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ON THE COVER: LANDSCAPE AT SHERWOOD COUNTRY CLUB, THOUSAND OAKS, CA. PHOTO BY MIKE KLEMMER
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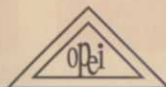
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A "signature" hole on a golf course, because of its beauty, difficulty or uniqueness, distinguishes that course from all others. Who's your signature client? Who's that customer who's been with you from the beginning? That client who defines what you can do?

Let me tell you about Brookwood Landscape and its signature client, the Fashion Valley Mall, an upscale, airy shopping mall near San Diego.

A couple of months ago I sat at a small round white table at an outdoor cafe there with Mark

Wilhite, one of the operators of Brookwood Landscape. On the surface, catching a bite to eat at a shopping mall, any mall, is no big deal. But, sipping an ice tea in a Southern California mall while contemplating the breezy fronds of Mexican fan palms and the smartly dressed, sun-tanned, female shoppers criss-crossing beneath them in the mall's courtyard made for one enjoyable afternoon. . . the palms? Oh yes, back to the palms.

Wilhite was explaining to me how his family-owned company had had to lay the 30- to 40-ft. palms on their sides and dolly them into the mall's courtyard. Couldn't crane them in. Had to install them at night too, using block-and-tackle, forklifts and steady hands.

Actually, getting those willowy palms upright, straight and secure was just a small part of the landscape job that Brookwood did at the mall, maybe the third makeover the Wilhites have done there since Fashion Valley opened almost 30 years ago.

That's right, Brookwood — operated by Mark, his brother Glenn and their father, Keith, company president — constructed and has periodically updated and continuously maintained this particular property for almost 30 years.

"We don't like to lose a job. We're really serious about this," says Mark in something of an understatement.

Brookwood, in fact, maintains the landscapes at just about every regional shopping center in and around San Diego, not to mention dozens of smaller shopping centers. But Fashion Valley Mall is the one that means the most to the Wilhites,



Keith, Glenn and Mark Wilhite (l. to r.) of Brookwood Landscapes keep big commercial customers happy.

partly because the Wilhites ran Brookwood Landscape from offices beside the mall for almost 20 years before they outgrew the location.

"We never want to lose Fashion Valley," says Mark. "We've spent a lot of years making the people here happy, one step at a time." **LM**

Who's your signature customer?



Ron Hall

RON HALL
Managing Editor

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Make plans for Expo 99

LOUISVILLE, KY – Expo 99 is just around the corner. It's an excellent opportunity for you to kick some tires, make some contacts and keep up with what's new.

As always, there are new additions and events to take advantage of:

▶ **NAEDA's Tech Center** — will give dealers an overview of the high-tech product lines on display throughout the show, including software, bar-code scanning, web development companies and more.

▶ **Tree Care and Irrigation Pavilions** — will bring products together in special areas for ease of access and comparison.

▶ A new series of hands-on dealer workshops and new seminars for landscape and lawn care professionals are planned. Sessions will be shorter and will be held on the week-end.

▶ **OPEI's** new "blue dot program" will highlight low-emission

products with large blue-dot hang tags. More than 30 Blue Dot exhibitors will also be listed in the EXPO 99 Show Guide.

▶ Three new pick-up trucks to be given away: Isuzu, Nissan and GM.

Wear good walking shoes

In 1998, 600 manufacturers covered 240,000 net sq.ft. indoors and 642,000 net sq.ft. outdoors. The outdoor demo area is expected to be maxed out this year, with more companies and more equipment. But, if you need a rest, you can sit down for the seminars or technician certification, take a ride on demo equipment or kick back at the big concert on Saturday night (Crystal Gayle, Lee Ann Womack and Andy Childs).

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Need more information?

For information about attending EXPO 99, set for July 24-26, in Louisville, call toll-free 800/558-8767. From outside the U.S. or within Kentucky call 502/562-1962. Fax 502/562-1970. Internet: <http://EXPO.mow.org>

Heavy hitters tackle key water issues

FAIRFAX, VA—Influential experts on water will meet here in September to discuss water issues that will shape many landscape management strategies over the next millennium.

It's the third such meeting initiated by the Fairfax, VA-based Irrigation Association, in an effort to establish a dialogue among the water industry's heavy hitters.

Irrigation Association Executive Director Tom Kimmell says the nation's biggest water users and those who treat and deliver water discovered at the first meeting that they're "not exactly on the same page." But subsequent meetings have broken down barriers. "This has allowed us a forum to talk about what's going on, to find out what the hot spots are and to try and find solutions," Kimmell says.

Philip Kuehl, Ph.D., who has served as moderator from Westat Inc., says water user associations and water suppliers — groups like the American Water Works Association

and the Water Environment Federation — explored common interests at the second meeting, determining if and how they can work together. They're discussing potential water problems, solutions and identifying the most important water-related issues. Among the top 22 water-related issues identified:

- ▶ Why the public continues to have misconceptions about where water comes from and where it goes
- ▶ How the care, custody and control of water will become a national issue
- ▶ Why the use of reclaimed water will increase to meet demands
- ▶ Why a central focal point for water issues, policy and data doesn't exist
- ▶ Why the implementation of Best Management Practices is limited by insufficient funding, technical resources and the lack of incentives.

David Minor samples political life

Fort Worth, TX — For a while, friends and family of David Minor thought he would be the newest member of Fort Worth's City Council. But it was not to be. Minor, most recently divisional vice president for TruGreen-ChemLawn's Southwest Division, threw his hat into the political ring soon after leaving the company this spring.

"I jumped into the dance about three weeks behind the others," Minor explained to *Landscape Management*. "In the first poll, we had only 16% support, but four weeks later, we had 42%." Despite the growing support, Minor lost

getting into a runoff election by just 27 votes.

Minor said he thought politics would be a natural interest for him, because "I like being involved with people, I like helping to find solutions and I like public speaking." Although the ferocity of the nonpartisan council race surprised him, Minor says he got several "positives" from the experience.

Since politics may not be in his future, Minor is now looking for other business and speaking opportunities. "I'm still serving in an advisory capacity for TruGreen-ChemLawn. They have

California to get new methyl bromide rules

SACRAMENTO, CA—In mid March, a judge ordered California to adopt new regulations regarding the use of the fumigant methyl bromide. The ruling was the result of a lawsuit brought by four environmental groups which charged that state officials were endangering public health by failing to sufficiently control methyl bromide on farms.

They further claimed that the California Department of Pesticide Regulation didn't develop regulations for the chemical, based on a 1989 law. (Instead the department had established over 400 pages of guidelines.)

New Deere plant to manufacture Gators

RICHMOND, VA—A new 300,00-sq.-ft. complex is slated for construction here to meet the demand for the Gator® line of utility vehicles from John Deere Worldwide Commercial and Consumer Equipment Division. The plant, which will employ more than 300 people, is expected to be on line by the summer of 2000.

In addition to manufacturing, the complex will include a major design and engineering component and the sales and marketing group.

Mystery of the missing palms

MIAMI, FL—A Miami-Dade County parks director is being asked to explain the absence of over 3,200 coconut palms valued at about \$1.5 million. The director was indicted in May when park workers couldn't account for the palms on public park property on Key Biscayne. The trees had been purchased from a local nursery using a grant from the Federal Emergency Management Agency following Hurricane Andrew in 1992.

been really good to me," he added.

What's next? "I might buy another business. The skills we learn are transferable and I see it as business is business."

[CLIPPINGS]



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Winning at water politics

How can a campaign to save salmon threaten landscape maintenance practices in the Pacific Northwest? Water use disputes have some surprising effects on our industry.

By MIKE PERRAULT/
Associate Editor

What do salmon have to do with chemical lawn and landscape care? Plenty, claim officials in the Pacific Northwest, who are considering banning the insecticide diazinon. You've got to be kidding, say landscape company owners, who believe they're being blindsided. When it comes to water, the green industry never knows when or where the next controversy will erupt.

But after being pointed to as "the bad guys" in almost every local or regional water flap, lawn and landscape pros are starting to get their act together — even when the controversy seems as unlikely as one focusing on the depleted salmon population in Oregon and Washington states.

The issue surfaced when the U.S. Geological Survey cited pesticides, including diazinon, as contributing to the salmon's decline. It pointed to urban use of pesticides and fertilizers as possible causes, prompting King County officials to consider a diazinon ban.



Water use and other environmental issues don't have to inhibit professional landscape maintenance practices.

But Heather Hansen, a spokesperson for Washington Friends of Farms and Forests, an organization representing landscapers, urban applicators and other pesticide users, claims the county's efforts to tie salmon declines to diazinon and other pesticides are not based on scientific evidence. She has confronted city and county officials before about unfounded pollution claims.

Regs under discussion

What is certain is that salmon protection is an issue that can galvanize environmental groups to push for more hard-line regulations, landscape professionals concede. After Washington's governor launched a "Save the Salmon" campaign, Seattle ran a full-page newspaper ad outlining five ways to protect salmon, including elimi-

nating lawn chemicals. Such groups as People for Puget Sound, the Washington Toxics Coalition and the Rainier Audubon Society are demanding the city discontinue pesticide use by Jan. 1, 2002.

Environmentalists have cast a wider net, but they're being challenged head-on. A proposal by one group in King County, WA, to "canopy the county with trees and get rid of turf" was shelved after the Washington Association of Landscape Professionals (WALP) got involved and pointed out many practical and agronomic pitfalls of the plan, says Jeffrey Ricks, WALP president-elect and operator of Horticulture Plus Inc., Vancouver, WA.

Seattle and King County officials see the pilot program as one more step in the collaborative effort to address environmental concerns. "I applaud WALP for being bold enough to take this step," says Carl Woestwin, landscape programs project manager for Seattle Public Utilities.

That cooperation has not come painlessly, notes Annette Frahm, communications planner for King County Department of Natural Resources. She recalls the first meeting in which some landscape industry representatives were nothing short of "hostile." But, she adds, initial talks with other industries weren't any different.

"When we first met with dentists, they didn't want to talk about mercury being a hazardous waste," she says. "That's nothing new to us."

"Some of it has been very positive and cordial, and some of it has been more difficult," adds Carl Woestwin of Seattle Public Utilities.

Shedding "us vs. them"

The need for landscape professionals to have a voice in the Puget Sound area may be more important than ever. "The fish issue is bigger than the Spotted White Owl issue," says Peter Dervin, executive director of the WALP. "Every part of this region is affected by water and salmon migration. They're talking about tearing out dams on the Columbia River. That's how big of an issue this is."

The potential threat to salmon from chemicals leaching into tributaries has cast more light on water quality, and Washington's population growth adds another dimension as officials scrutinize everything from water quality to solid waste systems.

For the landscape industry, it has raised new concerns about grass clippings and waste. "The questions have become, 'Where do we go with this stuff, where are we going to dump it?'" Dervin says.

The city and county have focused on irrigation conservation, grass clippings, recycling and proper use of fertilizer, pesticides and other chemicals. "Their programs have been targeted to the residential customer, the person who pays the utility bill," Dervin says. "Over the last year or two, they've been trying to get the landscape industry involved."

It can only help us

"There has always been this *us vs. them* mentality," says Brian Skinner, president of Seattle-based Skinner Landscape Service Inc. "We have to get away from that kind of thinking." That's why he is

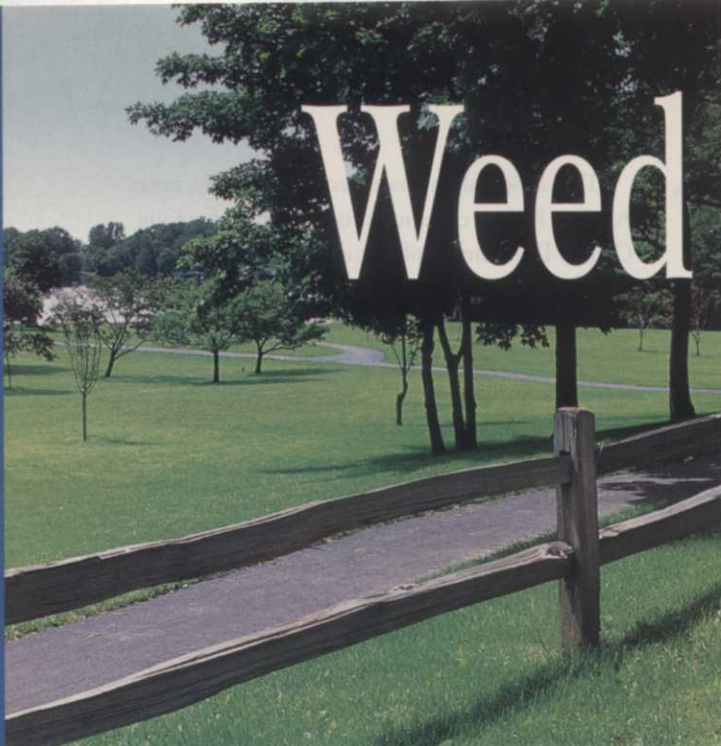
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Controversy over the decline of local salmon like those spawning here erupted into a very public water quality flap, which soon affected landscape and lawn care operations.

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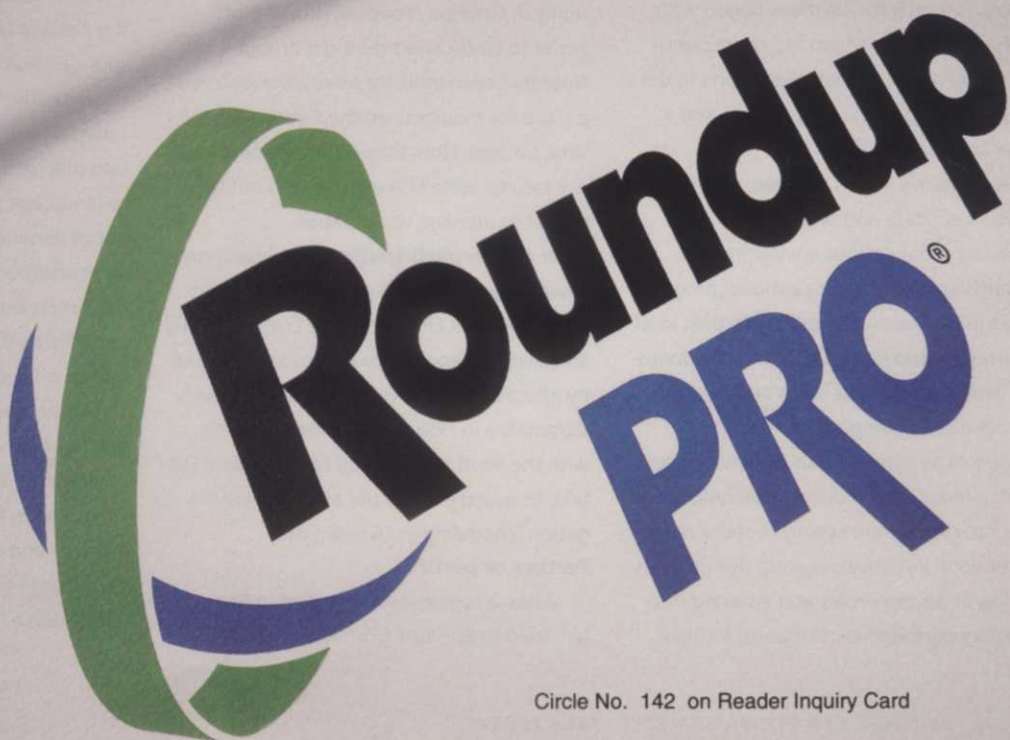
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Former foes solve water woes

Jeffrey Ricks isn't all wet when he talks of serious drought in usually soggy Seattle. "It's hard to think of a drought right now when I'm almost drowning," quips Ricks, president of Horticulture Plus Inc., Vancouver, WA. Yet Seattle's drought in the early 1990s was no laughing matter. It pitted green industry professionals against Seattle Public Utilities and King County, as water availability dropped.

"It was a dust bowl around here, devastating to the industry," recalls Brian Skinner, president of Seattle-based Skinner Landscape Service Inc.

City and county officials charged that lawns and plants were sucking the water supply dry, then they ordered spigots shut off. Green industry professionals claimed the city had mismanaged its water supply. Animosity built, says Peter Dervin, executive director of the Washington Association of Landscape Professionals (WALP). "The industry got up in arms and said, 'How can you do this to us?'"

Smoking the peace pipe

But in the eight years since the confrontation, the two camps have overcome significant hurdles to collaborate on voluntary, proactive environmental initiatives aimed at ensuring water availability and quality. A search for solutions began with the formation of a Green Industry Council and continued in cooperative efforts to develop a natural lawn care program and a water contingency plan.

Now, there's a pilot program in the works to educate and test certified landscape technicians about environmental stewardship. Some say it's a model program; others in the industry complain it gives local government too much say in how the industry's own professionals teach and employ management strategies.

Landscape professionals in Washington aren't alone. Other industry associations and firms nationwide are eyeing cooperative environmental initiatives, seeking out decision-making or advisory roles and entering into voluntary partnerships. Programs include:

► **Water Use Summit** — This ambitious but largely behind-the-scenes effort to establish a dialogue between nationwide water users and controllers of water is spearheaded by the Irrigation Association. "Our feeling is irrigation (including agriculture) is the biggest user of water, but we don't control the water," says Tom Kimmell, IA's executive director.

"We wanted to get with the people who treat and deliver water to ensure we're on the same page. Our fear was that everybody would end up protecting their own turf."

Two meetings (a third is scheduled for September) have included the Associated Landscape Contractors Association and more than a dozen heavy hitters in the water industry.

► **Pairing with EPA** — Jonathan Boyar, Watch All Inc.'s marketing director, sought out the EPA's Partners for Change program to help define environmentally friendly approaches to its customers. Watch All Inc., Weymouth, MA, provides lawn care, IPM and structural damage repair. Boyar saw the EPA program as an opportunity to showcase its environmental endeavors, from its "Good, Bugs, Bad Bugs" school seminars to innovative pest control and recycling efforts.

► **Water-Wise Council** — After a public utility in Georgia proposed shutting off water to landscapers during a drought, the Georgia Green Industry Association secured a place for members on the Georgia Water Wise Council. Now they sit alongside university faculty, state EPA officials and utility personnel to manage water issues.

► **Active participation** — Professional Lawn Care Association of America has partnered with the EPA's Pesticide Environmental Stewardship Program to improve water quality education, and a Green Industry Advisory Committee in Florida now meets monthly with the Southwest Florida Management District, to oversee water use and regulate irrigation scheduling in 16 counties.

Partner or perish

When a regional water board in Reno, NV, tried to ban turf from all new commer-

continued from page 15

WALP's certified landscape technician maintenance core chairman. He believes landscape professionals need to educate themselves, and the pilot program includes an important environmental aspect in the education process.

Skinner believes the program's proposed environmentally friendly maintenance strategies can benefit individual landscape companies. "If we use proper techniques, we can use less product," he says. "No one's saying you can't use fertilizers. They're saying let's get soil tests, let's find out what we need instead of dumping fertilizer on the turf and having 40% or 50% of it wash away into the water table."

Whether it's fertilizer application or water use, Dervin says the issues aren't going away. "If we don't address those issues in a proactive manner, we're going to be a negative target for everybody wanting to regulate this stuff. If we look at it as a negative — as the government imposing regulations on us again — that's just sour grapes. If we look at it as a business opportunity, then we have options. Some clients are willing to pay for their landscape companies to be environmentally friendly." **LM**

cial landscape installations two years ago, the Nevada Landscape Association responded quickly. It hired lawyers, sought the expertise of well-known turf professor James Beard, Ph.D., worked out a conservation plan and arranged monthly meetings so landscape professionals could have a say about water availability and quality issues.

In another case, ALCA sent nine letters to the Greensboro (NC) City Council, prompting officials to modify water restriction ordinances on behalf of landscape professionals.

Legislation to protect watersheds, rivers and aquifers will only get more intense as competition for water increases, predicts Peter Gleick, Ph.D., president of the Pacific Institute and expert on global water policy. The changing dynamics will lead to what Gleick calls a "Blue Revolution." □

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RIDING

the bio' wave

Changes in treatment choices mean that it's essential to know what your options are and how to make them work for you.

By NANCY STAIRS/
Technical Editor

The times are a changin', from how you buy to how you hire, from how you market to how you bill. Some changes are good, some seem to be more work than they're worth and some seem to make things more difficult. But whether you approve or disapprove, change keeps coming and it makes it hard to know how to react. In the green industry, a major force for

change is the expected loss of some conventional chemicals and the advent of less toxic alternatives.

Bio-what?

Some of the newer chemical products seem to be called "biologicals," "biorationals" or "biologically based." Some of these new products — and those being fast-tracked by the U.S. Environmental Protection Agency as part of Food Quality Protection Act (FQPA) — are going to have characteristics that may affect how you do business:

- ▶ shorter residuals
- ▶ reduced toxicity
- ▶ more specific to targets
- ▶ sometimes higher cost.

What does this mean? It means your treatment costs are likely to get more expensive and you will have to time treatments even more carefully. You may also have to increase the number of treatments to get control. For example, borer control

on woody plants would require two to three applications with Talstar® or Turcam® to cover the same 30 to 50 days as Dursban® or lindane.

But don't start wringing your hands just yet. As you learn about these new products and what they can do, you may discover that, by incorporating them into your programs, you can serve a wider range of customers as your focus shifts from application delivery to providing service and information.

Ride the wave

The movement towards biological-based materials is nothing new. Some of you have tried different products over the years and have returned to the tried and true. Others have embraced the use of less-toxic materials or lower, carefully timed applications, finding ways to use them satisfactorily. Many of you market your services as "integrated pest management" (IPM).

The IPM approach is as much a philosophy as it is a plan. But if you are committed to it, the change in the types of chemical products available is not likely to affect how you do business. Inspection visits and spot treatments will not be affected — only the names may change.

If you have more of a treatment focus, however, expect shorter residual controls and higher material costs, as well as other adjustments.

Ease into it

Tom Smith, president of Grass Roots Inc., East Lansing, MI, believes that any business can begin to incorporate IPM principles at a pace and level that is comfortable. It does not have to be an all-or-nothing proposition.



Tom Smith, of Grass Roots, says that clients pay for his expertise, as they would for any other professional service.

In fact, according to Smith, attempting to implement IPM in one fell swoop can be a daunting task. Smith recommends implementing certain IPM principles for

a gradual transition to a comfortable level. For example:

- ▶ target pesticide applications, both in timing and for specific pests
- ▶ offer additional management services
- ▶ take soil samples to test for fertilizer recommendations
- ▶ develop fact sheets explaining cultural practices and pest problems, in a language your customer can understand.

Grass Roots relies heavily on horticultural oils to manage insects, especially soft-bodied insects. The company also uses insecticidal soaps and started using Mach2 last

What's rational about biorationals?

While most people understand that true "biological" control refers to predator, parasite or pathogen, the other terms can be a bit more confusing. Even among researchers, there seems to be some difference in how the terms are used:

▶ "Biologically based" products refer to toxins or chemicals that are extracted from biologicals (usually pathogens) or are naturally occurring plant products (botanicals). For example, Bt is a biologically based product because it does not cause an infection in the pest but produces a toxic protein that eats away at an insect's gut lining. Since it is protein toxins that the Bt bacterium produces that are used, Bt is not a "biological."

▶ "Biorational" means biologically (environmentally) rational control materials. This means things that have few or no adverse side effects. It can include synthetic materials like halofenozide (Mach2), which is a molting regulator that affects only a limited number of target insects, true biologicals like Naturalis (contains spores of *Beauveria* fungus) or true botanicals like azadirachtin (Neem, Azatin).

Keep in mind that there are biologically based products that are not considered as biorationals. Powerful biologicals related to botulism and anthrax bacteria, with a broad spectrum of activity (including humans), or botanicals like nicotine sulfate could not be considered as rational control materials.

—Dave Shetlar, Ph.D., Associate Professor of Landscape Entomology at OSU, Columbus, OH

year. For weed control, Smith has been using corn gluten meal for some accounts (including his own lawn), and seeing success.

Use your resources

Jody Mills, staff horticulturist with Broccolo Tree and Lawn Care, Rochester, NY, says that the company is only beginning to use some of the newer biorational products

such as Conserve[®], but believes that they will mesh well into the IPM program.

Mills says that the Cornell Cooperative Extension-Monroe County provides them with vital information on pests and their stages. The company also tracks degree-days. Combined, these resources allow Broccolo's

continued on page 25



Broccolo Tree and Lawn Care staff are always on the lookout for insects, of all sizes.



The same kind of

Brooks Farm and Lawn Care that's always on the lookout for insects of all sizes.

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Test it yourself

If you want to be sure a product will fit your needs, test it. Wendy Gelernter, Ph.D., of PACE Consulting in San Diego, CA, says, "The only way to gain more confidence that a management system is the best for your site is to start a testing program."

Self-tests can ensure that the products and practices you choose fit your specific circumstances, conditions, site variations, equipment and management style.

- ▶ Plan your test before you begin; map out your plans
- ▶ Identify and record:
 1. Objectives — "What rate will result in good pest control without damaging the foliage?" or, "How does the new product compare to a product that I have been using?"
 2. Materials — products, rates, application equipment, etc.
 3. Methods — dates of application and evaluation, how the evaluations were conducted, etc.
 4. Observations — descriptions of visual characteristics, numerical ratings (e.g. the weight of clippings) or relative ratings (e.g. assigning estimates of performance on a scale).
 5. Summary — of the answers to your questions.

Do not omit any of these components or it will be difficult to determine what happened during the test or why it happened.

▶ For each test, maintain an area that receives no treatment. Make sure the untreated (control) area is the same size and managed in the same way. Try to have the untreated area and testing plot next to each other, so the sites have similar conditions. And, the two areas should look the same at the start of the test, so you can easily compare the effect of the treatment.

▶ Size it properly. The smallest test plot recommended by Gelernter is 4 x 4 ft. For most small plot work, however, a 5-ft. by 10-ft. plot is convenient for a sprayer that applies a 5-foot-swath width. Or simply divide an area in half, leaving one half untreated and the other half treated.

Finally, once your tests are completed, don't take off your research hat. Follow an unwritten rule of grassroots product and practice testing — share your results with others. □



The test and control sites should have similar conditions. The foreground of this photo shows weed control along a driveway, in Oct. 1998, following two applications of corn gluten meal by Tom Smith in June 1997 and May 1998. The untreated comparison is directly behind.

Corn gluten meal: new weed and feed?

Corn gluten meal (CGM) is the dried protein residue from corn after removing the larger part of the starch and germ and separating the bran. This by-product contains 10% nitrogen by weight. Tom Smith of Grass Roots says two applications a year provides about 4 lbs. N/1,000 ft and unless a property needs phosphorus or potassium, he doesn't need to make additional applications.

It takes a lot of CGM for 1,000 sq.ft. and there is increased material costs. Smith estimates 20 lbs./1,000 sq. ft. costs about \$12 from North Country Organics in Vermont (www.norganics.com). Treatment for a 10,000-sq.ft. lawn would cost a client about \$200. This is a big increase over traditional programs, but Smith says that treating twice a year, as opposed to five or more times, reduces the difference in yearly costs.

While not as fast-acting as traditional preemergents, Smith sees CGM as a viable alternative for some properties. "Clients that are interested in reducing or eliminating pesticide use, clients that are very concerned environmentally and clients that traditionally would not sign up for any type of lawn care," he says. Another client is the City of East Lansing, where Grass Roots has a pilot project for a very visible median, about three acres in size. While the city cannot afford more than a single treatment in the spring (which slows the impact of the CGM), he can still see results, says Smith, who is a CGM distributor. □

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technicians to time inspections and treatments before outbreaks get out of hand.

Educated workers are another resource that the company uses and is committed to fostering. Mills believes that it is essential because they are the people who "make the decisions when on the property, what they're going to treat or how much they're going to fertilize, if at all."

The company emphasizes communication to keep employees informed about pest and disease problems. Mills says, "Employees get a lot of hands-on experience and constant training as to what to be looking for, when to be looking for it."

Keeping employees informed, says Mills, "makes the difference, because we have to count on catching these things at the earliest time."

You're the expert

Probably the biggest stumbling block for most businesses is selling expertise, rather than a service. This is an idea that may take some getting used to, but both

COMMON TURFGRASS INSECTICIDES CURRENTLY UNDER FQPA REVIEW:

Common Name	Examples of trade name	Class	Pests commonly treated
carbaryl	Sevin	carbamate	caterpillars, white grubs, chinch bugs
bendiocarb	Turcam	carbamate	white grubs, chinch bugs
chlorpyrifos	Dursban	OP	mole crickets, caterpillars, fire ants, chinch bugs, billbugs
acephate	Orthene	OP	mole crickets, caterpillars, fire ants
trichlorfon	Dylox	OP	white grubs
isofenphos	Oftanol	OP	white grubs, mole crickets, billbugs, chinch bugs
ethoprop	Mocap	OP	mole crickets

Smith and Mills confirm the need to sell expertise, not treatment visits.

Smith says, "Since IPM is information based, rather than product based, it is important to feel comfortable selling service, which is what most professionals sell." Smith compares himself to plumbers, mechanics and other professionals who charge for their expertise.

This is where Mills agrees: "We have to market ourselves more as consultants."

Keep ahead of the wave

Change, including the possibility of the loss of some familiar chemical products arising from implementation of FQPA, is inevitable. Familiarize yourself with the "kinder, gentler products," on your own property if necessary. Don't get blind-sided by new products and new regulations. Know what your product options are and how they can work for you. **LM**

SOME BIORATIONAL CONTROL CHOICES

Brand	Problem
Avid	leafminers, mites
Azatin	broad spectrum IGR
BioNeem	broad spectrum IGR
Conserve	caterpillars, larvae of leaf-feeding beetles and sawflies
DiTera	nematicide
Matth	caterpillars
Meritl	grubs, leaf miners, aphids, etc.
Neemazad	broad spectrum IGR
Mach2	IGR
Hexygon	miticide
insecticidal soaps	
horticultural oils	
Heritage	fungicide
BioTrek	biological fungicide
Spot Less	biological fungicide



Routine monitoring that focuses on trouble spots allows diagnosis and spot treatment before problems become severe. Hot spots near walks and driveways are prime areas for Grass Roots staff to scout for chinch bugs and other pest problems.

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2 YARDS.**

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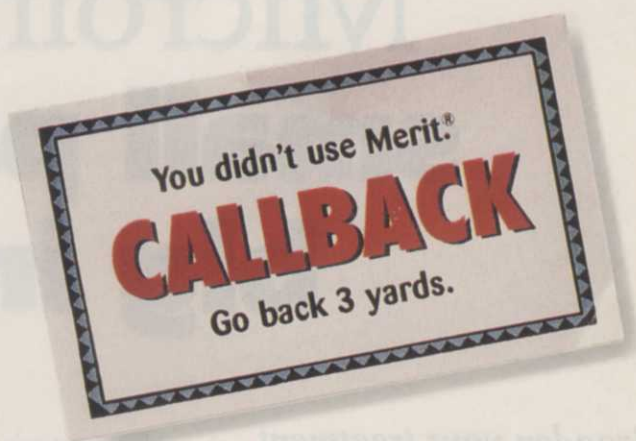
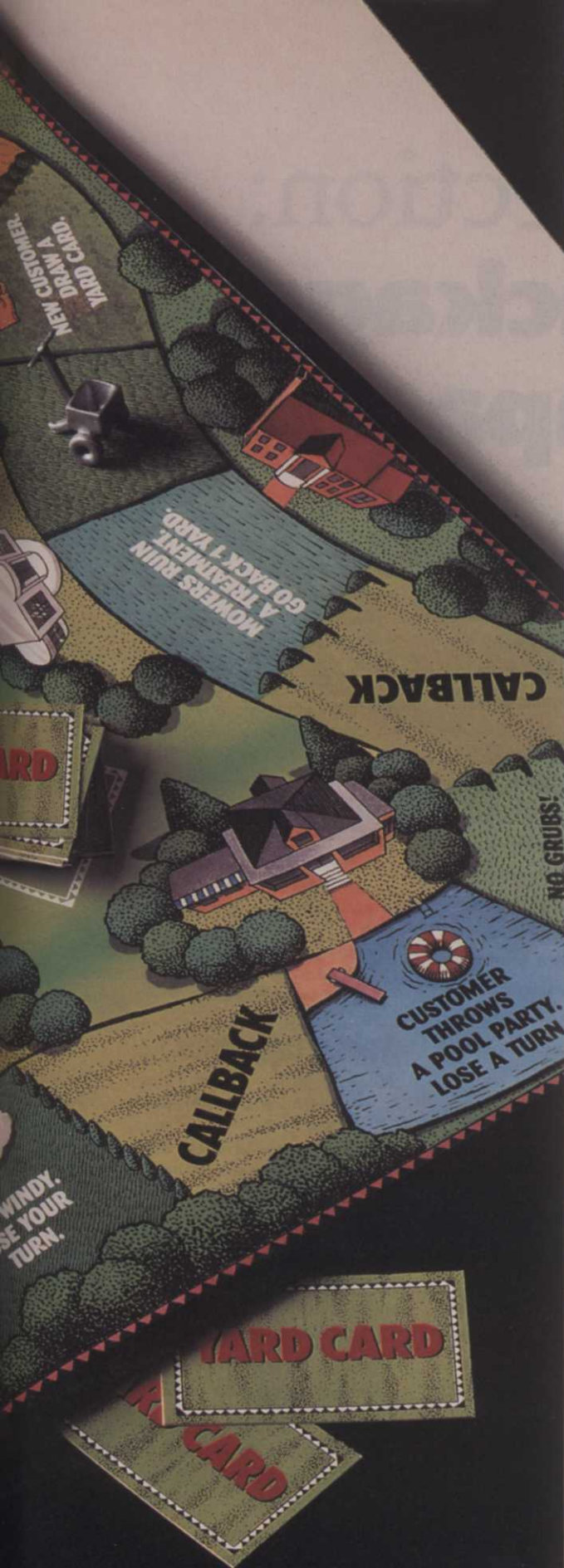
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TURN.**

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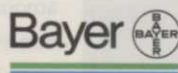
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Circle No. 119 on Reader Inquiry Card

Microinjection: small package, big impact

Broaden your treatment options by including microinjection in your treatment program.

By TERRY A. TATTAR, Ph.D.

Problem: your client has two large elm trees being defoliated by elm leaf beetles. Solution: spray to control the beetles. Problem solved!

But what if the trees are overhanging a school yard directly beside the client's property? Or what if your client is a senior citizen's home? How do you treat a problem and also address the concerns that people may have? Microinjection is one method that might fit into your program.



Spraying street trees is not wise in all cases.

Microinjection's contained delivery system gives you an environmentally friendly alternative to spray applications, as well as low initial investment. Properly used, microinjection has tremendous potential to benefit trees while also providing added value to landscapes.

Spraying can cause concern

You can treat some pest problems, and even nutrient deficiencies, with a foliar application. But spraying community shade trees requires specialized, expensive equipment. It may not be appropriate either. What if a hospital, nursing home, school, pond, stream or river is nearby? What if your clients or their neighbors have pets, wildlife concerns or chemical sensitivities? Spraying may simply not be a suitable tree health care option.

Microinjection, however, allows the introduction of materials such as antibiotics, fungicides, insecticides and mineral nutrients directly into a tree without any contact with the environment.

Spraying, soil injection and trunk injection are the most common methods to apply tree health care treatments. Each of these techniques has a place in tree health care and each has advantages and disadvantages.

Good enough for DaVinci

Microinjection uses small amounts (approximately 0.1 ounce) of therapeutic chemicals contained in sealed capsules which are introduced into shallow trunk

SPRAYING

Pros

- quick application of materials
- rapid response to treatment

Cons

- accurate timing needed for some pests
- height of the tree can impact the level of coverage
- weather must be suitable for spraying

SOIL INJECTION

Pro

- allows combinations of fertilizers and pesticides
- causes no trunk wounds

Con

- timing of delivery is important since there can be some time delay in the uptake of the materials by the tree

TRUNK INJECTION

Pro

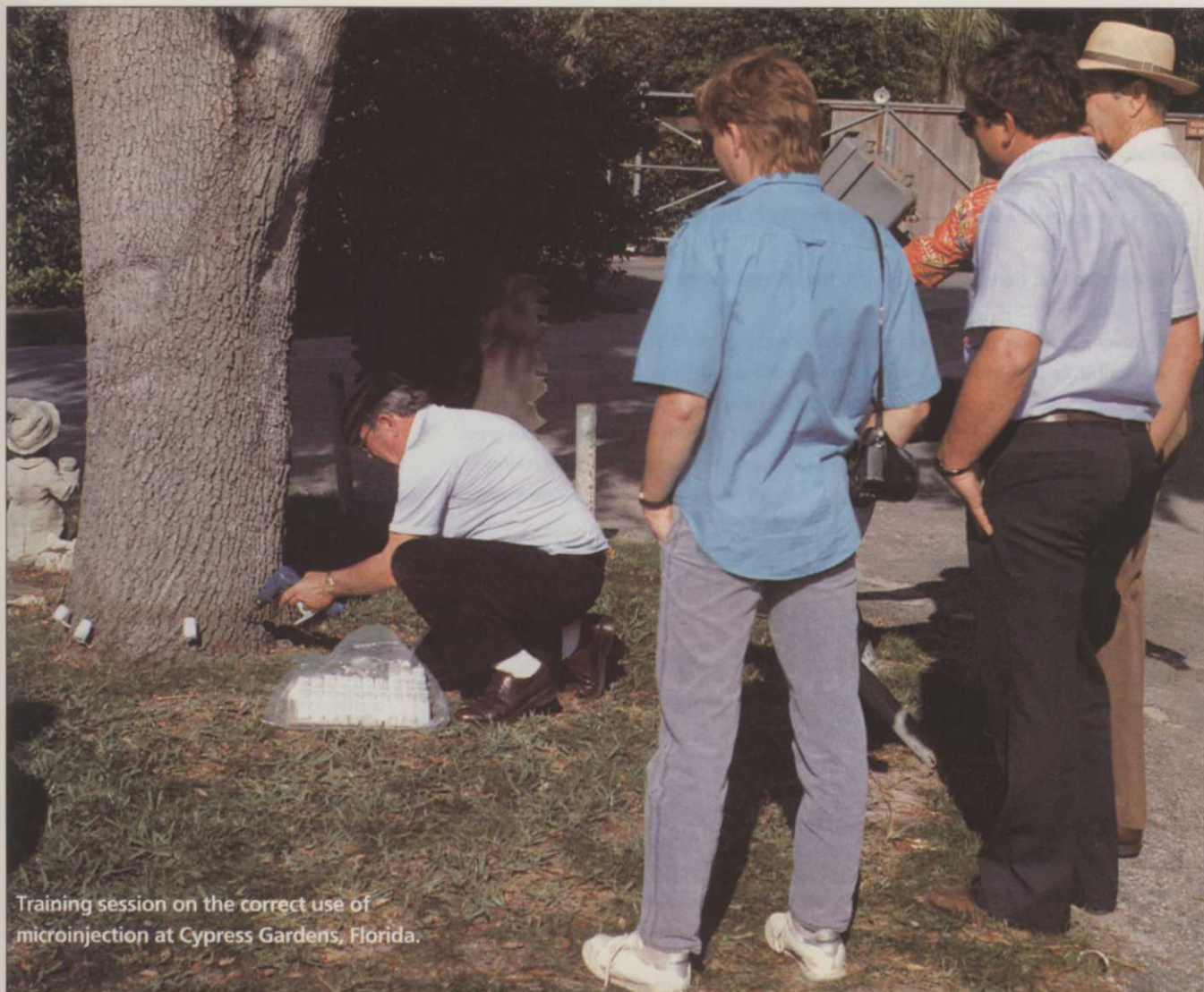
- injected materials rapidly available within the tree
- no environmental contact with pesticides can be performed under most weather conditions

Con

- must consider tree response to trunk wounding
- uneven distribution in crown may occur

No treatment method is ideal for all situations. Remember, you can combine these application systems in IPM programs for shade trees. Each situation is different, so use the best delivery systems to address the problem.

wounds around the base of a tree. The injected chemicals are distributed systematically by sap movement within the tree to



Training session on the correct use of microinjection at Cypress Gardens, Florida.

Microinjection may be a suitable:

- ▶ For use against difficult-to-control insects (e.g. bronze birch borer, scale, gypsy moth, aphids, birch leafminer etc.)
- ▶ When drift becomes a problem, such as in crowded urban areas
- ▶ In environmentally sensitive areas, such as near playgrounds, camp sites, water or wildlife areas
- ▶ As part of an IPM program, minimizing chemical usage
- ▶ For very tall trees or in poor weather conditions (wind, rain, etc.)
- ▶ To protect nontarget pests
- ▶ For difficult to control diseases
- ▶ For applying micronutrients

the branches, leaves and even roots within a few hours after injection.

Although the first reports of trunk injection of trees date to studies by Leonardo DaVinci during the Renaissance, it is often misunderstood. Materials in liquids can be injected into the woody tissues of trees (xylem), because the pressure within the xylem is below that of atmospheric pressure on the outside of the tree. Under this

condition of negative pressure, liquids introduced into healthy xylem through a fresh injection wound are taken into the xylem and distributed within the tree in the sap stream. Actually, this is not so much injection as it is the accessing of the transport tissues of the tree and allowing them to transport the chemicals up into the tree. More like infusion therapy, if you will.

You don't have to use high pressures to

"force" liquids into the tree. High-pressure injection can actually damage tree tissues and may not place the injected materials into the outer xylem where most systemic transport occurs. Low pressures sufficient to empty the injection reservoir are most effective for transport with less impact on the tree.

Trunk injection of several gallons of ma-

continued

Tree Injection 101

1. Make wounds as small and as shallow as possible. Deeper and larger wounds under higher pressures cause greater injury to the tree. Ninety percent of all conduction in the tree takes place in the current growth ring of most trees.

2. Make clean-edge wounds by using a fully charged drill and a sharp bit. The more ragged the edges of a wound, the greater the injury. Disinfect drill bit between injection sites.

3. Inject on root flares. Do not inject in the valleys between the flares where cambial growth is narrow.

4. Never place injection holes in vertical alignment; wounds directly above or below other wounds cause further injury to the tree, while uptake is poor or not possible.

When several injection periods are needed, create patterns to avoid vertical alignment.

5. Monitor previously injected trees. Do not reinject a tree if the wounds from previous injections are not closed after one year or if fluxing has not stopped. If cracking occurs at the injection site, do not inject this tree again. Not all trees can tolerate injection wounds and chemicals.

6. Do not use injection sites from the previous year.

—Marty Shaw, certified arborist, certified nursery professional and president of TIPCO Inc., Knoxville, TN. www.treedoc.com



The placement of microinjection capsules containing mineral nutrients on a shade tree is a simple process.

terials per tree, or macroinjection, has been used to treat trees with vascular diseases, such as the Dutch elm disease. Unfortunately, most tree species do not have porous xylem like the American elm and cannot accept large volumes of liquids by trunk injection. In addition, macroinjection systems involve complex tubing and reservoir systems which are labor intensive and are not practical for rapidly treating several trees.

A breakthrough in injection technology occurred in the 1960s when the systemic insecticide Bidrin, in microinjection capsules, was injected into trees and shown to

control a variety of chewing and sucking insect pests. Large volumes of materials did not need to be injected into a tree to control a problem. The Bidrin research showed that a small volume of concentrated systemic chemical in a microinjection capsule could be effective.

Since that time, microinjection research has focused on developing systemic formulations of antibiotics, insecticides and fungicides that are effective in low volumes. Re-

Wounds that don't heal

Most trees are strong compartmentalizers and close injection wounds very quickly. However, some individual trees may be weak compartmentalizers (whether due to genetic characteristics or compromised health) and should not be injected. Know the danger signs of weak compartmentalization:

- ▶ delayed wound closure
- ▶ vertical cracks above or below the wound
- ▶ prolonged fluxing from the wound with discolored or odorous discharge
- ▶ expansion of the wound or canker formation around the wound

cently, combinations of an insecticide and a fungicide in a single capsule have been developed to treat both insect and disease problems with a single injection.

Before you begin

Microinjection can only be effective if applied by trained applicators who have correctly diagnosed a tree health problem. An incorrect diagnosis will likely result in the use of an ineffective material.

Improper application can harm a tree. Companies that sell microinjection products usually require training before using their products. Both the J.J. Mauget Co. and Tree Technology Systems Inc., for example, require a training program before sale and use of their products. In addition, microinjection capsules must be applied in strict adherence to the guidelines of the manufacturers. Improper techniques, such as using too many capsules on a tree, using an incorrect application depth or carelessly inserting or removing capsules can cause damage or inhibit wound closure.

—The author is a professor at the Shade Tree Laboratory, University of Massachusetts; phone 413-545-2402, email at tattar@mirobio.umass.edu.

Maximize injection impact

Uptake increases with:

- ◆ soil temperature ($\geq 50^{\circ}\text{F}$)
- ◆ soil moisture (pre- and post-water)
- ◆ wind
- ◆ sunny day

Uptake decreases with:

- ◆ humidity
- ◆ dry soil
- ◆ high air temperatures ($>90^{\circ}\text{F}$) can cause leaf burn

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THINK DIFFERENTLY

**Get more
productivity
by buying
smart and
training
employees in
maintenance.**

By ROGER SIMONS

Training is an investment in productivity, not a cost. You can reduce the cost of doing business and get more productivity by selecting wisely and training employees in equipment maintenance. This can also improve labor recruitment and retention, and can help differentiate you from your competitors.

While landscape contractors generally agree, the next step — preparing a consistent, cost-effective program — is more problematic. Actually, this can be fairly simple, given the many resources available, but it does require commitment and follow-through.

Buy durable equipment

Step one is to assess the applications for your equipment and don't skimp on price. Sometimes, especially for contractors just starting out, the urge to cut start-up costs leads to the purchase of throw-away equipment that becomes overmatched in

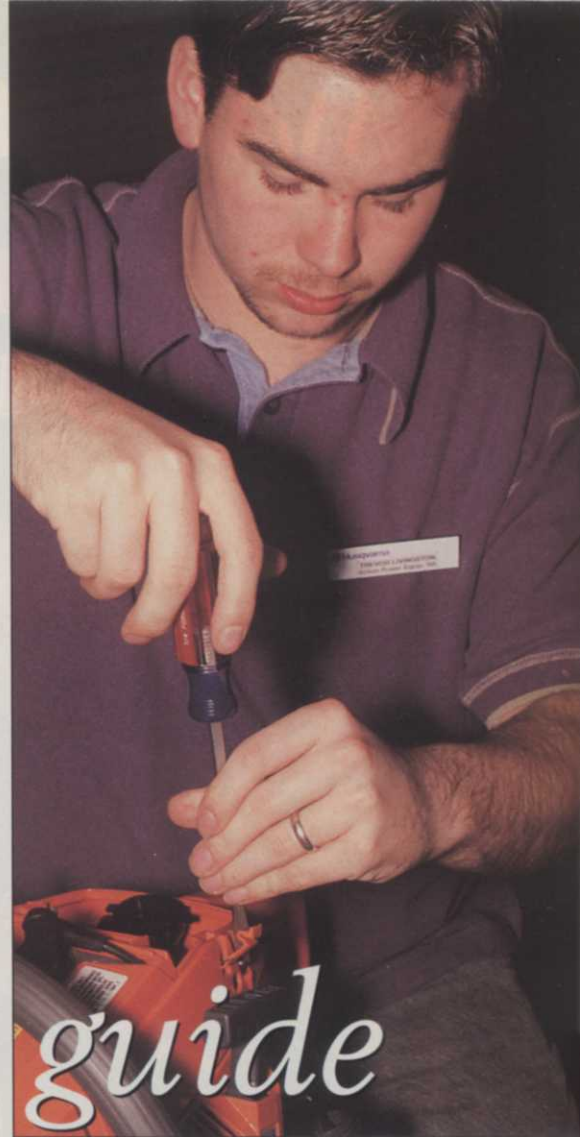
Hand-held equipment *productivity* guide

heavy-duty applications. Experience shows that buying durable tools yields long-term savings in service costs. If you're serious about your work, reject cheap equipment.

Smart chain saw selection

Even if you use chain saws only for light, infrequent duty, choose saws that are serviceable in the field and offer certain safety and comfort features. Key features to check include:

- ▶ good balance, high power-to-weight ratio and antivibration systems — all reduce operator fatigue.
- ▶ controls, switches and handles — provide a high level of operator protection.
- ▶ top handles, textured handles, thumb grips and trigger supports — for extra control and comfort (remember to hold a saw with both hands, even if it has a top handle).
- ▶ chain brakes — stop the chain and allow the engine to continue running without the chain being in motion.
- ▶ easily removable fuel and oil caps — check



Have employees check equipment daily and weekly for safe and productive operation.

that the fill openings are easy to access and whether a single tool or several tools are needed to exchange filters, spark plugs and the bar and chain.

Trimmer buying tips

Low-vibration systems, design and ergonomic features apply to trimmers as well. Buying tips include:

- ▶ compare noise levels of various models because noise is the most fatiguing factor for power equipment operators.
- ▶ excessive vibration can be fatiguing too, because it travels through the trimmer shaft into the operators' arms and hands. Low-vibration systems isolate the engine and drive shaft from the handlebar and have support components with rubber dampers.
- ▶ look for trimmers with easy access to serviceable parts (like the starter assembly), particularly those that can be disassembled quickly. This cuts downtime.
- ▶ engine compartments should be tight, with

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Training wheels

Mobile units take instruction to dealers

Look for local training at outdoor power equipment dealers this season, as six fully equipped mobile training units from Husqvarna Forest and Garden Co. hit the road. The fleet will log nearly one million miles each year traveling to dealers and customers across North America, including Canada.

Each 34-foot-long truck has eight student workstations and a big-screen terminal for video instruction and computer display. A miniature model store demonstrates display options and sales training. Special tools and equipment will help train students on product use and repair techniques.

Each regionally based unit is assigned a full-time instructor who facilitates each school. "We listened and found a solution when our power retailers told us they needed training to come to them, since travel is costly," said Roger Simons, director of technical services for Husqvarna.

In addition to holding three-day schools year-round in each training unit, Husqvarna hosts ongoing product update classes, new dealer training and regional dealer meetings. Dealers with technical/sales staff benefit further from customized classes and on-site training.

"Bringing hands-on, interactive training to our dealers' front doors ensures they are meeting the needs of their customers," said Dave Zerfoss, president of Husqvarna North America. "The mobile training units provide a unique education alternative."

The new mobile training units complement the Husqvarna North American Training Centers located in Charlotte, NC, and Albany, NY, as well as training centers in Canada.

Take advantage of resources

How can you get training for your employees? Several manufacturers offer dealer-sponsored training programs.

One example is Husqvarna's Team of

minimal exposure of the carburetor and other parts that could snag on or bang against objects on the job site.

► power level to a trimmer's cutting head determines what type of work it can do. Horsepower does not always indicate torque output of the total unit. Combine size of cut and acceleration capabilities to get a true sense of a trimmer's power and torque.

► trimmers for heavy brush cutting or continuous running should carry lifetime shaft warranties.

► ergonomic design such as angled front handles to allow operators to keep their left wrists in a straight, comfortable position. Adjustable handles accommodate different users comfortably. Trimmers are easiest to use when the handles have a firm grip and the cutting head naturally positions itself directly in front of the operator.

Understand how equipment works

Most repairs to commercial two-

Pros, which travels the world training dealers and contractors. Training is customized to meet trainees' needs. The chain saw portion of the training program, for example, covers chain saw safety, equipment maintenance and cutting methods.

Look for training videos developed in partnership industry associations, such as the International Society of Arboriculture and the Associated Landscape Contractors of America. These videos focus on safety, ergonomics, operator maintenance and other key topics.

The videos and companion study guides are great supplements to daily or weekly tailgate meetings, ongoing in-the-field training and competent supervision.



Technicians who are trained by equipment manufacturers can help you train your crew members. Photos: Husqvarna Forest & Garden

cycle engine powered equipment result from improper:

- operating and service procedures;
- application of equipment for a job;
- maintenance;
- service records, or lack of;
- fuel/oil mixtures or dirty fuel.

Read your owner's manual as the first step in reducing downtime — it's the first thing your employees should do before using any piece of equipment. The time it takes to familiarize yourself with the manual will be repaid in extended product life, given proper operation and maintenance.

Resist any urge to hurry new crew members into the field; two-cycle equipment is not so simple that it should be operated without preparation. While operators should know simple maintenance techniques, they should know enough not to compensate for one disruption by creating another. For instance, they should never adjust air-fuel mixtures, when cleaning the air filter is required.

Landscape lovers: bad mechanics?

Some otherwise great employees who really enjoy beautifying landscapes might not have the equipment expertise to service their own equipment beyond routine upkeep. Instead of struggling with equipment downtime or machines that do not perform well, you might be better off leaving equipment servicing to a service technician. Often, a new spark plug, air filter or

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fuel filter, along with a tachometer-assisted carburetor adjustment, can do wonders for equipment performance and daily output.

Technicians who are trained by equipment manufacturers can provide the most knowledgeable maintenance and can help you train your workforce.

Check equipment before and after operation, based on manufacturer guidelines. Here are specific checkpoints:

Daily checklist for two-cycle equipment:

Clean the air filter.

Inspect the engine shrouding for any deterrent to clean airflow.

Check the air filter cover and air filter box to guard against intake of unfiltered air that could damage the engine.

Remove grass, dirt and other debris off the housing around the engine. Debris build-up could cause excess heat that might mean premature engine damage. Remove string and weeds that twist around the gearbox or cutter head shaft.

On trimmers, check the deflector to make sure it is attached and intact — otherwise, it is unsafe, can allow too much line out and can overload the engine.

Check starter ropes for frays.

Check throttle for open and idle.

Check stop switch and safety functions.

Daily chain saw checklist:

Make sure the chain brake is clean and free of sawdust or dirt and the brake band is not worn. Test before cutting.

Inspect air filters.

Be sure the chain is sharp and assembled at proper tension. Keep a spare chain on the job.

Look for excessive handle movement, which might indicate a broken mount.

Inspect the throttle safety lock, chain catcher pin and all guards and handles, including the stop switch.

Make sure the engine and chain are properly lubricated.

Use the correct gas-oil mix.

End of day chain saw checklist:

Inspect the entire saw, tightening all external hardware and cleaning away debris.

Check safety features like stop switches, chain brakes and chain catchers.



Even the simplest piece of equipment needs some basic maintenance and every crew member can improve performance through training. Committing to training and maintenance helps maximize your opportunities for success and profitable operation.

Check that the throttle trigger works smoothly and that the trigger cannot be pulled until the trigger lockout is depressed.

Remove and clean air filters.

Remove the bar and chain, clean bar grooves.

Clean clutch cover and bar pad areas.

Rotate bar when reinstalling to promote longer life through even wear of the bar.

Be vigilant about keeping dirty fuel out of your equipment (sometimes the fuel itself might be dirty). Also inspect fuel containers for debris along the rim (debris-laden fuel can clog a fuel system). If rain water dilutes fuel, the engine might not start.

Performing daily upkeep might be the responsibility of the crew foreman, but operators should have general operating knowledge of the equipment, safety features and chain tensioning. An experienced in-house mechanic or equipment dealer can complete your maintenance team.

End of week checklist (all equipment):

Check the grease in the gear head to make sure its at the manufacturer-recommended level.

Inspect the spark arrestor screen, then clean or replace, according to manufacturer guidelines.

Check fuel lines for cuts or deterioration.

Use a tachometer to check engine rpm at idle and full throttle. Adjusting the carburetor by sound to set rpm levels, without using a tachometer, might cause you to miss an air leak or other serious problem.

Check that rubber or spring mounts on anti-vibration systems are secure.

On trimmers, inspect the string heads spool and housing for breaks or cracks and never use a string head or blade with a visible break or crack. Also check the bump knob and eyelets for wear.

Be on the lookout for trimmer welding, which occurs when the line actually melts and adheres to one adjacent to it inside the trimmer head. Welding results from friction caused by excessive vibration or rpm, which could indicate another problem.

Record your maintenance

When you've bought the right equipment, trained your people to use it and implemented a maintenance routine, you still need one more key ingredient for your upkeep system: records. Delays for service often result from neglecting to keep accurate, updated service records. So record service intervals and keep track of oil and filter changes, parts replacement, dates and types of equipment problems.

Note equipment use hours as a way of servicing at regular intervals. Each work crew can designate a maintenance overseer to keep track of hours and make sure service is kept on schedule. The appointed person can also check that clean fuel containers hold fresh fuel. **LM**

—Roger Simons is director of technical services/sales support with Husqvarna Forest & Garden Co., Charlotte, NC



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Circle No. 118 on Reader Inquiry Card

Get serious about irrigation

Ready to expand an existing irrigation contracting business? Read how to make it work better, smarter and more profitably

By BRUCE SHANK

For many of you, it may make perfect sense to include irrigation installation, expanded maintenance or related services in your mix.

There are advantages to being both the installer of the landscape and the installer of the irrigation. After all, you're already familiar with change orders and the site. In fact, you install landscapes realizing the limitations of the irrigation system.

What equipment will you need?

If you will perform a significant amount

of irrigation installation, use custom-designed trucks to carry pipe, fittings and a trencher. Drawers will organize fittings by pipe size. A complete range of fittings will reduce trips to the distributor or the shop. Consider a walk-behind sod cutter too, along with a small bilge pump and an electrical fault detector. You will run into cases where you need to burrow under sidewalks or driveways and proper equipment can save hours and reduce the disturbance.

If you're expanding current irrigation maintenance services, pay attention to the equipment that you use. Many irrigation repairs can be performed without expensive equipment, as long as you pay attention to details. Sprinklers might look alike, but they can have different nozzles and different patterns. Adjustment screws, on both sprinklers and valves, can change precipitation rates and disrupt uniformity.

Stick with the same brand and model sprinklers on irrigation zones. Look for brands that offer matched precipitation.

Do not mix sprayheads with rotors on the same zone. Be aware that elevation affects pressure and pressure impacts flow rate. Pipe size also influences flow rate.

Drip zones will require pressure regulators. The irrigation controller should provide enough zones to separate plants by their water needs.

Cheap controllers don't offer the expandability, the reliability or features like multiple starts, longer run times or sensor feedback.

You're an irrigation contractor if ...

1. You like to play golf in the rain
2. You leave the windows open at the car wash
3. You know how many gallons are in an acre-foot
4. You don't think of ET as a movie character.
5. You have a pitot tube in the glove box of your truck
6. You call the sticky liquid in the can 'cement' instead of 'glue'
7. You notice the roots of plants when digging a hole
8. You have words for 10 different shades of green
9. Your feet detect extremely minor differences in the hardness of the ground as you walk
10. Your favorite dog is a Labrador



Arm your irrigation tech with knowledge and communication.

Seek training before you attempt to install commercial or complex residential systems. Also develop a working relationship with local water agencies and the plumbing contractor on the job to make sure backflow prevention and cross-connection problems are covered by the book. These are issues best resolved by an irrigation consultant, especially in regard to sizing of the irrigation supply line.

Forget those callbacks

Callbacks are a money loser for all contractors. A buried valve installed backwards or a leak from a poorly cemented joint can cost you precious time and rev-

continued on page 42

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*See Program Guidelines for details.

Circle No. 133 on Reader Inquiry Card

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enue. Don't cut corners. Have the right tools and the right parts, and take the time to do the job according to specifications or accepted practice.

Bill irrigation work at a rate calculated to cover all equipment, labor and advisory costs. Your costs for irrigation might be higher than conventional maintenance or landscape installation. There is some logic to having irrigation crews do low-voltage lighting installation work as well. Power and controllers for these two specialties need be addressed similarly.

With skilled labor being relatively scarce, you will hate to train someone and lose them to another company. Stay competitive with your wages and benefits.

However, there is something good to be said about getting employee participation in benefits. Just like they participate in a 401K, employees can invest in their future through training. You can provide a solid base of training, and offer to share in the expense of additional training, providing the employee also contributes to the



Granular matrix soil moisture sensor from Irricom can make a system more efficient.

cost. Once employees "buy in" to their professional advancement, they've made a commitment to staying in the field.

Reward employees regularly and frequently. Don't overlook hard work or smart work. And respect their family needs.

Troubleshooting and service contracts

One of the most popular classes taught by the Irrigation Association is electrical troubleshooting. There is more to irrigation than cementing pipe, fittings and components. Properly designed, a system works

only if controllers and valves communicate properly. Technicians need to be able to detect electrical faults and to use all the features of controllers. Note that many controllers today can be expanded with four-station modules. This enables you to add zones for surface and subsurface drip, wick irrigation, and, in some cases, control night lights and pumps for water features.

Have at least one person who understands backflow prevention devices. You might be restricted from working on backflow devices in certain areas, but you still need to recognize failures and alert the proper person for correction.

Learn more about service contracts and how to sell them with new installations. These contracts pay you monthly for a service you should probably perform anyway. No system is free from vandalism or traffic damage. Without sensors to inform someone when a pipe breaks or a head is damaged, you must visually inspect irrigation systems during operation. Proper operation is in your best interest, whether you get paid for it on a regular basis or not.

Service contracts give you frequent customer contact and allow you to recommend improvements. This enables you and your customers to take advantage of the latest technology in irrigation. You're also helping your customers meet local conservation requirements.

More expansion ideas

Consider offering maintenance contracts that include spring start-up and fall winterization. Install drain valves during installation so you can blow out water in the fall before the soil freezes to the depth of your irrigation lines. A summer performance check-up lets you meet with your customer when the system is operating full tilt.

There are huge differences in water requirements from season to season. Be aware of these differences and help your customers adjust their schedules each season.

Additional projects to sell to your customers might include installing fertigation equipment, adding filters and algae treatment for drip lines, installing rain or moisture sensors, designing a gray water system,

Take training seriously

Get trained and certified, whether or not it's required by your state.

► Work with your local irrigation suppliers to set standards and encourage professionalism among fellow irrigation contractors.

► Invite local irrigation consultants to address meetings.

► Work together in helping your local government determine the best way to implement conservation programs.

► Join the Irrigation Association through affiliated local organizations under a new special membership category for contractors. Attend the annual IA show held each November to take classes and see the latest technology.

► Become involved. Work with landscape contractors in submitting entries for award competitions. Alert the local press to professional recognition you receive for your work.

and providing an as-built irrigation plan if they don't have one. A handy tool for many customers is a report that tracks their yearly water use for irrigation.

Strut your stuff

Be visible. Create signs for job sites, decals for your trucks, uniforms for your staff and newsletters for customers. Make people aware of your company. Use flags with your company name and phone number to notify owners of malfunctioning irrigation heads. Boast that your irrigation systems are saving water as they make the environment green. Put floats in local parades. Write a weekly column for your local Sunday newspaper. Present awards to your customers for taking the effort to conserve water. **LM**

—The author is owner of Irricom, a publication consulting firm in Palmdale, CA. He can be reached at 800/455-4320.

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Third Prizes: 100 Swiss-style military knives. (Twenty awarded per month; see rules for details)

1. NO PURCHASE NECESSARY TO ENTER OR WIN.

2. Contest open only to legal residents of 50 United States and Washington, DC, who are 21 and older to whom this offer is addressed and who are responsible for purchasing FMC products for their business. Sponsor: FMC Corporation, 1735 Market Street, Philadelphia, PA 19103.

3. You are automatically entered when you purchase Talstar products and complete and return the attached card with your invoice. To enter without purchase, complete and return the attached card, checking off the appropriate box (do not include an invoice). Sweepstakes begins 5/1/99 and ends 9/30/99. This sweepstakes includes one First Prize drawing and 5 monthly drawings to award the Second and Third Prizes. Monthly drawings will be conducted for entries received for May, June, July, August and September, 1999. To qualify for a given monthly drawing, your entry must be received by the last day of that month. Your entry will be included in the monthly drawing for which it was received, in subsequent monthly drawings (if applicable) and in the First Prize drawing. If no entries are received for a given monthly drawing, the next month's entries will be used to award the previous month's prizes. Incomplete entries are not eligible for drawing. Only one entry per person. Sponsor is not responsible for lost, late, damaged, illegible, misdirected, or postage due mail. All entries become the sponsor's property and will not be returned.

4. Random drawings will be conducted by an independent judging organization from among all eligible entries received. Judges' decisions are final. Monthly drawings will be conducted within 15 days of the end date of the each month. The First Prize drawing will be conducted on or about 10/1/99. First Prize winner will be notified by overnight carrier and will be required to complete and return (via prepaid overnight carrier) an affidavit of eligibility/liability publicity release which must be signed and received within 10 days of date printed on notification or an alternate winner will be selected at random. Travel companion to First Prize winner must also execute a liability/publicity release prior to travel. All other winners will be notified by first class mail. If a prize notification or prize is returned as undeliverable, the prize will be awarded to an alternate winner at random. Acceptance of prize constitutes permission (except where prohibited by law) to use winners' names, hometowns, prizes won, and likenesses for promotional purposes without additional compensation.

5. Prizes and their approximate retail values (ARV): 1 First Prize: Trip for two to Atlanta, Georgia, includes: 3 nights double occupancy hotel accommodations, round trip coach airfare from/to closest major airport to winner's primary residence and two tickets to a football game (ARV: \$12,000). Actual value of trip prize depends on location of winner and fares at time of departure. Other incidentals and expenses not mentioned herein are not included and are the winner's responsibility. Trip prize winner must agree to travel on dates as specified by the sponsor or forfeit all rights to prize. If this is the case, an alternate winner will be selected at random. 25 Second Prizes (awarded 5 per month for five months as detailed in rule #3): Autograph Football (ARV: \$400 each). 100 Third Prizes (awarded 20 per month for five months as detailed in rule #3): Swiss-style military knife (ARV: \$10 each). Total ARV for all prizes: \$23,000. One prize per person with the exception of the First Prize which may be won in addition to any other prize. All taxes on prizes are the responsibility of the winners. Prizes are not transferable or redeemable for cash. No prize substitutions except by sponsor due to prize unavailability, in which case a prize of equal or greater value will be awarded. All prizes are guaranteed to be awarded and delivered to winners within approximately 60 days of drawings.

6. Employees of sponsor, its affiliates, subsidiaries, distributors and agencies and the immediate families of each are not eligible to enter. Odds of winning depend on total number of eligible entries received. Est. distribution of offer: 150,000. All federal, state and local laws and regulations apply. Void where prohibited by law.

7. Participating entrants agree to these rules and the decisions of the judges and FMC Corporation and release FMC Corporation from all claims or liability relating to their participation.

8. For a list of winners (available after 11/30/99), send a self-addressed, stamped envelope by 9/30/99 to: Super Sport Contest List of Winners, c/o FMC Corporation, 1735 Market Street, Suite 2225, Philadelphia, PA 19103.



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*See Guarantee Program Guidelines for details.

Award-winning landscape

Twitty residence Nashville, TN

Property at a glance:

Location: Nashville, TN

Staff: contract

Category: Small Site and Residential

Year site built: 1990

Total acres maintained: 3.0

Acres of turf: 0.75

**Acres of woody
ornamentals:** 0.5

Acres of display beds: 0.25

Total man-hours/week: 16

*The 1998 Grand
Award Winner of the
Professional Grounds
Management Society
for both the Small Site
Category and the
Residential Category.*

Hill House, the residence of the late Conway Twitty and his wife Dee, was a newly built home when Trees Company installed the landscaping in 1990. Eight years later, Trees Company has won three awards from the Tennessee Nurseryman Association for both landscaping and maintenance.

This double prize-winning garden, featured on a PBS special "Gardens of the World," has an extensive variety of plants in beds and pots, as well as deciduous and evergreen shrubs. Seasonal color plants are planned with the client and specially grown as much as six months in advance for the bi-annual changes in color, using the Morning Glory



management



Farm, the Trees Company's growing operation.

Plants include: allemanda, anemone, azalea, bougainvillea, canus, caryopteris, clematis, cotoneaster, daffodils, daisies, diacaena, geraniums, heliotrope, hyacinths, hydrangea, impatiens, lavender, mandevilla, pansies, petunias, roses, salvia, scaevola, tulips, verbena, viburnum, vinca and violas.

▲ The pool gazebo in summer. Pots: canus, scaevola and ivy geraniums. Well: viburnum, mixed verbenas, mandevilla and allamanda

◀ A riot of color by the back door: Purple Gem and Apricot Beauty tulips with Crystal Bowl orange and purple pansies.

► The front of the Twitty residence.

Editors' note: *Landscape Management* is the exclusive sponsor of the Green Star Professional Achievement Awards for outstanding management of residential, commercial and institutional landscapes. For more information on the 1999 Awards, contact PGMS at 120 Cockeysville Road, Suite 104, Hunt Valley, MD; 410/584-9754.



Maintenance challenges

- turf in front is on a very steep hill, with processed soil on underlying rock: steep to mow; soil drains very rapidly;
- the highest point in Nashville, the site is very windy — trees require initial staking, followed by anchoring after four to five years because of the loose nature of the processed soil
- the wide variety of plant material requires careful maintenance

Project checklist

(Completed in last two years):

- converting some turf areas to beds
- bi-annual color gardens
- heavy pruning due to ice storm

On the job

- 2 full-time staff, 4 seasonal, 1 licensed pesticide applicator

LANDSCAPE
management

PGMS

Tip blight on pine

How do you control Diplodia tip blight of pine? We have used Cleary's fungicide with variable results. When is the best time to treat?

—PENNSYLVANIA

Diplodia tip blight is now known as Sphaeropsis tip blight. This fungal disease infects Austrian, red and Scotch pine. It becomes active in spring and kills new candles before they emerge from the sheath and can infect subsequent years of growth. By the second year, the two-year-old cones may be infected and the fungus will overwinter to produce fruiting bodies. After three years, if no new needles are produced or retained, photosynthesis is severely reduced while the older needles are shed. This weakens the plant and predisposes it to insects and diseases.

Avoid planting Austrian, red or Scotch pine. Prune and destroy infected tissues. Prune when dry and disinfect pruning tools between cuts to minimize disease spread. In years with dryer weather, pruning may be sufficient, particularly in Scotch pine. Removal of two-year-old cones may reduce inoculum and disease incidence.

If the disease is severe, and cool moist conditions prevail, use Cleary's or other fungicides. Apply the first treatment before candles are 0.5 inches. Depending upon weather conditions, two to three applications may be necessary, along with sanitation pruning of infected tissue.

Reviving an ugly lawn

How do you improve the overall appearance of a lawn neglected for many years. The soil appears to be compacted and the lawn had excessive thatch and lots of weeds — at least 30 to 40% of ground cover is from weeds, mainly clover, ground ivy and violets. There are also large irregular areas with dead grass.

—ILLINOIS

Herbicides such as Trimec or Confront will help manage the "easy-to-manage" weeds. For "difficult-to-manage" weeds, such as violets, oxalis or ground ivy, herbicides containing ester formulations are better, although some may require repeat applications. Apply the treatment when the target weeds are actively growing.

The lawn may appear thin and less green after the herbicide treatment when the weeds die. However, the turfgrass should increase in density with proper maintenance and reduced competition for space, nutrients and light from weeds. Studies have shown that if the turfgrass is cut at 2- to 2.5-in. cutting height, there will be 30 to 40% less weeds.

The larger dead areas may be a result of previous insect or disease activity. If you know the past history of the problems, provide treatment as needed. Consider overseeding using grass mixtures for your area. Avoid and/or delay herbicide applications to seeded areas until mowed at least two to three times at the 2- to 2.5-in.

cutting height. (2,4-D or other herbicides can cause root injury to young seedlings.)

To manage the compacted soil and/or thatch problem, aerate the lawns. Consider overseeding along with aerifying.

Black vine weevils

We are seeing a lot of "C"-shaped cuts at the edge of ground-cover type of euonymus. What causes this? How do I manage this?

—ILLINOIS

The problem is most likely black vine weevils. These are chewing pests and become active in spring from their overwintering stage. Generally, they are found feeding at night from early May through August.

Since these weevils are nocturnal, examine the suspected plants after dark by gently shaking the plants over a white sheet of paper to dislodge the black vine weevil. Or use the pit fall method: place a piece of cardboard under the plants over a small pit made in the ground. This technique is beneficial in determining the level of pest activity as well as helping to manage the problem by mechanical removal.

To manage this pest, follow the above cultural methods of trapping or chemical method. Treat foliage with Dursban or Orthene at 3- to 4-week intervals from early June through August or until no living adults are found. It is important to provide thorough coverage of the foliage for better control. **LM**



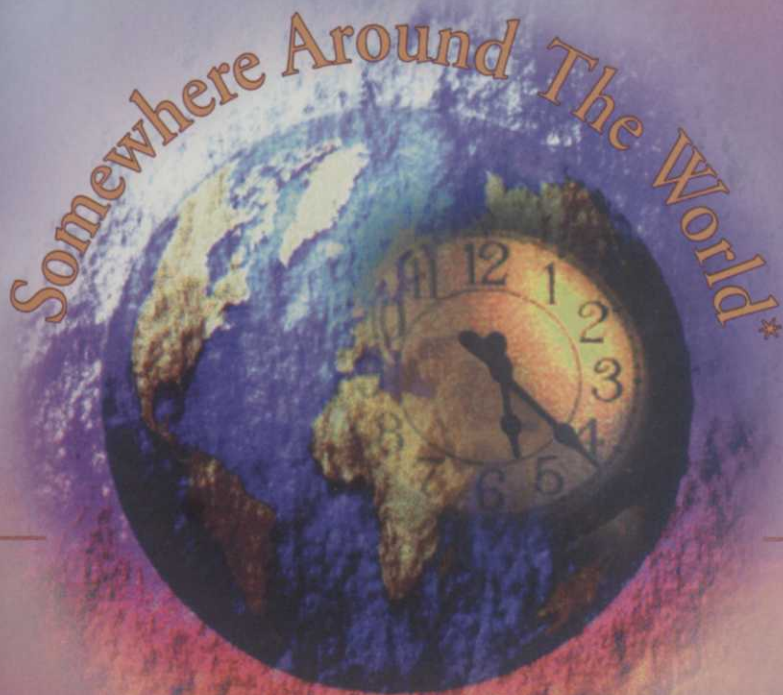
BALAKRISHNA RAO

Manager of Research and
Technical Development
for the Davey Tree Expert
Company, Kent, Ohio

SEND YOUR QUESTIONS TO:

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Landscape Management
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440/891-2623

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WITNESS PROTECTION PLAN

For some, protection can be a matter of life and death. But when it comes to protecting your ornamentals, death is not an option if you use Surflan® herbicide from Dow AgroSciences. In fact, while being safe over the top of 400 types of ornamentals, it's still tough as nails on weeds. Surflan gives you extended control of 50 weeds such as crabgrass and goosegrass. It also strong-arms small-seeded broadleaf weeds like



ORNAMENTAL PROTECTION PLAN

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 **Dow AgroSciences**

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Always read and follow label directions.

I have to admit, I'm not a big fan of spruce. I won't go into details but I'll give you a brief picture: a bad-tempered pony, bit in teeth; a 10-year-old girl (me); a spruce hedgerow in the direct path of the bolting pony. Draw your own conclusion. The event has colored my impressions of spruce trees ever since, and even had an impact on my decision to go into forestry.

How often have you seen a Colorado blue spruce dwarfing a house, particularly a ranch-style house? Spruce trees — more than any other species — seem to be planted without any thought for the long-term effect or consideration of the landscape

as a whole. Or, perhaps, they just command more attention. Their formal, conical profile can dominate a small landscape. The fact is that spruces can be too much of a good thing in many residential landscapes.

That doesn't mean that you must avoid using spruce in these landscapes. The colors of a blue spruce or the form of a healthy Norway spruce is beautiful, adding texture and scale to a landscape —

where they have room to grow.

For instance, just down the street from the *Landscape Management* offices is a new two-story home recently "professionally" landscaped with no less than five 8- to 10-foot Colorado blue spruces, plus a number of flowering trees and assorted shrubs. Considering that the front lawn is about 50-feet across, I am amazed that so many plants could be squeezed into a single small landscape. And, while it looks nice (but busy) now, what about a few years down the road?

Colorado blue spruce is a particularly over-used conifer in many landscapes. Granted, it's a nice tree but more often than not it seems poorly located and, many times, in poor condition. Even when planting just one blue spruce, finding a suitable location in the landscape can be a challenge. Its stiff, coarse form and blue color draw attention

from even the most well-designed landscape. In addition, this attractive tree has a variety of potential problems:

- It grows to 30 to 60 feet in height with a spread of 10 to 20 feet. It needs room, lots of room.

- It suffers stress in hot, dry, polluted conditions and subsequently declines and fails. It will grow in a wide range of zones (2 to 7), but shouldn't be planted just anywhere.

- It's prone to spruce gall aphid, which makes pineapple-shaped galls on the tips of the branches, reducing its attractiveness.

- It can suffer from *Cytospora* (sigh-toss-spora) canker. *Cytospora kunzei* is the most common and



The early stages of *Cytospora*. It will continue to move up the crown of the tree, severely reducing aesthetic value as well as tree health.

damaging disease of spruces in the landscape. This fungus attacks spruces stressed by drought, poor nutrition, mechanical injuries or other diseases. *Cytospora* canker girdles branches, usually starting from branches lower in the crown and moving upward, although it can occur further up in the tree as well. Each year, more branches are infected and die. There is no cure for this disease other than maintaining the health and vitality of the tree and pruning out the infected branches.

Spruces have their place but that place should be in large scale plantings, not squeezed into residential yards. These trees need space, so that their mature size does not overpower the landscape. **LM**

Too much tree for many landscapes



Nancy Stairs

NANCY STAIRS
Technical Editor

Agree/Disagree? Comments/Questions?
Column Suggestions? Let Nancy Stairs know
at 440/891-2623. Fax: 440/891-2675.
E-Mail: nstairs@advanstar.com



Lawn & Landscape Professionals Have Mow Fun In Louisville



Saturday, Sunday, Monday
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Kentucky Exposition Center

New for '99

- Concert Saturday night starring Crystal Gayle, Lee Ann Womack and Andy Childs
- Caesars casino river boat
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- Trucks of the Industry Giveaway — See inside!
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Crystal Gayle
in Concert
Saturday Night

Follow these easy steps to attend!

- 1 To avoid the \$25 on-site registration fee, please complete and return the attached registration form before July 19. Badges and tickets will be mailed to those who send in the form by June 14, 1999. If the form is received in the EXPO office after June 14, you may pick up your EXPO 99 badges and tickets at the Kentucky Exposition Center.
- 2 Photocopy the form as needed for additional registrations, and keep a photocopy of your registration for your files and tax records.
- 3 Children under 16 at EXPO 99 must be accompanied by an adult at all times. In the registration area, pick up a free badge for each child.
- 4 For hotel reservations, call the Louisville Convention and Visitors Bureau, Monday - Friday, 10:00 a.m. to 4:00 p.m., E.D.T., 800-743-3100. (In Kentucky or outside the U.S. call 502-561-3100.) An \$80 per room deposit, including a \$5 processing fee, is required for all reservations. Please have the following information ready when calling: name of tradeshow; arrival and departure dates; number of rooms required; type of room(s); number of people in party; your fax number if you want your confirmation faxed; credit card type, number expiration date, and name on card; address of home or office; and a daytime phone number with area code first. On or before June 28, all changes should be made directly with the Convention Bureau's housing department. After July 3, changes should be made directly with the hotel.
- 5 Send in the attached advance registration form for free entrance to exhibit halls. (\$25 registration fee per person at the show if you are not preregistered before July 19.)
- 6 For airline discounts, you or your travel agent can call:
 - Delta Air Lines, 800-241-6760 - Refer to file 123273A.
 - Southwest Airlines, 800-433-5368 - Refer to file T5579.
 - US Airways, 800-334-8644 - Refer to Gold File 43140898.



EXPO's first-ever Trucks of the Industry Giveaway

Nissan, Isuzu and GM Fleet Commercial will give away one truck each. See the new trucks on display in the South Wing lobby at the Kentucky Exposition Center during EXPO and visit the truck manufacturers' booths in the South Wing for details on how to enter.



You could be the lucky owner of a brand-new Nissan Frontier 4X2! GMC Fleet Commercial will be giving away the winner's choice: a Chevy Silverado or GMC Sierra.

1999 Isuzu NPR-Gas Model
109" Wheelbase
Automatic Transmission



Note: Photographs shown are for illustration only. Cabs/chassises and bodies to be given away will differ. Manufacturers reserve the right to make changes at any time, without notice, in prices, colors, materials, equipment, specifications and models and to discontinue models or equipment. Some vehicles are shown with optional equipment. Some equipment shown is dealer installed. Eligible participants only. See manufacturers for details.

EXPO 99 is sponsored by the Outdoor Power Equipment Institute, Inc. Check out the website at <http://expo.mow.org>. If you have questions about the show, contact Sellers Expositions, 800-558-8767 toll-free or 502-562-1962.

Registration Form

No Fee if You Register Before Monday, July 19!

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- 24 ☐ Equipment Rental Dealer
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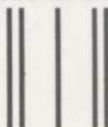
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Kubota Tractor offers two new 18-hp riders, one gas-powered, the other diesel. Mid-mount mower available in 48 or 54 inches.



Excel Industries continues to offer unmatched traction and stability with its new all-wheel-drive 3400. Hustler uses the easy-to-use H-bar steering system.



Encore's new 61-in. Powler Mid Cut is powered by a 22-hp, liquid-cooled Kawasaki. The unit rides on 24-in. Super Turf tires.

TEST DRIVE A RIDER

If you want maximum production from a new riding mower, take it for a spin before you open your wallet

By CURT HARLER/ Contributing Editor

Don't confine the idea of a test drive to trucks and cars. Any time you buy a riding mower for your operation, have a variety of workers — tall and short, male and female — take the mower for a test spin.

When Michael Rohlman, MR Service, Indianapolis, IN, went to buy a zero-radius turn riding mower, he tested equipment from a half-dozen manufacturers. About half of his crew is female, so ease of operation, all-around visibility and operator comfort were key buying points. "Price was not an issue," he says firmly. "I was willing to pay to get a quality machine."

The levers on a zero-radius mower are constantly in play, and ease of pushing became a prime concern. There were toggle models, between-legs and standard. The women did not like spring-loaded since they always had resistance and they found it fatiguing. The hydraulic buffer style, like a shock absorber, was the favorite since it did not keep coming back to neutral. Although fascinated by it at first, none of his crew liked the between-legs for long-term use.

He checked to be sure the unit's profile gave the operator excellent visibility all around from a seated position. He wanted to be sure the seat adjusted to everyone's size. Mower speed became a consideration. "Going 10 mph is the maximum realistic operating speed on grass," Rohlman says. Anything faster is good only for transport because machines bounce so much that quality of cut is affected. "Give an operator a machine that will go 13 mph and they will use the speed. But you end up with an inferior cut," he says.

Drop the mower deck to its lowest setting and see what its scalping potential is. Run it along some side hills and see how stable it is, especially if it will be pulling a cart for clippings. Rohlman says he twice has rolled a machine. "It's not a good feeling," he understates.

BUSH HOG 334/460-2595

www.bushhog.com

The new line of Zero Turn Mowers from Bush Hog get maximum machine performance from a choice of 18-, 22- and 25-hp Kohler Command air-cooled engines or a 22-hp Kawasaki water-cooled model. Mowers have infinitely variable speeds to 8 mph forward and 6 mph reverse. They come with choice of 48-, 54- or 60-in. deck widths, heavy duty gear boxes and four anti-scalp rollers. An exclusive torsion bar makes it easy to adjust deck height or to flip the deck 90 degrees with the lift bar.

Circle No. 250

DIXIE CHOPPER 800/233-7596

www.dixiechopper.com

The new D series offers the fuel economy and reliability of a Yanmar diesel engine combined with Dixie Chopper performance. Two models are available with either 26 hp and a 60- or 72-in. deck, or 50 hp and a 72- in. deck.

Circle No. 251

DIXON INDUSTRIES 800/264-6075

www.dixon-ztr.com

The Dixon 5022 zero-radius turn commercial mid-mount mower is powered by a 22-hp Kohler Command engine. It is available with 42-, 50- and 60-in. deck options with 1.5- to 4.5-in. cut heights. Weighing between



Dixon 5022 is easy on the turf.

615 to 685 lbs., it is easy on the turf. Its Hydro Gear hydrostatic transmission has separate fans and charge pump. Mulching, catching and snow blade accessories are available.

Circle No. 252

ENCORE

800/267-4255

www.encoreequipment.com

The new 61-inch Prowler Mid Cut from Encore has dual-path hydrostatic drive with larger, 21-series hydro pumps. The pumps prolong mower life and ensure quality cuts even in wet grass at a faster speed. Deck is 5.5 in. deep. Powered by a 22-hp, liquid-cooled Kawasaki, the mower rides on 24-in. Super Turf Tread tires at speeds up to 10 mph. The low-maintenance, one-inch, solid-steel blade spindle has no grease zerk.

Circle No. 253

EXCEL INDUSTRIES 316/327-4911

www.excelhustler.com

From Excel comes an all-wheel drive, front mount model: the 3400 Rear Steer 4x4. The combination of limited-slip differential and all-the-time 4-WD offers unmatched traction and stability. Like all 3000 models, this Hustler uses the easy-to-use H-Bar steering system.

Circle No. 254

EXMARK

402/223-4010

www.exmark.com

Get a lot of work done fast with the Lazer-Z from Exmark Mfg. Co. Unit comes with 60- or 72-in. deck sizes. Enhanced airflow baffles and powerful discharge delivers a precision cut even at high speeds and under tough conditions. Unit can be used to mulch, bag or discharge. Ground speeds to 9.5 mph forward and 6.0 in reverse increase productivity. Hydraulically dampened steering provides smooth control. Electric start, separate choke and throttle controls, hour meter and heavy-duty electric blade clutch are standard.

Circle No. 255

FERRIS INDUSTRIES 800/933-6175

www.ferrismowers.com

The new ProCut-Z from Ferris Industries is a zero-radius turn riding mower. Dual-point, floating front axle keeps all four wheels on the ground even on rough terrain. Independent suspension maximizes



Ferris unit with floating axle

operator comfort, traction and mower life. Powered by a 25-hp Kohler and kept running by twin 4-gallon fuel tanks, it offers independent left and right speed control levers, seat actuated engine kill, blade/clutch safety switch and neutral and parking brake safety circuit. The 52- or 61-in. decks adjust in quarter-inch increments from 1.5 to 5 inches. This is the unit Michael Rohlman's staff chose.

Circle No. 256

THE GRASSHOPPER CO. 316/345-8621

Looking for maximum reliability in the dirty, dusty conditions typical in off-highway mowing? The G2 700 Series zero-radius outfront mowers from Grasshopper are protected by a high-efficiency 7-micron absolute filter. The liquid-cooled diesel or gas engines reach forward speeds up to 8.5 mph. Cutting widths of 44, 48, 52, 61 and 72 in. are available. Quik-D-Tach mounting system adds attachments in minutes.

Circle No. 257

GRAVELY

800/472-8359

www.gravelly.com

Check out the all-gear, direct-drive transmissions on the Professional-G Series of riders from Gravelly. They all offer 8 forward and 4 reverse gears with instant change suited to any job. Both 50- and 60-in. decks are available. The 16G, 18G and 20G have Kohler Magnum 4-cycle twin-cylinder engines. The 16G Vanguard comes with a Briggs & Stratton Vanguard engine. Electric start and hydraulic attachment lift are standard on all.

Circle No. 258

GREAT DANE 812/246-8770

The zero-radius turn Surfer from Great Dane Power Equipment comes with 48-, 52- and 61-in. cutter decks. Cutting height is adjustable from 1.5 to 5.5 in. with adjustable height real wheels and caster wheels plus cutter blade spacers. Machine is powered by a 16-hp Vanguard, a 18-hp Kohler and Vanguard-B&S with electric start or a 22-hp Kohler electric start. Dual hydro-gear BDP-



Great Dane Surfer easy to ride

10L pumps, dual Parker/Ross wheel motors with tapered axles and twin horizontal levers for steering and travel control make it easy to run.

Circle No. 259

HECKENDORN EQUIPMENT 800/835-7805

"Instant Up" deck lift to clear obstructions and reduce damage to turf and machine is one of the nice features of the H36 from Heckendorn. Designed for tight mowing in places like cemeteries, this 36-in. mower is available with nine engine options from 10 to 16 hp and with electric or recoil start. Three-speed forward and reverse manual transmission allows speed to match cutting area. Chain drive is standard, and "quik-adjust" chain idler makes adjustments easy.

Circle No. 260

JACOBSEN-TEXTRON 888/922-TURF

www.jacobsen.textron.com

Cut a 92-in. swath with the new Jacobsen HR-4600 Turbo mower. With a 46-hp Kubota turbo diesel

cont. on page 58

In A Dark Shed At 5 a.m. All Line Trimmers Perform The Same



The Real Test Comes At Sunup

New John Deere XT-Series Trimmers are the ones to have your hands on when day breaks. Our seven new XTs are powered by high-performance M-Series engines with intake silencers and low-tone mufflers for quieter operation. *And power-to-weight ratios among the best in the industry.* By the way, our engines are also EPA and CARB compliant, something not all manufacturers can say.

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But the greatest thing about owning a John Deere is having access to the *best parts delivery system in the business.* In most cases, we can deliver emergency parts to your door in 24 hours or less.

Don't wait 'til dawn to see the light. Pick up a new XT Series Trimmer now. For the John Deere dealer nearest you, call 1-800-537-8233.

Or visit us online at www.deere.com.



cont. from page 56

powering the machine at 7.5 mph, an operator can mow 6.5 acres per hour. Unit is available with 2- or 4-wheel drive. Each of the three all-hydraulic mower decks features



Jacobsen-Textron turbo unit

twin 18-in. blades with cut heights from one to four inches. Grass is rear-discharged. Decks fold to 60-in. transport width. Accessories include 2-post ROPS, grass or leaf mulchers, sun canopy, light kit and cruise control.

Circle No. 261

JOHN DEERE

800/537-8233

www.deere.com

Check out the zero-turn radius F620 from John Deere. Its low center of gravity provides hillside stability and the 80-in. length gives maneuverability in tight areas. Deck flips 90 degrees for easy blade access. Front-mount mower gets under bushes and fences. Unit is powered by a 20-hp, overhead-valve, 4-cycle, gas engine. Cut widths of 48, 54 or 60 in. are available.

Circle No. 262

KUBOTA TRACTOR

888/4-KUBOTA

Two new models, the TG1860 and TG1860G from Kubota, come equipped with the company's liquid-cooled V-Twin 18-hp gas engine. The 1860 is diesel, the 1860G is gas powered. Both feature clutchless hydraulic transmission and a suspended mid-mount mower, available in either 48- or 54-in. width. Dial and gas-assist lift, operated from driver's seat, makes adjusting cut height easy. Optional attachments include grass catcher, front blade, snow blower and dethatcher.

Circle No. 263

LESCO

440/333-9250

www.lesco.com

Built to tractor specifications, the LCR2200 and LCR7400, feature two-pedal hydrostatic controls, visible outfront mowing deck and independent wheel brakes. The LCR2200 has a 22-hp diesel engine, two-wheel drive with differential lock and a 60-in. mowing deck with offset side discharge. The LCR7400 has a 27-hp diesel en-



Lesco LCR2200 and LCR7400 are built to tractor specs.

gine, automatic 4-VTD and a 60- or 72-in. offset side discharge cutting tunnel deck.

Circle No. 264

MTD PRO

877/MTD-PRO1

www.mtdproducts.com

The zero-turn MMZ is the flagship of the MTD Pro line. Mower deck features one-handed height adjustment from 1.5 to 5.5 in. Powered by a 25-hp Kohler, OHV V-twin engine, it has a 9 mph transport speed, 4.5 mph in reverse. Unit is just 78 in. long, so it takes up less room in trailers, while the big 10-gallon fuel tank means longer running times. Operator seat has 5-in. adjustment for comfortable operation.

Circle No. 265

SCAG POWER EQUIPMENT

920/387-0100

www.scag.com

Work long and fast with the Turf Tiger from Scag. Its 10-gallon fuel tank and 10-mph ground speed, combined with wide-track stance and 23-in. high traction tires makes work easy. Innovative shaft-drive cutter deck features 90-degree gear box system. Either 52- or 61-in.



The wide track Scag Turf Tiger

decks offer cut heights from 1 to 6 inches. All idler arms are spring-loaded for continuous belt adjustment and maximum life.

Circle No. 266

SIMPLICITY

414/377-5450

www.simplicitymfg.com

New this spring is the 24.5-hp, diesel model, Legacy garden tractor. The Briggs & Stratton DM950D, with fuel injection and 3-cylinder liquid cooled design, sits on a C-channel frame and rides above a heavy-duty cast-iron front axle. Free-floating shaft driven mower decks are available in 48- or 60-in. widths. Cut



Snapper's twin-stick steering

New for 1999 is a twin-stick model for the Pro Cruiser line from Snapper. The ZMT2500KA gives those who prefer twin-stick steering over a single joy-stick an option for zero-radius turn machines. With a 25-hp Kohler Pro Command engine, the unit has a ground speed up to 10 mph. Comes with a 52- or 61-in. mid-mount cutting deck. Also new for 1999 is an optional 6-cubic ft. grass catcher with belt drive fan assist assembly and single-lever lid release.

Circle No. 268



Free-floating mower decks offered for Simplicity Legacy tractor

height is electrically adjustable from 1 to 5 in. Unit can be fitted with any of 26 optional attachments, including rear PTO, plows and more.

Circle No. 267

SNAPPER

888/SNAPPER

www.snapper.com

THE TORO COMPANY

612/888-8801

www.toro.com

The Z-Master Compact Mid-Mount ZRT from Toro, is a smaller version of the Z-Master Z200 series. Unit zips along at speeds up to 8.1 mph (cutting 3.7 acres per hour),

cont. on page 60

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>LM REPORTS

cont. from page 54

yet has excellent side-hill stability. It is available with 44- and 52-in. decks. Recycler kits are available. Available with 17- and 19-hp Kawasaki or 20-hp Kohler Command Pro engines. Cutting height is

adjustable in 0.25-in. increments from 1 to 5 inches. Backed by a 1-year limited, 2-year engine and hydro system, and 3-year spindle assembly warranty.

Circle No. 269



Woods Equipment Mow'n Machine cuts without scalping.

WOODS EQUIPMENT

815/732-2141

www.woodsonline.com

The 6225 Mow'n Machine from Woods, is the latest in the company's line of zero-radius turn mowers. It comes with a 25-hp Kohler engine and an offset 48-, 52-, 61- or new 72-inch deck. Floating deck kit allows free movement over terrain while remaining parallel to the ground. This reduces scalping at higher ground speeds. Grass collection systems are available in 7.5- 15- and 25-cubic ft. models.

Circle No. 270

YAZOO/KEES

800/723-9496

www.yazookees.com

New for 1999, the Mini-Max from Yazoo/Kees, is a smaller version of the standard ZT Max. It has the same zero-radius turn, 10-gallon



Yazoo/Kees Mini-Max is new.

fuel capacity, dampered steering control, state-of-the-art hydraulics and warranty as its big brother. But it is built for narrower cutting widths and tighter budgets. ZT Max offers 1.5- to 5-in. cutting heights with on-the-go adjustment.

Circle No. 271



\$3,750

"...over 250,000 sq. ft.
every day and
I LOVE MY JOB
because of this
Ride-on
Sprayer-Spreader!"

Rob McCoy, Lawn Tech
Custom Care, Chadds Ford, PA

FREE VIDEO 800.346.2001
Mfg. by Perma-Green Supreme

Circle 128



A World With Trees...where it's a pleasure to live, every day

**Trees
Make a World
of Difference™**

Trees make a world of difference.
Between sand and dirt, and shaded parks for baseball, picnics, and

quiet walks. Between steamy, sunbaked streets, and friendly, shady neighborhoods.

Trees are cool. Trees help conserve energy, give wildlife a home, and increase property values. They also clean the air we breathe, hold the topsoil and keep rivers running clear.



A World Without Trees

Support Tree City USA where you live. For your free booklet, write: Tree City USA, The National Arbor Day Foundation, Nebraska City, NE 68410.



TREE CITY USA

**The National
Arbor Day Foundation**

Events

JULY

1 Deadline: ALCA Landscape Contribution Awards 800/395-2522; www.alca.org

12-14 Western Nursery & Garden Expo Harvey's Casino Resort, South Lake Tahoe, NV; 800/748-6214; www.can-online.org

19-20 PLCAA Legislative Day on the Hill & Arlington Renewal and Remembrance Project Holiday Inn Capitol, Washington, DC; 800/458-3466; www.plcaa.org

20-23 Turfgrass Producers International Summer Convention & Field Days

East Lansing Holiday Inn, MI; 847/705-9898; www.turfgrassod.org

23-25 Masters in Management for the Landscape Industry Seminar Hilton Chicago O'Hare Airport; 800/395-2522; www.alca.org

24-26 International Lawn, Garden & Power Equipment Expo Kentucky Exposition Center, Louisville, KY; 502/562-1962; <http://EXPO.mow.org>

24-27 American Nursery & Landscape Convention Philadelphia, PA; 202/789-2900; www.anla.com

25-31 Perennial Plant Symposium & Trade

Show Lansing Convention Center, MI; 614/771-8431; www.perennialplant.org

27 Midwest Regional Turf Field Day West Lafayette, IN; 765/494-8039; www.purdue.edu

27-29 Penn Allied Nursery Trade Show Expo Center, Fort Washington, PA; 717/238-1673; www.pantshow.com

AUGUST

1-4 International Society of Arboriculture Conference Stamford, CT; 217/355-9411; www.ag.uiuc.edu/~isa

6 Deadline: Landscape Management & PGMS Professional Grounds Management Awards 410/584-9754; www.pgms.org

6-8 TAN-MISSLARK Nursery, Garden, Landscape Supply Show Houston, TX; 800/880-0343; www.growzone.com

7-9 Southern Nursery Assn. World Showcase of Horticulture Georgia World Congress Center, Atlanta, GA; 770/973-9026; www.sna.com

8-11 Soil & Water Conservation Society Annual Conference Biloxi, MS; 515/289-2331; www.swcs.org


9-12 Florida Turfgrass Association Conference & Show University of Florida, Gainesville, FL; 800/822-6721

10-13 Florida Turfgrass Association Conference & Trade Show Gainesville, FL; 800/882-6721

No Matter Where You Grow Turf and Ornamentals, VW&R Would Like to be Your Supplier.

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Seeder for tight situations

Brillion has the Turfmaker Junior seeder, ideal for tight seeding conditions. The seeder is available in 4- and 6-ft. seeding widths but high volume capacity hasn't been lost. The 4-ft. seeder has a 7 bushel hopper capacity and 11 high-rate seed metering cups while the 6-ft. can hold 11 bushels with 17 seeding cups. The Junior seeders are equipped with a speed-up kit for fast and easy seeding rate changes in the field. Optional features include: an electric acremeter and a loader support bracket.

For more information call 800/409-9749, www.brillionfarmeq.com or

Circle No. 272



Prepackaged pumping systems

The Floboy S and D Series, from Flowtronics PSI, feature "plug it in and pump it out" engineering. The S Series range



from 2 to 30 hp with flow rates of 10 to 250 GPM. The D Series are available in 2 to 10 hp with flows of 10 to 210 GPM. Features include: advanced lightning and surge protection; solid state overload module; and standardized piping and valve sizes.

For more information call 614/262-1443 or

Circle No. 275

Ornamental fungicide

Heritage® fungicide, from Zeneca, has been approved for disease control for ornamental plants. This product can now be used for golf course turf, sod farms, lawn care and sports turf. Heritage has a high level of fungicidal activity, a low toxicological profile and a reduced risk environmental profile. It provides control of *Rhizoctonia*, anthracnose, downy mildew, *Alternaria*, *Phomopsis*, powdery mildew, rusts and other pathogens.

For more information contact Zeneca Professional Products at 302/886-4224, www.zenecaprofprod.com or

Circle No. 273

Promote durable turf

Fieldchoice® and Greenchoice® soil amendments, from Premier Environmental Products of Houston, TX, can be used in new construction or as a topdressing using standard aerification equipment. Percolation, moisture and nutrient retention rates are improved.

For more information call 800/829-0215, fax 409/885-7959 or

Circle No. 274

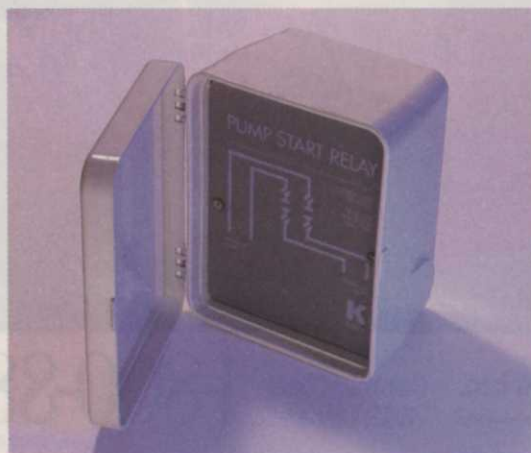


Pump start relays

K-Rain offers five versatile, reliable pump controls in the 1500 series. Features range from rain-tight, secure, rustproof enclosures to large, easy-access enclosures. The shockproof enclosure with safety cover deters vandalism. Models are available that operate 2- to 7.5-hp pumps.

For more information call 561/844-1002, www.k-rain.com or

Circle No. 276



LANDSCAPE management

June 1999

This card is void after August 15, 1999

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Signature: _____ Date: _____

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Fill in ovals as shown: ●

1. My primary business at this location is: (fill in ONE only)

CONTRACTORS/SERVICE COMPANIES

- 02 ☐ 255 Landscape Contractors (installation and maintenance)
 03 ☐ 260 Lawn Care Service Companies
 04 ☐ 265 Custom Chemical Applicators
 05 ☐ 270 Tree Service Companies/Arborists
 06 ☐ 275 Landscape Architects
 07 ☐ 280 Land Reclamation and Erosion Control
 08 ☐ 285 Irrigation Contractors
☐ Other Contractors/Service Companies (please specify) _____

INSTITUTIONAL FACILITIES

- 09 ☐ 290 Sports Complexes
 10 ☐ 295 Parks
 11 ☐ 300 Right-of-Way Maintenance for Highways, Railroads or Utilities
 12 ☐ 305 Schools, Colleges, Universities
 13 ☐ 310 Industrial or Office Parks/Plants
 14 ☐ 315 Shopping Centers, Plazas or Malls
 15 ☐ 320 Private/Public Estates or Museums
 16 ☐ 325 Condominiums/Apartments/Housing Developments/Hotels/Resorts
 17 ☐ 330 Cemeteries/Memorial Gardens
 18 ☐ 335 Hospitals/Health Care Institutions
 19 ☐ 340 Military Installations or Prisons
 20 ☐ 345 Airports
 21 ☐ 350 Multiple Government/Municipal Facilities
☐ Other Groundscare (please specify) _____

SUPPLIERS AND CONSULTANTS

- 22 ☐ 355 Extension Agents/Consultants for Horticulture
 23 ☐ 360 Sod Growers, Turf Seed Growers & Nurseries
 24 ☐ 365 Dealers, Distributors, Formulators & Brokers
 25 ☐ 370 Manufacturers
☐ Other (please specify) _____

2. Which of the following best describes your title? (fill in ONE only)

- 26 ☐ 10 **Executive/Administrator** - President, Owner, Partner, Director, General Manager, Chairman of the Board, Purchasing Agent, Director of Physical Plant
 27 ☐ 20 **Manager/Superintendent** - Arborist, Architect, Landscape/Grounds Manager, Superintendent, Foreman, Supervisor
 28 ☐ 30 **Government Official** - Government Commissioner, Agent, Other Government Official
 29 ☐ 40 **Specialist** - Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist
 30 ☐ 50 **Other Titled and Non-Titled Personnel** (please specify) _____

3. SERVICES PERFORMED (fill in ALL that apply)

- 40 ☐ A Mowing 45 ☐ F Turf Fertilization 50 ☐ K Paving, Deck & Patio Installation
 41 ☐ B Turf Insect Control 46 ☐ G Turf Disease Control 51 ☐ L Pond/Lake Care
 42 ☐ C Tree Care 47 ☐ H Ornamental Care 52 ☐ M Landscape Installation
 43 ☐ D Turf Aeration 48 ☐ I Landscape Design 53 ☐ N Snow Removal
 44 ☐ E Irrigation Services 49 ☐ J Turf Weed Control 54 ☐ O Other (please specify) _____

4a. Do you specify, purchase or influence the selection of landscape products?

75 ☐ Yes 76 ☐ No

4b. If yes, check which products you buy or specify: (fill in ALL that apply)

- 55 ☐ 1 Aerators 62 ☐ 8 Herbicides 69 ☐ 15 Sweepers
 56 ☐ 2 Blowers 63 ☐ 9 Insecticides 70 ☐ 16 Tractors
 57 ☐ 3 Chain Saws 64 ☐ 10 Line Trimmers 71 ☐ 17 Truck Trailers/Attachments
 58 ☐ 4 Chipper-Shredders 65 ☐ 11 Mowers 72 ☐ 18 Trucks
 59 ☐ 5 De-icers 66 ☐ 12 Snow Removal Equipment 73 ☐ 19 Turfseed
 60 ☐ 6 Fertilizers 67 ☐ 13 Sprayers 74 ☐ 20 Utility Vehicles
 61 ☐ 7 Fungicides 68 ☐ 14 Spreaders

5. Do you have Internet Access? 77 ☐ A Yes 78 ☐ B No

5a. If so, how often do you use it?

79 ☐ A Daily 80 ☐ B Weekly 81 ☐ C Monthly 82 ☐ D Occasionally

101	113	125	137	149	161	173	185	197	209	221	233	245	257	269	281	293	305
102	114	126	138	150	162	174	186	198	210	222	234	246	258	270	282	294	306
103	115	127	139	151	163	175	187	199	211	223	235	247	259	271	283	295	307
104	116	128	140	152	164	176	188	200	212	224	236	248	260	272	284	296	308
105	117	129	141	153	165	177	189	201	213	225	237	249	261	273	285	297	309
106	118	130	142	154	166	178	190	202	214	226	238	250	262	274	286	298	310
107	119	131	143	155	167	179	191	203	215	227	239	251	263	275	287	299	311
108	120	132	144	156	168	180	192	204	216	228	240	252	264	276	288	300	312
109	121	133	145	157	169	181	193	205	217	229	241	253	265	277	289	301	313
110	122	134	146	158	170	182	194	206	218	230	242	254	266	278	290	302	314
111	123	135	147	159	171	183	195	207	219	231	243	255	267	279	291	303	315
112	124	136	148	160	172	184	196	208	220	232	244	256	268	280	292	304	316

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LANDSCAPE management

June 1999

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111	123	135	147	159	171	183	195	207	219	231	243	255	267	279	291	303	315
112	124	136	148	160	172	184	196	208	220	232	244	256	268	280	292	304	316

Improve soil structure

Profile Professional Soil Conditioners™ change soil structure by managing oxygen and water pore space. Clay Soil Conditioner™ for clay soils and Soil Conditioner™ for sandy and dry soils. The amendments are



made of a 100% natural blend of kiln-fired, porous ceramic chips and will not break down or require additional applications.

For more information call 800/207-6457 or

Circle No. 277

On-site repair kit from Hunter

The PGP-ATR replaces worn or broken pop-up impact sprinklers with a quiet, gear-driven mechanism. The kit features a special Hunter PGP replacement rotor, interchangeable nozzle rack, "bucket cover" ring and adjustment tool. The installer simply "threads out" the existing internal assembly and "threads in" the PGP-ATR. No tools or adapters are required.

For more information call 800/733-2823, www.HunterIndustries.com or

Circle No. 279



24-station controller from Irritrol

The Total Control Series of hybrid controllers has been expanded to include a 24-station model. Designed for commercial, light commercial and residential use, the controller offers programming flexibility with 16 start times, 7-day calendar, 365-day clock/calendar and the memory holds the schedule through power failures.

For more information call 800/634-8873 or

Circle No. 278

Weathermatic Weathermate™

The Weathermate is a dial-based, three-program controller with independent water budgeting by program and long-station timing for drip and micro-irrigation applications. Offered in 6-, 9- or 12-station indoor and outdoor models,



this controller is ideal for both residential and smaller commercial irrigation systems. Designed with the professional contractor in mind, the Weathermate controller has an optional easy-to-use two button remote control.

For more information call Weathermatic at 888/4 THE PRO or

Circle No. 280

Landscape design and quotation software

DynaScope™ allows you to make quick and accurate landscape designs with automated and accurate quotation output capability. From Ditek Software Corp., this CAD software is appropriate for design/build contractors, landscape designers, urban designers, garden centers, pool companies and landscape architects.

For more information call 888/236-7991, www.ditek.com or

Circle No. 281

Ultra simple controller

The TeeJet® 834 electronic controller can be programmed quickly and easily. The 834 is designed for operators who want the precision of computerized rate control without the complexity. The controller is available in a kit that includes a five-switch console, pressure sensor, cables and brackets.

For more information contact Spraying Systems Co. at 630/665-5000, email at tjtech@spray.com or

Circle No. 282



SUPPLIERS CORNER

American Cyanamid named John Thomas senior sales manager and Kyle Miller senior technical specialist for the Professional Turf and Ornamental Products Group. Blair Morgan is territory representative in FL. Roger Bechle is sales team leader for Turf, Ornamental and Pest Control Products and Gary Curl is business director.

American Rubber Technologies Inc., patent holder for Rebound soil amendment, has two new distributors: Atlos Rubber Company in CA and Quest Sales & Marketing Solutions in Muncie, IN.

Atlantic Seedsmen's Association honored Dr. Gerald Pepin as 1998 Seedsman of the Year and Robert Wetsel, of Wetsel Seed Co., as an honorary lifetime member.

Four managers joined **Brush Hog Turf's** commercial turf

and golf course equipment business: Turf Managers Ron Covell, Eastern Region; Kent Howerton, Central Region; Jordy Smith, Western; and Don Cotton, Turf Products Manager.

Bill Shea, **Ferris Industries'** vice president of sales and marketing, has been elected to the Associate/Affiliate Board of Directors for the Outdoor Power Equipment Distributors Association (OPEDA).

Thomas J. Tootle has joined **Irritrol Systems** as district sales manager for the southeast U.S. and FL panhandle. Michael Smith is sales manager for the San Francisco Bay area and northern Sacramento Valley. Joe Keteltas has been named district sales manager for the northeast U.S.

Ken Quandt is the new regional sales manager for **Na-**

ture Safe Natural & Organic Fertilizers. Quandt will be in charge of the West, Southwest and Northern Midwest regions.

MACH2 Turf Insecticide, from **RohMid LLC**, is available for formulations with fertilizer for the 1999 application season. Three companies will offer the new combinations: **Knox Fertilizer Company Inc.**, Knox, IN; **Lesco Inc.**, Rocky River, OH; and **Lange-Stegmann Company**, St. Louis, MO.

Ronald Ostrander and Terry Johnson have joined **Van Waters & Rogers Inc.** Profes-



Ronald Ostrander



Terry Johnson

sional Products & Services (PP&S) business unit as turf and landscape specialists. Jim Wat-



son has been promoted to the newly created position of corporate accounts manager — PP&S and Tony Smith is director of the materials planning unit — PP&S.

The "Clear Choice Trade-In Program" from **Tanaka** gives users a 10% discount toward any PureFire™ low emission product when they bring in polluting handheld equipment. Tanaka has six CARB Tier II certified, 2-stroke products: 40-cc grasstrimmer and brush-cutter; 26-cc grass trimmer, pole hedge trimmer, pole-saw/pruner and portable edger. The program ends July 31, 1999. www.tanakapowerequipment.com

Michael Mason was named president and chief executive officer of **Weathermatic and Telsco Industries**. Weathermatic also named Brodie Bruner sales and marketing manager; Lloyd Darling plant manager to oversee the company's Garland, TX, facility; and Matthew Piper product and service manager.

Following their purchase of the Haul Master line, **Yazoo/Kees** has hired Bill Chestnut as director of product development for their newly created Utility Vehicle Division. www.yazookees.com

Info center

VIDEOS AND LITERATURE FOR THE GREEN INDUSTRY

WEBSITES GALORE ... It's spring and websites are springing up:

- www.independentsuspension.com, Ferris Industries
- www.protect-your-turf.com, Bayer Corporation Garden & Professional Care
- www.turfgrasssod.org, Turfgrass Producers International
- www.cyanamidspd.com, American Cyanamid
- www.bluebirdintl.com, Bluebird International Inc.
- www.alllighting.com, Architectural Landscape Lighting
- www.TurfGrassSod.Org, The Turf Resource Center

STANDARD SEED SPECIFICATIONS... for turf and forage grasses and legumes has been updated. The pamphlet contains current nomenclature and new seed types and is available from the Atlantic Seedsmen's Association, 298 McCormick Ave., State College, PA, 16801; phone/fax 814/237-0330.

QUICK GUIDE ... from Thomson Publications for 1999 "Insecticide, Herbicide, Fungicide Quick Guide" tells you what products to use and what they will control in the agricultural and horticultural field, for \$19.95. Call 559/435-2163.

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NEW PRODUCT!

MADE IN USA



Make the change to
Air Ride
it's worth it!

- Ride on airnever hard wheels
- Fatigue freesave your knees
- Quickly disconnectsuses 1 pin
- Adjustable hitchservice all operators
- Wide trackless lines
- Dual wheelsstable ride



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Los Angeles, CA

Circle No. 130



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"I bought my first hydromulching machine for price. But it's a toy compared to my new FINN HydroSeeder. I've easily doubled my production."

HydroSeeder for as little as \$149 a month. You'll soon know why the most successful contractors agree, "Nothing makes money like a FINN HydroSeeder." Call today.

No other machine compares to a FINN HydroSeeder for high production and long trouble-free service life. You'll get faster loading, better coverage, longer spray distance, and more reliable performance. You can get a real

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HydroSeeder®
Innovative Equipment Enhancing
the World's Landscape

1-800-543-7166

9281 LeSaint Drive, Fairfield, OH 45014
Fax: (513) 874-2914
www.finncorp.com

HydroSeeder® is a registered trademark
of FINN Corporation

Circle No. 109

GREEN INDUSTRY EXPO/99

THE NATIONAL EXPO FOR LAWN & LANDSCAPE PROFESSIONALS

**YOU'RE INVITED TO GIE's
10TH ANNIVERSARY
CELEBRATION**

November 13-16, 1999
Baltimore Convention Center
Baltimore, Maryland



Show Schedule

CONFERENCES

November 13 - 16, 1999

OUTDOOR EQUIPMENT DEMONSTRATION

November 14, 1999

TRADE SHOW

November 15 - 16, 1999

GIE SPONSORS

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Contractors of America
(800) 395-2522 • www.alca.org

PLCAA
Professional Lawn Care
Association of America
(800) 458-3466 • www.plcaa.org

PGMS
Professional Grounds
Management Society
(800) 609-7467 • www.pgms.org

*"The Cadillac
of networking
within the
industry."*

-GIE/98 Attendee

Circle No. 132

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WORLDWIDE
NETWORK**

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Call Travel Worldwide Network at (800) 631-9675 or visit them at www.travelworldwideweb.com

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- ☐ Send me information on exhibiting my products!
- ☐ Send me information on attending conferences & show!

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Company: _____

Address: _____

City/State/Zip: _____

Phone: (____) _____ Fax: (____) _____

Clip and send to:
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NEW! ♦ Visit GIE at www.gieonline.com

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1999 EMERALD AWARDS



ANNOUNCING: The Third Annual LANDSCAPE MANAGEMENT "Emerald Awards." LANDSCAPE MANAGEMENT magazine is offering a \$500 first prize to the winner of a random drawing to be held on July 1, 1999. Second prize is \$300 and third prize is \$200 in cash. To be eligible for the drawing, simply fill out the questionnaire at right and return it to our editorial offices.

Answers to the questions will determine our "1999 Emerald Awards" winners, to be revealed—along with the contest winner—in our August issue.

CONTEST REQUIREMENTS: Contestants must be owners or employees of landscape maintenance companies, lawn care companies or landscape contracting firms; or an athletic field manager or member of an athletic field maintenance crew; or manager or member of a facility landscape management crew. Product selections must be currently used by entrant. Employees of Advanstar Communications or their families not eligible.

All questions on this entry form must be completed, and all blanks filled. One entry per person. No more than five entries from any one employer will be allowed. Entry forms will appear in the February through June, 1999 issues of LANDSCAPE MANAGEMENT.

Completed questionnaires should be mailed to: Emerald Awards, LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. They must be received by noon, July 1, 1999.

A random drawing of all eligible entry forms will be held July 1, 1999. Winners will be notified within 24 hours.

OFFICIAL ENTRY FORM

QUESTION:

What is your favorite brand name of...

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plant growth regulator?	<input type="checkbox"/>
compact tractor?	<input type="checkbox"/>
turf aerator?	<input type="checkbox"/>
pick-up truck?	<input type="checkbox"/>
leaf blower?	<input type="checkbox"/>
line trimmer?	<input type="checkbox"/>
chain saw?	<input type="checkbox"/>
Kentucky bluegrass?	<input type="checkbox"/>
perennial ryegrass?	<input type="checkbox"/>
turf-type tall fescue?	<input type="checkbox"/>
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EMPLOYER:

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Grab Bag

Only driven by old ladies on weekends?

Pssst!, Hey buddy, how'd you like to buy a clean used Kubota tractor real cheap? Barely used.

If you hear this line, be suspicious, be real suspicious, says the Kubota Tractor Corporation.

Kubota recently won a landmark case which it hopes will stem the importation and sale of used "gray market" Kubota tractors into the United States. Kubota reported that an administrative law judge of the U.S. International Trade Commission (ITC) fined Gamut Imports, Inc., \$650,000 for violating a Cease and Desist order prohibiting Gamut's importation and sale of the tractors. It's expected the ruling will be reviewed by the ITC.

The used tractors in question were manufactured for use in Japan, and may not have safety features required in the United States, such as ROPs and PTO shields. Also, these tractors are not backed by a Kubota warranty, and it may be difficult to get parts and or service manuals for them, a spokesperson at Kubota tells LM.

How can you tell if that used tractor that you're considering buying is a grey market tractor?

Find the serial number plate (usually by the pedals near the operator's seat), write down the serial number and the model number of the tractor and take this information to an authorized Kubota dealer to see if it's a unit they can support, says Kubota.



Want to snaz up your front yard?

Mike Hebrard is a whiz at painting colorful logos on athletic fields, so when a friend asked him to paint a special design on his lawn, Mike gave it a try. Now his "lawn art" is a common sight in and around Portland, OR. Mike, owner of Athletic Field Design, Clackamas, OR, says some of the requests he gets for lawn art are, well . . . different.

Landscape spending rises in 1998

American homeowners spent a record \$16.8 billion for professional landscape/lawn care/tree services last year — a 32% increase in the average amount spent per household. The latest Gallup Survey results, sponsored by a consortium of green industry associations, noted that spending jumped \$2.2 billion in 1998.

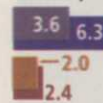
Landscape installation and construction activities had the largest growth, with a jump of \$2.7 billion in spending (a 48% rise in average amount per household). The survey was conducted by the American Nursery & Landscape Association, the International Society of Arboriculture, the Associated Landscape Contractors of America, the Professional Lawn Care Association of America, the National Arborist Association and the National Gardening Association.

Grab Bag features brief observations and prognostications throughout the green industry. If you have an unusual photo or comment you'd like to share with us, please send it in...

lawn/landscape maintenance



landscape installation/construction



landscape design



tree care



totals




Total amount spent (billions)

1997 \$
1998 \$

Number of Households Using Services (millions)

1997
1998



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