

Success in irrigation

BY VICKY POULSEN

Three irrigation contractors discuss the keys to making irrigation installation work for you

Irrigation design, installation and maintenance is an exact science that some say is best left to the experts. That's why the American Society of Irrigation Consultants (ASIC) urges landscape contractors and architects to consult them before embarking on an irrigation project. They have experience, and they stay abreast of the rapid changes in irrigation technology through industry contacts and continuing education.

Still, many contractors go it alone and do quite well because they've developed competent irrigation crews. Crew members have taken a proactive approach to learning everything there is to know about

▲ PHOTO COURTESY: NETAFIM

irrigation systems and their components. Their superiors, in turn, have provided them with intensive training and "real world" experience by sending them to job sites all over the country, seminars, trade shows and manufacturer training classes.

Knowledge is the key to success in irrigation, and those who have a vested interest in this market don't take their jobs lightly. Mistakes can be costly and ruin the reputation of even the best companies.

We wanted the inside scoop on what today's contractors are up against when it comes to servicing the irrigation market, and here's what they had to say:

LARGE CONTRACTOR

Name: Todd Huston
Title: Vice president
Company: Terrain Systems, Inc.
Location: Phoenix, AZ
2000 revenue: \$14.6 million
Business mix: Mostly commercial
Employees: Between 180 and 300, depending on the season

Company profile: Founded by current owner Dale Micetic, the company has provided landscape and irrigation contracting services to commercial and industrial clients since 1974. Landscape Care, LLC, an affiliate company of Terrain Systems, Inc., provides landscape and site maintenance services to commercial and industrial sites throughout central Arizona. In mid-1998, Terrain purchased DKS Land Design, another local landscape design/build company that provided new leadership and a tree nursery now called Southwest Tree Growers, LLC. Each of the three companies operate as separate profit



centers and serve to increase profit through vertical integration of horticultural products and services. Terrain Systems fields 18 crews with Landscape Care, adding another 14 maintenance crews in the field daily. Approximately 35% of its landscape/maintenance services are devoted to irrigation installation and repair.

Product information sources: "We obtain most of our information through our vendors and trade-related seminars. We also have three large distributors who continually update our product knowledge and provide us with new catalog information on a regular basis."

Equipment arsenal: "We own all our equipment, everything from tractor-type trenchers to walk-behinds, backhoes, grade tractors and skid steers. Additionally, Terrain Systems operates a crane and water truck service for commercial construction sites. We have our own in-house mechanics to repair our equipment and keep the preventative maintenance up-to-date."

Picking a supplier: "Service is a major aspect of ordering irrigation parts. We can't afford to have our parts back ordered. Without materials, we can't meet our production schedules."

Biggest challenges: "One is all of the documentation and field plans you have to study before beginning a project. In our region, the weather is arid and dry, and local government regulations prevent new development from installing any new turf along right-of-ways. So it's an absolute must to know your county and city water regulations before embarking on an irrigation project. In the Phoenix area, drip irrigation prevails. We are hardly ever allowed to use bubblers and shrub sprays to water planter beds. Design guidelines require that plants be irrigated with low water use emitter systems (called xerigation in other areas of the country). Under this system, each plant is watered independently to insure each gets the proper amount of water."

Products to watch for: "Solar-controlled controllers are up-and-coming."

Word to the wise: "Look at and understand the complete project before coming up with and submitting the final bid. Also, buying the best irrigation products on the market is the best investment you can make for your client."

Teamwork is key in making irrigation installation work.

MEDIUM CONTRACTOR

Name: Takeshi Yamamoto
Title: Irrigation division manager
Company: Del Conte's Landscaping, Inc.
Location: Fremont, CA
2000 revenue: \$6.5 million
Business mix: Mostly commercial (HOAs)
Employees: 115 (90 year-round and 35 seasonal)

Company profile: The 29-year-old firm, which offers mostly commercial landscape installation services, is located south of the San Francisco Bay. The development of analytical methods of water management is a personal passion for owner, Tom Del Conte, who pioneered the use of technology to effectively manage irrigation zones. The company employs both central computer-



Yamamoto

continued on page 40

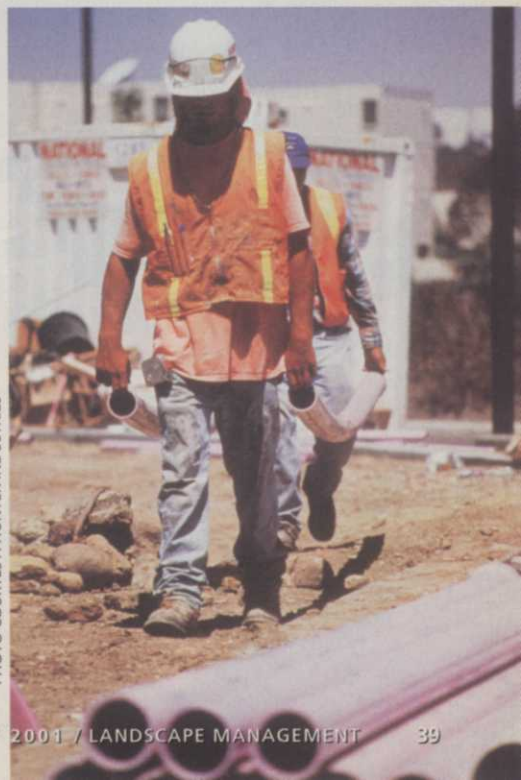


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continued from page 39

ized irrigation water management via phone modem and conventional timing management by use of its own proprietary software developed by Yamamoto. Irrigation maintenance and construction services contributed more than \$1.7 million to the company's gross profit revenue of \$6.5 million in 2000.

Product information sources: Trade shows, magazines, catalogs and distributors. Yamamoto takes a proactive approach to learning about products and systems on the market. He interacts frequently with water conservation staffs so he can keep updated on what they're encountering in the field.

Make sure that you're carrying only the best products onto your project site.

Picking a supplier: "A lot of products look good on paper but don't work in the real world. For example, when the trend towards drip irrigation was increasing, there was an onslaught of products in that market. Many of those manufacturers at the time came up with products that weren't worth putting into the ground because of poor workmanship and design. But because that market has matured, contractors are figuring out what works, and the learning curve is catching up. We use only what we know works and invest only in the best."

Equipment: "We own all our equipment,

including several large excavators, back hoes, loaders, dump trucks, vibratory plow machines and trenchers of all sizes for installation jobs. For maintenance, we use customized compact vans fully equipped with all sorts of rack and irrigation components. Every tech also has a wireless remote control to activate the system as they walk around."

Biggest challenges: "My biggest challenge here is that the price of water is so cheap. To convince a client that a computerized, centrally-controlled irrigation system is going to save him a tremendous amount of money and conserve a tremendous amount of water is difficult with where water rates are right now. Until water is in short supply, the rates won't increase because of all of the political pressure surrounding this issue."

Products to watch for: "Wireless will be the wave of the future. Control valves will be in the field, and you'll simply have a wireless receiver on each one. The controllers will talk to the valves as well as send power to them. When its name is called, the valve turns on."

Word to the wise: "Knowledge is the key to running a successful irrigation operation."

SMALL CONTRACTOR

Name: William L. Wollett, Jr.
Title: Owner
Company: Golden East Lawn Service, Inc.
Location: Rocky Mount, NC
2000 revenue: N/A
Business mix: 100% residential
Employees: 5 during peak season
Company profile: Founded in 1989, the



PHOTO COURTESY: HUNTER INDUSTRIES

company is a full-service landscape/maintenance provider with 40% of its services devoted to maintenance, 50% to landscape design and installation and 10% to irrigation repair. Average crews consist of two people.

Product information sources: As a member of ALCA, Wollett attends the organization's annual trade show. He also has a top-notch supplier who has kept Wollett updated on important maintenance and product information.

Equipment arsenal: "With irrigation maintenance, the tools are pretty basic. Electric volt meters and wire locators are the most important pieces of equipment you need."

Picking supplier: "Same-day delivery is critical, and that's what we get from our supplier. We also want someone who's knowledgeable about the products they sell."

Biggest challenges: Although Wollett isn't faced with any water restrictions in his city, he sees them forthcoming in the next five years. In the meantime, he's already taken steps to conserve water by making sure all heads are adjusted properly, installing rain sensors and using a drip irrigation system on all planting beds.

Products to watch for: "For the type of work we do, I think the products we use are pretty cut-and-dried. We stick to standard equipment and keep things simple."

A word to the wise: "Before getting into the irrigation field, work for an irrigation company first. You can go to school to learn the basics, but working in the field is the best teacher there is."



Wollett

sports TURF innovations

conferences and exhibitions

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Focusing on the newest technology, agronomy, and management techniques, Sports Turf Innovations will give attendees an opportunity to participate in industry discussions, listen to industry leaders, and view, first-hand, some of the newest, cost-efficient, and time-saving techniques for turf managers and superintendents.

Special Feature!



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The American Society of Golf Course Architects will feature "Remodeling University." This "Short Course to a Better Course" is designed to educate golf course decision makers about the basics of golf course remodeling. Remodeling University is sponsored in part by The Toro Company.

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Circle 120

Easy does it

Manufacturers discuss end users' desire for irrigation products that are easier to use and easier to install

BY VICKY POULSEN

With thousands of irrigation components on the market, it can get confusing and costly if you don't keep up with the latest information on these products. Purchasing substandard or too complicated systems can become your worst nightmare.

Also, consider all the issues of installation and maintenance for existing equipment: municipal and regional water restrictions, audits and licensing requirements in some areas of the country and, of course, liability insurance.

Easy-to-use and install products are still priorities, but most contractors also want information and training that come with them. We asked several manufacturers about what they had to offer, and here's what they had to say:

AMETEK INC. ACCESS BOXES, SHEBOYGAN, WI 800/222-7558

Tom Engel, National Sales Mgr.
Irrigation products: Meter boxes manufactured in five major sizes. They have extensions, a variety of names and colors, and various applications in the turf irrigation, waterworks and electrical industries."

Product information: Available through sales reps, distributors

and Web site at www.access-boxes.plymouthwater.com

Key trends: "Labor-saving items like our three-in. extension for 10-in. round box T-tap lids which are easier to open and close. Colored lids are popular because they blend in with the landscape. Lids come labeled with 'Control Valve,' 'Water Meter,' 'CATV,' 'Sewer' and 'Telephone.' "

Best features: "Our lids are strong and long-lasting and come with a 10-year guarantee. They have greater UV-resistance and can withstand heavier loads."

DATA INDUSTRIAL CORP., MATTAPOISETT, MA 508/758-6390

Norman Bartlett, VP Sales & Marketing

Irrigation products: Nonmagnetic impeller flow sensor systems.

Product information: Word-of-mouth, trade publications, trade shows and Web site at www.dataindustrial.com

Key trends: "Customers want products that are easier to work with and install. They want flow meters that tie into the irrigation

controls. That way, they'll interact with the irrigation controller, which will sense if there is a leak or a stuck valve. They also want wireless communications to eliminate the need to run wires between flow sensors and meters."

Best features: "Our Model 1500 flow monitor with the Model IR220B flow sensor gives accurate, repeatable and economical measure of liquid flow in any pipe from 1/2 in. to over 40 in. diameter even at low flow rates. Our forward-swept, six-bladed impeller design provides more constant torque than four-bladed impellers. Coupled with our nonmagnetic sensing mechanism, they're less prone to fouling from particles or debris. Our stand-alone flow sensors are designed with a universal fit.

IRRITROL SYSTEMS, RIVERSIDE, CA 909/785-3623

Keith Shepersky, Brand Mgr.

Irrigation products: A full line of valves, controllers, sprayheads and rotors.

Product information: Available through trade magazine advertising, trade shows., network of distributors and Web site at www.irritrol.com.



Key trends: "Irrigation controllers are now almost required in standard systems. They have schedules which allow them to adapt the program to water restrictions in a specific area every third day or every other day. There's also a move to eliminate the need for a fuse and make the controller diagnose itself and display to the end-user if there's a problem. The controller continues to water all the other operable stations."

Best features: "Our Rain Dial Plus controllers include a 365-day calendar, water budgeting, advanced surge protection and nonvolatile memory."

LASCO FITTINGS, INC., BROWNSVILLE, TN 800/776-2756

Bryan Juwig, National Sales Mgr.
Irrigation products: PVC pipe fittings and specialty items for the irrigation market.

Netafim drip irrigation products help this landscape thrive.



Product information: Get information through wholesale distributors or the Web at www.lascofittings.com.

Key trends: "People who use these products want greater reliability and easier installation. Simplicity is key. Easy installation will help eliminate installation labor costs. For example, PVC pipe fittings are a commodity item, but our swing joints and tap couplings that use special threads are specialty items that a leakproof joint without taping or using pipe sealant."

Best features: "We're introducing several new products this year that promise to make irrigation installation quicker, easier and more stable. These products are the Snap-Lok and Male Brass Stabilizer Elbow, which work together to lock and stabilize a quick coupler valve without the use of any tools."

**NETAFIM USA, FRESNO, CA
559/453-6800**

Kurt Maloney, Market Segment Leader for Landscape.

Irrigation products: Drip irrigation products include the Tech-line® system designed for both commercial and residential use. These drip emitters are constructed inside the 1/2-in. polyethylene pipe for easy installation.

Product information: Netafim's website (www.netafimUSA.com) provides plenty of product and design information. If you're competent at irrigation system design with sprinklers, it will only take you short time to understand how drip irrigation works.

Key trends: "The trend is to save water and this design allows contractors to irrigate without affecting foot traffic or staining walls or structures. Also, you can irrigate anytime, rather than being limited to certain hours for spray."

Best features: "It's an easy system to learn and very quick and inexpensive to install. The pipe can lay on the ground or in a shallow trench (typically 4-in. deep), so your equipment will be cheap and easy to use. It also works in beds and turf, and costs about the same as sprinklers."

**RAIN BIRD, GLENDORA, CA
626/963-9311**

Patricia Thompson, Marketing Communications Manager

Irrigation products: Rain Bird's

line includes rotors, spray heads, valves, controllers, accessories and Xerigation® drip irrigation equipment.

Product information: Through their sales force, distributors, Web site (www.rainbird.com) and marketing programs.

Key trends: "One of the most important trends in irrigation is the need for efficient water management. Rain Bird has developed products to help our customers comply with local watering restrictions and to conserve water. These include: the 1800-SAM-PRS spray head; the Rain Curtain rotor nozzles; and the Maxicom® central control system. The 1800-SAM-PRS spray head is for use in areas with changing elevations and/or high or widely fluctuating water pressures, and to prevent flooding and water waste. Rain Curtain rotor nozzles maximize rotor performance and coverage. The configuration of the nozzle is designed for both close-in and long distance watering. Maxicom central control operates multiple controllers, sensors and other devices from one central location."

Best features: "Products designed to help our customers manage water more efficiently include the ESP-MC controllers with Cycle+Soak, which splits total station run time into usable cycles, minimizing puddling and runoff."

**RAIN MASTER IRRIGATION
SYSTEMS, INC.,
SIMI VALLEY, CA
800/777-1477**

Karrie Bragg, Customer Service
Irrigation products: Controllers, handheld remote controls and central computerized control systems. Product focus is dedicated to the development of state-of-the-art electronics, software and communications for controllers and central control systems.

Product information: "Get information about our products through our sales reps, distributors and Web site (www.rain-master.com).

Key trends: "Landscapers want user-friendly, flow-sensing capability with automatic shutdown and central control. The Evolution (total control with the computer) system is the most popular product with landscapers. We foresee more ET-based scheduling and affordable central systems in the future."

Best features: "Our products have high reliability components; short circuit protection for field wiring faults including sensing and notification for all station outputs; lifetime retention of all programs; time retention without the battery use; electronic fuses with automatic reset; intelligent operation during power outages/restoration; high reliability membrane keyboards; and ease of use."



IRRIGATION *products*



Drip for beds or turf

Netafim's Techline drip irrigation system features embedded drip emitters inside the 1/2-in. polyethylene pipe, giving durability. Contractors can place these pipes on the ground or in shallow, 4-in. deep trenches using quick-install, easy-to-operate equipment. Drip system can be used in beds or turf on both residential or commercial applications and can be run anytime of the day. Deep-down irrigation does not stain structures or affect foot traffic. For more information contact Netafim at 559/453-6800 or www.netafimusa.com. / Circle #270

Go with the flow

With the Model Ir220B sensor, Data Industrial's Model 1500 wall-mounted flow monitor displays both flow rate and flow total on its two-line LCD. The 1500 can be programmed for units of measure, pipe size and sensor type. They may have a pulse output, two mechanical relays or a 4-20mA analog signal, all programmed from the front keypad. Sensors measure flow in pipes from 1/2-in. to 40 in. For information contact Data Industrial at 508/758-6390 or www.dataindustrial.com. / Circle #269

Global irrigation

Rain Master's Evolution Central System is based on a graphical user interface enabling global



functions to be easily performed. Most are performed with a single mouse click. Flexible report processing gives instant access to water usage information. For information contact Rain Master at 805/527-4498 or www.rain-master.com. / Circle #271

Monster rotors

Rain Bird's 7005 and 8005 heavy duty rotors fit large-scale commercial turf sites. The 7005 has a radius of throw of 39 to 71 ft.; the 8005 reaches 50 to 80 ft. Both have Rain Curtain nozzle technology

for effective water distribution. The nozzles are interchangeable from the front of the rotor with no special tools and rotors have continuous full and part-circle operation in the same unit with independently adjustable left and right arcs. Adjustments can be made with a standard flat-head screwdriver. For information contact Rain Bird at 626/963-9311 or www.rain-bird.com. / Circle #272



In control

Irritrol Systems' Rain Dial Plus controller has a 365-day calendar, water budgeting, advanced surge protection and nonvolatile memory. Three independent programs offer concurrent operation capability. The calendar has automatic weekday calculation for odd/even day watering options. For information contact Irritrol at 909/785-3623 or www.irritrol.com. / Circle #273

Fits like a glove

Lasco Fittings' Snap-Lok and Male Brass Stabilizer elbow work together to prevent the quick coupler body from unthreading from the swing joint. The elbow attaches to the quick coupler, and Snap-Lok snaps around it plus the coupler to lock them in place. Stabilization is achieved by inserting a scrap piece of 1-in. PVC pipe into the coupling formed by the closed Snap-Lok fitting. For information contact Lasco at 800/776-2756 or www.lascofittings.com. / Circle #274

Drip drop

AIDL Co.'s Plant-Drip watering system for potted plants has the properties of a soil moisture sensor and the ability to release water to the plant according to its exact needs. Its reservoir requires refilling only once every 10 to 15 days. For information contact AIDL at 213/804-2835 or www.aidlltd.com. / Circle #275

