irrigation</td>
<td>Tuesday, Dec. 3</td>
<td>Member $125 Nonmember $165</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Business</td>
<td>4 CEUs</td>
<td>8:00 a.m.-12:00 p.m.</td>
</tr>
<tr>
<td>Explore the difficulties contractors encounter and discover strategies for finding, hiring, training and keeping service technicians. The course will also present hands-on models for pricing and discuss marketing topics.</td>
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<tr>
<td><strong>Managing a Landscape Irrigation Service Company: Water Management &amp; Technology</strong></td>
<td>Chris Pine, C. Pine Associates Inc. &amp; John Eggleston, Service First Irrigation</td>
<td>Tuesday, Dec. 3</td>
<td>Member $125 Nonmember $165</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Business</td>
<td>4 CEUs</td>
<td>1:00 p.m.-5:00 p.m.</td>
</tr>
<tr>
<td>Develop an understanding of the differences between an installation and a service business and how today's service business has changed into a “landscape water management business.” Explore the tools and technologies impacting this type of business.</td>
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<tr>
<td>Intermediate</td>
<td>Business</td>
<td>8 CEUs</td>
<td>8:00 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>Develop bids that win jobs based on accurate estimates that keep your company in the black. This full-day course includes hands-on practice on the best contractor bidding systems. This class requires a laptop with Microsoft Office Excel 1997 or later (no MacBook or other Apple product).</td>
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CAD Learning Labs

Irrigation designers interested in improving their efficiency and accuracy can take advantage of the CAD learning lab sessions. The CAD learning lab features both agriculture and landscape irrigation design techniques and best practices and allows participants to experience the speed, efficiency and accuracy offered by CAD-based irrigation software.

Sponsored by land F/X and NELSON

Hands-On CAD Basics: Learning How to Draft in AutoCAD for Landscape
Beginner | Landscape | 4 CEUs
Tuesday, Dec. 3 | 8:00 a.m.-12:00 p.m.
Are you just getting into CAD design or need a refresher? This interactive lab will provide you with the fundamentals of CAD. We’ll go over the essentials plus give you a rundown of blocks and how to use them in your designs. Once you’ve completed the course, you’ll be able to attach images and other files to your drawings as external references (Xrefs) and set up your irrigation plan properly. Laptops will be provided.
Member $125 | Nonmember $165

Hands-On Irrigation Design Within AutoCAD for Landscape
Intermediate/Advanced | Landscape | 4 CEUs
Tuesday, Dec. 3 | 1:00 p.m.-5:00 p.m.
If you’ve already attended our CAD Basics training class or already have some CAD familiarity, pick up some more hands-on experience in this higher-level lab. You’ll exit this course with a thorough understanding of tools for placing and designing with AutoCAD. Advanced irrigation design in CAD such as piping, hydraulics and revisions will also be covered. Laptops will be provided.
Member $125 | Nonmember $165

Introduction to the Basics of CAD for Agriculture
Beginner | Agriculture | 4 CEUs
Tuesday, Dec. 3 | 8:00 a.m.-12:00 p.m.
Discover how CAD can be used in agriculture irrigation design. Basic CAD tools will be covered that facilitate the importation of base data, drawing the layout of irrigation systems, working with elevation and interacting with online sources of information like Google Earth. For those with limited or no previous CAD experience, this class will be a great entry point and will lead into the intermediate class in the afternoon. Laptops will not be provided. It is recommended that attendees bring their own laptop. Software installation will be done either prior to or at the beginning of class.
Member $125 | Nonmember $165

Advancing Your CAD Skills for Agriculture
Intermediate/Advanced | Agriculture | 4 CEUs
Tuesday, Dec. 3 | 1:00 p.m.-5:00 p.m.
This class covers the use of irrigation-specific CAD software for designing agricultural irrigation systems. Irrigation-specific CAD software contains features beyond those of standard CAD software. Each step in the design process is automatically linked to other parts of the process. Major elements include the importation of base information, aerial imagery and topography; tools to layout and subdivide irrigation blocks; hydraulic analysis tools to size pipes within designer-specified tolerances; calculation of a bill of materials using a customizable database; and production of hydraulic reports, material reports, management reports and an irrigation system plan for installation details. Laptops will not be provided. It is recommended that attendees bring their own laptop. Software installation will be done either prior to or at the beginning of class.
Member $125 | Nonmember $165

Keep track of event programs & education classes in the palm of your hand!

Stay connected with the 2019 Irrigation Show mobile app! View, search, map, browse and tune in to everything about the show on your mobile device. Look for details in the show guide.
Set yourself apart from your competition and show your customers your commitment to providing the highest level of expertise and knowledge. The IA’s Select Certified program sets the bar for industry professionals, recognizing exceptional commitment to efficient water management and irrigation best practices. This program is the most rigorous in the industry and provides an impartial, third-party endorsement of your knowledge and experience.

IA certification
• prepares you for greater on-the-job responsibility.
• opens doors to new projects and employment opportunities.
• documents your expertise for potential clients and employers.
• demonstrates your personal professional achievement.

Get Ready to Get Certified
1. Choose the right program. Visit www.selectcertified.org to learn more about each program’s requirements.
2. Pick a date. Find a date that works with your schedule or take the exam at your convenience with computer-based testing (learn more at www.irrigation.org/certificationcbt).
4. Prepare for success. Find self-study resources at www.irrigation.org/examprep or register to take an IA education class at the show for a final review.

Examination Options Offered at the Irrigation Show

<table>
<thead>
<tr>
<th>Examination Options</th>
<th>Tuesday, Dec. 3</th>
<th>Wednesday, Dec. 4</th>
<th>Wednesday, Dec. 4</th>
<th>Thursday, Dec. 5</th>
<th>Friday, Dec. 6</th>
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<tbody>
<tr>
<td>Certified Agricultural Irrigation Specialist (CAIS)</td>
<td>■</td>
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<tr>
<td>Certified Golf Irrigation Auditor (CGIA)</td>
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<tr>
<td>Certified Irrigation Contractor (CIC)</td>
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<tr>
<td>Certified Irrigation Designer — Agriculture General &amp; Specialty (CID-Ag)</td>
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<tr>
<td>Certified Irrigation Designer — Landscape/Turf General &amp; Specialty (CID-L/T)</td>
<td>■</td>
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<tr>
<td>Certified Irrigation Technician (CIT)</td>
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<tr>
<td>Certified Landscape Irrigation Auditor (CLIA)</td>
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</tbody>
</table>
Certified Low Voltage Lighting Technician (CLVLT) Exam

Tuesday, Dec. 3 | 7:30 a.m.-5:00 p.m.

The CLVLT exam is administered by AOLP and is the only national certification of its kind. With no clearly defined national standards for low voltage outdoor lighting, AOLP created this standardized certification test to address the lack of standards that presently exist. The CLVLT exam measures the knowledge and capabilities of applicants and is specifically for 12-volt systems. The test consists of seven half-hour labs and a written exam. There is no classroom instruction prior to the exam. Upon receiving a passing grade, applicants are listed as Certified Low Voltage Lighting Technicians (CLVLT). Set yourself apart from the competition, gain respect, acquire knowledge and invest in your future.

Registration fee: AOLP member $450 | Nonmember $675

To register: https://aolponline.org/clvlt

Questions? Email certification@aolponline.org or call 717.238.2504.

This exam requires advanced registration; on-site registration will not be available.

ARCSA Annual Conference

Monday, Dec. 2 | 8:00 a.m.-5:20 p.m.
Tuesday, Dec. 3 | 8:00 a.m.-5:00 p.m.

The American Rainwater Catchment Systems Association’s 2019 15th Annual Conference will celebrate ARCSA’s 25 years as a national nonprofit solely focused on rainwater catchment education. The conference will take place on Dec. 2-3 and will feature a full lineup of expert presentations focused on issues dealing with rainwater and the energy nexus as well as on innovative water management topics.

Those who register for the ARCSA Conference will receive free entrance to the ARCSA Social, the exhibit hall, the IA new product contest, show floor presentations, the IA keynote address and the IA general session. For more information and to register, visit www.arcsa.org.

ARCSA Rainwater Catchment Systems Designer Workshop

Wednesday, Dec. 4 | 8:00 a.m.-5:00 p.m.
Thursday, Dec. 5 | 8:00 a.m.-5:00 p.m.

This two-day professional workshop is an in-depth rainwater harvesting course that provides the 16 hours of subject-specific classroom training required to sit for the ASSE Series 21120 Rainwater Catchment Systems Designer Certification exam. The workshop will be held on Wednesday, Dec. 4 and Thursday, Dec. 5, from 8:00 a.m. to 5:00 p.m.

No ASSE in-person proctored exam is currently scheduled for this specific workshop, but the personal online proctored exam is always available. The online proctored exam will give a student time to go home and review the workshop data and read the manual prior to taking the exam. For more information and to register, visit www.arcsa.org.
Our Sponsors

The Irrigation Association is pleased to host this annual trade show and education conference and sincerely thanks these sponsors for their generous support.

An event of this size and caliber would not be possible without the numerous companies that support the IA through show sponsorship. The IA commends these sponsors for their continued commitment to the agriculture, landscape and golf irrigation industries.

The following listing includes show sponsors as of July 31, 2019.

Opportunities Are Going Fast!

Build your brand awareness, increase traffic to your booth and supercharge your presence at the 2019 Irrigation Show and Education Week. This year’s sponsorships provide myriad opportunities to reach your target audience attending the show. Covering all price points, opportunities range from digital media advertising to signage and products to event sponsorship. We can customize a sponsorship package to maximize your company’s exposure. This year’s co-location with Groundwater Week will bring as many as 10,000 attendees to Las Vegas, giving sponsors an even broader reach and increasing your ability to put your message in front of many new customers.

There are many great turnkey and custom sponsorships to meet your budget and message needs:

- Certification/Education
- Keynote Address
- General Session
- Wi-Fi SOLD
- Lanyards SOLD
- Trade Show Bags SOLD
- Registration
- Mobile App SOLD
- Hotel Key Cards SOLD
- Charging Stations
- Show Floor Lounges
- Opening Night Party SOLD
- Notepads
- Pens
- New Product Contest SOLD
- Water Cooler Stations
- Young Professional Breakfast SOLD
- Women in Irrigation Social SOLD
- Education Breaks
- RFID

CALL OR EMAIL TIFFANY WILSON, exhibit services manager (tiffanywilson@irrigation.org or 703.536.7080), to find out more.
Registration Instructions

It’s Easy to Register

Choose the registration package that’s right for you, then

- **register online.** Register at www.irrigationshow.org (credit card payment required).
- **register by fax.** Fax completed registration form* with credit card payment information to 703.536.7019. One form per attendee; registration forms without credit card information will not be processed.
- **register by mail.** Mail completed registration form* with check, credit card information or money order (payment must accompany form) to:
  
  Irrigation Association  
  8280 Willow Oaks Corporate Drive, Suite 400  
  Fairfax, VA 22031

For questions and assistance, contact the Irrigation Association at registration@irrigation.org, 703.536.7080.

*Paper registration forms may be downloaded from the website at www.irrigationshow.org/registration.

Registration Packages

<table>
<thead>
<tr>
<th>Full Registration</th>
<th>Full Government/Academia Registration</th>
<th>Speaker Registration</th>
<th>Industry Insights &amp; Exhibit Hall Registration</th>
<th>Exhibits-Only Registration IA University-Only Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Exhibits</td>
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<td>• Industry Insights</td>
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<td>• Live From the Show Floor!</td>
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<td>• General session</td>
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<td>• Keynote address</td>
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<td>• Opening night party</td>
<td>• Opening night party</td>
<td>Tickets for opening night party can be purchased separately.</td>
<td>Tickets for opening night party can be purchased separately.</td>
<td>Tickets for opening night party can be purchased separately.</td>
</tr>
</tbody>
</table>

To register guests, download the guest registration form at www.irrigationshow.org/registration.

**REGISTER BY NOV. 1 and take advantage of our early bird rates — www.irrigationshow.org.**

Ways to Save

- **Register early:** Register by Nov. 1 and save on full registration, exhibits-only registration and class registration packages.
- **Learn more:** Register for three or more classes by Nov. 1 and save 5% on your total registration fee. When prompted, enter coupon code “3classes” in your shopping cart to receive the discount.
- **Become a member:** Discounted pricing is available to IA members and show partner associations. Visit www.irrigation.org/join to join IA.
- **Government employees:** If you have a valid government email address (.state, .gov, .mil) you are eligible to receive early bird pricing throughout the show. Register under Full Registration Government to receive the discount.

Register early to receive discounted pricing and guarantee a seat! Classes with low participation may be canceled.

Policies

**Registration fees:** All fees are subject to verification, including confirmation of member status. The IA will adjust fees as needed to correct math and other errors.

**Member pricing:** Member pricing is available to members of the Irrigation Association and show partner associations. Proof of membership in show partner organizations may be requested.

**Check payments:** Checks must be in U.S. dollars and drawn on a U.S. bank. Make checks payable to the Irrigation Association.

**Cancellation & privacy policy:** Written cancellation and refund requests must be received by Nov. 15. Cancellations received between Nov. 15 and Nov. 29 will be assessed a $50 administrative fee. Cancellations and refund requests should be emailed to registration@irrigation.org or faxed to 703.536.7019 no later than Nov. 29. No refunds will be given for cancellations received after Nov. 29 or for no-shows. By registering for the Irrigation Show and Education Week, you agree to receive Irrigation Association-related material via email or mail. European citizens and residents please call the office at 703.536.7080 with any concerns.

**Photo policy:** Irrigation Show attendees recognize that their photograph and/or likeness may be used for promotional purposes and grant the Irrigation Association the right to use their image in promotional materials for the Irrigation Show and other IA programs and events.
**REGISTRATION OPTIONS**

<table>
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<tr>
<th></th>
<th>IA Member By 11/1</th>
<th>IA Member After 11/1</th>
<th>Nonmember By 11/1</th>
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<tr>
<td>Full Registration</td>
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<td>$299</td>
<td>$399</td>
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<tr>
<td>Full Government/Academia Registration</td>
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<tr>
<td>Industry Insights &amp; Exhibit Hall Registration</td>
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<td>Speaker Registration</td>
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<tr>
<td>IA University-Only Registrations</td>
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**EDUCATION CLASSES** *(Advance registration and separate fee required. For exam registration, visit www.irrigation.org/showexams by Nov. 21.)*

**MONDAY, DEC. 2**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>IA Member</th>
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<tbody>
<tr>
<td>Agricultural Drip/Micro Design (Monday and Tuesday)</td>
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<tr>
<td>Center Pivot Design (Monday and Tuesday)</td>
<td>$250</td>
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<tr>
<td>Landscape Irrigation Auditor (Monday and Tuesday)</td>
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<td>$330</td>
</tr>
<tr>
<td>Landscape Irrigation Contractor (Monday and Tuesday)</td>
<td>$250</td>
<td>$330</td>
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<tr>
<td>Landscape Irrigation Design (Monday and Tuesday)</td>
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</tr>
<tr>
<td>Principles of Irrigation: Agriculture (Monday and Tuesday)</td>
<td>$250</td>
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<tr>
<td>Principles of Irrigation: Landscape (Monday and Tuesday)</td>
<td>$250</td>
<td>$330</td>
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<tr>
<td>The Business of Landscape Irrigation Contracting</td>
<td>$190</td>
<td>$250</td>
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<tr>
<td>Advanced Irrigation Wiring Methods &amp; Troubleshooting (half day)</td>
<td>$125</td>
<td>$165</td>
</tr>
<tr>
<td>Electrical Troubleshooting Diagnosing Field Wiring Problems (half day)</td>
<td>$125</td>
<td>$165</td>
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<tr>
<td>Irrigation Components for Residential/Small Commercial Systems (half day)</td>
<td>$125</td>
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**TUESDAY, DEC. 3**

<table>
<thead>
<tr>
<th>Course Description</th>
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<tr>
<td>Agricultural Irrigation Specialist (Tuesday and Wednesday)</td>
<td>$250</td>
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<tr>
<td>Advancing Your CAD Skills for Agriculture (half day)</td>
<td>$125</td>
<td>$165</td>
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<tr>
<td>Hands-On CAD Basics: Learning How to Draft in AutoCAD for Landscape (half day)</td>
<td>$125</td>
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<tr>
<td>Hands-On Irrigation Design Within AutoCAD for Landscape (half day)</td>
<td>$125</td>
<td>$165</td>
</tr>
<tr>
<td>Introduction to the Basics of CAD for Agriculture (half day)</td>
<td>$125</td>
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<tr>
<td>Managing an Irrigation Service Company: Technicians, Pricing &amp; Marketing (half day)</td>
<td>$125</td>
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<tr>
<td>Managing an Irrigation Service Company: Water Management &amp; Technology (half day)</td>
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<tr>
<td>Two-Wire Technology Systems for Landscapes (half day)</td>
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<tr>
<td>Math Tutorial (2 hours)</td>
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**WEDNESDAY, DEC. 4**

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<th>Course Description</th>
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<tbody>
<tr>
<td>Bidding &amp; Estimating Landscape Irrigation Systems</td>
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<tr>
<td>Advanced Landscape Irrigation Design &amp; Management</td>
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<tr>
<td>Alternative Water for Landscape Irrigation</td>
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<tr>
<td>Landscape Drip Irrigation Design &amp; Management</td>
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<tr>
<td>Landscape Irrigation Technician – English or Spanish</td>
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<tr>
<td>Landscape Water Management &amp; Planning</td>
<td>$190</td>
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<tr>
<td>Pump Controls &amp; Package Systems (half day)</td>
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<tr>
<td>Understanding Pumps (half day)</td>
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**THURSDAY, DEC. 5**

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<tr>
<td>Irrigated Soils (two hours)</td>
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<td>Soil-Plant-Air Continuum (two hours)</td>
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<tr>
<td>Valve Troubleshooting - Spanish (two hours)</td>
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**FRIDAY, DEC. 6**

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<tr>
<td>Electrical Troubleshooting Diagnosing Field Wiring Problems – Spanish (half day)</td>
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<tr>
<td>Hydraulic Troubleshooting (half day)</td>
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**OPTIONAL EVENTS**

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<th>Event Description</th>
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<tr>
<td>Opening Night Party Ticket – Tuesday, Dec. 3</td>
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<tr>
<td>Women in Irrigation Social – Wednesday, Dec. 4</td>
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<tr>
<td>Irrigation LABS (two half days) – Thursday, Dec. 5</td>
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<tr>
<td>Young Professionals Breakfast – Thursday, Dec. 5</td>
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<tr>
<td>Behind-the-Scenes Tour of Bellagio Fountains – Friday, Dec. 6</td>
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<tr>
<td>Hoover Dam Discovery Tour – Friday, Dec. 6</td>
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</table>
Hotels

The Irrigation Association has partnered with Connections Housing to offer discounted hotel rates for the 2019 Irrigation Show and Education Week. All hotels are conveniently located near the Las Vegas Convention Center. Book your room through Connections Housing, the official show housing company, for access to exclusive discounts. All hotels, with the exception of the Las Vegas Marriott Convention Center, offer complimentary guest room internet and use of a fitness center and business center. Complimentary internet is available at the Las Vegas Marriott Convention Center for all Marriott Bonvoy members. You may sign up for this program at check-in.

To receive the special show rate, book your hotel reservation at www.irrigationshow.org/hotels no later than Nov. 6.

For help, contact Connections Housing (855.4IRRIGATE, 855.447.7442 or irrigation@connectionshousing.com).

Travel Information

Westgate Las Vegas Resort & Casino

- **HQ Hotel**
- **Premium/Signature Room Rate** – $79 (Sunday, Dec. 1-Monday, Dec. 2)
- **Premium/Signature Room Rate** – $118 (Tuesday, Dec. 3-Saturday, Dec. 7)
- 3000 Paradise Rd.

Courtyard by Marriott Las Vegas Convention Center

- **King Bed Room Rate** – $124
- **Double Queen Bed Room Rate** – $124
- 3275 Paradise Rd.

Hilton Grand Vacations on Paradise (Convention Center)

- **Studio Suite Room Rate** – $110
- 1 Bedroom Suite
  - **Room Rate** – $140
  - 455 Karen Ave.

Las Vegas Marriott Convention Center

- **King Bed Suite Room Rate** – $149
- **Double Queen Bed Suite Room Rate** – $149
- 325 Convention Dr.

Renaissance Las Vegas

- **King Bed Room Rate** – $159
- **Double Queen Bed Room Rate** – $159
- 3400 Paradise Rd.

Residence Inn by Marriott Las Vegas Convention Center

- **Studio Suite Room Rate** – $124
- 3225 Paradise Rd.

SAHARA Las Vegas Hotel & Casino

- **King/Double Queen Bed Room Rate** – $89 (Sunday, Dec. 1-Thursday, Dec. 5)
- **King/Double Queen Bed Room Rate** – $131 (Friday, Dec. 6-Saturday, Dec. 7)
- 2535 Las Vegas Blvd.

SpringHill Suites Las Vegas Convention Center

- **Studio Suite Room Rate** – $104
- 2989 Paradise Rd.

For the latest updates and information, visit www.irrigationshow.org.
Air Travel
Fly into McCarran International Airport (LAS). The airport is 15 minutes/5 miles from the Las Vegas Convention Center and IA hotels.

Ground Transportation
The IA has partnered with Super Shuttle to offer discounted airport transportation to Irrigation Show attendees. Please visit the hotel/travel tab on www.irrigationshow.org for more information and to book your shuttle. Taxi and ride-share information is also available.

International Travelers
The IA is happy to issue letters of invitation to international attendees and exhibitors applying for a visa application. Visit www.irrigationshow.org/intl-travelers to download the request form. You must register to attend the Irrigation Show before you submit your request. An IA invitation letter does not guarantee that you will be granted a visa. Find visa application information and instructions from the U.S. Department of State at https://travel.state.gov.

Bag & Coat Check
Bag and coat check will be available at the Las Vegas Convention Center. It is a safe and secure way to lighten your load while on the show floor, eliminating the possibility of leaving important, expensive items behind. This also allows you to meet others hands-free without the hassle of lugging property around. Bag and coat check will be available Wednesday, Dec. 4–Thursday, Dec. 5 from 8:00 a.m. to 6:00 p.m. in the FedEx office located in the Grand Lobby and Friday, Dec. 6 from 8:00 a.m. to 5:00 p.m. in the FedEx office located at the main entrance. The cost is $5 per bag; cash and credit are accepted.

While in Las Vegas, check out the Wrangler National Finals Rodeo and Cowboy Christmas, Dec. 5–14.
For more information, visit www.nfrexperience.com.
The 2019 Irrigation Show and Education Week is a program of the Irrigation Association, a not-for-profit 501(c)(6) organization dedicated to promoting efficient irrigation. Unlike for-profit trade shows, revenue from the Irrigation Show supports IA initiatives to benefit its members and the irrigation industry by improving industry proficiency through continuing education; recognizing and promoting experience and excellence with professional certification; ensuring industry standards and codes reflect irrigation best practices; and influencing water-use public policy at the local, state, regional and national levels.

The 2019 show will be co-located with the National Ground Water Association and the American Rainwater Catchment Systems Association.