IRRIGATION SHOW | Dec. 5-6
EDUCATION CONFERENCE | Dec. 3-7
Long Beach Convention & Entertainment Center
Long Beach, California

During one event-packed week, the Irrigation Association gathers irrigation professionals from all over the world to celebrate the work done in our industry — while showcasing an exciting future of what is yet to come.

The Irrigation Show and Education Conference gives you the opportunity to network with your customers, suppliers and industry peers all under one roof. Preview the industry’s latest products, technologies and innovations and access the best irrigation education classes and seminars all in one location.

Plan now to join nearly 5,000 attendees and 300 exhibitors in beautiful Long Beach. The 2018 Irrigation Show will ignite your business and keep you on the cutting edge of your profession.

What is the benefit of attending the 2018 Irrigation Show?
Expand your business, learn about new products and make connections with others in the industry. Don’t take our word for it — here is what 2017 Irrigation Show attendees said about their experience at last year’s show.

“I learned about new products and technologies.”
94%

“During the show, I met with current suppliers.”
93%

“The Irrigation Show is a good place to get insight on how my organization can improve irrigation practices.”
90%

Past attendees agree that making new business contacts and identifying potential new suppliers are top results from their week at the show. With numerous experiences offered throughout the week, attendees say their knowledge of the industry increased and they were exposed to new ideas applicable on the job. The 2018 Irrigation Show provides a good perspective on the state of the irrigation industry, and irrigation professionals return year after year because they believe it is a good value.

Don’t miss all of these opportunities. Register for the 2018 Irrigation Show today!

www.irrigationshow.org
About the Irrigation Show

The Irrigation Show and Education Conference 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.

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
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
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
Traveler hose, reels & components
Valves
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

Find It Fast

On the Show Floor .............. 4
Advertising & Sponsorships .... 5
Special Events ............... 6
Schedule of Events .......... 7
Exhibitors .................. 8
Irrigation Seminars .......... 9
Technical Program ........... 10
Education Classes ........... 12
Certification Exams ......... 17
Affiliate Events ............. 18
Our Sponsors ............... 18
Connections & Networking .... 19
Registration ............... 20
Travel Information .......... 22
Browse the show floor to get a first-hand 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.
• visit potential new partners in precision agriculture.
• find solutions to ancillary landscape markets such as ponds and waterscapes and outdoor lighting.

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

Radio Row

The Irrigation Association is excited to bring the first radio row 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 Irrigation 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.

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 Today (agriculture-focused magazine) and Irrigation & Green Industry (landscape-focused magazine).

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

Stop by and chat with the IA and Foundation staff, relax in the seating area and learn more about the IA and the Foundation.

New Show Hours in 2018!

You asked; we listened. Show floor hours have been adjusted to provide better opportunities for attendees to browse exhibits:

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

Thursday, Dec. 6
10:30 a.m.-3:30 p.m.
New Product Contest

See the latest innovative products to hit the irrigation market. 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 Tuesday, Dec. 4, 2:00 p.m.-6:00 p.m.

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.

New Product Contest Judging 2018 – Seeking Volunteer Judges

Tuesday, Dec. 4, 2:00 p.m.-6:00 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 irrigation, 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. 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 to be judges. Judges must be in Long Beach and available early afternoon Dec. 4.

For additional details, see www.irrigationshow.org or contact Brent Mecham, CID, CLWM, CIC, CLIA, CAIS (brentmecham@irrigation.org or 703.536.7080).
Keynote Address

Wednesday, Dec. 5, 8:45 a.m.-9:45 a.m.

Keynote Speaker Mark Eaton

At 7 feet 4 inches tall, Mark Eaton was a force to be reckoned with on the basketball court during his 12-year career in the National Basketball Association. Today, he has transitioned his experiences in life and on the court to valuable principles and coaching techniques to teach organizations about achieving success. He will share these experiences during the keynote address on Dec. 5.

After graduating high school, Eaton worked as an auto mechanic until being discovered while working on a junior college assistant basketball coach’s car. After playing basketball for Cypress Junior College and then the University of California, Los Angeles, Eaton found his way to the NBA.

He played for the Utah Jazz from 1982 to 1993, with one NBA All-Star selection in 1989 and two NBA Defensive Player of the Year awards in 1985 and 1989. His height helped him become one of the best defensive centers in NBA history. Eaton holds the NBA record for most blocks in a season (456).

After playing his entire NBA career with the Utah Jazz, Eaton retired in 1993. Today, he lives in Park City, Utah, with his wife, their children, Clydesdales, dogs, cats and a burro.

During his address, Eaton will offer his four commitments of a winning team to help industry leaders, teams and individuals outsmart, outlast and outperform the competition and achieve record-breaking success.

Make plans to come hear Eaton’s message that will inspire, strengthen and motivate your team, while increasing commitment between coworkers and creating an environment of safety and trust.

The keynote address is open to all attendees and exhibitors. Continental breakfast will be provided.

General Session

Thursday, Dec. 6, 8:45 a.m.-10:15 a.m.

The general session is the marquee event during the Irrigation Show, celebrating the past year and 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 and Vanguard Awards in both agriculture and landscape. The Irrigation Foundation will honor an educator receiving 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 highlight 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. Continental breakfast will be provided.
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday, Dec. 2</td>
<td>4:00 p.m.-6:00 p.m.</td>
<td>REGISTRATION OPEN</td>
</tr>
<tr>
<td>Monday, Dec. 3</td>
<td>7:00 a.m.-6:00 p.m.</td>
<td>IA Education Classes (see pg. 12)</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m.-5:00 p.m.</td>
<td>Exhibitor Move-in</td>
</tr>
<tr>
<td>Tuesday, Dec. 4</td>
<td>7:00 a.m.-6:00 p.m.</td>
<td>Certified Low Voltage Lighting Technician (CLVLT) Exam (see pg. 18)</td>
</tr>
<tr>
<td></td>
<td>7:30 a.m.-5:00 p.m.</td>
<td>IA Technical Program: Agriculture &amp; Landscape (see pg. 11)</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m.-2:40 p.m.</td>
<td>IA Education Classes (see pg. 12)</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m.-5:00 p.m.</td>
<td>CAD Learning Labs (see pg. 16)</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m.-6:00 p.m.</td>
<td>Exhibitor Move-in</td>
</tr>
<tr>
<td></td>
<td>11:00 a.m.-12:00 p.m.</td>
<td>Irrigation Seminars: Landscape (see pg. 9)</td>
</tr>
<tr>
<td></td>
<td>1:00 p.m.-6:00 p.m.</td>
<td>IA Certification Exams (see pg. 17)</td>
</tr>
<tr>
<td></td>
<td>2:00 p.m.-6:00 p.m.</td>
<td>New Product Contest Judging</td>
</tr>
<tr>
<td></td>
<td>2:50 p.m.-3:50 p.m.</td>
<td>Irrigation Seminars: Landscape (see pg. 9)</td>
</tr>
<tr>
<td></td>
<td>6:00 p.m.-8:00 p.m.</td>
<td>Math Refresher Seminar (see pg. 12)</td>
</tr>
<tr>
<td></td>
<td>6:00 p.m.-8:00 p.m.</td>
<td>Past Presidents’ Dinner (invitation only)</td>
</tr>
<tr>
<td></td>
<td>7:00 p.m.-9:00 p.m.</td>
<td>Opening Night Party (includes IrrigationPAC Bourbon Tasting)</td>
</tr>
<tr>
<td>Wednesday, Dec. 5</td>
<td>7:00 a.m.-8:00 a.m.</td>
<td>Exhibitor Move-in</td>
</tr>
<tr>
<td></td>
<td>7:00 a.m.-6:00 p.m.</td>
<td>IA Certification Exams (see pg. 17)</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m.-12:00 p.m.</td>
<td>IA Education Classes (see pg. 12)</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m.-5:00 p.m.</td>
<td>Continental Breakfast (prior to Keynote Address)</td>
</tr>
<tr>
<td></td>
<td>8:15 a.m.-8:45 a.m.</td>
<td>Keynote Address</td>
</tr>
<tr>
<td></td>
<td>8:45 a.m.-9:45 a.m.</td>
<td>IA Technical Program: Agriculture (see pg. 10)</td>
</tr>
<tr>
<td></td>
<td>10:00 a.m.-4:40 p.m.</td>
<td>EXHIBIT HALL OPEN</td>
</tr>
<tr>
<td></td>
<td>10:00 a.m.-5:00 p.m.</td>
<td>Certification Seminars: Landscape (see pg. 9)</td>
</tr>
<tr>
<td></td>
<td>11:00 a.m.-12:00 p.m.</td>
<td>Certification Luncheon (certified individuals only, RSVP required)</td>
</tr>
<tr>
<td></td>
<td>12:00 p.m.-1:00 p.m.</td>
<td>IA Certification Exams (see pg. 17)</td>
</tr>
<tr>
<td></td>
<td>1:00 p.m.-6:00 p.m.</td>
<td>Women in Irrigation Social</td>
</tr>
<tr>
<td></td>
<td>5:00 p.m.-6:00 p.m.</td>
<td></td>
</tr>
<tr>
<td>Thursday, Dec. 6</td>
<td>7:00 a.m.-8:30 a.m.</td>
<td>Drip-Micro Common Interest Group</td>
</tr>
<tr>
<td></td>
<td>7:00 a.m.-6:00 p.m.</td>
<td>REGISTRATION OPEN</td>
</tr>
<tr>
<td></td>
<td>7:45 a.m.-8:45 a.m.</td>
<td>Young Professionals Breakfast</td>
</tr>
<tr>
<td></td>
<td>8:15 a.m.-8:45 a.m.</td>
<td>Continental Breakfast (prior to IA General Session)</td>
</tr>
<tr>
<td></td>
<td>8:45 a.m.-10:15 a.m.</td>
<td>IA General Session</td>
</tr>
<tr>
<td></td>
<td>10:30 a.m.-11:30 a.m.</td>
<td>Manufacturers’ Rep Common Interest Group</td>
</tr>
<tr>
<td></td>
<td>10:30 a.m.-3:30 p.m.</td>
<td>EXHIBIT HALL OPEN</td>
</tr>
<tr>
<td></td>
<td>11:00 a.m.-11:30 a.m.</td>
<td>Foundation Informational Session</td>
</tr>
<tr>
<td></td>
<td>1:00 p.m.-2:00 p.m.</td>
<td>Irrigation Seminars: Landscape (see pg. 9)</td>
</tr>
<tr>
<td></td>
<td>1:00 p.m.-6:00 p.m.</td>
<td>IA Certification Exams (see pg. 17)</td>
</tr>
<tr>
<td></td>
<td>2:00 p.m.-3:30 p.m.</td>
<td>IA Watering Hole (exhibit hall reception)</td>
</tr>
<tr>
<td></td>
<td>3:00 p.m.-5:00 p.m.</td>
<td>IA Education Classes (see pg. 12)</td>
</tr>
<tr>
<td></td>
<td>3:00 p.m.-5:00 p.m.</td>
<td>Irrigation Innovation Consortium Open Meeting (see pg. 18)</td>
</tr>
<tr>
<td></td>
<td>3:30 p.m.-9:00 p.m.</td>
<td>Exhibitor Move-out</td>
</tr>
<tr>
<td>Friday, Dec. 7</td>
<td>7:00 a.m.-12:00 p.m.</td>
<td>REGISTRATION OPEN</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m.-12:00 p.m.</td>
<td>IA Education Classes (see pg. 12)</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m.-1:00 p.m.</td>
<td>IA Certification Exams (see pg. 17)</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m.-1:00 p.m.</td>
<td>Exhibitor Move-out</td>
</tr>
</tbody>
</table>
Exhibitors (As of July 12, 2018)

3M – Electrical Markets Division
ABB Inc.
Action Machining
Advanced Drainage Systems
Agri-Inject Inc.
AgSense
Alliance Outdoor Lighting
American Lighting
Amici Water Systems
Andros Engineering
Anjon Manufacturing
Antelco Corp.
Applied Engineering Products
AquaCheck USA
AquaFuse
Aqualine Inc.
Arable Labs Inc.
Armada Technologies
Association of Outdoor Lighting Professionals
Atlantic Water Gardens
Axiall
B.A. Fischer Sales Co. Inc.
BALDR International
B.A. Fischer Sales Co. Inc.
Barker Engineered Pumps
Bauer North America
Bermad Inc.
Blackburn Manufacturing Co.
Blue Planet Environmental
Brilliance LED LLC
Buckner Superior
Bulldog Tools (Rollins) Ltd.
Carlisle SynTec Systems
CAST Lighting
Center for Irrigation Technology
Christy’s
Cornell Pump Co.
Corona Tools
Cresline Plastic Pipe Co. Inc.
Davis Instruments
Dawn Industries Inc.
DEMA Engineering Co.
DeWitt Co.
DIG Corp.
Dragon-Line
Dura Plastic Products Inc.
Dwyer Instruments
Dynamax Inc.
Earth Science Labs
Eco-Drip Irrigation Supply Inc.
Ecologel Solutions LLC
Ecoturf Midwest Inc.
Epiphene Inc.
ET Water Systems Inc.
Eurofase Inc.
Everlift
Evoqua Water Technologies
Ewing Irrigation Products
EZ-Weld Inc.
EZ-FLO Injection Systems
FB Balzanelli SRL
FEBCO – A WATTS BRAND
Flint & Walling Inc.
FlowPro LLC
Focus Industries Inc.
Fresno Valves & Castings Inc.
Fuzhou Qingcheng Irrigation Equipment Co. Ltd.
Galcon USA
Gheen Irrigation Works
Gicon Pumps & Equipment
Great Plains Industries
Greenlee Communications
Ground Cover Industries Inc.
GROW Industrial Co. Ltd.
Gulf Agriculture
HARCO Fittings
Hastings Irrigation Pipe Co.
Hendrickson Bros.
HindSite Software
HIT Products Corp./RainPro
Hitachi America Ltd.
Horizon Distributors
Hortau Inc.
HSTI
Hunter Industries Inc.
HydroPoint
Hydro-Rain Inc.
Illumicare Group Limited
Imperial Sprinkler Supply Inc.
Injekt O-Meter
Industrial Adhesives Co.
International Code Council
International Sustainable Irrigation Expo
International Water and Irrigation
Irrigation Components International Inc.
Irrigation Leader
Irrigation Listings
Irrigation Technology Center
Irrigation Training & Research Center
Irigazette
Iritec USA
Iritrol
Irrometer Co. Inc.
Jan Irrigation Inc.
JCM Industries Inc.
JM Eagle Inc.
Juniper Systems Inc.
Kasco Marine Inc.
KibbeChem Inc.
King Innovation
K-Rain Manufacturing Corp.
Kroy Industries
Kuriyama of America
KZValve
Lake Company
Land F/X
Landscape Products
LASCO Fittings Inc.
Lawn & Landscape
Leemco Inc.
LESSO America
Lindsay Corp.
MACE an In-Situ Co.
MacLean Highland Products
Magnification Water Technologies
Maillefer SA
The Master Gardner Co.
Maxjet, Inc. & Mister Landscaper Inc.
Maximum H2O
Mazzei Injector Co. LLC
McCroryer Inc.
Medals International Co. Ltd.
Mercerjet Irrigation
Miller-Leaman Inc.
Morrill Industries Inc.
Motorola / Mototech
Water Solutions
Munro Pump / Systems Inc.
Murray Corp.
Naco Industries
NDS – National Diversified Sales Inc.
Nebraska Irrigation
Nelson Irrigation Corp.
Neptune Chemical Pump Co.
Netafim USA
New Ag International
Ningbo Yaofeng Hydraulic
Electrics Co. Ltd.
North American Pipe Corp.
Oatey SCS / United Elchem
Oldcastle Enclosure Systems
Orenco Controls
Orival Water Filters
Paige Electric – Ag
Paige Electric Co.
Pierce Corp.
Plastica Alfa SPA
PM Group Irrigation Technologies
Ponaflex Hose
Manufacturing Inc.
Potato Grower/Harris Publishing Inc.
Precision Pumping Systems
Pro Products LLC
Productos de Hortalizas Rachio Inc.
Rain Bird Corporation
Ranch Systems
Reef Industries Inc.
Regency Wire & Cable
Reinke Irrigation
Responsive Drip
Irrigation LLC
Revista de Riego
Rivulis Eurodrip
Robbco Pumps
Roth North America
Seametrics Inc.
Semiguard Irrigation Inc.
ShinMaywa
Siemens Industry
SiteOne Landscape Supply
SNF Inc.
Soileau Industries Inc.
Sollos Landscape Lighting
Spears Manufacturing Co. Inc.
Spectrum Technologies Inc.
Spioi Inc.
Sprinkl
SRC
SRW Products
Strongbox
Sure-Flo Fittings
T&C Manufacturing & Operating Inc.
TECO Srl
T-L Irrigation Co.
The Toro Company
Travis Pattern & Foundry
Tsurumi Pump
Tucor Inc.
Underhill International Corp.
Unique Lighting Systems
Universal Motion Components
Universal Sales
Valley Irrigation
Valplastic USA LLC
Valterra Products LLC
Victaulic
Volt Lighting
WAC Landscape Lighting
Wade Rain
Walrus America Inc.
Water Efficiency
Waterman Valve LLC
WaterSmart Innovations
Weather Tec Corp.
Weathermatic
Weld-On Adhesives Inc.
Winin Enterprise Co. Ltd.
Wiseco Engineering Inc.
XCAD Valve & Irrigation Inc.
Yardney Water Filtration Systems
Yuyao Anchang Plastic Trading Co.
Zhejiang Ousen Machinery Co. Ltd.
Zurn Wilkins
Top experts in the field offer practical techniques, best practices and how-tos for landscape irrigation. Each landscape irrigation seminar is a one-hour session that provides detailed coverage on a focused topic.

CEUs Participants will earn 1.0 CEU for each presentation. Schedule is subject to change. The sessions are open to all attendees with a full registration.

Landscape Irrigation Seminars

Weather-based Irrigation Controllers: Features That Maximize Performance
Tuesday, Dec. 4, 11:00 a.m.
Mark Crookston, CAIS, CIC, CID, CIT, CLIA, CLWM
Weather-based irrigation controllers have been on the market for a number of years. These controllers come with a variety of features that can enhance irrigation management and improve irrigation efficiency. This seminar will consider those features that maximize performance and how to program the controllers to achieve the maximum benefit. Included will be a comparison of a number of the popular controllers and how they performed over an entire season using the ASABE X627 standard for testing weather-based irrigation controllers.

Low-impact Development & Irrigation: Navigating the Maze of Regulations
Tuesday, Dec. 4, 2:50 p.m.
Mari Garabedian
Current low-impact development regulations that affect landscape and irrigation design often have conflicting requirements between applicable codes or jurisdictional agencies. As communities adopt sustainable and green practices, you have the opportunity to become a knowledgeable partner in the process. This seminar will consider smart design practices including the use of irrigation technology that meet the reduced water-use requirements.

Impacts of Irrigation in Building Rating Systems
Wednesday, Dec. 5, 11:00 a.m.
Brent Mecham, CID, CLWM, CIC, CLIA, CAIS
A new trend in green building is the use of rating systems to evaluate the impact of the structure and building site on the environment and use of resources. These are new and each has some unique aspects on how they evaluate the landscape and irrigation system on the use of water resources. This presentation will provide an overview of the various methods being introduced in green building programs and the potential to influence landscape design and irrigation methods.

Using Drones to Improve Irrigation Management
Thursday, Dec. 6, 1:00 p.m.
Stephen Smith, PhD, FASIC, CAIS, CLIA
Unmanned aerial vehicles (often referred to as drones) equipped with the right sensors can provide information about the condition of the landscape or field that is difficult to ascertain from the ground. This seminar will discuss the practical applications of using UAVs including the types of sensors that are useful, analyzing the data and some basic rules for safe operation.
Past Irrigation Show attendees report that one of the main reasons they come back year after year is to learn about the latest irrigation technologies and innovations. The 2018 technical program presents the latest cutting-edge research covering a variety of irrigation topics. Industry experts will present case studies and research findings on innovations in agriculture and landscape irrigation.

CEUs: Participants will earn 0.33 CEUs for each 20-minute presentation. Schedule is subject to change. The sessions are open to all attendees with a full registration.

Agriculture Sessions

Special Session for USDA Ogallala Aquifer Program Related to Center Pivot Technology Transfer

Tuesday, Dec. 4, 8:00 a.m.-12:40 p.m.
- Water in the Cloud: A New System for Field Water Monitoring With Cloud Data Access, Steven R. Evett, PhD, USDA-ARS
- How to Determine the Type of Variable Rate Irrigation Best Suited for My Field, Jake LaRue, Valmont Irrigation
- Adapting a Site-specific Irrigation Scheduling System for Different Climatic Regions, Susan A. O’Shaughnessy, PhD, USDA-ARS
- Grain Sorghum Irrigation in the U.S. Eastern Coastal Plain Using Variable Rate Irrigation, Kenneth Stone, PhD, USDA-ARS
- Tillage Management & Sprinkler-irrigated Corn Production, Freddie Ray Lamm, PhD, Kansas State University
- Machine Learning Algorithms Applied to the Forecasting of Crop Water Stress Indicators, Manuel Alejandro Andrade, PhD, USDA-ARS
- Improving Applications of Center Pivot Irrigation, Dana O. Porter, PhD, Texas A&M University, AgriLife Research & Extension
- Shared & Multiuser Pivot for Small Landholders, Guy Fipps, PhD, PE, Texas A&M Agrilife Extension
- Using Water Technology Farm Concept to Test Different Center Pivot Application Packages, Jonathan Aguilar, PhD, Kansas State Research and Extension
- Effect of Limited Water Supplies on Center Pivot Performance, Derrel Martin, PhD, PE, University of Nebraska-Lincoln
- Effect of Collector Size on Center Pivot Water Depth Catch, Danny H. Rogers, PhD, PE, Kansas State University
- Kansas Center Pivot System Uniformity Evaluations Overview, Danny H. Rogers, PhD, PE, Kansas State University
- Center Pivot Irrigation Efficiency as a Function of Weather & Sprinkler Height, Troy Peters, PhD, Washington State University

Special Session – W3128: USDA-National Insitute of Food & Agriculture Multistate Microirrigation Research Group

Tuesday, Dec. 4, 2:00 p.m.-5:00 p.m.
- Evaporative Loss Differences Between Subsurface Drip Irrigation & Sprinkler Irrigation — Southern High Plains Experience, Steven R. Evett, PhD, USDA-ARS
- Direct Root Zone Drip Irrigation to Enhance Precision Deficit Irrigation, Pete Jacoby, Washington State University
- Subsurface Drip Fertigation for Site-specific Precision Management of Cotton, Mark Dougherty, PhD, Auburn University
- Soil Moisture & Nutrient Dynamics in Root Zone of Collard Greens Produced in Different Organic Amendments & Rates, Ripendra Awal, Prairie View A&M University
- Potential for Intensification of Maize Production With Subsurface Drip Irrigation, Freddie Ray Lamm, PhD, Kansas State University
- Citrus Water Use & Soil Moisture Distribution Using Regulation Deficit Irrigation, Davie Mayeso Kadyampakeni, PhD, University of Florida
- Effect of Irrigation Methods & Plant Densities on Grapefruit Cultivated in Open Hydroponics System, Rhuanito Soranz Ferrarezi, PhD, University of Florida Institute of Food and Agricultural Sciences Indian River Research and Education Center
- Creation & Adoption of Smart Agriculture Innovations, Clinton C. Shock, PhD, Oregon State University Malheur Experiment Station
Improving Effectiveness of Microirrigation

Wednesday, Dec. 5, 10:00 a.m.-1:00 p.m.

- pH & Bicarbonate Management in Irrigation Water, Jim Gregory, Verdegaal Brothers Inc.
- Drippers Performance Applying Treated Swine Effluent, Gustavo H.S. Vieira, PhD, Federal Institute of the Holy Spirit Campus Santa Teresa
- Agronomic & Economic Assessment of Aerating Drip Irrigation Water, Jim Lauria, Mazzei Injector Company
- Soil Moisture Sensor-based Irrigation Scheduling to Optimize Water-use Efficiency in Vegetables, Pappu Kumar Yadav, Center for Irrigation Technology, California State University-Fresno
- Irrigation Management Strategies for Nitrate Leaching Mitigation in Lettuce, Charles F. Cochran, California State University, Fresno
- Subsurface Drip Irrigation Flush Line Design & Precision Flush Management, Dale Allred, AES International PLLC
- Decision Support System for Designing Microirrigation System, Thakur B.S. Rajput, PhD, Indian Agricultural Research Institute
- Performance of Irrigated Black Pepper, Gustavo H.S. Vieira, PhD, Federal Institute of the Holy Spirit Campus Santa Teresa

Optimizing Production & Water Usage in Irrigation

Wednesday, Dec. 5, 2:00 p.m.-4:40 p.m.

- Irrigated Corn Response to Reduced Well Capacity, Alan Schlegel, PhD, Kansas State University
- Optimizing Irrigation Scheduling Using iCrop, Isaya Kisekka, PhD, University of California, Davis
- Comparison of Sensor-based Irrigation Scheduling Method & Arkansas Irrigation Scheduler, Ruixiu Sui, PhD, USDA-ARS Crop Production Systems Research Unit
- Effectiveness of Irrigation Water Management Practices for Furrow Irrigation, Chris Henry, University of Arkansas
- Sugar Cane Productivity Estimation Using Agrometeorology, Ismail Ramalho Haddade, PhD, Federal Institute of the Holy Spirit Campus Santa Teresa
- Characterization of Soil Profiles & Landforms for Effective Irrigation Design & Management, Dave Goorahoo, California State University-Fresno
- Where, When & How Much Water?, Jim Etro, Itri Corporation

Optimizing Energy Usage in Irrigation

Thursday, December 6, 10:30 a.m.-12:40 p.m.

- Incentivizing Performance: A New Type of Variable Frequency Drive System Rebate Program, Kyle E. Feist, CAIS, CID, Irrigation Training and Research Center
- Pumping Energy Efficiency — More Than Just Testing Pumps, Rob Welke, Tallemenco Pty Ltd
- Single-phase Electric Power for Agricultural Irrigation, Dale R. Friesen, Meridium Energy
- Manage Irrigation for Energy Conservation & Load Shifting, Charles Hillyer, PhD, Irrigation for the Future
- Engineering Adaptations Optimizing the "Internet of Things" in Agriculture, Robert A. Hibbs, MeasureTek Inc.
- Optimizing Irrigation Strategies for Energy/Water/Yield, John Collin English, Irrigation for the Future

Landscaping Sessions

Irrigation Equipment Performance & Evaluation

Tuesday, Dec. 4, 8:00 a.m.-10:40 a.m.

- Evaluating Operation of Residential Wi-Fi-based Controllers, Charles Swanson, Texas A&M AgriLife Extension
- City of Oklahoma City Median Retrofit Studies With Pressure Regulation, Robert Reaves, CIT, CLIA, Davis Supply Co.
- Actual Rain Sensor Dry-out Times Compared to Estimated Soil Dry-out Times, Bernardo Cardenas, University of Florida
- Estimating Annual Water Demands From Irrigation Flow Rates, Kent Sovocool, CLIA, Southern Nevada Water Authority
- Irrigation Water Conservation Programs: 5+ Years of Testing Smart Irrigation Controllers in Single Family Homes, Bernardo Cardenas, University of Florida
- Volatile Organic Compound Regulations, John Matuska, Weld-On
- Benefits of In-stem Flow Regulation, Ted Sirkin, Valvette Systems

Water Management Programs, Regulations, Case Studies

Tuesday, Dec. 4, 1:00 p.m.-2:40 p.m.

- Water-efficient Landscape Ordinance Commercial Properties — Saving Water?, Dave Langridge, East Bay Municipal Utility District
- Utility Partnerships Between Parks & Water Conservation, Christine Y. Chavez, CLIA, City of Santa Fe
- Industry-based Water Budget & Enhancement Program, Kyrsten Burr, San Diego County Water Authority
- Educate, Train & Employ High School Students as Summer Water Manager Interns, Christopher J. Eppler, CIC, CID, CLIA, Canyons School District
- Allan Hancock College Case Study, Erin Hagen, Calsense

www.irrigationshow.org
Get great ideas, learn new skills and earn CEUs with the industry’s best education for agriculture and landscape/golf irrigation. Whether you’re new to the industry or a seasoned professional, IA education classes teach concepts and practical skills you can apply immediately.

IA 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** classes for individuals with no or very limited irrigation experience.
- **Intermediate** classes for individuals with basic knowledge of irrigation concepts and techniques and some experience in the field.
- **Advanced** classes for individuals with an in-depth understanding of irrigation concepts and techniques and extensive experience in the field.

Education 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, the new product contest, general session, keynote address and the IA Watering Hole (exhibit hall reception).

Register by Nov. 1 and take advantage of our early bird rates. Register for three or more classes by Nov. 1 and save 5 percent 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

#### Irrigated Soils
- **Intermediate** Agriculture, Landscape & Golf | 2 CEUs
- **Thursday, Dec. 6, 3:00 p.m.-5:00 p.m.**

Learn the essentials of the soil-water relationship. This course covers soil components, formation, physical properties and textural classes; water movement in the soil; and water uptake by plants.

*Member $80 | Nonmember $105 (includes handouts)*

### Pumps & Pumping Systems

#### Beginner
- **Beginner** Agriculture, Landscape & Golf | 4 CEUs
- **Wednesday, Dec. 5, 8:00 a.m.-12:00 p.m.**

Learn about the types of pumps used in irrigation, pump performance, pump selection, operating points and power units with this half-day session. You will be introduced to pump controls including variable frequency drives and how to evaluate pumping costs.

*Member $125 | Nonmember $165 (includes manual)*

### Advanced Pumps

- **Advanced** Agriculture, Landscape & Golf | 4 CEUs
- **Wednesday, Dec. 5, 1:00 p.m.-5:00 p.m.**

Learn how centrifugal and positive displacement pumps really work. Content includes pump basics, sizing and appropriate use, as well as how to read and interpret different types of pump curves.

*Member $125 | Nonmember $165 (includes handouts)*

### Soil-Plant-Air-Continuum

- **Advanced** Agriculture, Landscape & Golf | 2 CEUs
- **Thursday, Dec. 6, 3:00 p.m.-5:00 p.m.**

Master advanced concepts related to the soil-plant-air-continuum. This course covers how plants use water for transpiration and photosynthesis, store energy from the sun for use by other living things, and use and emit carbon and oxygen in a continuous cycle that is essential to life.

*Member $80 | Nonmember $105 (includes handouts)*

### FREE: Math Refresher Seminar

#### Tuesday, Dec. 4, 6:00 p.m.-8:00 p.m.

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

*FREE*
Agriculture

Agricultural Drip/Micro Design

**Advanced Agriculture | 16 CEUs**

**Monday, Dec. 3, 8:00 a.m.-5:00 p.m. (Day 1)**
**Tuesday, Dec. 4, 8:00 a.m.-5:00 p.m. (Day 2)**

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.

*Member $295 | Nonmember $395 (includes manual)*

Center Pivot Design

**Advanced Agriculture | 16 CEUs**

**Monday, Dec. 3, 8:00 a.m.-5:00 p.m. (Day 1)**
**Tuesday, Dec. 4, 8:00 a.m.-5:00 p.m. (Day 2)**

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.

*Member $250 | Nonmember $330 (includes manual)*

Principles of Irrigation: Agriculture

**Intermediate Agriculture | 16 CEUs**

**Monday, Dec. 3, 8:00 a.m.-5:00 p.m. (Day 1)**
**Tuesday, Dec. 4, 8:00 a.m.-5:00 p.m. (Day 2)**

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.

*Member $250 | Nonmember $330 (includes manual)*

Agricultural Irrigation Specialist

**Advanced Agriculture | 13 CEUs**

**Tuesday, Dec. 4, 8:00 a.m.-5:00 p.m. (Day 1)**
**Wednesday, Dec. 5, 8:00 a.m.-1:00 p.m. (Day 2)**

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. Recommended review for the certified agricultural irrigation specialist exam.

*Member $250 | Nonmember $330 (includes manual)*

Landscape & Golf

Electrical Troubleshooting: Diagnosing Field Wiring Problems

**Beginner Landscape & Golf | 4 CEUs**

**Monday, Dec. 3, 8:00 a.m.-12:00 p.m.**

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.

*Member $125 | Nonmember $165 (includes handouts)*

Irrigation Components for Residential/Small Commercial Systems

**Beginner Landscape | 4 CEUs**

**Monday, Dec. 3, 8:00 a.m.-12:00 p.m.**

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.

*Member $125 | Nonmember $165 (includes handouts)*

Landscape Irrigation Auditor

**Intermediate Landscape | 16 CEUs**

**Monday, Dec. 3, 8:00 a.m.-5:00 p.m. (Day 1)**
**Tuesday, Dec. 4, 8:00 a.m.-5:00 p.m. (Day 2)**

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.

*Member $250 | Nonmember $330 (includes manual)*

Landscape Irrigation Contractor

**Advanced Landscape | 16 CEUs**

**Monday, Dec. 3, 8:00 a.m.-5:00 p.m. (Day 1)**
**Tuesday, Dec. 4, 8:00 a.m.-5:00 p.m. (Day 2)**

This two-day class is a comprehensive refresher for experienced contractors. Topics include soil-water-plant relationships, hydraulics, basic electricity, grounding, pumps, building codes, scheduling and system uniformity. Recommended review for the certified irrigation contractor exam.

*Member $250 | Nonmember $330 (includes manual)*
Landscape & Golf (cont.)

Landscape Irrigation Design

**Beginner**  Landscape | 16 CEUs

**Monday, Dec. 3, 8:00 a.m.-5:00 p.m. (Day 1)**

**Tuesday, Dec. 4, 8:00 a.m.-5:00 p.m. (Day 2)**

Take your landscape designs to the next level. This fast-paced course covers basic hydraulics, sprinkler head layout, zoning, pipe sizing, routing and matched precipitation rate principles. Students will complete two designs during the two-day class.

Member $250 | Nonmember $330 (includes manual)

Principles of Irrigation: Landscape

**Intermediate**  Landscape & Golf | 16 CEUs

**Monday, Dec. 3, 8:00 a.m.-5:00 p.m. (Day 1)**

**Tuesday, Dec. 4, 8:00 a.m.-5:00 p.m. (Day 2)**

Master theory and application principles for turf-landscape 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 landscape/turf exam.

Member $250 | Nonmember $330 (includes manual)

Advanced Irrigation Wiring Methods & Troubleshooting

**Intermediate**  Landscape & Golf | 4 CEUs

**Monday, Dec. 3, 1:00 p.m.-5:00 p.m.**

Master wiring for today’s sophisticated control systems. This half-day session will cover different types of transformers, proper phasing (primary and secondary), diagnosing problems using different meters, wire sizing for communication cables and two-wire systems, DC controllers, special solenoids, and proper splicing techniques.

Member $125 | Nonmember $165 (includes manual)

Hydraulic Troubleshooting

**Intermediate**  Landscape | 4 CEUs

**Tuesday, Dec. 4, 8:00 a.m.-12:00 p.m.**

Review the essentials of hydraulics for properly working landscape irrigation systems. This half-day class covers troubleshooting, design, system upgrades and more.

Member $125 | Nonmember $165 (includes manual)

Advanced Landscape Irrigation Design & Management

**Advanced**  Landscape & Golf | 8 CEUs

**Wednesday, Dec. 5, 8:00 a.m.-5:00 p.m.**

Improve landscape water efficiency with better design, including uniformity, equipment selection and technology. This full-day session will address advanced irrigation concepts.

Member $190 | Nonmember $250 (includes manual)

Alternative Water for Landscape Irrigation

**Advanced**  Landscape & Golf | 8 CEUs

**Wednesday, Dec. 5, 8:00 a.m.-5:00 p.m.**

Targeted at experienced designers, this full-day course covers the basics of sustainable irrigation systems. Topics include using reclaimed water and rainwater harvesting, and how they apply to LEED and other sustainability programs.

Member $190 | Nonmember $250 (includes manual)

Landscape Drip Irrigation Design & Management

**Intermediate**  Landscape | 8 CEUs

**Wednesday, Dec. 5, 8:00 a.m.-5:00 p.m.**

Incorporate drip irrigation in landscape applications with this comprehensive review of key design elements, including emitter selection, system layout, applications and scheduling. This full-day session covers line and point source products.

Member $190 | Nonmember $250 (includes manual)

Landscape Irrigation Technician (English & Spanish versions)

**Beginner**  Landscape & Golf | 8 CEUs

**Wednesday, Dec. 5, 8:00 a.m.-5:00 p.m.**

Learn the basics of hydraulics and irrigation system installation and maintenance. This full-day learning session covers 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.

Member $190 | Nonmember $250 (includes manual – English only)

Landscape Water Management & Planning

**Intermediate**  Landscape | 8 CEUs

**Wednesday, Dec. 5, 8:00 a.m.-5:00 p.m.**

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.

Member $190 | Nonmember $250 (includes handouts)
Two-wire Technology Systems for Landscapes

**Advanced** Landscape & Golf | 4 CEUs
Friday, Dec. 7, 8:00 a.m.-12:00 p.m.

Advance your troubleshooting skills for two-wire systems. This class covers the intricacies of troubleshooting two-wire control systems used in landscape irrigation systems. This class will address typical problems and diagnoses, procedures to avoid typical two-wire problems, and hands-on practice in solving problems in a classroom setting. You will also learn how to design and install flow sensors, decoders and grounding systems to protect expensive equipment.

*Member $125 | Nonmember $165 (includes handouts)*

Drip Irrigation Components & Installation for Landscape (Spanish version)

**Beginner** Landscape | 4 CEUs
Friday, Dec. 7, 8:00 a.m.-12:00 p.m.

This four-hour class includes an overview of the advantages of drip systems, parts and components; where to install line source or point source systems; pressure compensating emitters; basic design; hydro zoning; and determining how many emitters per plant. Class includes some hands-on practice with fittings, assembly and retrofitting spray zones. This class will be taught in Spanish.

*Member $125 | Nonmember $165 (includes handouts)*

Managing a Landscape Irrigation Service Company: Water Management & Technology

**Intermediate** Business | 4 CEUs
Monday, Dec. 3, 1:00 p.m.-5:00 p.m.

This class will help one develop an understanding of the relevant differences between an installation and a service business. We will look at how today’s service business has changed dramatically into a “landscape water management business” and develop the tools needed to implement these services. We will also explore the many ways technology impacts this type of business from new controllers to the software and systems for managing a service company.

*Member $125 | Nonmember $165 (includes handouts)*

The Business of Landscape Irrigation Contracting

**Intermediate** Business | 8 CEUs
Tuesday, Dec. 4, 8:00 a.m.-5:00 p.m.

This class provides several opportunities for students to be exposed to current business practices in strategic planning, business finances and marketing through presentation of relevant topics, 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.

*Member $190 | Nonmember $250 (includes handouts)*

Managing a Landscape Irrigation Service Company: Technicians, Pricing & Marketing

**Intermediate** Business | 4 CEUs
Wednesday, Dec. 5, 8:00 a.m.-12:00 p.m.

Retaining well-trained service technicians is one of the largest challenges facing the irrigation service business. This class will explore the difficulties contractors encounter and present strategies for finding, hiring, training and keeping service technicians. This class will present some hands-on models for pricing, including understanding costs and models for technician and service contract rates. Lastly, different marketing topics, including service contracts and promotion will be discussed.

*Member $125 | Nonmember $165 (includes handouts)*

Bidding & Estimating Landscape Irrigation Systems

**Intermediate** Business | 8 CEUs
Wednesday, Dec. 5, 8:00 a.m.-5:00 p.m.

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. Requires laptop with Microsoft Office Excel 1997 or later (no MacBook or other Apple product).

*Member $250 | Nonmember $330 (includes manual/software)*
Keep track of event programs & education classes in the palm of your hand!

Stay connected with the 2018 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.

Sponsored by Atlantic Irrigation
Set yourself apart from your competition and show your customers your commitment to providing the highest level of expertise and knowledge.

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.

Invest in your career by getting certified at the Irrigation Show!

Exam Options

The IA will offer the following exams at the show:

• Certified Agricultural Irrigation Specialist (CAIS)
• Certified Golf Irrigation Auditor (CGIA)
• Certified Irrigation Contractor (CIC)
• Certified Irrigation Designer — Agriculture (CID-Ag)
• Certified Irrigation Designer — Landscape/Turf (CID-L/T)
• Certified Irrigation Technician (CIT)
• Certified Landscape Irrigation Auditor (CLIA)
• Certified Landscape Irrigation Auditor — Drip Specialty (CLIA-Drip)
• Certified Landscape Water Manager (CLWM)

Get Ready to Get Certified

1. **Choose the right program.** Visit [www.selectcertified.org](http://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](http://www.irrigation.org/certificationcbt)).

3. **Register in advance.** Exams at the show require advance registration and a separate fee. Visit [www.irrigation.org/showexams](http://www.irrigation.org/showexams) to register by Nov. 18.

4. **Prepare for success.** Find self-study resources at [www.irrigation.org/examprep](http://www.irrigation.org/examprep) or register to take an IA education class at the show for a final review.

<table>
<thead>
<tr>
<th>Examination</th>
<th>Tuesday, Dec. 4</th>
<th>Wednesday, Dec. 5</th>
<th>Wednesday, Dec. 5</th>
<th>Thursday, Dec. 6</th>
<th>Friday, Dec. 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAIS</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CGIA</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CIC</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CID-Ag (General)</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CID-Ag (Specialty)</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CID-L/T (General)</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CID-L/T (Specialty)</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CIT</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CIT – Spanish</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CLIA</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CLIA Drip</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CLWM</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
</tbody>
</table>

www.irrigationshow.org 17
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 3, 2018. See page 5 for information about show sponsorship opportunities.

**Association of Outdoor Lighting Professionals**

**Certified Low Voltage Lighting Technician (CLVLT) Exam**

**Tuesday, Dec. 4, 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.

**Irrigation Innovation Consortium**

**Open Meeting**

**Thursday, Dec. 6, 3:00 p.m.-5:00 p.m.**

Come learn about this new collaborative research effort to initiate irrigation research, demonstration and training in the “white space” that often exists between accepted or new technologies. The presentation will include an overview of the Irrigation Innovation Consortium, as well as 2018 results and 2019 objectives.

Initiated and initially funded by the Foundation for Food and Agriculture Research, the IIC received a $5 million grant in April, which was matched 1:1 with industry, university and other nonfederal sources. Industry participation is absolutely necessary for ongoing success. At press time, five universities were involved: Colorado State, Kansas State, Fresno State, Texas A&M and the University of Nebraska. Please join us at this first public meeting.
Use the Irrigation Show and Education Conference 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. 4, 7:00 p.m.-9:00 p.m.
Start your week off right in Long Beach with an evening catching up with colleagues while enjoying good food and drinks. The opening night party is a great opportunity to see who is at the show and make some new business connections. This year’s event will feature a relaxed California flare where party-goers can sample food truck cuisine while visiting with colleagues in The Cove, a new unique street party venue. Come and enjoy food and conversation while listening to the sounds of electric violinist and DJ KAT V, an entertainer who redefines the classical violinist image with the help of some strings and needles.

The opening night party is open to all IA exhibitors and attendees with a full registration.

Sponsored by [Ewing]

Certification Luncheon
Wednesday, Dec. 5, 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. 5, 5:00 p.m.-6:00 p.m.
Being a female in a traditionally male-dominated industry offers unique challenges, as well as opportunities. Over the past four years, like-minded businesswomen have enjoyed connecting and exchanging valuable ideas about the industry at this special event.

The social is open to all IA female attendees and exhibitors.

Young Professionals Breakfast
Thursday, Dec. 6, 7:45 a.m.-8:45 a.m.
The IA recognizes the energy and creativity of the younger generation and welcomes those who are 40 and under to the Young Professionals Breakfast. Network and exchange ideas with your peers over a cup of coffee and breakfast, while learning a little from those who have walked in your shoes. The future of the industry is in your hands!

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

Sponsored by [Ewing] and [SiteOne Landscape Supply]

IA Watering Hole (EXHIBIT HALL RECEPTION)
Thursday, Dec. 6, 2:00 p.m.-3:30 p.m.
As the week comes to an end, it’s time to let your hair down and celebrate another successful show and get pumped for 2019. The IA will provide the snacks while you share a drink and a few laughs with colleagues in the exhibit hall. As the sun sets into the Pacific Ocean, set your sights on Las Vegas in 2019, where we will once again co-locate our show with the National Ground Water Association!

The reception is open to all IA exhibitors and attendees.
**IRRIGATION SHOW** | Dec. 5-6
**EDUCATION CONFERENCE** | Dec. 3-7
Long Beach Convention & Entertainment Center
Long Beach, California

Registration

It’s Easy to Register
Choose the registration package that’s right for you, then

- **register online.** Register at [www.irrigationshow.org](http://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](http://www.irrigationshow.org/registration).

Registration Packages

<table>
<thead>
<tr>
<th>Full Registration</th>
<th>Exhibits-only Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Guest Registration</td>
<td>Exhibits-only Guest Registration</td>
</tr>
<tr>
<td>Full Government/University Registration</td>
<td>Education Class Registration</td>
</tr>
<tr>
<td>Exhibits</td>
<td>Education Classes-only Registration**</td>
</tr>
<tr>
<td>New product contest</td>
<td>Exhibits</td>
</tr>
<tr>
<td>Technical program</td>
<td>New product contest</td>
</tr>
<tr>
<td>Irrigation seminars</td>
<td>General session</td>
</tr>
<tr>
<td>General session</td>
<td>Keynote address</td>
</tr>
<tr>
<td>Keynote address</td>
<td>IA Watering Hole (exhibit hall reception)</td>
</tr>
<tr>
<td>Opening night party</td>
<td>**registered exhibitors only **</td>
</tr>
<tr>
<td>IA Watering Hole (exhibit hall reception)</td>
<td></td>
</tr>
</tbody>
</table>

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 cancelation and refund requests must be received by Nov. 16. Cancelations received between Nov. 16 and Nov. 30 will be assessed a $50 administrative fee. Cancelations and refund requests should be emailed to registration@irrigation.org or faxed to 703.536.7019 no later than Nov. 30. No refunds will be given for cancelations received after Nov. 30 or for no-shows. By registering for the Irrigation Show and Education Conference, 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.

Register Early!

Register by Nov. 1 and take advantage of our early bird rates.

**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 percent 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](http://www.irrigation.org/join) to join IA.
- **Government/university employees:** If you have a valid email address (.state, .gov, .mil, .edu) you are eligible to receive early bird pricing throughout the show. Register under Full Government/University Registration to receive the discount.

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

Register Today

[www.irrigationshow.org](http://www.irrigationshow.org)
<table>
<thead>
<tr>
<th>Registration Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REGISTRATION OPTIONS</strong></td>
</tr>
<tr>
<td>Full Registration</td>
</tr>
<tr>
<td>Full Guest Registration</td>
</tr>
<tr>
<td>Full Government/University Registration</td>
</tr>
<tr>
<td>Exhibits-only or Exhibits-only Guest Registrations</td>
</tr>
<tr>
<td>Education Class or Education Classes-only Registrations (registered exhibitors only)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>EDUCATION CLASSES</strong> (Advance registration and separate fee required. Visit <a href="http://www.irrigation.org/showexams">www.irrigation.org/showexams</a> to register by Nov. 18.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monday, Dec. 3</strong></td>
</tr>
<tr>
<td>Agricultural Drip/Micro Design (Monday and Tuesday)</td>
</tr>
<tr>
<td>Center Pivot Design (Monday and Tuesday)</td>
</tr>
<tr>
<td>Landscape Irrigation Auditor (Monday and Tuesday)</td>
</tr>
<tr>
<td>Landscape Irrigation Contractor (Monday and Tuesday)</td>
</tr>
<tr>
<td>Landscape Irrigation Design (Monday and Tuesday)</td>
</tr>
<tr>
<td>Principles of Irrigation: Agriculture (Monday and Tuesday)</td>
</tr>
<tr>
<td>Principles of Irrigation: Landscape (Monday and Tuesday)</td>
</tr>
<tr>
<td>Electrical Troubleshooting Diagnosing Field Wiring Problems (half day)</td>
</tr>
<tr>
<td>Irrigation Components for Residential/Small Commercial Systems (half day)</td>
</tr>
<tr>
<td>Advanced Irrigation Wiring Methods &amp; Troubleshooting (half day)</td>
</tr>
<tr>
<td>Managing an Irrigation Service Company: Water Management &amp; Technology (half day)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Tuesday, Dec. 4</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Irrigation Specialist (Tuesday and Wednesday)</td>
</tr>
<tr>
<td>The Business of Landscape Irrigation Contracting</td>
</tr>
<tr>
<td>Hands-on CAD Basics: Learning How to Draft in AutoCAD for Landscape (half day)</td>
</tr>
<tr>
<td>Hydraulic Troubleshooting (half day)</td>
</tr>
<tr>
<td>Introduction to the Basics of CAD for Agriculture (half day)</td>
</tr>
<tr>
<td>Advancing Your CAD Skills for Agriculture (half day)</td>
</tr>
<tr>
<td>Hands-on Irrigation Design Within AutoCAD for Landscape (half day)</td>
</tr>
<tr>
<td>Math Refresher (2 hours)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Wednesday, Dec. 5</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Landscape Irrigation Design &amp; Management</td>
</tr>
<tr>
<td>Agricultural Irrigation Specialist (Tuesday and Wednesday)</td>
</tr>
<tr>
<td>Alternative Water for Landscape Irrigation</td>
</tr>
<tr>
<td>Bidding &amp; Estimating Landscape Irrigation Systems</td>
</tr>
<tr>
<td>Landscape Drip Irrigation Design &amp; Management</td>
</tr>
<tr>
<td>Landscape Irrigation Technician – English or Spanish</td>
</tr>
<tr>
<td>Landscape Water Management &amp; Planning</td>
</tr>
<tr>
<td>Managing an Irrigation Service Company: Technicians, Pricing &amp; Marketing (half day)</td>
</tr>
<tr>
<td>Pumps &amp; Pumping Systems (Understanding Pumps) (half day)</td>
</tr>
<tr>
<td>Advanced Pumps (half day)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Thursday, Dec. 6</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated Soils (2 hours)</td>
</tr>
<tr>
<td>Soil-Plant-Air-Continuum (2 hours)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Friday, Dec. 7</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Drip Irrigation Components &amp; Installation for Landscapes – Spanish (half day)</td>
</tr>
<tr>
<td>Two-wire Technology Systems for Landscapes (half day)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>OPTIONAL EVENTS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wednesday, Dec. 5</strong></td>
</tr>
<tr>
<td>Women in Irrigation Social (open to all female attendees and exhibitors)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Thursday, December 6</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Young Professionals Breakfast (open to all attendees and exhibitors under the age of 40)</td>
</tr>
</tbody>
</table>
Hotels

The IA has partnered with Connections Housing to offer discounted hotel rates for the 2018 Irrigation Show and Education Conference.

All hotels are conveniently located near the Long Beach Convention and Entertainment Center. Book your room through Connections Housing, the official show housing company, for access to exclusive discounts, complimentary Wi-Fi and free fitness center access at all show hotels.

To receive the special show rate, book your hotel reservation at www.irrigationshow.org/hotels no later than Nov. 8.

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

1. Hyatt Regency Long Beach (Headquarters Hotel)
   $224 per night
   200 S. Pine Ave.
   Adjacent to Long Beach Convention & Entertainment Center

2. Best Western Plus Hotel
   $209 per night
   517 E. 1st St.
   3 blocks from convention center

3. Courtyard Long Beach by Marriott
   $189 per night
   500 E. 1st St.
   3 blocks from convention center

4. Hilton Long Beach
   $219 per night
   701 W. Ocean Blvd.
   4 blocks from convention center

5. Hotel Maya – a DoubleTree by Hilton
   $229 per night
   700 Queensway Dr.
   2 miles from convention center (free passport or 15 minutes)

6. Hyatt Centric The Pike Long Beach
   $227 per night
   285 Bay St.
   1 block from convention center

7. The QueenMary
   $189 per night
   1126 Queens Highway
   2.3 miles from convention center (free passport or 20 minutes)

8. Renaissance Long Beach
   $219 per night
   111 E. Ocean Blvd.
   2 blocks from convention center

9. Residence Inn Long Beach Downtown
   $199 per night
   600 Queensway Dr.
   1.9 miles from convention center (free passport or 15 minutes)

10. Westin Long Beach
    $219 per night
    333 E. Ocean Blvd.
    2 blocks from convention center
Air Travel
Fly into any of the following airports: Long Beach Airport (LGB), 15 minutes/10 miles from the convention center; Los Angeles International Airport (LAX), 30 minutes/20 miles from the convention center; or John Wayne-Orange County Airport (SNA), 30 minutes/22 miles from the convention center.

Ground Transportation
The IA has partnered with Karmel, Prime Time and Super Shuttle to offer discounted airport transportation to Irrigation Show attendees. Please visit the hotels/travel tab on www.irrigationshow.org for more information and to book your shuttle.

International Travelers
The Irrigation Association 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 IIA 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 www.travel.state.gov.

Bag & Coat Check
Bag and coat check will be available at the Long Beach Convention and Entertainment 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 with others hands-free without the hassle of lugging property around. Bag and coat check will be available Thursday, Dec. 6, 8:00 a.m.-6:00 p.m. and Friday, Dec. 7, 8:00 a.m.-1:00 p.m. The cost is $3 per bag, cash only, and it will be located in Room 103C.

Long Beach Information
Located in the heart of sunny Southern California, Long Beach blends urban sophistication with the relaxed atmosphere of a beachside community. Voted one of America’s “Most Walkable Cities,” Long Beach's ideal weather and gorgeous setting promise an unforgettable backdrop to your week at the Irrigation Show.

Bring your family along to discover unique hotels, world-class attractions like the Long Beach Aquarium of the Pacific and the Queen Mary, cutting-edge museums, award-winning restaurants and a multifaceted arts and culture scene. Long Beach offers a big-city feel with small-town charm in a unique oceanfront setting.

For more information about things to do in Long Beach, transportation, tickets and discount offers, go to www.visitlongbeach.com/isec18/.
See you in Long Beach!

Registration is now open. Don’t delay!

Photo courtesy of Long Beach Convention & Visitors Bureau