written out so that you can refer to it," Pichan says.

Also, Pichan makes it a point to remember that people want to know how long you're going to be working with them. Then, find someone who knows how to do training, and expect to dedicate six months to a year to getting them to the next level. Generally, Pichan says the trainer-trainee process involves four steps:

- I do it, you watch me do it, and I tell you what I'm doing.
- 2. I do it, and you tell me the steps I'm taking.
- **3.** You do it, you tell me what you're doing.

Setting the stage to create leaders

- 1. Identify potential.
- 2. Look for threads of success: Ask, "Tell me again about your life, beginning with high school...what were you involved with, what did you do?"
- 3. Is the person teachable?
- 4. Can he or she be a team player with you?
- 5. Does he or she have personal integrity?
- 6. Is this really the kind of work he or she wants to be doing?

- Daryl Pichan

4. You go out on your own, but I stay in contact with you so I can see how you're making it because I want you to be successful.

"Each new responsibility requires training," Pichan says. "The number one problem

in every company is the desire to give away responsibility without giving training to get people to the point where they can really do the task."

Training, as Pichan says, is an investment, not a cost. LM

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the FertiGator

Automatic Lawncare Systems For Precise Fertilization by Zone

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- Inexpensive
- · Easy to install
- · Uses any liquid fertilizer
- Designed to be safe with any backflow preventer

The FertiGator brings the benefits of fertigation to all types and sizes of residential, commercial, municipal and sports turf properties.



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And if computers had existed back in the 19th century, we certainly would have considered harnessing the semi-conductor sooner.

But now, here they are: The first compacts available with electronic transmissions and controls. The 4000 TEN Series.

eHydro™ electronically activated pedals are up to 70 percent easier to push than before. A LoadMatch™ power management system makes stalls almost impossible. Cruise control is speed-sensing (plus has accelerate/decelerate and resume features — just like your car). New SpeedMatch™ and MotionMatch™ systems allow functions never before possible on a tractor this size.

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JOHN DEERE

Fertigation for the residential market

he battle to secure and keep lawn care customers never stops. For a contractor, there's nothing worse than spending money and time to land a new customer, only to lose others because of employee and/or service problems.

Fertigation systems are the perfect employees. They show up every day and always follow your instructions to the letter. You simply supply the fertilizer and other products you want to deliver. This not only saves you labor on each lawn, it also reduces your labor headaches and the risk of losing customers to poor performance.

Fertigation is the process of delivering small amounts of fertilizer each time you water, creating a consistently nutrient-rich root zone. The water carries the nutrients into the ground. It offers several advantages over the traditional practice of applying significant amounts of liquid or granular fertilizer several times a year, the biggest being that it produces healthier plants that are less likely to be stressed by diseases, insects or drought.

Fertigation was developed for agriculture in the 1960s and began finding widespread use on golf courses in the 1980s. The nursery industry embraced the technology early in its development, and now almost any operation of any significance uses it. More recently, fertigation has been gaining increased favor in providing improved turf quality on athletic fields.

Feeding turfgrass and landscape plants with in-ground sprinkler systems offers hard-to-ignore benefits BY STEVEN KING

Lawn care professionals, whose livelihood depends on caring for residential and smaller commercial properties, have until recently never had an effective and affordable fertigation product available to them. Several manufacturers are now designing products that can provide reliable fertigation to residential properties. They're addressing some of the problems that have slowed the growth of fertigation of residen-

Residential properties are complex in design, especially higher-end properties likely to be interested in fertigation that may have grass, gardens, shrubs and occasionally plants like roses that require special treatment. Gardens require different amounts and, sometimes, different types of fertilizer than turf. Grass frequently has a hard time getting established on hillsides. Roses require low flow-rate drip systems.

tial properties, including:

Water is occasionally diverted from the sprinkler system to serve misting systems or water features, like ponds or waterfalls. One doesn't want fertilizer in misting systems or waterscapes.

Properties are usually undulating, with

creative hills, slopes, valleys and landscaping. They also have large front yards, small side yards and large backyards, shady and sunny areas, sidewalks, driveways, houses, trees and the like that make them different from 40 acres of corn, a golf course or foot-

This system is installed into the in-ground sprinkler system between the backflow preventer and the first zone valve.



ball stadium. Each of these areas has to be cared for properly and, in most cases, differently from the others.

Three types

There are essentially three types of fertiga-



Installation and maintenance of residential fertigation systems is relatively simple.

tion systems: electric pumps, hydraulic pumps and Venturi systems. Each has its advantages, although Venturi systems are falling out of favor.

All of the systems can be installed for the homeowner for a few hundred dollars, and are fairly easy to install, operate and maintain.

The system we use on Lake City College's landscapes and athletic fields is the FertiGator system, and my students have installed and monitored several in residential settings, also. It allows complete control of fertilization by in-ground sprinkler system zone. The results have been excellent.

This particular system's controller allows for precise adjustment of the amount of fertilizer delivered to each zone to account for the differing needs of gardens, hillsides, shady areas, newly seeded areas, front yards and backyards. It is excellent for drip systems required for a rose garden, and various versions can even allow different products to be delivered to different continued on page 26



The thing practically crawls up walls.

This may very well be the most versatile tractor line on the globe. To be versatile, you've got to do two things first: be agile and be userfriendly. Lots of old guard tractors are so big and clunky that they're hard to maneuver. Yes, they're durable, but difficult. Options can cost you.

Carraro tractors offer a unique array of ergonomic and operational functions built in, and are engineered for simplicity, comfort and increased return on investment.

A patented system called "Actio" in all Carraro tractors lets the chassis articulate to all terrain types and each wheel independently grips the ground for superior balance and stability. The center of gravity is so low that it

virtually hugs the turf. Each wheel being the same size means you get equal ground pressure on all 4 wheels, all the time.

Other neat features include a completely reversible seat and control system that changes direction in seconds, loads of attachments that mount front, back and even on top, as well as powerful, yet fuel minimizing, engines that help keep operations costs down.

Recently, Carraro was honored in the 'Best of Specialized' category in the international Tractor of the Year competition. So you know quality and engineering are high priorities at Carraro as well as value pricing.

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Circle 127

continued from page 25 areas. It can also skip a zone to miss a misting system or other water feature. It is ver-

satile enough to use any liquid fertilizer, although the company sells organically-based fertilizers that work well.

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Selling fertigation

For homeowners who have already bought into the concept of automatic watering, the leap to automatic fertilization is an easy one. There are several benefits of fertigation that justify it to the property owner.

A fertigation system delivers healthy plants that resist disease, weeds, insects and other problems naturally. Grass is one of the most aggressive plants in the yard. If the grass is

healthy, weeds will not be able to get established. No fluctuations, no burning or streaking, no flush of green that results in hay fields; just nice, consistent,

Fertigation systems offer lawn pros a new service to sell.

green growth. Leave those clippings to make the grass even healthier.

Fertigation decreases water use, according to an article in *Irrigation Business and Technology* magazine (January/February 2001 issue, "Using Every Last Drop"). Deeper root systems reach water throughout the root zone rather than only that which remains in the top couple of inches. As a result, less water is required.

Every homeowner that considers a fertilizer injection system has bought into the idea that it's more convenient and productive to automatically water his or her grass. Thus, it's easy to go to the next step of convincing them to automatically feed their lawn.

Today, everything is automated, from the garage door to the television to the dishwasher. Fertigation is the next logical step after irrigation. **LM**

— The author is Professor of Irrigation Management, Lake City College, Lake City, FL.



IM PRESENTS award-winning landscape management

Property at a glance

Location: Chicago, IL

Staff: Chicago Christian Industrial League Landscape Services

Category: Public Works Sites

Total budget: \$1,400,000

Year site built: 1996

Acres of turf: 0

Acres of woody ornamentals: 2.9

Acres of display beds: 3.4

Total paved area: N/A

Total man-hours/week: 3.750

Maintenance challenges

- ► High traffic locations
- Environmental stress
- ▶ Diverse microclimates

Project checklist

Completed in last two years:

- ▶ Michigan Avenue streetscape seasonal displays
- Congress Parkway seasonal plantings and holiday treatments
- LaSalle Street seasonal plantings and holiday treatments

On the job

> 20 full-time staff, 75 seasonal employees, 10 licensed pesticide

Chicago Central Medians

2001 PGMS Grand Award Winner for Public Works Sites

What started as a way to provide work experiences for the homeless has turned social agency, Chicago Christian Industrial League (CCIL). It all started in 1993 with a three-year, \$350,000 contract with the City of Chicago for landscape care. With the addition of many new roadway medians to

Chicago in 1996, CCIL expanded its maintenance operations on several high visibility areas located within the city.

The Central Business District contains 16 major roadway medians with more than 17 miles of plantings, 167,000 sq. ft. of planting beds and 865 pollution take their toll on these plants, and many locations have specific needs



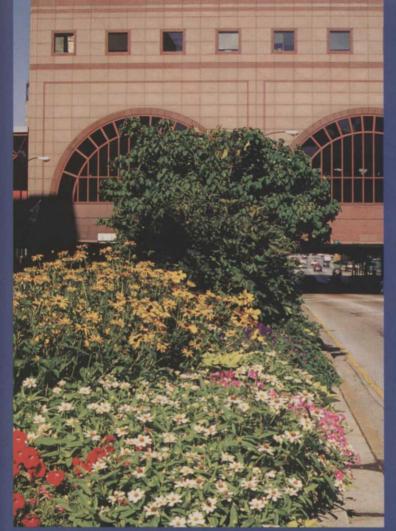
Because most of the maintenance work is done on highway medians, workers must observe strict safety rules and wear orange work vests.

Since all of these locations are high traffic areas, safety is a huge challenge. All median work requires lighted arrow boards, orange work vests and safety cones. The heavy traffic also provides plenty of trash for the crew to pick up, and makes sweeping and power washing all hard surfaces a must.

Editors' note: Landscape Management is the exclusive sponsor of the Green Star Professional Grounds Management Awards

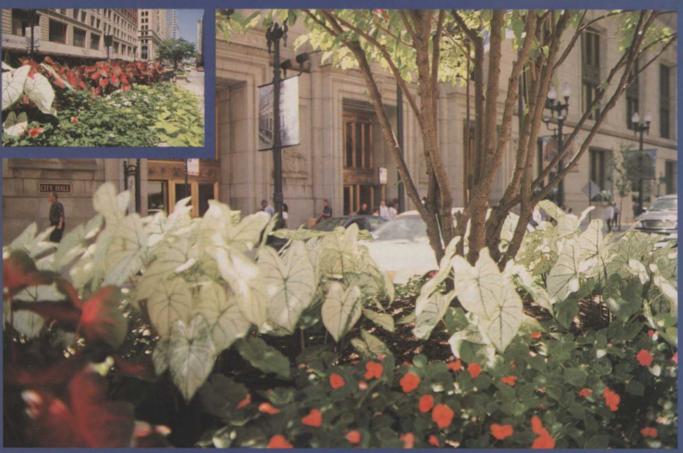
for outstanding management of residential, commercial and institutional landscapes. The 2002 winners will be named at the annual meeting of the Professional Grounds Management Society in November. For more information on the 2001 Awards, contact PGMS at:

720 Light St. • Baltimore, MD 21230 • Phone: 410/223-2861. Web-site: www.pgms.org



What started in 1993 as a \$350,000 venture to provide work experiences for the homeless has grown to a \$3.5 million operation directed by the non-profit Chicago Christian Industrial League. Workers maintain 17 miles of plantings and 865 trees on highway medians and other high visibility areas in the City of Chicago.







The trends that will determine how you will soon irrigate your customers' properties

BY BRIAN E. VINCHESI

ater conservation is a huge issue in the irrigation industry. Providing products and systems that do more with less water is increasingly becoming the focus of irrigation equipment manufacturers.

Look for equipment manufacturers to accelerate development of technologies such as smart systems, moisture sensors, interactive sensing, remote control and pressure regulation. These types of products will become standard in most irrigation systems.

What's cool in irrigation

The International Irrigation Show in San Antonio unveiled several cool new products, including:

Redmond, WA-based Remote Control Technology showed its Phantom antenna to help landscape contractors control irrigation systems remotely. The vandal-proof antennas are buried under one inch of topsoil.

Las Vegas, NV-based Bio-Green Automatic Fertilizing revealed its four systems to introduce fertigation into the commercial and residential landscape market. Easy to install (the process takes around 30 minutes), the four different tanks allow you to carry less equipment, use smaller trucks and have less bulk fertilizer on hand. You can set your clients up for regular refills, and your job is complete.

The Rollcart from Althengstett, Germany-based Perrot Rengerbau CALW provides a compact, rolling irrigation system that needs little oversight. The Rollcart starts moving as soon as you turn on the hose (which hooks up to the back) and then moves slowly across the lawn along a previously laid steel track. Once it reaches the end of the track, it turns itself off, giving operators complete control over how much water they put down.

continued on page 32

Smarter moisture sensors

Soil moisture sensors have been around for years but the technology hasn't changed much. The sensors have required maintenance, removal for winter and calibration for accuracy. This will change. Reliable moisture sensors requiring less maintenance will be developed. Precise watering to match the needs of the plant will be mandated.

Moisture sensors are usually installed in pairs over an area and for each different type of hydrozone. Any irrigation system can potentially have a large number of sensors, increasing the installation costs but saving water. Many of today's moisture sensors are used to avoid over-watering and function like a rain sensor by "telling" the irrigation system not to water. Tomorrow's sensors will not only keep the system from coming on but will also tell the system if it needs to come on and when to shut off.

In recent years, irrigation controllers, especially high-end commercial ones, have featured two to continued on page 32