

Treats 10,000 sq. ft. for
White Grubs and
Mole Crickets

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White Grubs,
Mole Crickets,
Sod Webworms,
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scape and recreational turfgrass varieties or sites. In fact, with the 80% water-soluble powder formulation, you can even spray flowers, shrubs and trees and get first-class control of ornamental insect pests.

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And get fast grub control signed, sealed and delivered.

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Small trucks may get a break

A measure that would provide the green industry with some relief from confusing federal DOT regulations is working its way through Congress.

U.S. Representatives Tom DeLay (R-Tex.) and Gary Condit (D-Calif.) are sponsoring H.R. 3153 which would exempt service vehicles from DOT hazardous materials regulations if:

- ▶ the vehicle is a relatively small vehicle (5 tons or less).
- ▶ the vehicle is not carrying a highly hazardous material.
- ▶ the vehicle is not transporting a large quantity of a less hazardous material.

In introducing the proposal this spring, Rep. DeLay said that 1990 amendments to the Hazardous Materials Transportation Act created an unnecessary tangle of regulations that cost the structural pest control industry \$135 million annually. Much of that cost resulted from unnecessary paperwork and record-keeping.

"My bill simply amends the Hazardous Materials Transportation Act by providing an exemption for small commercial vehicles which are transporting common 'Raid'-like materials which do not pose a risk to public health or safety," said Rep. DeLay. □

Lab rats lose status in U.S. EPA laboratories

The U.S. EPA says it's going to reduce its reliance on the practice of exposing rats and mice to huge doses of chemicals to determine which chemicals cause cancer. The so-called rat tests have formed the basis for EPA's carcinogen risk assessment since 1986.

Instead, the agency proposes to base its findings on "a view of the entire weight of the evidence." Testing of laboratory animals will continue but its results will be more added to those of other investigations.

The EPA believes that the new guidelines will provide better information concerning the effects of exposures at the small doses that people are typically exposed to rather than the huge doses administered to laboratory animals.

While industry has been openly critical of the EPA's practice of extrapolating the results of its lab animal tests onto people, it's been cautious in commenting on the proposed testing guidelines.

The EPA's Proposed Guidelines for Carcinogen Risk Assessment began a 120-day public review in April 1996. (Available for viewing on the Internet's World Wide Web at <http://www.epa.gov/ORD/WebPubs/carcinogen/>) □

N.Y. City takes shot at industry

by RON HALL / Senior Editor

While a judge tossed out a Long Island law aimed at professional applicators, New York City Council is now taking a shot at the green industry.

That council is considering a measure requiring posting for all lawn/landscape chemical applications, including fertilizer. As written, the proposal mandates 3-by-3-foot notices posted at least 100 feet from each application, and no further apart than 25 feet.

"If you had a truck doing fertilizations for customers, you would need another truck right behind it just to carry the signs," says Pat Voges, government affairs specialist for the Nassau/Suffolk Landscape Gardeners Association. That association, along with other industry groups, including RISE, oppose the measure.

In a related matter, a judge disallowed a Nassau County (N.Y.) law which would have required professional applicators to mail notification postcards to all property owners abutting lawn/landscaper treatments at least five days prior to the treatments.

Although that law was to have gone into effect May 24, the judge, responding to actions filed by industry, determined that Nassau County legislators overstepped their authority. **LM**

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Circle 110

2780-38 MJ

We'll keep the pesticide industry from becoming a victim of air pollution.



Ahh, television news in the 90s.

Tabloid journalism has sneaked its way onto the airwaves. And the pursuit of facts seems to have been replaced by the pursuit of ratings.

So the specialty pesticide industry needs a media watchdog that not only watches. But that also takes action.

Fortunately, we have one.

RISE. Responsible Industry for a Sound Environment.

RISE is a coalition of manu-

facturers, formulators and distributors from all areas of the specialty pesticide business.

In addition to promoting environmental stewardship, RISE makes sure the media doesn't report misinformation as fact.

We also hold editorial meetings with media decision-makers. And respond to negative articles or broadcasts that are incorrect. We've been very successful so far. Not surprising considering what

our most powerful weapon is. The truth.

Of course, there's still a lot more work to do. But rest assured, RISE is up to the task.

Because we know if we eliminate air pollution, the pesticide industry can breathe a lot easier.



1156 15th St., N.W., Suite 400,
Washington, D.C. 20005. ©1995 RISE RISB-0047



The Grasshopper Aera-vator unit is hydraulically controlled.



Toro's Hydroject 4000 has a portable, 200-gallon water supply.



◀ John Deere Aercore delivers a 4-inch core.

TURFGRASS AERATORS

Soil compaction is a common turfgrass management problem. Foot traffic, sporting events, or the weight of heavy equipment will soon squeeze soils together to deprive turfgrass roots of oxygen. Wet soil is especially prone to compaction.

Signs of compaction include bare spots, standing water, and isolated dry or muddy patches.

Aeration is an important and basic turf care service that can bring extra revenue to a lawn care company, and improve the vigor and play of athletic fields and golf course turf.

Frequent aeration:

- ▶ reduces thatch build-up,
- ▶ improves water infiltration,
- ▶ improves irrigation efficiency,
- ▶ improves fertilizer efficiency, and
- ▶ helps reduce the need for pesticides.

Kinds of aeration

Closed spoons remove a core from the turf. This is the most commonly-accepted form of aeration.

Open spoons penetrate the soil without making cores. This is a less disruptive treatment, and eliminates core clean-up, if that is important to the job.

Slicer blades make thin slices in the soil, about three to four inches deep, depending on soil conditions. This is a more temporary solution, since the openings tend to close up within a few days, limiting the effect. The advantage of slicing is that it is fast and minimizes turf disruption.

To sell it

Here are some ways to tell customers about aeration:

1. **Give them** a flyer that explains the cost offset by savings on other turf additives and water.
2. **Inspect** for obvious compaction problems, such as isolated dry spots, weak turf

Aerway
(519) 863-3414
Circle No. 250

Twenty-nine models, including 3-point hitch and tow-behind hydraulic lift units, four to eight inches in width. For golf courses, a ground-drive, non-coring green aerator penetrates six inches.

Shattertine aerators for sports fields and golf course fairways penetrate up to seven inches deep, and cause a sideways soil shattering effect beneath the surface, with little surface disruption.

BlueBird International
(303) 781-4458
Circle No. 251

The operator can pre-set the walk-behind unit's rear wheels to control depth of tine penetration,



machine stability and maneuverability. V-belt to jack shaft primary drive. Secondary drive is a #40 permanent lube roller chain to tine assembly and front wheel. Front wheels are 10x6 inches semi-pneumatic with sealed ball bearings on shaft. Rear wheels are 8x2-inch solid rubber molded on cast wheels. Tines are 3/4-inch closed spoon. Aerates up to 3 inches, with a 17 1/2-inch swath.

plants or standing water.

3. Take a soil profile sample. A thin soil slice made with two cuts of a spade is good if you don't have a soil sampler. Look for hard soil, high clay content, low water infiltration rate, black layer, poor rooting and waterlogging.

4. Show the customer what you find. Explain how regular aeration will help solve

Classen Manufacturing
(402) 371-2294
Circle No. 252

TA-26 features a 4-cycle, 4 hp Honda O.H.V. engine with 6:1 gear reduction box. Compact enough to fit through a 42-inch gate with the rear wheels attached, but wheels remove easily to a 36-inch width. Sealed ball bearings. Stable on sloped areas. 65 lb. weight bar. Pro-



tection guard keeps cores away from chain. 375 pounds.

John Deere
(919) 850-0123
Circle No. 253

New Aercore aerators are tractor-mounted, deliver a true 4-inch core at spacings between 2.4 x 2.0 inches and 3.2 x 5.0 inches. Aercore 1000 produces 600,000 holes per hour at a coring swath of 37 1/2 inches. Model 1500 can produce 900,000 holes per hour at a coring swath of 57.5 inches. Standard "flexi-link" supporting arm on both the Aercore 1000 and 1500 to keep tines perpendicular to the turf surface longer.

the problem. Aeration will help restore poor lawns and turf. Regular aeration will keep it looking good.

Aeration is most effective when done in spring and fall. For heavily-used turf, more frequent aeration—once every four to six weeks through the growing season—is ideal.

—Thanks to the Grasshopper Co. and Millcreek Manufacturing for supporting information.

Grasshopper Company
(316) 345-8621
Circle No. 254

AERA-vator attachment goes on Grasshopper zero-radius outfront mowers for aerating closely around trees, flower beds and other landscaping. Hydraulic lift that locks into a raised position, then lowers using a foot-operated release. PTO drive vibrates the tines rapidly in an oscillating motion for good penetration. Extent to which soil is loosened varies by speed of the power unit.

Gravely
(910) 777-1122
Circle No. 255

The new Pro Aire-27 includes hydraulic operation that allows you to switch from aeration to transport with the touch of a lever. A low center of gravity allows for more stability on hills and slopes. Spring-loaded rear caster wheels allow you to aerate while making gradual turns.

An automatic weight transfer system keeps the weight and balance where it's needed for transport or aeration. The unit can aerate up to 34,474 sq. ft./hour.

GreenCare International
(714) 842-6003
Circle No. 256

Shattermaster is a tractor-mounted aeration tool that will cover up to 30,000 sq. ft./hr. in best conditions. Aerates to 14 inches. Operates on all model tractors offering at least 18 hp and a 540 PTO. Coremaster model can be fitted with a variety of tine sizes and covers up to 20,000 sq. ft./hr. in ideal conditions.

F.D. Kees
(402) 223-2391
Circle No. 257

Core Pluggers are self-propelled, easily loaded and transported. Foot operated adjustment controls tine depth. Welded stainless steel tines.

Millcreek
(800) 879-6507
Circle No. 258

Mount to commercial upfront mowers via 3-point and front mount; unit fits Excel, Ford, Kubota, John Deere, Walker, Howard Price and Gravely, with 3-point hitch standard equipment on each. Front-mount models are 42- and 63-inch units; 3-point hitch covers up to 84 inches. Also: free sales-building brochure on how to sell aeration services and an example of a newspaper ad you can use to market the service.

Ransomes America
(800) 228-4444
Circle No. 259

Three-wheel Ryan GA 30 aerator maneuvers easily, and causes minimum soil compaction within a 30-inch swath. Greensaire 24, made for golf greens tees and other fine turf areas that require high-maintenance, covers up to 8000 sq. ft./hour with a 24-inch swath. Lawnaire V is designed for sloped surfaces, and covers a 26-inch swath.

Toro Company
(612) 888-8801
Circle No. 260

Fairway Aerator cuts a swath of 63 inches, follows a tighter coring pattern and cores up to 5 inches deep. Covers 61,000 sq. ft. per hour. Six tines per head is standard; two per head is optional. Hydroject 4000, a pull-behind model to go with the Workman Utility Vehicle, draws water from a 200-gallon tank mounted on the Workman bed.

Turfco
(612) 785-1000
Circle No. 261

Aerator Pro covers 33,280 sq. ft. per hour. Controls conveniently located. Minimal chain maintenance required. Drop-off wheels allow the unit to fit through tight spots. 48 tines for a dense pattern. Rugged

cont. on next page

>LM REPORTS



The Ryan GA-30 maneuvers easily.

one-piece frame, external drive components, fewer moving parts, industrial-grade engine. Easy to operate and service. $\frac{3}{8}$ -inch tines penetrate 2 $\frac{1}{2}$ inches deep.

Turfster International
(810) 632-9200
Circle No. 262

Model H550 drum unit mounts directly to 3-point hitch, and makes

a turning radius as sharp as the tractor itself. Each drum rotates independently to reduce strain on equipment and turf. Hinged tines allow for clean plug removal. Available in two, three four or five drum units, with 36, 60 or 120 tines per drum. Plug collecting is optional. All drums are 12 inches wide, and there is a three inch space between drums. All drums can be equipped with solid or



Turfco's Aerator Pro requires minimal chain maintenance.

screened sides. Spikers available.

Verti-Drain
(717) 288-9360
Circle No. 263

The new model 205.150 penetrates to a maximum soil depth of 16 inches. Compact for easy maneuvering. Working width of 60 inches, similar to the 105.145 model. Creeper not necessary; gearbox provides a better connection to the tractor and a higher speed of the crankshaft. Ideal for football fields, golf courses, municipalities, places where there are narrow entrances.

Way Easy, Inc.
(770) 591-5999
Circle No. 264

Hooker Pro Model 38 Aerator mounts behind large, commercial walk-behind mowers. 38 inches wide, with small curved, hook-like tines which pierce 3 inches deep and hook under soil, to lift and loosen from underneath. Individual catering heads allow zero turning and/or reversing. Stable and easy to handle going up or down hills or crossing the slope. Each tine rotor assembly is independently suspended which allows it to lift over an obstacle while the others continue to work. **LM**

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34,474
sq. ft./hr

Hydraulic
operation

PRO AIRE 27

Automatic
Weight
Transfer
System

Reduced
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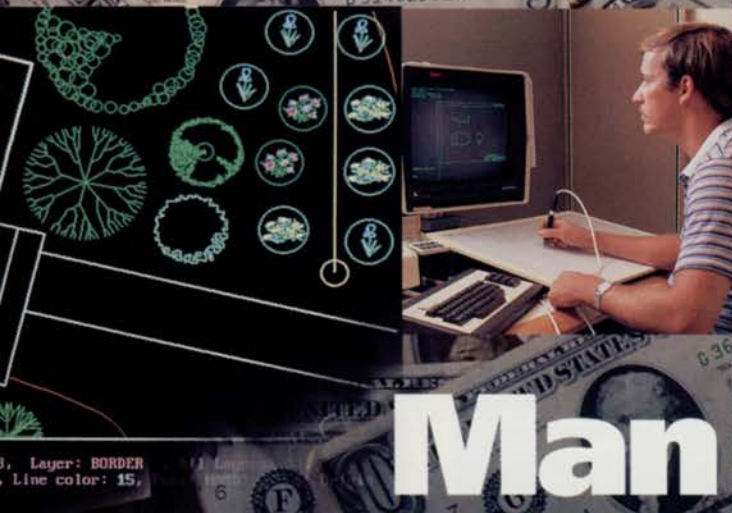
The perfect tool for today's commercial landscaper, the Pro Aire 27 covers more ground with less sweat. With the best production rate in the business, the Pro Aire 27 utilizes hydraulic lift to put more green in your lawns as well as your pockets.

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Circle No. 115 on Reader Inquiry Card

STATE OF THE INDUSTRY



Man and machine

The availability of alternate labor and the new generation of fast, inexpensive computers are changing the face of the green industry, according to statistics compiled by Readex, Inc., for *LANDSCAPE MANAGEMENT* magazine.

Computer use at organizations that subscribe to *LM* has grown to more than 70 percent. As few as 10 years ago, it was less than 20 percent.

Leading the way are landscape contractors, 76 percent of whom now use computers for administrative tasks, landscape and irrigation design, and communication. Though golf superintendents lag slightly—behind landscapers, lawn care owners and grounds managers—in computer access, their number is expected to grow as more computer-controlled irrigation systems are installed on golf courses.

Surprisingly, the survey found almost half (47 percent) of all computers in the green industry are hooked up to a fax/modem, making "conversation" with suppliers and other

golf/landscape professionals possible.

"The rapid and easy exchange of ideas has only begun to be felt," notes Tom Pinney Jr. of Evergreen Nurseries, Sturgeon Bay, Wis., a director of the American Association of Nurserymen. "We are in an age where society demands instant everything, from meals to landscapes. And, with the advent of the 'Information Superhighway,' demands are going to grow even more."

Twenty-one percent of all

Readers of LANDSCAPE MANAGEMENT controlled the purse strings on more than \$25 billion dollars in 1995. They used a good deal of the money to hire 'non-traditional' labor and purchase top-of-the-line computers.

by JERRY ROCHE / Editor-in-Chief

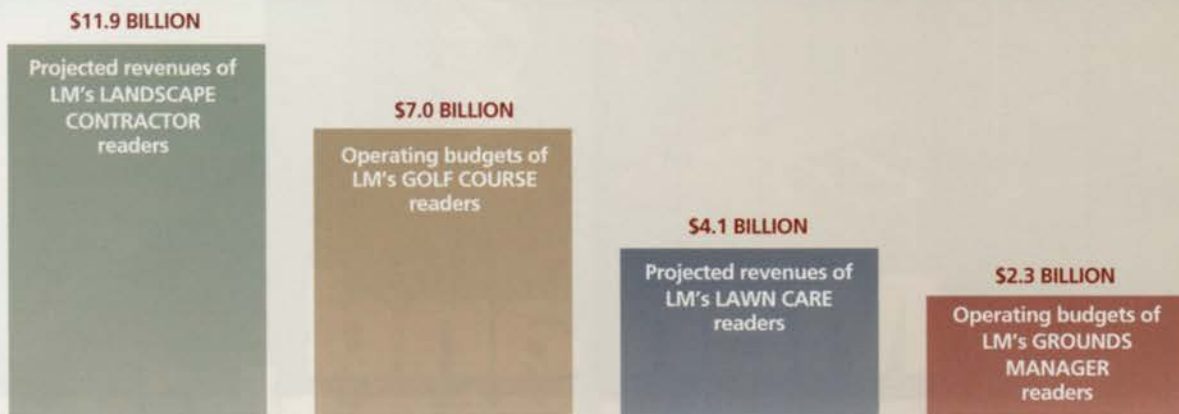
LM readers use their computers for electronic mail ("e-mail") messages, or to access agronomic, government and product information.

The green industry still trails other industries in its use of online services. Just 14 percent have access to the Internet, the fast-growing computer web that has millions of subscribers around the world.

As quickly as computers are changing the green industry, the real explosion is yet to come, according to Peter McCormick of TurfNet Associ-

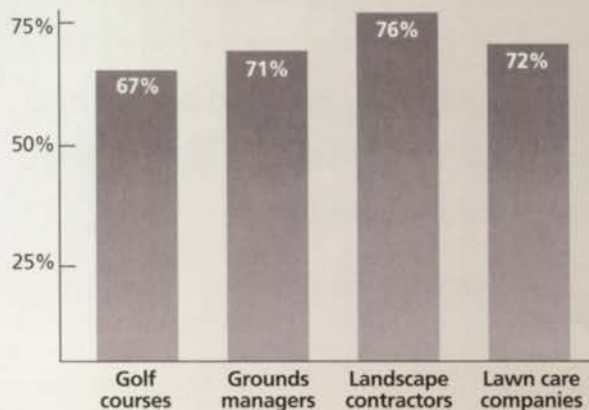
STATE OF THE INDUSTRY

1995 BOTTOMLINE BUSINESS

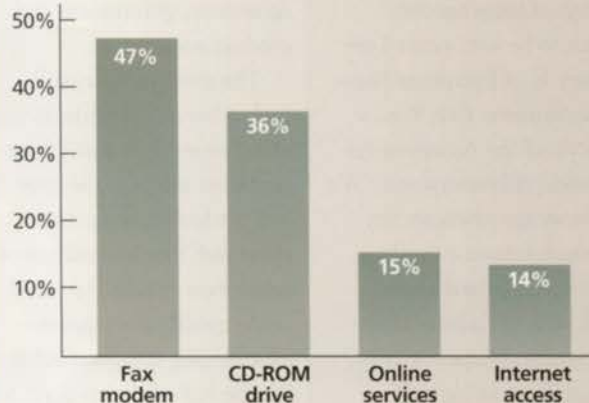


COMPUTER ACCESS

RESPONDENTS WITH COMPUTERS AT WORK



ACCESSORIES AVAILABLE TO THOSE WITH COMPUTERS



ates, Skillman, N.J. More than 450 golf course superintendents in the U.S. and Canada access supplier information and "chat" with their peers through TurfNet's magazine and online services.

"A forward-looking superintendent is doing himself a disservice in terms of professional development," says McCormick, "if he's not functionally proficient with a computer.

"If you have to, you should spend your own money and take your own time to learn how to use a computer. You're really lost today if you don't know the rudimentary basics."

The number of green industry organizations with online capabilities is expected to grow as trade associations go online, suppliers like John Deere begin to offer customer services and product information online, and the Environmental Protection Agency disseminates its reams of information via personal computers.

According to the Readex research, LM readers frequently use their computers to access technical/agronomic information (14 percent of all respondents), most of which is available through their state universities' computer systems. Eleven percent of our readers use computers to send and receive electronic mail ("e-mail"), and an additional eight percent use the computers to find out more about the products they use, including pesticide label information. E-mail use is more common among grounds managers at parks, schools and colleges (24 percent) than anywhere else in the green industry.

Labor changes

English-speaking males between the ages of 21 and 65 historically have comprised the bulk of the green industry workforce. But, according to some surprising numbers from Readex, that has changed.

A "traditional" labor force no longer exists in the green

NON-TRADITIONAL LABOR %

	GOLF COURSES	GROUNDS MANAGERS	LANDSCAPE CONTRACTORS	LAWN CARE	INDUSTRY AVERAGES
Non-English speaking	5.3%	2.7%	12.3%	5.6%	8.2%
Female	13.9%	15.9%	11.0%	9.5%	12.3%
Age 65+	7.2%	2.6%	1.7%	1.1%	3.6%
Students	30.1%	28.9%	22.9%	21.2%	25.8%
TOTALS	56.5%	50.1%	47.9%	37.4%	50.0%

industry: exactly half of all employees are either non-English-speaking, female, aged 65 or more, or part-time students.

Most (25.8 percent) are students. But non-English-speaking workers and female employees are showing significant gains. Almost one in eight people involved in the industry is female (12.3 per-

cent), and about one in 12 doesn't speak English (8.2 percent). Golf courses are the biggest employers of students (30.1 percent) and older people (7.2 percent), while park and school grounds managers have more females (15.9 percent) in their employ, and landscape contractors hire the most non-English-speaking workers (12.3 percent).

Labor, incidentally, is still the biggest cost of doing business in the green industry: paychecks use up four of every 10 budget dollars. Park and school maintenance is the most labor-intensive with 56.9 percent of every dollar spent on labor. Golf course labor stands at 47.0 percent, lawn care labor at 37.1 percent, and landscape contracting labor at 35.0 percent.

Contractor dollars

Readers of LANDSCAPE MANAGEMENT control more than \$25 billion every year.

The largest segment reached by this magazine is landscape contracting, with more than 20,000 readers. Not surprisingly, then, the landscape segment is the biggest in terms of dollars, too. Average landscape contracting revenues nationwide—from the Readex survey, projected to LM's landscape circulation—are \$11.9 billion.

Lawn care revenues projected to total LCO circula-

tion of 7,000+ is \$4.1 billion. Total operating budgets for golf course employees who read LM (nearly 17,000 of them) are about \$7 billion, and operating budgets for the nearly 5,000 grounds managers who read LM are projected to be about \$2.3 billion.

Not surprisingly, golf course superintendents are the best-paid readers of LM, with average annual salaries of \$54,100. Both landscape contractors and lawn care operators make about \$47,700 a year. Grounds managers, who average \$42,400 a year, however, can take heart: according to past LM surveys, they are the best-compensated market segment in terms of benefits and incentives.

The lawn care and landscape segments reported somewhat disappointing profit levels in 1995.

However, the companies that were profitable were *really* profitable. The 47 percent of landscape companies that reported profits averaged 17.4 percent, and the 54 percent of LCOs who reported profits averaged 19.3 percent.

Survey parameters

One thousand-seventy questionnaires were mailed to LM readers this past spring. The margin of error for percentages based on 613 usable responses (57% response rate) is ±3.9% at the 95% confidence level.

Responses were tallied, and are verifiable through, Readex, Inc., Stillwater, Minn.

12 ways to master the winds of change

1. View change as a challenge. Convert fear into energy.
2. Build commitment among employees.
3. Stay committed to your goals.
4. Know when to control—and when to let go.
5. Bounce back from setbacks.
6. Be optimistic.
7. Use humor to ease the tension.
8. Learn from your mistakes.
9. Maintain perspective, and deal with events in order of importance.
10. Tune the body with regular exercise.
11. Build your confidence.
12. Communicate, and help others to "master the winds of change," too.

—Source: "Business Beat," November, 1994

Labor woes cause industry shift

by RON HALL / Senior Editor



DAVIS: Give quality employees a reason to stay.

Continued low unemployment, good news for the U.S. economy, is making it tough for the green industry to find reliable labor this season.

Contractors, in particular, aren't waiting for good workers to find them. They're actively recruiting employees, and sometimes—our survey shows—they have to recruit outside of the traditional young/white/male labor market.

There are probably many reasons for this, but one of

them might be the demise of the family farm. There just aren't that many young people familiar with, or eager to do, manual labor. That's what Joe Munie of Munie Outdoor Services, near St. Louis, believes.

"When we started our company, we were able to get some people with a farm background. We don't see that segment of the labor force anymore," says Munie.

The problem is most acute for entry-level positions. Many potential employees in that particular job pool appear

REEVE: "People want to be challenged."



SERVICES PERFORMED

