

Benefits LCOs Provide T Paid Holidays Sick Leave Paid Vacation Overtime pay Life Insurance Medical Coverage	58% 32 56 51 20 34
Dental Coverage Education/Training Retirement Plan LCOs Using Con	
Yes 161%	
LCOs Using Mobile Co	mmunications
Beepers	32%
Iwo-Way Radios	32
Cellular Telephones	12

LCOs Using "Natural" Products

1990 "State of the Industry" highlight. LCOs in the Northeast are on the cutting edge of the lawn application business, according to Lawn Care Industry's most recent survey. Slightly more than 1/4 of

the survey's 240 responses came from northeast states where LCOs pay more to attract employees, and where customer concerns over pesticide use are greatest.

McClure to direct PLCAA

ATLANTA, GA—Anne Mc-Clure will take the reins of the Professional Lawn Care Association of America on October 1.

PLCAA board members met her in August in a reception following a board meeting here. McClure replaces James A. Brooks, PLCAA executive vice president for the past seven years.

McClure, a graduate of Washington State University, Pullman, WA, had served as the executive administrator of the Irrigation Association. LCI

LAWN CARE INDUSTRY Serving the needs of the professional lawn care operator

VOLUME 14 NUMBER 9

AN HITTL PUBLICATION

SEPTEMBER 1990

PLCAA seminars

Promise too much and pay!

STURBRIDGE, MA—Lawn professionals promising too much are taking money out of their own pockets, says consultant Paul Skorupa.

That was one of the messages at the Professional Lawn Care Association's (PLCAA) traveling summer road show that concluded here in August after previous one-day stops in the Midwest and South. About 250 lawn pros took advantage of seminars aimed at showing LCOs how to reduce customer service calls (callbacks).

Service calls, those up and beyond the number contracted by clients, are a black hole in a lawn care company's bottom line, LCOs learned at the seminars. Apart from that, an unusually high number of callbacks indicates unacceptable customer dissatisfaction, probably because of flaws in a company's program. Skorupa reminded LCOs of the added cost of continually canvasing a market area for new customers to replace those that have

Sizzler.
Steak Seafood Salad
Steak Seafood Salad

DYED

switched their loyalty to a competitor because of either poor service or poor communication. Skorupa hammered away on the role of communication in keeping clients.

"Your technicians See PAY on page 7

48824-1048

3DG

INFO

Some LCOs now "coloring" lawns

BY LISA GITLIN

f your lawn looks like straw in the Mohave and no relief is in sight, what do you do? Call a professional to spray it green.

Homeowners anxious about the drought's effect on their property values are finding temporary solace from dyes and paints that turn brown grass green, usually for less than \$100 per 1,000 square feet, including labor. Some California lawn pros are offering this service and

they see no reason why LCOs elsewhere, particularly in the arid Southwest and in areas of prolonged drought, can't provide it too. Actually there's nothing new about coloring grass. It's been done for years on Hollywood movie sets and for televised football games and golf tournaments.

Lawn greening products are either paints, dyes and treatments, and are usually applied with a sprayer. Colors range from grass-green

See COLOR page 14





LOW CAB FORWARDS BACKED BY GM.

LCOs need definition for the word 'natural'

The energy within a single ocean wave is enormous but is spent in feathers of spray once the wave attempts an assault upon the shore.

Public opinion is a wave that can build into a tsunami. Some individuals prophesize such a tidal wave will swallow any LCO foolish enough to continue touting sythentic fertilizer and chemical control products. Across the face of this swell of public opinion, flashing in red neon, they proclaim, is the word NATURAL. This onrushing force will tumble the LCO, clothes dryer fashion over and over, before spitting him, broken, onto a sandy beach. It will crush his business as flat as a soda.

W ell, it just ain't gonna happen.

Sure, we're going to use more natural products. (*LCI*'s most recent "State of the Industry" survey says 30 percent of us already do.) We'll use them as part of our professional lawn services. We'll use them effectively and intelligently, once we figure out what natural lawn care is.

That's part of the problem. We don't know what the word natural really means as it's used in professional lawn care. Not even the gargantuan American food production industry agrees upon meanings for the word. In fact, U.S. legislators have debated including definitions for it (and particularly the word "organic") in the new Farm Bill.

Professional lawn care needs acceptable definitions too, and Dr. Eliot C. Roberts of The Lawn Institute has been giving the matter some serious thought. (He broke a leg late this spring, and he's had lots of time to reflect on matters agronomic.) He's shared his thoughts with the Professional Lawn Care Association of America (PLCAA), which is likely to begin talking more and more natural lawn care care.

The bigger issue, though, says Roberts, is proper plant health care. "We shouldn't be getting into the argument of whether a product's natural, organic or synthethic but whether it does the job. And to do that we have to understand how it affects the micro-organisms at a plant's root zone," says Roberts, who estimates 45 quadrillion of such tiny critters in every 1,000 square feet of healthy turfgrass.

In other words, LCOs must absorb as much

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agronomic knowledge as possible, focusing on the incredible biological activity taking place up to six inches below the soil's surface.

Roberts foresees a growing demand for so-called natural and organic products, including more acceptance by LCOs of biological activators and root-growth stimulators, particularly as they're proven to increase plant vigor. But

that's hardly any reason to abandon (or badmouth the companies that use) the fertilizers and control



RON HALL EDITOR

products the industry has used so safely and so well.

As Roberts sees it, no organic materials will magically cause a plant to develop immunity to pests or diseases. This is a part of a plant's genetic makeup.

"The lawn care people ought not to be afraid to use liquid fertilizer or pesticides, but they can use organic materials effectively too. I would say that where the homeowner can afford the organic and wants the organic, let's give it to them. But let's give up the old-time rhetoric about the advantages of organic over synthetic. That's just never been true," says Roberts.

Ron Hell

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Pennsylvania LCOs be advised that a Category 11 or a Category 16 license is required for pesticide applications to control deer ticks. Category 11 license: Household/Health-Related Pest Control. Category 16: Public Health-Invertebrate Pest Control. Certification in Category 07 Lawn and Turf doesn't qualify

for such health-related vector control applications, says the *Pesticide Newsletter* from the state's ag dept.

Mower injuries fell. A 38 percent drop in walk-behind mower injuries from 1983 (41,900 injuries) to 1989 (25,800), is due largely to industry-wide

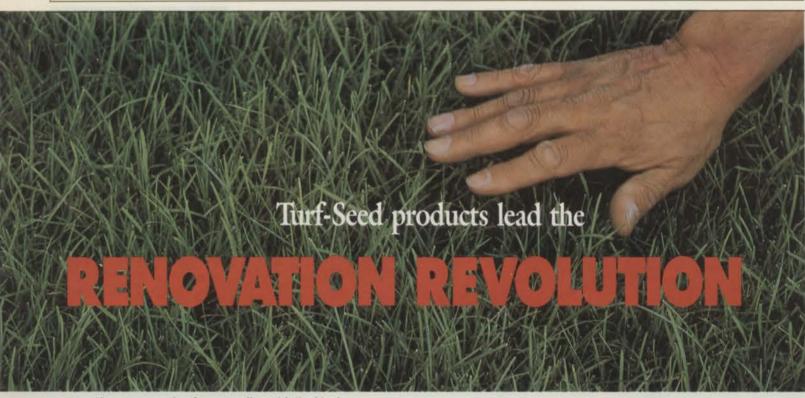
compliance with a 1982 federal standard requiring a mower's rotary blade to stop within three seconds after the operator releases its controls, says the U.S. Consumer Product Safety Commission. Injuries to operators of riding mowers remained constant, however.

Ciba-Geigy's Pennant herbicide is now labeled for use on southern turf species. Turf species on the new label are Bermudagrass, bahiagrass, St. Augustinegrass and centipedegrass. With the new label, the herbicide now can be used on golf courses, commercial lawns and sod farms.

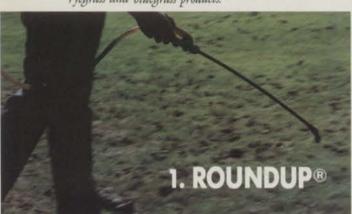
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\$30,000 to \$65,000. That's what you can expect to make if you have a B.S. in horticulture, landscaping or turf, says Money Magazine in its June, 1990 issue. The publication listed "horticultural professional" as a promising career in an expanding industry.



Home lawn two months after overseeding with Turf-Seed ryegrass and bluegrass products.







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Weed or friend? (I. to r.) Dr. Rich Cooper, U. of Massachusetts, tested attendees like Steve McDonough, Dave Sevigny, both of South Shore Lawn Consultants, Boston, on weed knowledge.

Hands

STURBRIDGE, MA-Weatherwise a perfect day. And LCOs from across New England spent a summer afternoon participating in a weed scavenger hunt, calibrating spreaders, and brushing up on their spraying technique.

Why is it important to have spreaders and sprayers in topfight condition: so they put out the right amount of material.

Applying the correct amount of material at the proper time provides agronomic, esthetic, and environmental benefits. It also saves money. Worn equipment puts out too much material.



Well-tuned sprayer reduces product waste. Mark Blais of Green Machine, Bloomfield, CT, tests sprayer. (I. to r.) Tom Foster, H.D. Hudson Co.; Rich O'Donnell, Tuff Turf; Rich Zito, Green Machine.

PBI/Gordon owner of PGR amidochlor

KANSAS CITY, MO-PBI/ Gordon Corporation developed a new tank-mix program combining Limit® grass growth regulator and Embark® 2S Plant Growth Regulator. (PBI/Gordon recently acquired ownership of amidochlor, active ingredient in Limit developed by the Monsanto Company.)

John Van Haften, director of research for PBI/Gordon, says combinations of different PGRs give longer control and seedhead suppression, and are safe to turf. Limit is taken up through the roots of plants while Embark is absorbed through a plant's foliage.

"Limit and Embark can be tank-mixed at rates that significantly reduce the amount of each product used and yet provide results combining the best features of both," claimed Van Haften.





ChemLawn Manager Chris Forth explains spill control procedures.

More runoff work is set

UNIVERSITY PARK, PA-The \$125,000 grant from the Pennsylvania Turfgrass Council will get good use, says Dr. Tom Watschke, Penn State.

PTC funds will support the Water Quality Research Center studying pesticide runoff home lawns, and the 10-acre Joseph Valentine Turfgrass Research Center will receive new equipment. Money will also fund work on bio-rational

Conditions good for outbreak of lawn problems from grubs

Be on the lookout for Japanese beetle grub damage in home lawns. It's not uncommon in some areas of the Midwest this season. Grubs can eat great amounts of grass roots and badly damage turf.

Dave Shetler, an insect specialist at The Ohio State University, says adult Japanese beetles eat plant leaves from mid-July to mid-August, then lay eggs in nearby lawns. The beetles prefer to lay eggs in thick turf because it has lots of roots for the grubs to eat. The

eggs hatch into grubs which feed on the roots, beginning in August in Ohio.

To check for grubs, use a spade to cut and lift a flap of lawn. The grubs will be white, c-shaped and almost a halfinch long. If a lawn has more than 10 grubs per square foot it will probably suffer visible damage, says Shetler. Granular materials containing Oftanol, Diazinon and Sevin are often used to kill grubs. Use these controls after the grubs hatch but before they destroy the lawn.

Experience and inspection will tell lawn professionals the best time to treat a grub infestation. That will probably be more accurate than the application dates on product labels.

To improve chances of control, apply a half-inch of water to the lawn immediately after treatment so the product gets down to the insect. (If at all possible water before application too.) Also, products will probably work better on recently dethatched or aerated



Wet weather in the Midwest this summer probably contributed to the grub problem, says Shetler, because the eggs of the Japanese beetle need moist soil to hatch.

As temperatures begin to drop in late summer and fall the grubs slow their feeding and retreat into deeper soil. In spring they begin moving up in the soil again-often feeding only sparingly-to emerge from lawns as beetles in summer, says Shetler.

Aeration manual revised

LINCOLN, NB—A 24-page manual on aeration and over-



seeding for LCOs is available from Cushman. This new, revised edition includes new university research concerning the benefits of aeration and overseeding with marketing and pricing info.

Free. Contact: Cushman, P.O. Box 82409, Lincoln, NB 68501. 800/228-4444. Ask for "The Dawn of a New Age in Lawn Care."

PAY

from page 1

shouldn't oversell your program," Skorupa of Pesticide Compliance and Training Services, Inc., North Kingstown, RI, said. Dialogue reduces callbacks and—this is important, said the consultant—allows LCOs to introduce new or additional services to clients.

Generally speaking, said Skorupa, LCOs don't receive many requests for service calls following the first or second chemical applications of the season, and those that do come in can usually be handled over the telephone. By the third round, however, calls for repeat service visits increase as weed and insect pressures build.

"Then we have to take a person out of production and we're deriving no income from that unit. That service call is costing us money," said Skorupa. How much? The consultant estimated about \$40 counting drive time, labor and materials. Goodbye to a goodly hunk of the profit from that particular account.

One way LCOs might reduce these service calls is to begin a "call ahead" program prior to an application round. He recounted how Old Fox Lawn Care (Skorupa formerly worked for the company) hired customer service reps to make evening calls to clients to remind them that their lawns would be serviced soon...and also to sell more services. He said it was successful. "We contacted a lot of customers that were about to give us a call and we'd ask 'we're planning to be out there in a week or 10 days anyway, can your problem wait that long?' and often they said yes."

Can't take anymore?

But, how many return calls are too many? A tough question, but an LCO can gauge and analysis service calls and it shouldn't be particularly difficult with the computers many LCOs already use. Records should be kept of when applications are done at each property, by who, materials used, weather, condition of the lawn, etc.

But perhaps the most obvious way to reduce additional service calls is to have trained, dedicated technicians. And make sure they do a good job on that initial application of the season, the one where pre-emergent herbicides are usually applied. Skorupa said poor weed control is probably the biggest reason for callbacks. LCI

LCA relocates

GAITHERSBURG, MD—The Landscape Contractors Association, MD-VA-DC, office: 9053 Shady Grove Court, Gaithersburg, MD 20877. LCI

Heritage Lawns servicemen know their routes well

Conn. firm asks technicians' help

FARMINGTON, CT—Heritage Lawns, Inc., reduces service calls by giving its technicians freedom to do the job right the first time. Or coming back and doing the job again.

In other words, when a Heritage service person gets a route, they get a route. The same truck. The same neighborhood. The same customers.

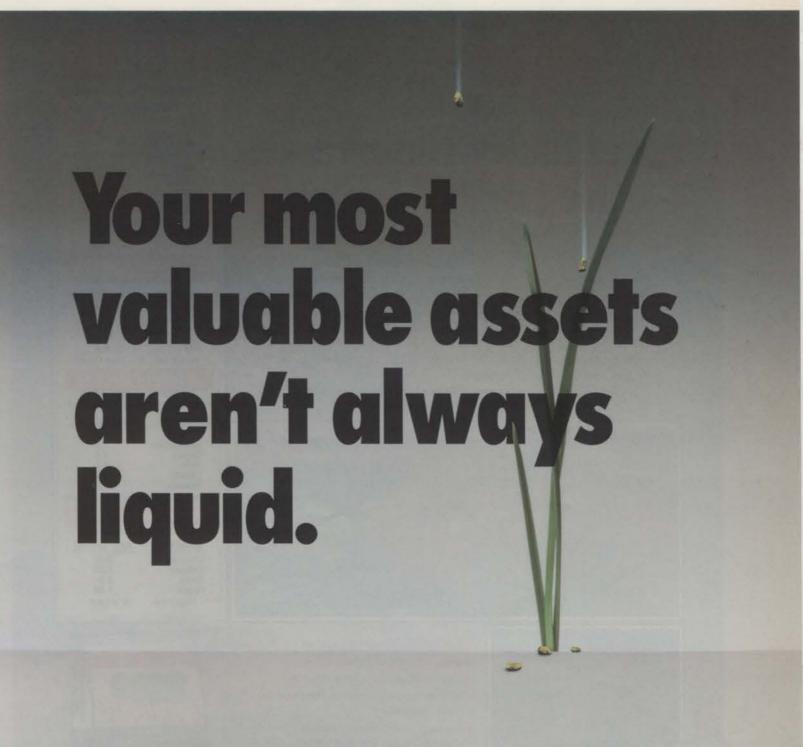
And, if they don't pay attention to what they're doing, callbacks to the same lawns.

When a serviceman makes a mistake, they usually end up paying for it, says James H. Leszuk who is co-owner along with Bob Horan of Heritage. How: that extra service call cuts into that technician's production time (he may have to work later that day) and, conceivably, into his take-home pay.

This sharing of responsibility is just one facet of Leszuk and Horan's from-the-bottom-up management style where the number one rule is the company's oft-repeated goal *Quality and Service Still Count*.

"What we're trying to set up is a self-policing and selfmanaging company," says Leszuk, almost admitting at the same time that "sometimes we have to pull in the reins."

The workload of Heritage technicians is respectable with each carrying as many as 450 customers, but the routes in the bedroom communities surrounding Hartford, CT, are tight. Indeed, Heritage service personnel eventually learn their routes and their customers as well as their own next door neighbors.



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Afterall, they probably had a hand in selling the accounts (using leads garnered from early-spring telemarketing campaigns). And, should any of these clients have a question or complaint, the call will probably be directed to their service person, not to management. Not the first call anyway.

Then it's up to the technician to either work the service call into a regularly scheduled application or catch it on their own. "Our servicemen can usually be working in the area of a service call within two days anyway," says Leszuk.

Not everyone can handle the responsibility Heritage gives its

service personnel. (There are 12 servicemen, including the owners.) "It's a little tough when we get a rookie," says Leszuk. "The poor guy, in those first six weeks, he's ready to quit. Then something snaps and he knows what he's doing. Actually we do some looking over their shoulders then anyway, but it still takes a pretty unique individual."

(Right) Heritage technicians establish their own routes, treatment schedules and respond to customer complaints. Co-owner Jim Leszuk, third from left, says servicemen can carry responsibility and still do quality work.



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Ciba-Geigy evaluating nematodes for turf use

GREENSBORO, NC-Ciba-Geigy is evaluating an insect control product containing the nematode Steinerema carpocapsae. The company's venture into biological pest control for turf and ornamentals is a result of a recent agreement with Biosys, Palo Alto, CA.

"Our objective with this agreement is to investigate all avenues for offering turf and ornamental professionals the broadest spectrum of chemical and biological insect control products," Scott Moffitt, CG's product manager, tells Lawn Care Industry magazine.

"We're viewing this as a long-term proposition. There's a lot of management questions that have to be answered yet, but we're optimistic."

Nematodes are microscopic organisms that seek out and kill many soil-inhabiting insect pests. The Biosys formulation can be applied with standard spray equipment, says information from Ciba-Geigy, and attacks cutworms and armyworms in turf, and black vine weevils, fungus gnats and white grubs on ornamental plants.

The product is being tested in various areas of the country, including several golf courses, says Moffitt.

CA fee hike?

SACRAMENTO, CA-California Sen. Ken Maddy (R-Fresno) seeks a 300 percent increase in the tax paid by manufacturers selling pesticides in that state. He proposed the tax be increased from 9 mills (nine-tenths of one cent) to 34 mills for fiscal year 1991. LCI

Beware of the real estate hazard of '90s: pollution

BY JACK PETREE

f you own business property, even an office building, the simple act of listing that property for sale can subject you to legal liabilities amounting to thousands or even millions of dollars.

If you purchase a piece of business property—whether an office, bare land, or a developed commercial property without taking precautions you also face potentially ruinous liabilities.

Worse, those liabilities never go away. They apply in most cases even if you didn't know about a problem, and they involve virtually every piece of commercial property in the United States.

This threat to your business future results from the environmental legislation and regulation passed over the past 25 years or so such as the Comprehensive Environmental Responsibility, Compensation, and Liability Act (CERCLA), Superfund Amendments and Reauthorization Act (SARA). and state acts like the Hazardous Waste Clean Up act passed by Washington State voters in 1988. Many of these state laws are more restrictive than federal law.

he rules set down by CERCLA and all the many other laws are pretty simple. If you buy contaminated real estate, or own contaminated real estate, you are liable for clean up costs even if you didn't contribute to the contamination or know it was present. Selling the property doesn't release you from liability.

Under Washington State's new law, for instance, a Potentially Liable Party (PLP) is

• the present owner or op-

erator of a facility or property,

 past owners or operators of a facility or property

 generators or transporters of hazardous substances who used the facility for disposal, and

• sellers of hazardous substances who are required to provide written instructions as to use, if the use constitutes a release for which cleanup is required.

urther, of the laws written affecting property transfers include a phrase stating that "Liable parties are jointly, severally, and strictly liable for all cleanup costs as well as for all natural resource damage resulting from the release."

This means that a single business can be forced to pay for the entire costs of a cleanup even if a large number of other parties were involved and the business paying for the cleanup had nothing to do with the original contamination. Lastly, the laws make no distinction between materials known to be hazardous wastes and those considered to be benign or beneficial at the time they were applied and only later declared hazardous.

Used motor oil is a common hazardous waste. As oil drips from cars parked on your parking lot, for instance, it puddles, then is washed by rain into surrounding soils, contaminating those soils. Cleanup of those soils can cost thousands of dollars. An old transformer on the property that's leaked can cost tens of thousands of dollars in cleanup costs. Even an old farm field may put you at risk because chemicals used for insect control in the '5Os and '60s are now considered hazardous chemicals reguiring cleanup.

As a purchaser of business property, you have only one defense in most cases. Most of the laws regarding hazardous waste cleanup allow a land owner to escape liability if he or she had "no reason to know" of any hazardous substance on the property. However, the innocent purchaser defense is only available under certain conditions. State of Washington law is typical, saying, "To establish that a person had no reason to know, the person must have undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property, consistent with good commercial or customary practice in an effort to minimize liability."

n essence, there is no way to prove innocence under the law without subjecting the property you wish to purchase to an environmental audit done by a professional. An environmental auditor analyzes the history of the property you're purchasing, checks water flows, wind patterns, historical events affecting the property, etc. to determine whether a piece of property is likely to be contaminated by an existing or potential hazardous waste. You can then negotiate with the landowner and environmental authorities so that the purchase becomes, as much as possible, a safe one for your business.

Listing property for sale is fraught with danger under existing environmental law too. You list your property, a potential buyer commissions an environmental audit, and a problem is found. How does that harm you? Here's how: most states require the results of an environmental audit be forwarded to the state's envi-

For Sale Designation of the same of the sa

ronmental department. Now your property is on the state's list of potential hazardous waste sites and a cleanup can be ordered whether or not you sell the property.

Appearing on the state's list of potential cleanup sites can dramatically reduce the value of your property. In fact, every city and town in the United States has property with a negative value because of recent legislation in that cleanup costs could exceed the value of the property.

If you are considering the purchase of property for business use it's imperative that you not buy until you've commissioned a complete environmental audit of the property and can be assured that the property is not subject to being listed as a potential hazardous waste site. Once you have purchased the property, you must take steps to assure the property is not contaminated in the future.

If a spill happens, you must take immediate steps to notify the proper authorities and do a recorded and approved clean up. A spill of toxic materials can be contained and cleaned easily soon after it happens but can cost tens of thousands of dollars to clean if it's left to contaminate ground water or migrate through soil.

f you already own property, there may not be much you can do aside from commissioning your own environmental audit and then negotiating with authorities for a cleanup. Often, if you bring information to the authorities in a good faith effort to mitigate problems you knew nothing about when you purchased your property, they will work with you to effect a cleanup that will cost a fraction of one they have to force on you. If you find that your property has been contaminated, work with your attorney in taking that information to the state.

Lastly, it's critical that big, medium, and small businesses begin to work hard for passage of reasonable laws that protect the environment without pillaging innocent businesses of their right to operate. LCI

About the Author

Jack Petree is a freelance writer living in Bellingham, WA.



This business closed down by local fire department because of underground pollution.



Brown patch: fungus, insects or drought?

An LCO's overview of the art/science of lawn diagnostics

BY CHRISTOPHER SANN

ou've just received a phone call from a long-time lawn care customer. She's complaining about "brown spots" in her lawn.

At first you think you can solve this problem over the phone. But the more questions you ask the more vague become her answers. The terminology you're so familiar with is confusing her. You soon realize you're not receivingthe information you need to diagnosis the grass ailment.

That's no problem; you'll just ask a technician on a nearby route to stop and check the lawn. So you get back to work thinking that the technician will take more time to drive out to your client's property than he will take to solve this great mystery. Right? Wrong!.

Your technician reports back that he can't decide what's causing the "brown spots". Now, it's up to you. As you drive out to your client's property, you know that there has to be one of three reasons for the "brown spots" on the lawn—fungus, insects or drought.

Does this sound familiar? How many times in the past three or four years has this happened to you? The answer is it's probably happening more often than it should. As the turf in your service area becomes more mature and as your client mix broadens, more of the lawns you service will surely be of questionable quality. That's one reason why complaints will increase.

ometimes when you get a phone call from a client complaining about the "brown spots" on their lawn, it's possible to ask a few questions, get some timely and specific information from the client and make an accurate diagnosis over the phone. Other times, you will have to visit that property if you want to keep the customer. Begin upgrading your problem lawn diagnostic skills now.

First, educate yourself on an ongoing basis by reading any literature that you can find. Subscribe to several trade magazines, send for product information from manufacturers and pick up any pamphlets that deal with the subject. Set aside time each year to attend any conferences or industry affairs that may provide you with information. Join and support your local organizations and attend their functions regularly.

Second, get the right equipment for the job—a soil sampling probe to check thatch and soil profiles, a 10X hand lens to check for insect nymphs or disease fruiting bodies or mycelium, and a good set of reference books or pamphlets that have good sample photographs of insect or disease damage. An excellent reference book is "Compendium of Turfgrass Diseases" by Richard Smiley.

Third, approach your work with an open mind. Don't decide ahead of time what the problem must be.

ourth, don't limit the number of possible causes. Ignoring low-probability causes such as an unusual insect pest or an obscure disease can be a mistake.

Finally, if you can't make an accurate diagnosis, don't fake it. Say you're not sure what's causing the problem but that you will make every effort to find out. Clients don't expect you to have all the answers and they will appreciate you taking the time to find out.

But what do you actually do when you get on that lawn?

Eliminate the easiest thing first-drought damage which occurs when the evaporation rate at the leaf surface exceeds the ability of the root structure to provide the plant with water. There are many reasons why this can happen, but the diagnosis is only half the job. You've got to find the reason for the damage. Use your soil sampling tube to pull several cores. If you have trouble getting the soil probe into the soil and the sample is very dry then you know that you're, at the very least, dealing with a localized dry spot maybe caused by buried rocks or a gravel layer just below the soil surface, reflected heat from buildings or next to driveways, heavy-surface rooting trees such maples or evergreen, restricted root structures caused by the layering of different soil types, or root-invaded dense thatch. Wetting agents and a good watering program will usually solve these problems, at least temporarily.

If drought is not the problem, investigate insect infestation next. Get down on your hands and knees and look at the edge of the damaged areas. Separate the grass leaf blades and look for anything that moves. In the case of chinch bugs, the adults and juveniles often are present at the same time so actively feeding chinch bugs can be as small as the head of a pin or as big as a fat grain of rice.

Examine live insects with your 10X hand lens. If you can't find any active insects, look down between the grass blades for evidence of frass or chewed grass blades that would indicate various worm activity. Some of today's turf insecticides are only marginally effective against the full spectrum of turf-damaging worms and a recent entomologist's report says there is more than several varieties of sod webworm out there. One variety has a life cycle that would make the usual application times for turf insecticides

ug at the leaf blades and see if they break off at the crown indicating billbug nymph activity. Grab a small area of turf with both hands and see if it comes up like a piece of carpet. If it does, examine the soil below for the presence of grubs.

Remember that billbugs and weevils as well as beetles have a turf-damaging grub stage.

If you cannot find any evidence of insect activity then you're probably dealing with one or more diseases. Properly diagnosing disease damage is not as hard as it seems at first glance. The key thing to remember is that there are two basic types, foliar-damaging and root-damaging.

The most common type of diseases are those that have easily identifiable foliar or leaf symptoms. Usually, light to moderate infestations of this type of turf disease doesn't cause major turf damage and can be treated correctively with good to excellent results. The list of foliar symptom diseases include:

 "Dollar spot" with it's distinctive hour-glass shaped leaf lesions and blighted white blade tips,

 "Drechslera leaf spot" with it's classic cigaretteburn-shaped leaf lesions and its heavily thinned out turf and yellow-orange color in advanced stages.

 "Rhizoctonia brown patch" with its brown shriveled leaf tips that form large circular patches when viewed from a distance,

• "Rust" with its obvious bright orange pustules on the middle of the leaf blade,

 "Red thread and pink patch" with their thread-like red mycelium that binds 4 or 5 leaf blades together at their tips and give the area a distinct red appearance,

 "Powdery mildew" with its light gray powdery coating on the leaf blades and a host of lesser known diseases that are more curiosities than major problems.

The second group of diseases are the root and crowndamaging diseases. This group is small, but the amount of damage that they do exceeds all of the damage of all the other diseases put together. This group should be dealt with on a preventive basis; attempts at curative treatment

lead to marginal success. Usually by the time you see the symptoms of these diseases there has been so much root damage the the plants either take months to recover or frequently don't recover at all. This group includes:

• Necrotic ring spot which is the main component of the so-called patch diseases. Researchers at Michigan State University said that as much as 80-85% of the patch diseases that they culture out is in fact necrotic ring spot. For shear volume it is the most prevalent disease that can be found on turf in this area and yet it's perhaps the most misdiagnosed.

 Pythium while thought to be primarily a problem of golf course turf is an unrecognized major component of the patch diseases.

here layering such as in old sod installations causes the top soil layer to stay saturated for long periods of time it's not uncommon to find four or five distinct episodes and summer patch whose time of appearance closely resemble what we used to call "fusarium blight syndrome." The severity of this disease increases when prolonged wet spells are followed by dry hot spells. Differentiating between the diseases in this group can be difficult especially since they very often occur on the same lawn at the same time and in the same place. If you suspect this type of disease, consider help from a testing lab or your local plant pathologist.

An aid in determining dis-



eases is the limited number of monoclonal antibody disease detection kits. The kits give both a positive reading for the specific disease tested with an optional meter to determine its intensity. Presently the number of diseases that can be detected is small but it's increasing. The kits are expensive so for now their use may be limited. If the cost comes down and the company can develop an inexpensive survey kit, then this technology may revolutionize the art of diagnosing diseases.

Detection kits or not, the art of deciding whether it's fungus, insects or drought will always require an open knowledgeable mind that takes nothing for granted and excludes things only when they have been disproved. LCI

About the Author

Christopher Sann is the owner/ operator of Complete Lawn Service. He's been a lawn care pro for 18 years.

VA company goes natural

CHEASPEAKE, VA—Harmony Products gears up to be a provider of "natural" fertilizer for the professional lawn care market.

"A lot of LCOs are real hungry for an excellent organic-based fertilizer," Mark Nuzum of Harmony tells Lawn Care Industry magazine. "Right now a lot of them are in a learning curve concerning agronomics and they're starting to discover how a product like ours will help them."

Nuzum says his company is working on a product that will be superior to both all-synthetic and all-natural fertilizers, and he expects criticism from both corners. "We're taking this approach because we think there are advantages to both sides," he says. "I'm sure it will be a challenge for us."

The aim of Harmony Products has been to develop a proprietary slow-release nitrogen with emphasis placed on environmental concerns. Research by the staff at Agri-Nutrients Technology Group, Disputanta, VA, led to the processing of organic materials. Initial research has been directed to the poultry industry because of the concentration of its wastes and the relative high value associated with them.

Nuzum has been a part of the effort since January 1989 with the formation of Nitrex specialty products division. In July 1989 Nitrex was sold to Arcadian Corporation, and in February 1990 the former Nitrex executive staff exercised its option to buy the specialty products division.

Test to measure effects of grassrecycling grows

KUTZTOWN, PA—The first season of a three-year test to study the return of grass clippings to turf was encouraging, reports Terry M. Schettini, Horticulture Coordinator of the Rodale Research Center.

Although he said it was "too early after only one cutting season to receive definitive data from the first soil core samples," he said that grass cut with the mulching mower had a "healthy appearance" with no clumps of grass or visible thatch buildup.

The tests are being held at the research center's 305-acre facility here. They will continue to be monitored through the 1991 growing season by Schettini and his research staff, and by Mike Ferrara, senior product/equipment editor for Organic Gardening, a monthly magazine published by Rodale Press, Inc.

Said Schettini, "we are expanding the program because the disposal of grass clippings has become a major environmental concern. LCI



Lofts' 14th Annual Field Day

Dr. Virginia Lehman, director of Lofts' new West Coast Research Center, discusses recent research in bentgrass breeding at the company's farm at Martinsville, NJ. This year registrants earned pesticide recertification credits at the field day. LCI

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COLOR

to yellow-green to blue-green. The products, diluted with water before application, will not revive drought-ravaged or dormant lawns but can make

them look healthy.

'Even lawn experts can't tell the difference," says Walter Barrows about his colortreated lawns. "They'll stay green until the roots grow out." Barrows, a Santa Barbara lawn care specialist, charges \$85 to coat 1,000 square feet of lawn with what he describes as an "environmentally safe vegetable dye," and \$30 per each additional 1,000 square feet.

arrows uses a commercial sprayer for large jobs and a Hudson



"Neighbors thought she was secretly watering her lawn."-Les Robin

sprayer for up to 1,000 square feet. He's been painting lawns for 30 years for churches, golf courses, weddings and football fields, but Santa Barbara's lawn-watering ban has produced a slew of requests for his service from homeowners. "It's a nice touch, but the real issue is that the city created this water shortage to control growth," Barrows says. "Can you imagine people our parents' age, in their 80s, out on their lawns with hand-held watering cans, and being watched by water police? That's what's happening. People are in mass hysteria. And a lot of them are saying, well, just paint it green."

Drought victims aren't the only homeowners who get their lawns colorized. For years, affluent homeowners have used lawn-greening products as an alternative to winter rye to cover brown patches and beautify their yards for weddings and bar mitzvahs. Now average homeowners are demanding color restoration for ailing lawns and some LCOs are responding.

Les Robin, owner of Oasis International, which offers a variety of lawn care and water conservation products in the Santa Barbara area, is working on a training program to educate professionals on lawn greening application, equipment maintenance, and product salesmanship. "Participants will be furnished with backpack sprayers and colorcoordinated worksuits," Robin explains.

ut lawn greening is not all fun and profit, and some LCOs won't do it. "I found it far too expensive compared to putting down winter rye," says Bob Cohen, president of Green Scene, a lawn care service in the San Fernando Valley. "You can get 10 pounds of winter rye seed at a total cost of \$2 and charge \$15 to \$20 for labor to treat 1,000 square feet. When you compare that with \$30 of lawn dying materials, the amount of time you have to spend and the risk of spraying peoples' walkways and driveways, it's just not practical."

Kenneth Doyle, owner of Ken's Lawn Doctor in Escondido, also quit coloring lawns. "The product I was using wasn't a satisfactory color," he says. "It was kind of a blue-

green, and it didn't look real enough. Also, it clogged my equipment. I was using a hand-held, two-gallon pumpsprayer which I also had been using for weed control." Doyle says that if he were back in the lawn-greening business he would use an airless. He warns, however, that what is gained in speed is lost in accuracy. Homeowners don't find green walkways and driveways attractive, he says.

Robin, however, claims few problems with lawn-coloring. Using Oasis Lawngreen, his own vegetable dye-based product, he says it takes about two hours to cover an averagesized lawn with a four-gallon backpack sprayer. He says one gallon of Lawngreen covers between 2,000 and 10,000 square feet, depending on the degree of discoloration and the height and texture of the grass. "One of my customers, a woman, got complaints in her mailbox from her neighbors who thought she was secretly watering her lawn," says Robin. "It was Oasis Lawngreen."

Robin says not all lawn-coloring agents are equally effective. "Some products look almost florescent. There's some pretty weird stuff out there, however, ours has a realistic color.

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But what exactly are these colorants?

im Harper, sales manager for Frazee Industries, a manufacturer of paint coatings, describes his product as a "vinyl-type dye." He says it will not wear off, leave a film, destroy grass or change its texture. "If you roll in grass that's been treated by lawn paint, as opposed to lawn dye, it may leave some sort of coating on your clothes," he says.

One of the more popular products, Permagreen, made by California Liquid Fertilizer Company, is described as a lawn paint. "Permagreen is similar in chemical formula to green vinyl paint." says Dan Inglish, telemarketing manager, product knowledge department. "I'm not familiar with the vegetable dye product." Inglish reports "a tremendous upswing" in Permagreen sales, and adds that calls are starting to come in from states such as Arizona and Florida.

The usual warnings apply to these products: keep out of childrens' reach; do not ingest; etc. But the experts say that once the product dries consumers may treat their lawns like any normal lawn.

Barrows says the products don't require EPA registration. "Football players have

"I found it far too expensive as compared to putting down winter rye."—Bob Cohen, Green Scene, San Fernando Valley

been rubbing their noses in it for years," he says. Nonetheless, many specialists and citizens are concerned about the possible repercussions of spraying lawns with coloring agents.

"One thing that bothers me is they don't say exactly what's in the product," says Hugh Gillespie, assistant manager at La Sumida Nursery in Santa Barbara. "There's no assurance that it's not bad for the groundsoil." But Gillespie's customers don't seem to share his misgivings. Sales of La Sumida's greening product have risen tenfold this spring and summer. "I've talked to several landscapers who are planning to go into the lawn greening business," Gillespie says. "There's money to be made."

Les Robin agrees that lawn

greening is potentially profitable. In fact, his Oasis International is marketing a lawn greening do-it-yourself kit to homeowners and businesses. The kit retails for \$59.95 and contains a Chapin one-gallon plastic sprayer, one gallon of lawn-greening material, a plastic pour spout, gloves and oil paper to cover areas adjacent to lawns. (Additional Lawngreen can be ordered, says Robin.)

The new coloring materials, he says, give everyone the ability to have green lawns year round rather than just seasonally. The real estate market likes it because it gives a property better curb appeal in the off season. LCOs can extend their business through the normally dormant periods by colorizing lawns.

"Imagine all the businesses, particularly restaurants with nice green lawns even through the fall and winter months," says Robin.

About the Author

Lisa Gitlin is a business journalist and freelance writer living in Cleveland Heights, Ohio.

Sandoz is readying herbicide, fungicide

DES PLAINES, IL—Sandoz Crop Protection Corporation is readying two new products for EPA approval—a preemergence herbicide called Barricade and a fungicide known so far as SAN 619.

Sandoz unveiled the two compounds at a series of product introduction seminars this summer. Barricade (prodiamine) is the most active of all the dinitroaniline herbicides, says Sandoz, meaning that less of it will be needed to get weed control. It will feature long residual control of grasses and broadleaf weeds and is expected to be registered for turf uses in 1991, says Mike Minford of Sandoz.

SAN 619 (cyproconazole) is yet to given a trade name. It's a systemic fungicide for golf courses and commercial growing establishments. Initially, not all turf diseases will be on the label, but a more extensive label will be developed. Sandoz says it will come in a watersoluble, pre-measured packet that covers one acre.

CA bills die

pending pesticide bills died here August 6. The California Assembly Agriculture Committee failed to approve them.

The bills would have outlawed chemicals "known to cause cancer" including those where the risk is tiny. LCI

LCI welcomes Langhenry

CLEVELAND, OHIO—Anne Langhenry joins Lawn Care Industry magazine as Central States Sales Manager. Anne is an experienced marketing professional with an extensive background in marketing, promotion and sales. She joins LCI from the Yumico Corporation, Waltham, MA, where she served as marketing and promotions manager.

She can be reached at 7500 Old Oak Boulevard, Cleveland, Ohio 44130. 216/891-2739. LCI



Langhenry

Here's how to breath life into cold-hurt turf

ATHENS, GA—Gil Landry and Ed Brown of the University of Georgia Cooperative Extension Service provide these tips for coaxing health back into cold-damaged centipedegrass and St. Augustinegrass turfs:

• Irrigate lightly and frequently to maintain good surface soil moisture until normal growth occurs, then gradually return to normal practices

• After greenup, fertilize with a complete fertilizer at the rate of 1 lb. N per 1000 sq. ft. per month (do not exceed 2 lbs. per year on centipedegrass).

• Mow slightly higher than normal and gradually return to normal mowing heights (1-1½ inches with centipedegrass).

• If thatch or elevated stolons are part of a problem, lightly topdress with weed-free topsoil or lightly dethatch or core aerate, and begin lowering to the recommended mowing height.

• If diseases are thought to be a problem, correctly diagnose before treating.

• Limit herbicide use.

Brown and Landry made these suggestions as a result of turf damage resulting from the December 1989 freeze and the particularly slow greenup in much of the Southeast in the spring of 1990. The tips appeared in the *Turfgrass Topics* newsletter. **LCI**

Feds are adding photos, talk to list

ATLANTA, GA—Add photographs and drawings to the growing list of "misleading" safety claims.

Tom Delaney of the Professional Lawn Care Association of America (PLCAA) said his recent meeting with the EPA and FTC didn't resolve much

about what LCOs can imply in advertising their services, but LCOs should steer clear of showing children or pets playing in a recently treated lawn. Also, he said lawn companies should be precise when making oral statements of pesticide safety. LCI



Anne McClure, new executive vice president of the Professional Lawn Care Association of America (PLCAA) confers with James A. Brooks who served PLCAA in that capacity for over seven years.

McClure is to join PLCAA in October.

PLCAA show '1 Day's Drive'

NASHVILLE, TN—Fact #1. Nashville is less than a day's drive for more than half of the nation's lawn professionals.

Fact #2. Nashville is the site of the Professional Lawn Care Association of America's 1990 education conference held in conjunction with the new Green Industry Expo.

Fact #3. PLCAA, through its "One Day's Drive" promotion, is determined to attract a record number of new attendees to the conference.

Registration for PLCAA Nashville '90 includes admission to The Green Industry Expo, PLCAA's 11th annual educational conference, and the large outdoor equipment demonstration. More than 200 exhibitors will be featured at the trade show.

For information on regis- 404/977-5222.

tration, travel, hotel and care rental arrangements for both events, call PLCAA at 404/977-5222.

Massey expands in Fla.; enters Leesburg, Eustis

orlando, fl—Massey Services, Inc., became an even larger player in the pest/termite prevention/lawn caremarkets in Florida.

Harvey L. Massey, president of the company, announced he bought Certified Pest Control, Leesburg, and Greyhound Exterminating,

Eustis, this summer. The two companies add about 4,000 new customers to Massey Services and push the Orlando-based firm to over 40,000 clients. The company has 11 service centers in Florida.

Massey's GreenUp Lawn Care Service is a part of Massey Services, Inc. LCI



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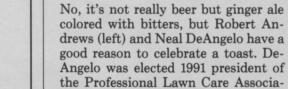
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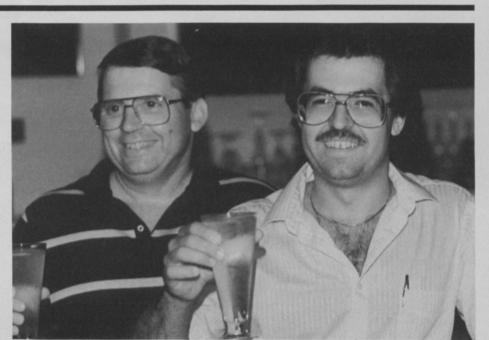
Americalist is a division of Haines & Co., Inc.—publisher of the Criss+Cross Directories since 1932.



tion and Andrews, president elect. Ac-

tually the two men posed for this

publicity photograph to kick-off a "SpeakEasy" drive to recruit new members to PLCAA during that association's 1990 educational conference November 12-15 in Nashville. Prospective new members (and former association members) will be invited to a special reception at the conference. LCI



PLCAA 'SpeakEasy' promotion

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NEWSMAKERS

Davey Tree president joins business council

R. Douglas Cowan, president of The Davey Tree Expert Company, Kent, Ohio, was elected a member of The Conference Board's Executive Council. The Executive Council was founded in1966. It con-

sists of chief executive officers of midsized companies who meet twice a year to discuss key business issues.



Cowan

Ron Gelvin became general manager at Southern Turf Nurseries' 500-acre Lake Wales, Florida, production farm. Gelvin has 25 years experience in agricultural management. The Lake Wales farm produces certified hybrid Bermudagrasses.

Southern Turf also appointed Bill Carraway as its sales manager in the Florida and Caribbean territory. Carraway spent the past year in the Atlanta territory. He has 15 years experience in landscape construction and main-

tenance.



Carraway

Gelvin

Fermenta ASC Corporation named Gerald J. Minore as its Products Business Manager. A chemical engineer, he's a 1979 graduate of the University of Delaware. Kurt A. Schwartau became Manager, Marketing and Planning. He now manages the worldwide marketing, communications and planning for Fermenta's ag and specialty chemicals business. Fermenta also appointed the following:

 David M. Ingram as Western Area Manager. He'll be in Fresno, CA.

· George N. Chism as Southern Area Manager, located in Atlanta.

• Brodie Blair as Area Sales Supervisor. He'll work from his home office in Ormstown, Quebec.

David A. Evans to General Manager, Europe/Africa/ Asia. He and his wife will live in Petts Wood in the United Kingdom.

• Sandra Spalding and Vivien Jones as International Assistants in the Petts Wood office in the United Kingdom.

Monsanto Lawn & Garden Business Unit appointed David D. Harper as its National Sales Director. Harper joined Monsanto in 1976. He

received a B.A. from Brown University and an M.B.A. in Finance and Marketing from the NorthwesternGraduate

School of Management. He lives in St. Louis with his wife, Susan, and two children.



Harper

Monsanto named Cheryl A. Sharpe as manager, public

relations and environmental affairs, in its Lawn and Garden Business Unit. She's a native of St. Louis. Sharpe will be in charge of that unit's new environmental education efforts. Monsanto also named Danna Doede as lawn & garden marketing supervisor and Keith McKay as area marketing supervisor for the business unit. Both had been regional marketing supervisors. New Monsanto marketing supervisors: Beth M. Haslam (Northwest), Darryl Brooks (Midcentral) and Kristine A. Ebershoff (Midwest). They began on July 1.



Dr. Walter Skroch, (right) of North Carolina State U., talks weed control with members of the BASF Specialty Business Group, created this summer for the turf, nursery and ornamentals markets. The group will manage sales BASF chemicals. BASF's Impact turf herbicide is being readied for registration.

Tee Time 1) / : VA! \ (1) \

A Better Educated Industry Helps Us All

effectively and intelligently are what will keep the lawn care industry dynamic and growing. That's why LAWN CARE INDUSTRY magazine, the first to publish in the lawn care field, has made a \$50,000 commitment. to the PLCAA Education and Research Fund. No other industry publication has dee education and research important enough to make this kind of commitment. But then no other magazine was founded exclusively for the lawn care operator. The other publications have their interests. We have ours...you

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To sell IPM, convince clients of extra value

BY DUANE MOLL

You're thinking of offering an Integrated Pest Management (IPM) service and you're concerned about your customers' reactions to it.

Will it provide the service they need? Will it meet their expectations? What are their expectations?

You've taken a wise first step. You're investigating your market area's perceptions about IPM. Your IPM success depends on how well people understand what they're buying because it's different from what they're used

Also, you've doubtless discovered that customers cancel services for many reasons. Even when your service is good. Often they cancel because they perceived they were going to get something else. That's just one reason why customer education is so vital in IPM-as it's always been in quality landscape services.

Customer expectations?

Why not survey an area,

send out questionnaires or telephone some of your customers? Focus groups also allow you to get "close" to the customer. (I particularly like written surveys. They allow the customer to give some thought to the questions and provide more detailed information.)

Cost is another consideration. IPM costs a company more to provide than does conventional landscape care, and that cost must be passed on to the consumer. But, people who say they'll pay higher prices to "save the planet" sometimes hum a different tune when it comes to paying more to care for their yard, particularly if they don't perceive a greater value received for the increased dollars spent. That's why we market the features in our IPM services that give increased value. These 'value added" features must be regularly reinforced to the customer. Newletters. Informational/educational materials. Extra customer contact. Remember, your technicians are your best public relations

Another concern involves the work actually done in the yard. Inspection of plant material is a major function of IPM and accounts for the largest reduction in pesticide use. In fact, properties often need no treatment after an inspection. A customer might

IPM marketing at a glance

Remember, customer expectations of your service will increase if they purchase an IPM program. It will become more important than ever before to educate the consumer regarding what that service provides and how it will be provided. Customers should be told upfront what chemicals, materials and methods will be used and what the results they can expect from them. It may sound like a tall order but some companies have shown that it is defintely possible. It can be done in a variety of ways, limited only by your imagination, and your customers will appreciate the efforts you make in helping them understand their yard.

ask, "Why should I pay for someone to look at my property and possibly do nothing else? I can do the same thing for myself for free." Remember: perceived value for the dollar. In this case the customer sees no special ability or training needed to properly inspect a property. You must show the client that there's more to an inspection than giving a cursory look at the yard. The client must see the skill needed to keep a yard healthy. But, unless it's part of your program, be careful not leave the impression that your company's going to do a complete lawn analysis each visit.

No silver bullets

The public is used to the "silver bullet" approach.
When a problem develops with their yard they expect that an application of something (the "silver bullet") will cure the problem. Because of this attitude, it's more difficult to sell a fertilization and/or pruning of a tree (often higher priced items) along with, or instead of, a pesticide application. This is where customer education comes in again. If the client really wants to use fewer pesticides he needs to understand something about plant health. This doesn't mean that he has to know everything about plant health (That's why he hired you.), but the client should understand the basics-watering, mowing, etc.

PROFESSIONAL LAWN CARE **ASSOCIATION OF AMERICA**

11th ANNUAL EDUCATION CONFERENCE, NASHVILLE, NOV.

All roads lead to Nashville this November! That's where lawn care professionals will gather for PLCAA/Nashville '90, sponsored by the Professional Lawn Care Association of America, the official national organization of the lawn care industry.



'PRACTICAL **BUSINESS SOLUTIONS** FOR THE 90'S' IS **CONFERENCE THEME**

'Practical business solutions for the 90's' is the theme for PLCAA's 11th Annual Conference, Nashville, November 12-15. Given in conjunction with the GREEN INDUSTRY EXPO/90 trade show, PLCAA's 3-day educational program will focus on:

- ✓ PRACTICAL PROB-LEMS AND ISSUES that face the lawn care professional weekly and daily.
- ✓ BUSINESS DECISIONS needed to enhance growth and profitability in today's marketplace.
- ✓ SOLUTIONS AND APPROACHES shared from experiences by fellow lawn care and landscape professionals from across the nation.
- ✓ 90's AS THE DECADE OF CHANGE in business practices, technology, and regulatory requirements.

GREEN INDUSTRY EXPO/90 OFFERS ATTENDEES MORE THAN EVER BEFORE

GREEN INDUSTRY EXPO/90, the new block-buster trade show co-sponsored by PLCAA, ALCA, & PGMS, offers the largest array of lawn care and landscape products, equipment, and services ever assembled for lawn care professionals.

This premier industry 'supermarket' provides:

- ✓ Over 200 companies exhibiting the latest products, services, and technology.
- ✓ 10 hours devoted exclusively to 'shopping' the trade show floor.
- ✓ 4 additional hours of 'hands on' outdoor demonstrations to test and make equipment performance comparisons.
- Product presentations that will focus on what's REALLY new and innovative in the lawn and landscape market.

LEBOEUF ON 'HOW TO WIN CUSTOMERS AND KEEP THEM FOR LIFE'



Michael LeBoeuf, internationally known author, business consultant, and recognized expert on the topic of customer service will keynote the 11th Annual PLCAA/Nashville '90 Conference on Monday, November 12.

His topic, 'How to Win **Customers and Keep** Them For Life', outlines a practical strategy that's based on a simple but often overlooked message: the rewarded customer buys, tells others, and comes back.

TOP-NOTCH **FACULTY, FIRST-RATE** PROGRAM

The educational faculty for PLCAA/Nashville '90 features owners and managers from all sizes of lawn care companies. They'll discuss practical business problems and share solutions. Roundtable and panel topics will include:

✓ How to reduce customer callbacks ✓ How to better track business expenses. ✓ Pros & cons of adding business services. Getting more out of your computer. ✓ How to improve your routing system. ✓ Training the employee who arrives mid-season.

ALL THIS AND RECERTIFICATION CREDIT, TOO!

Recertification credits/ points will be given by a majority of states for attendance at selected educational sessions during the 11th Annual PLCAA/Nashville '90 conference, Nov. 12-15.

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That's why an IPM technician must be a special person in your operation. Your clients are expecting a qualified plant health care specialist. And you're expecting that that same technician can communicate effectively with your clients. Obviously, your technician needn't know all the answers, but he/she should be sharp. Your training program grows in importance.

Biorational

Biorational or alternative pesticides are another area where the customer may have concerns, not about their safety but rather about how well they work. For example, bt controls some insects but has a reputation for acting slower than other chemicals (despite newer formulations that have reduced the time for control). Also, insecticidal soaps work well on certain insects but have little residual so a repeat insect infestation a few days later may necessitate a service call by the customer. As a rule, your customers should be informed of the products you use and the results they can expect.

This leads into another concern-that of the ideal IPM customer profile. An IPM customer, ideally, is one who is concerned about his yard enough to be involved in it. The person who wants to simply turn the whole thing over to you without taking the time to notice when things need attention probably is not a good IPM customer because this alternative program is truly a partnership effort in landscape care between you and the consumer. An IPM customer should have an awareness of his yard and be willing to alert you if something doesn't look right. LCI

About the Author

Duane Moll is president of Horticulture Concepts, Aurora, CO, a landscape management

consulting firm specializing in IPM, chemical use and evaluation and training for turf and ornamental management.



Lofts says new turf aggressive

BOUND BROOK, NJ—Lofts Seed Inc. says its new Kentucky bluegrass P-104, marketed as Princeton®, is unusually aggressive.

Lofts claims that only 5-15% dominates a sod blend In two to three years. Also, Princeton is a dark green, and holds it color from November through March.

For more information contact Lofts in Bound Brook, NJ, 201/356-8700. LCI

Underground turf irrigation idea catches on in Cleveland market

CLEVELAND, OHIO—Jim Ferguson and Stuart Ramsay began tinkering with underground irrigation systems almost 10 years ago.

Now they've brought their system out into the open and attracted a sizable following of homeowners and commercial property managers who like the idea of irrigating and fertilizing plants, including lawn grasses, at the plants' rootzones.

Ferguson and Ramsay are principles in a company known as Porous Pipe Inc. which, claims Ramsay, installs more irrigation systems in the Cleveland metropolitan area than any other. And PPI's five work crews put all of the systems underground. They lay out carefully plotted grids of dark-gray, thumbsized-diameter, flexible tubing that, when filled with water, See **POROUS** on page 25

"We're not in the business of selling pipe. We've developed an entire system"—Jim Ferguson



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NEW PRODUCTS



Green Machine offers versatility in a second The Green Machine's Land-

Expand-It System has a 571/2inch straight shaft and a 24.1cc, 1.4 hp, 2-cycle engine. scaper Model 2800 and It comes with a 4-inch trim-

mer head with brush blade capability and can be interchanged with a variety of attachment tools with the twist of a single knob on the shaft coupling.

Available tools include a weeder/cultivator, edger, power blower, snow thrower and an optional 8-point blade and 9-inch saw blade fixed line head for heavy-duty cutting which are all sold separately. Circle No. 130 on service card.

This wetting agent also aids compaction woes

Pene-Turf Soil Treatment does what a wetting agent will do, but where the wetting agent stops, Pene-Turf continues. It reduces the surface tension of soil water, which allows compacted soil to shift, and it works several feet deep in the soil. This results in increased pore space, improved percolation, and deeper water infiltration. Also, Pene-Turf is non-phytotoxic.

Circle No. 131 on service card.



Newly patented product gives mulch a new life

Magic Mulch®, recently patented by Becker-Underwood, Inc., has been licensed to Lesco which is offering the product under the trademark Nu-Mulch®. When applied to faded fibrous mulch, the product revitalizes its natural brown color. The application of these products prolongs the uselife life of mulch and reduces the need to uproot mulch or to "top" with fresh mulch.

Circle No. 132 on service card.



Air gun can be used to sweep, clean machinery

The 75XT XtraThrust Safety Air Gun delivers maximum compressed air output to clean, sweep dry and/or cool hard-to-reach areas. The XtraThrust has a unique Venturi tip at the end of the barrer furthest away from the operator to reduce operator hazards. The gun can clean rafters and pipes, floors under equipment as well as remove grit and dust from heavy equipment and conveyor systems. Circle No. 133 on service card.



Enkamat "S" is strong; ideal for erosion jobs

Akzo Industrial Systems' new reinforced erosion control matting combines Enkamat (a 3-dimensional nylon matting) with a PVC-coated polyester geogrid. The product, Enkamat "S" is ideal for erosioncontrol projects where a high tensile strength is required. It will withstand the stress of fill materials like gunite, gravel and soil.

Circle No. 134 on service card.

Signal shows applicator where herbicide applied

Signal is a high-visibility herbicide dye. The nontoxic colorant shows the applicator what has been sprayed, thus reducing chances of overspray. Signal can be used with handheld sprayers.

Circle No. 135 on service card.



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Circle No. 116 on Reader Inquiry Card

NEW PRODUCTS

Brochure shows how chipper/shredders help

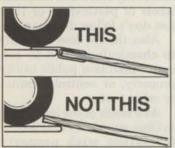
Tornado Products released a new four-color brochure illustrating its Baker chipper/ shredders. The brochure explains what a chipper/shredder is, how it recycles yard refuse, its positive impact on the environment and waste disposal, and the product's high-quality design.



Load your truck easily with safe, sturdy ramps

The Ramparts Kit allows anyone to build their own ramps for safe loading and unloading of equipment. The kit contains two sturdy, aluminum brackets which attach to 2x8 or 2x12-inch boards; it transforms them into safe, non-slip

Circle No. 137 on service card.



This vest will cool those working in heat

ILC Dover, Inc., offers the Model 15 Ice Pack Vest with six sets of gel strips to keep workers cool in any high temperature working condition. It has no electrical components and is constructed of flame retardant fabric. The vest weighs 12 pounds and keeps a wearer cool for at least four hours.





New turf aerator covers a lot more ground easily The Ryan Lawnaire V covers a 26.5-inch aerating swath and

can aerate up to 29,000 sq. ft. per hour. It's powered by a 4cycle, 3.5-hp Honda engine and equipped with 3/4-inch, open-sided coring tines that can penetrate up to 23/4 inches deep, depending on soil type and conditions.

The unit comes with 38-lb. removable weight bar and a polyethylene water drum that holds up to 10.2 gallons of water (about 77 lbs.) for extra penetrating pressure. Raising and lowering is accomplished easily with a spring-loaded lift handle readily accessible at the operator's handle. Circle No. 139 on service card.



Haz-Stor offers range of metal out buildings

Haz-Stor offers non-combustible metal buildings. These sturdy, prefabricated structures are designed to be used as separate, detached buildings for storing Class I, II and III flammable/combustible liquids or hazardous materials.

Circle No. 140 on service card.



September

■12 Successful Strategies for Managing Your Landscape seminar. Chicago. Same seminar Sept. 19 in Cincinnati and Sept. 26 in Washington, D.C. Contact: In-site, James Martin Associates, 24380 N. Highway 45, Vernon Hills, IL 60061. 708/634-8888. **■17-20** Northwest Turfgrass Conference. Rippling Rivers Resort, Wel-

98507. 206/754-0825. ■30-Oct. 3 Florida Turfgrass Association

ches, OR. Contact: NTA, P.O.

Box 1367, Olympia, WA

Conference & Show. Orange County Convention Center, Orlando. Contact: Florida Turfgrass Association, 302 S. Graham Ave., Orlando,

October

■3-4 Southern California Turfgrass Expo. Orange County Fairgrounds, Costa Mesa, CA. Contact: SCTE, 26442 Vera Cruz Lane, Mission Viejo, CA 92691. 714/951-8547.

■8-9 Diagnosis & Treatment of Landscape Plant Problems. University of California, Davis, CA. 800/752-0881 (Davis residents, 757-8777).

■12-13 New Mexico Association of Nursery Industries Trade Show. Albuquerque Convention Center. Contact: Linda McLain, NMANI, P.O. Box 667, Estancia, NM 87016.

■24 Safety & Preventive Maintenance Seminar. Oyster Bay, NY. Contact: New York State Turf Association (NYSTA) 800/873-8873. ■26-29 American Society of Irrigation Consultants Conference. SunBurst Resort Hotel, Scottsdale, AZ. Contact: Wanda Sarsfield, ASIC Executive Secretary, 425 Oak St., Brentwood, CA 94513. 415/516-1300.

■13-16 New York Turfgrass Association Turf & Grounds Exposition. Rochester Riverside Convention Center, Rochester, NY. Contact: NYSTA 800/873-8873.

■27-29 Turfgrass & Ornamental Chemical Seminar. Purdue University, West Lafayette, IN. Contact: Jo Horn 317/494-8039.

Dec.

■10-12 Georgia Turfgrass Conference & Trade Show. Atlanta. Contact: The University of Georgia Cooperative Extension Service, College of Agriculture, Athens, GA 30602.

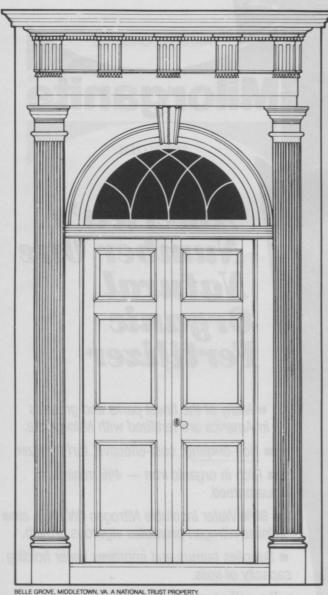
January

■14-17 Turfgrass Integrated Pest Management (IPM) Short Course. College Park, MD. Contact: Dr. Lee Hellman, Department of Entomology, University of Maryland, College Park, MD 20742. (Note: enrollment limited to first 35).

■20-22 Empire State Tree Conference. Syracuse, NY. Contact: New York State Ar-Association borists 518/783-1322.

Mid-Florida **2**5 Turfgrass Conference. Seminole Community College, Sanford, FL. Contact: Uday K. Yadav, 407/323-2500, Ext.

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Nov.

■6 Drip Irrigation Systems in the Home Landscape. University of California, Davis, CA. 800/752-0881. ■12-15 Green Industry Expo (including the PLCAA Convention). Nashville Convention Center, Nashville, TN. Contact: PLCAA, 1000 Johnson Ferry Road, NE Suite C135, Mar-GA ietta, 800/458-3466.

Tests set

SACRAMENTO, CA-The CLCA Certified Landscape Technician tests for construction and maintenance: Oct. 6 & 7 at Foothill College, Los Altos Hills. Contact Robert Bavetta, CLCA, 2021 N St., Sacramento, CA 95814. 916/448-2522.

30068.

columbus, ohio-Bill panies say the signs are a bit of Pound, a turf specialist at The a hassle to post. But most real-Ohio State University, says Ohio's lawn care notification law is working.

Ohio's notification regs

good compromise so far

"There are still groups in Ohio that want stricter regulations on the use of lawn chemicals. Their demands include having firms offer more timely and detailed information to neighbors," says Pound. "A few people have even lobbied Ohio legislators to have some lawn pesticides banned."

But Pound describes the state's notification law as "a good compromise."

This is the first full season that lawn care companies in Ohio have had to post warning signs after pesticide applications and inform people about chemicals used. "Some comize the law goes a long way in improving relations with customers and neighbors," says Pound. The law doesn't require property owners who apply

chemicals to their land to post any warnings. Many in the lawn care business feel that homeowners are the worst misusers of lawn chemicals because they often don't read the labels of pesticides—or they just don't follow directions.

Also, the law does not apply to chemicals applied to row crops, maintain public utility property, or control termites or other pests.

As a result of the law, LCOs in Ohio must leave detailed information with property owners following an application. Property owners are given the name and type of each chemical applied, concentration of the chemical and its application rate, any special instructions on the chemical's label, the lawn care company's name and telephone number and the date and time of the application.

Companies must also post signs for 24 hours on the lawn saying pesticides were applied and that people and pets should keep off. The signs list the company's name and phone number, and say neighbors may be notified of the application.

"If a company is to apply pesticides to the lawn next door, then on the day before application, neighbors who have written the company should receive a mailing stating the time of application and the firm's name and telephone number," Pound says.

> Questions about Pesticides? Call 1-800-858-7378 National Pesticide Telecommunications Network

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POROUS

from page 21

irrigates and fertilizes turf areas. The tubing—though no holes are visible in it—is porous and, under as little as five pounds of pressure, allows water to seep into the soil.

Similar to trickle

The idea of underground irrigation is hardly new and, in many respects, similar to "trickle" systems commonplace in landscapes, particularly in arid or semi-arid areas of the United States. These systems, traditionally, have been used to irrigate landscape trees, ornamentals and garden areas. And, claims by the two entreprenuers that their system is more waterefficient than traditional sprinkers certainly is broad considering the different types of soils and the variability of turfgrass root zones.

Even so, Ferguson and Ramsay claim their system has several innovations that now makes it practical for turf areas as well—specifically the "pipe" itself and a computerized control system that activates the system only when soil sensors tell it water is needed.

In addition, claim the two entreprenuers, they've built in safeguards (including a mandatory training program for installers) to help insure the system is installed correctly.

Vibrating plow

Installers use a vibrating plow to slice a one-inch-wide groove into the soil, five inches deep. The "Porous pipe" is then uncoiled into the groove and when the pipes fill with water (or a water/fertilizer mixture), the water moves out through the microscopic openings in the pipe and into the soil. Because of capillary action, explains Ferguson, it moves farther through clay or loam soils than through sand. In clay or loam, the pipe can be placed about every 31/2 feet apart, in sand closer.

But the pipe is just part of the system, says Ferguson. "We're not in the business of selling pipe. We've developed an entire system. It's taken us years to get to this point. We've had to cover each issue

NY Medical Col. foundation site

VALHALLA, NY—New York Medical College is the site of the new American Lyme Disease Foundation, Inc.

The foundation is a non-profit organization to battle Lyme Disease. New York Medical College is the only medical university in the nation conducting Lyme disease research on three fronts—clinically with patients, in the field with disease-carrying ticks, and in the laboratory.

Former LCO Stuart Ramsey thinks his underground irrigation system is particularly suited for commercial properties.

as it came up."

Also key to the success of each installation are underground moisture sensors and a wall-mounted electronic control panel (actually a 264K mini-computer, says Ferguson) that opens valves and allows water to fill the porous pipes when the soil reaches a certain dryness.

Ramsay, himself once a lawn care professional, claims the underground irrigation system can save anywhere from 30 to 70% of the water used with a traditional sprinkler system. And, he says, fertilizing a lawn is much easier—just add the liquid fertilizer (which his company supplies) to the system and fertilize the lawn automatically at the plants' rootzones, small, easily used applications on a more regular basis. Ram-



say says this eliminates the question of applying fertilizers and/or control products where children or pets can contact

Seeking dealers

Porous Pipe, adds Ramsay, is building a nationwide dealer network (the product is being used in Canada too). Dealers must attend a week-long training program to be allowed to install the system. "We're allowing our name to be used and we have to guarantee that the installations are correct," says Ferguson.

Cost of an underground system is 20 to 50 percent more expensive than a properly designed above-ground system, but the costs are made up in water savings, reduced maintenance and improved lawn and landscape areas, says Ramsay.

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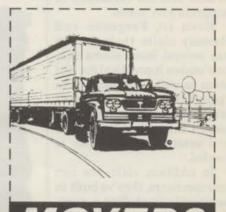
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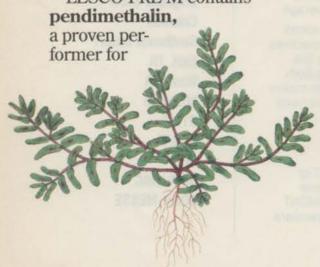
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