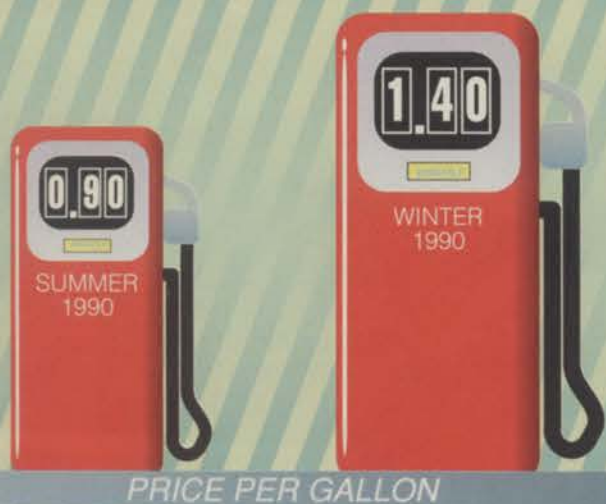


SURGING GAS PRICES



LCOs wary of boosting prices despite higher gasoline costs

BY GREG SMITH

The dramatic increase in the cost of gasoline arising from the Mideast Gulf Crisis has some LCOs planning price increases for 1991.

Small price increases.

Other LCOs, an informal LCI telephone poll indicates, say they'll absorb the 30-45 cent-per-gallon gasoline cost rise. The reason? They fear losing customers. Their markets won't tolerate too great a price increase, they say.

Jim Moser, Granite State Lawn Care Service, Inc., Hooksett, NH, says his company, which operates eight-cylinder, diesel tank

trucks, "will definitely have a 4-6 percent increase" for the 1991 application season.

"The price increase will only cover the increased cost of fuel. Beyond that, we'll start losing customers," he says.

Richard Penn, Lawnco Lawn Service, Lincoln, NB, says his company hadn't planned on raising prices but the unexpected fuel rise will probably force the issue. His concern is that five percent may not be enough. With six vans in operation, he projects an increase of \$5,000 in his operating expenses if the price of gasoline says near the \$1.30-a-gallon level.

While the jump in gasoline prices is hardly

See **GAS** on page 6

LAWN CARE INDUSTRY

Serving the needs of the professional lawn care operator

JANUARY 1991

VOLUME 15 NUMBER 1

MA group seeks input on g'water regulation

BY RON HALL
editor

BOSTON, MA—Sometime this month the Massachusetts Pesticide Board is to decide the fate of ground-water protection regulation focusing on pesticides.

The aim of proposal 333 CMR 12.00 is to prevent contamination of public drinking water supply wells by pesticides.

But, critics—including just about everyone in pesticide-using industries in Massachusetts—claim the proposed regulation, although noble in purpose, has been poorly thought out and requires more work.

Representatives from agriculture, green industry, and pest control opposed 333 CRM 12.00 at three November public hearings.

Some of the testimony at those hearings claimed the regulation is based too closely on models and predictions and is not—not yet anyway—supported by real-world data.

"We're pushing for changes in the regulation

See **GROUP** on page 12

Will LCOs rediscover PGRs?

BY LYNN R. NOVELLI

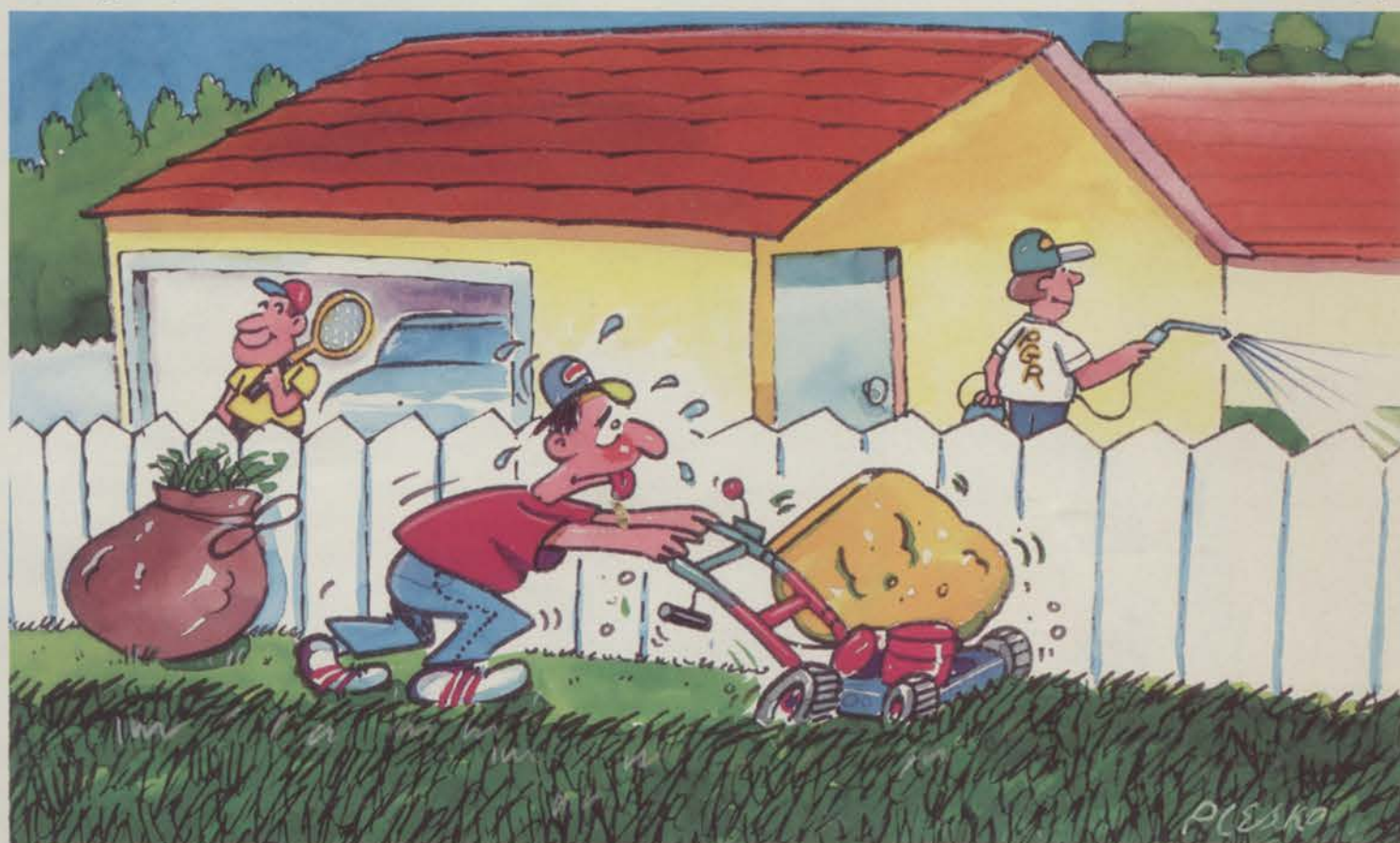
Lawn care operators looking for an effective way to manage clippings and reduce the number of times they (or their homeowner/clients) mow may want to take a closer look at plant growth regulators (PGRs).

PGRs have been around for about seven years, but have had limited appeal, particularly with LCOs.

"The question has been what to do with them, particularly in mixed stands," says Mike Shaw, product development manager at DowElanco.

But, with the recent surge of legislation to ban yard wastes, including grass clippings, from landfills, and rising mowing and equipment maintenance costs, PGR's may yet find supporters among LCOs.

See **PGR** on page 6



PGRs might offer LCOs opportunity "to sell" less mowing, clippings along with fertilizer, pest control

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A ban on phenoxy use would be costly

WASHINGTON, D.C.—Two independent studies suggest that banning all uses of phenoxyes could cost North Amer-

ica \$1 billion annually.

A Washington D.C. research organization, Resources for the Future, says

more than \$180 million would be lost in U.S. wheat applications, while a Canadian study

See **BAN** on page 4

Ohio Turfgrass Conference report

Plant pathologist says application is hangup for disease bio controls

CINCINNATI, OHIO—Biological controls for turfgrass diseases are coming.

They may be 10 years away from the marketplace, however, said Dr. Hank Wilkinson, a turfgrass pathologist at the University of Illinois.

Wilkinson, who spoke at the Ohio Turfgrass Conference, said certain types of bacteria have been tested against pythium and patch diseases. They've proven effective in both the laboratory and in the greenhouse.

"In five to 10 years biologicals will come out and they will aid the turfgrass industry considerably," said Wilkinson.

Serious problems remain, however.

The biggest may be getting these beneficial organisms—in practical and cost-effective ways—to the disease itself.

"How do we apply them? This is the biggest hangup," said Wilkinson. "It's going to take some ingenuity."

His definition

Wilkinson used a broad definition of biological control in his presentation—"To use one organism to control another organism."

The biological can either attack the disease, compete with it for food, or protect the plant from attack by the fungus (intercept it).

He focused on specific species of bacteria to control fungal turfgrass diseases. He gave examples of both foliar pythium diseases and soil-borne patch diseases.

That, in fact, underlines another of the problems facing development of effective and

marketable biological controls—there are many species of disease fungi in turfgrass.

"We have to find organisms that control not just one of these fungi but possibly several others," said Wilkinson. And in different varieties of turfgrasses.

Biological controls, by nature, aren't intended to eliminate disease but, rather, to control it.

"We don't eliminate organ-

isms in the soil," he said. "As you eliminate one, another will take its place. The patch diseases are a prime example. When managed correctly, they'll always exist in your turf, but they will never cause you symptoms of disease."

Patch diseases first

So far, research hints that biological controls will be developed to combat soil-borne diseases before foliar diseases.



Dr. Wilkinson thinks biological control is 5-10 years away.



"How do we apply them? This is the biggest hangup. It's going to take some ingenuity"—Dr. Hank Wilkinson, plant pathologist



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The reason: "The soil is a stabilizing, three-dimensional medium," said Wilkinson. Also, typically, disease development in soil is slower than foliar disease development.

"Patch diseases will probably be the first ones to be controlled, maybe brown patch as well," speculated the pathologist.

Wilkinson said the biologicals aimed at patch diseases will work if a way is found to get them into the soil at turfgrass roots.

"Typically, if you spray them out onto the turf they will die before they get to the roots," he said, adding that drenching the soil isn't too ef-

fective either. "A mature stand of turf is a formidable environment to get through to get to the plant root."

He said bacteria can be freeze dried and applied in a solution.

"I would predict the first program you see with biological controls will probably integrate low levels of fungicides, proper fertilization and then biological controls," he said.

Even so, he said, it would be unwise to expect complete control. "Done ideally, we can expect 80 percent control. If only 20 percent of the roots are colonized (by fungi), you probably won't see disease." LCI

EPA approves first biocontrol fungus for two plant diseases

GAINESVILLE, FL—W. R. Grace & Co. said it received approval from the Environmental Protection Agency to use a fungus as a biological control for two plant diseases.

The naturally occurring strain of *Gliocladium virens*, discovered and researched in U.S. Department of Agriculture laboratories, earned approval as a greenhouse biological control for two diseases that, says Grace, cost growers more than \$1 billion a year.

It's the first biocontrol fungus approved to control a plant disease in the United States.

ARS invented and patented the technology for formulating *Gliocladium* into pellets. Grace further developed the technology.

"Grace hopes to have a product on the market in two years," says Dr. Francois P. van Remoortere, president of the Grace Research Division.

The two disease fungi cause

diseases called "damping off."

Excellent control

"Almost any seed or seedling is vulnerable to attack by these fungi, which can destroy 10 to 30 percent of a crop," says Robert D. Lumsden, plant pathologist with the federal research agency.

In tests done by Lumsden and ARS plant pathologist James C. Locke, *Gliocladium* reduced—by 80 to 85 percent—plant loss caused by the fungi, results similar to those obtained by chemical

**Beneficial fungus
reduces
greenhouse plant
disease by 80
percent**

fungicides.

The EPA approval allows *Gliocladium*'s use on any plants grown in a greenhouse. Grace may seek approval for outdoor use of the biocontrol fungus as markets open up.

Spores germinate

Resembling granular fertilizer, the pellets are made of dormant fungal spores, wheat bran and alginate—a natural, gel-like material that binds the particle together.

When the pellets are moistened, the spores germinate and the fungus multiplies and controls the disease.

Gliocladium is a naturally occurring organism that was isolated from Maryland soil by scientists at Beltsville's Biocontrol of Plant Diseases Laboratory in the early 1980s.

Whitefly control

In a related matter, A University of Florida scientist won a U.S. patent for a fungus that kills the sweet potato whitefly.

Dr. Lance S. Osborne, an entomologist at UF's Institute of Food and Agricultural Sciences (IFAS), discovered *Paecilomyces fumosoroseus* which quickly kills the white fly, one of the world's most damaging agricultural pests. It feeds on more than 500 plants worldwide and transmits viruses and diseases that cause more than 70 diseases.

The fungus must still undergo testing before it's available as a commercial product.

"Just because we have a fungus that kills whiteflies doesn't necessarily mean we've found the magic bullet," said Osborne. "There is a large step to take between finding something and commercializing it."

Osborne signed over the rights to the patent to the U. of Florida Research Foundation.

LCI

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It simply controls turf insects (even not so little ones) better than anything else on the market.



More money for trees. The Small Business Administration will provide up to \$15 million in grants to cities and states that contract with small businesses to plant and maintain trees on public lands. Earlier this year the feds authorized \$73.6 million for the "America the Beautiful" national tree planting initiative.

1990 Farm Bill recognizes turf. The Bill, in part, says "low growing dense perennial turfgrass sod in urban areas an communities can aid in reducing carbon dioxide emissions, mitigating the heat island effect, and reducing energy consumption, thus contributing to efforts to reduce global warming trends."

Sources at PLCAA tell LCI magazine that the U.S. General Accounting Office may be preparing another attack on lawn chemicals. It will likely come again this spring. Be ready.

Add Maine to the list of states undertaking comprehensive plans to protect groundwater from pesticide contamination. The U.S. EPA released its report on the national survey of wells in mid November, and all states are expected to put together programs to protect their groundwater.

An endophyte-infected Kentucky bluegrass? Dr. Douglas Brede reports in the winter issue of the Jacklin Seed newsletter that Rutgers Professor Reed Funk and graduate student Suichang Sun found endophyte in big bluegrass (*Poa ampla*) and continue to search for it in Kentucky bluegrass.

"Dwarfness in tall fescues is for real," said Dr. Richard Hurley, Lofts Seed, Inc., at the 1990 Atlantic Seedsmen's Association Convention. Genetic dwarfness may be just one of several factors that cause the low

growth, he explained.

Did you know that California law requires cholinesterase testing for applicators who apply organophosphates or carbamates for seven or more working days in a 30-day period? Employers obtain and pay for the required medical supervision.

A bill before the New Jersey Assembly would prohibit pesticides that contain active ingredients known to cause cancer. Currently, some of these pesticides can be used under certain circumstances. Assemblyman George Spadaro backs the NJ bill.

Some educational sessions at the International Golf Course Conference & Show, Feb. 5-12 in Las Vegas will be presented in English and simultaneously translated into Japanese.

BAN

from page 1

estimates that country's wheat loss at \$488 million annually if phenoxies disappear.

The Resources for the Future study said losing phenoxies for weed control in U.S. wheat could force combined useage of herbicides that would drive treatment costs from the \$1.25 estimated cost per acre for 2,4-D application to \$10 an acre.

Said Dr. Leonard Gianessi, author of the Resources for the

Future study, "We may dig a hole for ourselves if we ban a herbicide hastily. When a new product fails, there will be nothing to back it up."

The Agriculture Canada study, released in 1988, said Canadian farmers would be particularly hard hit by the loss of phenoxies since half of all the cereal area in the prairie provinces is treated with 2,4-D.

The loss of phenoxies would also affect other agricultural and related markets including right of ways, forestry, and lawn care. **LCI**

Protective clothing reduced 2,4-D exposure significantly

GUELPH, ONTARIO—Canadian homeowners significantly reduced their exposure to the herbicide 2,4-D by wearing protective clothing.

That finding came from a study by Dr. Keith Solomon, University of Guelph, and graduate student Shelley Harris of 37 Ontario homeowners and 12 professional applicators who applied the herbicide to lawns.

About half of the homeowner participants in the research project wore long-sleeved coveralls, rubber boots and gloves for the applications, while others wore whatever they normally would while spraying their lawns.

The researchers reported that the unprotected group

had higher exposures. Even so, the highest reading was less than 1.0 milligrams per day. (The World Health Organization's acceptable limit is 21 milligrams per day.)

"If homeowners wear protective clothing while applying 2,4-D, they can reduce exposure to the level where risk is trivial," said Dr. Solomon, associate director of the Canadian Centre for Toxicology.

Participants in the study were videotaped during mixing and application of the herbicide.

"To reduce any potential exposure, no matter how low, wear rubber boots, gloves and coveralls during the application," said the researchers. **LCI**

Midwest Regional Turf Conference

INDIANAPOLIS, IN—Ann Leslie of the U.S. EPA is slated to be one of the speakers at the Midwest Regional Turf Conference here Jan. 21-23.

Contact Dept. of Agronomy, Purdue University, West Lafayette, IN 47907. 317/494-4785. **LCI**

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Why do LCOs accept the role of poor cousins in turf world?

Hello. My name is Christopher Sann. Chris for short.

I have been involved in the greens industry since 1971, the last 15 years with my own small custom lawn care company in northern Delaware.

My formal training, what there is of it, consists of two stints at Scott's Training Institute and a winter course at a local university.

My informal training consists of a hundred or so turf conference educational sessions, several thousand magazine articles, many hours on the phone talking to university researchers. And 19 years of making mistakes and finding solutions on turf.

In this column, I will always try to provide you with timely accurate information on turfgrass management, introduce new or improved techniques and prod you to expand your knowledge and your services.

It has worked for me.

In fifteen plus years in the business of providing quality lawn care to primarily residential clients, my average per client annual billing has risen to over \$800.

The future of the Lawn Care industry does not necessarily lie with the large so-called industry leaders but rather with the smaller more



nimble companies that can easily respond to the ever-changing nature of this business.

Certainly the industry leaders have the greatest national exposure, the greatest name recognition. And, for better or worse, the way they do business will and does have a profound effect on the industry.

But, despite their needed role within the industry, these leaders aren't usually the innovators.

You, the small owner/operators, the independent manager/supervisors will lead this

A view from the field

BY CHRIS SANN

industry into and through a more mature future. The small operator/businessman can more easily respond to the forces that bend and redirect this industry. The independent operator can more easily offer innovative services and/or product applications.

But, before we, as an industry, reach that goal of mature professionalism and its accompanying acceptance as an industry composed of competent practitioners offering a worthwhile service at a rate of return that is commensurate with that professionalism, we must surmount a very large hurdle—the mistaken belief that LCOs are somehow "second class citizens" in the area of turfgrass management.

The idea that LCOs are the poor cousins in the family of turfgrass managers is a commonly held and persistent industry view. Perhaps LCOs are their own worst enemies because they too sell their worth short.

For years LCOs have been told that the golf course superintendent/sports turf manager is the top of the

turfgrass industry. The fertilizer, chemical and equipment manufacturers seemingly have oriented their business to these markets.

With a few exceptions, most university researchers format their work to dovetail into the superintendent/sports turf manager way of operating.

For too long, LCOs have quietly accepted this role as the poor cousin of the family.

We've made due with equipment designed for tabletop flat golf courses, products that were packaged or formulated with little regard to the actual cost of application or information that was designed to cure the symptom with only a passing nod to the actual bi-

ology of the cause.

This second-rate status will continue as long as we continue to allow it to. How do we get the fertilizer, chemical and equipment manufacturers to listen to us? How do you get the researchers to format their work to help us do a better job?

We're going to have to speak up.

We're going to have to write letters.

We're going to have to join and participate in our local, state and national LCO and turfgrass associations. **LCI**

About the Author

Chris Sann is owner/operator of Complete Lawn Service, 3701 Shellpot Drive, Wilmington, DE 19803.

Posting isn't so bad after all

MARIETTA, GA—Although many LCOs initially opposed state mandates to post warning signs on lawns after applications, many now do it voluntarily as a customer courtesy.

"Those that have had to post have found that it isn't the problem they had envisioned," says Robert F. Parmley, past president of the Professional Lawn Care Association of America, which now encourages posting.

"We're finding it helpful to the public as a whole," he says.

"People don't think of it as a safety warning," says Tim Doppel, manager of Atwood Lawncare, Inc., located near Detroit. Although posting is not required in Michigan, Doppel says he thinks it's a good idea.

"By seeing the sign, customers know to look for the invoice or watering instructions," Doppel says. In some suburbs, he says, the markers are even regarded as status symbols.

PLCAA believes state and federal posting regulations are necessary to ensure public

health and environmental safety. However, it opposes any ordinances enacted at the local level.

"If every municipality developed a different law, it would be chaos," says Parmley.

Be courteous

PLCAA also encourages LCOs to notify customers or their immediate neighbors who request prior warning of a scheduled lawn application.

According to the PLCAA position, there must be flexibility as to how much prior

warning is required before spraying.

Providing advance notification is sometimes difficult, says Richard Jalette, a Rhode Island training consultant. "We're dealing with a weather situation."

Concerned individuals may be notified in writing, in person, or by telephone, according to the PLCAA position. If a person cannot be reached, PLCAA says a written notice should be left at the home when the application is made.

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COVER STORY

PGR

from page 1

PGRs, such as DowElanco's Cutless®, PBI/Gordon's Embark® and Limit®, and Scott's TGR® product line, chemically control turf blade elongation. Turf treated with a PGR prior to the onset of growing seasons will thicken but blades will not grow as long. Effects last from three to 10 weeks, depending on the product and the species it is used on.

The hard reality is that lawn professionals need to explore alternatives to bagging clippings, says Dr. Bill Knoop, a turfgrass specialist at Texas A&M University.

For the past 10 years, he has been promoting the "Don't Bag It" program, encouraging more frequent mowing along with other cultural practices to keep lawns healthy. And keep clippings from ending up in landfills. It looks like "Don't Bag It" isn't going to be a choice for either the homeowner or the professional, says Knoop. It may be mandated.

His office has sent an avalanche of information about the program to landfill operators and waste disposal departments, he reports, with more than 1,000 cities across the country requesting literature.

"PGRs are probably the next step to take beyond the mulching mower," says Knoop. Not only will PGRs reduce the amount of clippings per mow, they can also increase the acceptable time between mowings, making the whole "Don't Bag It" concept more palatable to lawn clients.

"If I owned a lawn care company, I would be looking at PGRs very carefully," he says. "Just like the mulching mower, when they catch on, they will catch on suddenly."

Environmental issues aside, PGRs may offer other significant benefits for the LCO.

PGRs mean less time spent mowing and a 50 percent reduction in clippings and the problems related to their management, whether the customer requests bagging or blowing, according to Doug Obermann, PGR Product Manager for PBI/Gordon.

"PGRs can help the LCO use his time more cost-effectively and bid more competitively on contracts," says Obermann. "And the lawn will keep that freshly mowed look longer, so the customer is happy."

This translates to a significant reduction in the total manhours needed to maintain large turf areas during peak growing season, that critical time of the year when lawn pros have more work than hours in the day.

PGRs virtually eliminate the need for double mowing



John Van Haften, R&D director at PBI Gordon, showing a PGR-treated lawn, mowed once in five weeks.

and halve the time needed for blowing or bagging, says Obermann. This adds up to lower maintenance costs for the customer and better time management for the LCO.

Historically, PGRs' biggest customers have been highway departments, which use them to reduce roadside mowings, and golf course superintendents, who use them to control undesirable grasses on the greens.

Although both DowElanco and Scott still emphasize golf as the primary market for

Texas A&M's Knoop believes there may soon be a race to see who can capture the PGR market first. "A chemical company would be silly not to go after this market," he says, referring to the professional and not consumer residential markets.

The degree of precision required in application is an important consideration in determining where a product should be used, adds Shaw. Very potent PGR's, such as Cutless or any of the TGR line, that suppress growth for eight to ten weeks, require a more even and exact application

the combination for several years on large demo areas with different overlaps and reports little color loss, he says. The trade-off, however, is in effectiveness, with the combination lasting a maximum of six weeks.

The second consideration the LCO needs to be aware of in using a PGR is its influence on the lawn's appearance, compared to the customer's specifications or desires, says Dr. Dean Mosdell, project leader in Scott's research division.

The active ingredient in some products, such as Cutless and the TGR product line, differs by species in its effectiveness. In a mixed stand, explains Mosdell, growth rates will differ. "Turf will look slightly uneven, which may not be appropriate for properties with rigid maintenance specifications or acceptable to a homeowner," he says.

These products work best on areas of a single species, such as bentgrass golf greens. They're also appropriate for

large-scale, mixed-stand commercial properties such as industrial parks where a manicured appearance is less critical, says Mosdell.

Cost of applying a PGR ranges from \$35 to \$120 per acre, depending on the product and application rate, with Embark Lite considerably less expensive at about \$18 per acre. Not a bad deal, says Obermann, when considering the high costs of turf maintenance. (Industry surveys put the cost of mowing at \$40 to \$50 per acre.)

For maximum turf health and appearance, PGR manufacturers recommend maintaining treated turf with the same program of fertilization and insect control as prior to application.

Because of decreased top growth on turf treated with a PGR, the water requirement may be somewhat lessened, but regular watering still must be maintained. LCI

With plant growth regulators there's a fine line between getting the results you want and over-application, says Mike Shaw of DowElanco.

their Cutless and TGR products, both companies are evaluating the products for use in the commercial lawn care industry.

Meanwhile, PBI/Gordon has flung its hat in the ring with its Embark Lite™/Limit combination, recommending it for use on commercial turf with high quality maintenance specifications.

And, Embark Lite used alone, which suppresses growth for three to four weeks, is approved for use on residential turf.

Other manufacturers are testing their PGR products before pulling out all the stops with marketing campaigns targeted to the lawn professional.

than can be achieved with a spray gun.

"With these products there's a fine line between getting the results you want and over-application," he notes.

Hoping to give their products wider appeal and LCOs fewer headaches, PBI/Gordon developed the Embark Lite/Limit combination to minimize some of the problems of application, particularly the color loss caused by overlap.

"Application was very critical when using either Embark or Limit alone," notes Obermann. "The combination reduces the amount of active ingredient in each by 60 percent and eliminates the overlap problem."

The company has tested

PROUD

from page 7

even be the greatest. Yet-to-be-done research might show that the presence of pleasant, maintained turfgrass areas has a direct link with the physical and mental health of people, predicted Beard.

"How we use vegetation in our surroundings is basic to social stability and harmony. Cities can be very dismal without green turfs, trees, shrubs and parks.

"The day we have to start giving up turfs is the day this country gets into very, very serious trouble," said Beard. LCI



Dr. James Beard tells pro turfgrass to be proud of role

CINCINNATI, OHIO—How valuable is turfgrass?

Dr. James Beard of Texas A&M University spent 45 minutes on the subject at the Ohio Turfgrass Conference here and he had to rush through his presentation there was so much to report.

But Beard's message wasn't as much educational as inspirational as he forcefully exhorted the 200 or so turfgrass professionals to become vocal about the value of turfgrass.

There's too much to lose, he said, if advocacy groups turn against turfgrass because they mistakenly believe it wastes water or is a source of ground-water pollution.

"A lot of these activists groups are single dimensional organizations and don't look at the total picture," said Beard, a large, dark-haired man and perhaps the best-known turf scientist in the United States.

Even so, Beard said he did some soul searching when, as a graduate student at Purdue University in the early 1950s, he was chided by the agriculture scientists about the value of a turfgrass scientist to society. After all, related Beard, a turfgrass scientist doesn't provide either food or fiber.

He said his feelings concerning the value of turfgrass strengthened as he traveled the United States and the world and saw firsthand the "very strong association" between human happiness and green surroundings.

Turfgrass benefits extend beyond the \$30 billion annually (Beard said that number is probably conservative) that the turfgrass industry

pumps into the American economy.

The value of turfgrass is almost incalculable, he claimed, and affects even the health



and well-being, both physical and mental, of people.

"It's really the functional aspects you people need to speak out on and make the general public aware of so when they're involved in the voting booth or in decision making, they have the total picture," said Beard.

Some of these functional benefits of turfgrass:

- **Soil erosion.**

Turfgrasses are the most inexpensive, durable groundcovers available. Recent studies at Penn State University, he said, show that turfgrass absorbs rainfall six times more effectively than a wheat field, four times more effectively than a hay field. Only a virgin forest absorbs water more effectively.

Water-hogging lawns? "It's man that wastes water and that's where the solution is," he said. Turfs are more water-efficient than either trees or shrubs, he added.

"Where are the great grasslands in the world located? They're located in semi-arid areas of the world," he said. The great forests are located in areas of more abundant rainfall.

- **Heat dissipation.** The overall temperature in urban areas is characteristically 10 F. warmer than nearby rural areas in the summer, he pointed out. Well-maintained turfgrass surrounding homes and businesses saves energy because it keeps those structures cooler. He likened the cooling capacity of a football field 70-ton air conditioner.

- **Pollution control.** "The turf offers one of the best-known systems for entrapment of runoff pollutants," said Beard, including air-borne particulate matter brought down in rainfall.

- **Fire retardant.** Beard pointed to the disastrous fires this past summer in Santa Barbara, CA, where many

beautiful homes burnt to the ground because there was no growing vegetation to stop them. The city, suffering a prolonged drought, had imposed a lawn watering ban.

- **Pest and pollen control.** Many more insect and vertebrate pests would invade homes and businesses if they weren't surrounded by turfgrass. Noxious weeds would create other problems. These are benefits beyond

the obvious beauty and therapeutic value of turfgrass to homeowners, beyond even the superior safety and enjoyment of turfgrass playing fields.

For instance, well-maintained turfgrass areas have a positive effect upon employees, leading to increased work productivity, make roadsides safer and more attractive, stabilize soil and dust along airport runways.

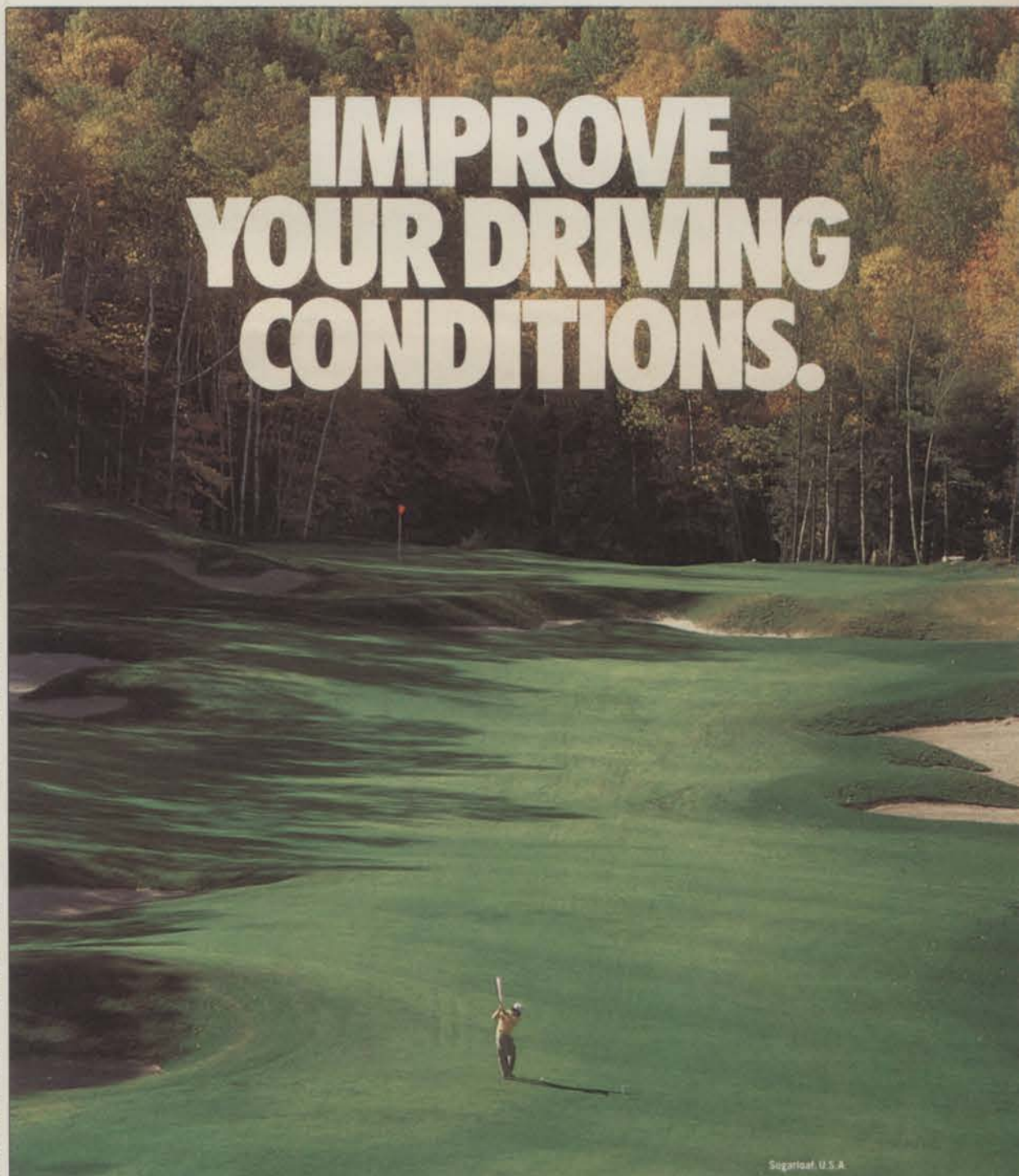
But, these benefits may not

See **PROUD** on page 6



"There's something about green grass and green vegetation that has important input on the attitudes and activities of people"—Dr. James Beard, Texas A&M.

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ALSO CONTROLS FIREANTS.

Circle No. 113 on Reader Inquiry Card

"The turf system is a very unique protector of the environment. Yet we're being accused of doing the opposite"—Beard.



Monsanto system shown (l. to r.) Robert G. Pattie, Sue Shockey, Joe Downs, Scott Wanzor, and Robert Naylor. Pattie and Naylor, Ultralawn, Euclid, Ohio; Shockey, Downs, Wanzor with Monsanto

90 Ohio Turfgrass Conference



Belinda Jones, Ohio Pesticide Alliance for Responsible Regulation, Fred Haskett, Greenworld

GAS

from page 1

welcome by any LCO, many are looking beyond this obvious increase in the cost of doing business and attempting to focus on the bigger issue—the possibility of a general business recession.

Bob Cohen, Green Scene, Tarzana, CA, operates seven, 8-cylinder spray vans. "We're not terribly concerned with the question of fuel costs," he says. "It hasn't significantly impacted our business."

"Our major fear is a recession. This is a non-essential service. In a recession, marginal accounts will be hard to keep and people are not apt to add new services, so we have had to absorb the cost."

Even so, Cohen does not rule out a five percent increase in the price of Green Scene services for new customers. They're justified.

Frank Dietz, Perma Grass, Corpus, Christi, TX, says

most of his customers are on annual contracts, expect yearly increases and are well aware of the Gulf Crisis. (Corpus Christi is in the middle of the U.S. oil patch.)

"We plan a small increase—five percent—and that shouldn't be a problem," he says. Perma Grass runs four 4-cylinder pickups and a flatbed International.

Dr. Barry Troutman, Massey Services, Orlando, FL, says the fuel situation points out to LCOs the importance of efficiency in servicing accounts.

"We increased prices based on fuel costs and have had pressure from our customers not to increase prices again," he says. "Another increase would be difficult because we're right on the edge of what the market will bear."

"What we have to look for first is efficiency in production—tightening route schedules, reducing callbacks, improving service. We've been

adjusting our routes for the past two months."

Richard Steinau, Greenlon Lawn Care Services, Cincinnati, Ohio, says LCOs are going to have to become more efficient as costs rise.

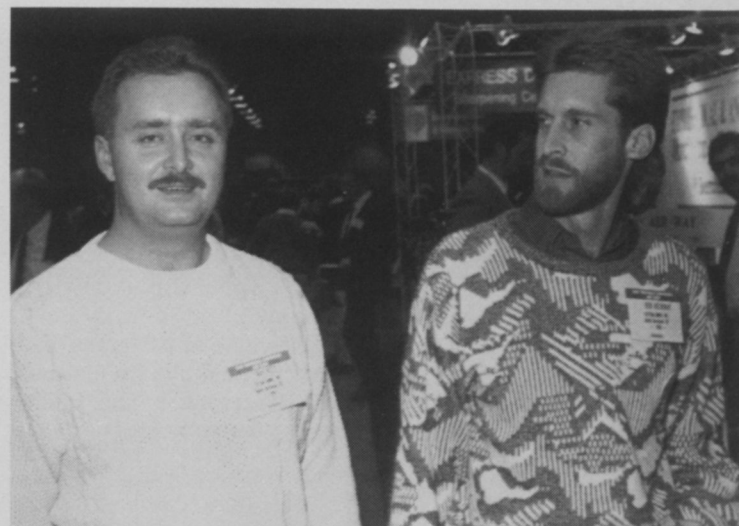
"We've improved our efficiency in dispatching trucks," he tells LCI, "but, with any increase in operating expenses, a percentage is passed on to the customers." He says a price jump of 3-6 percent wouldn't be unreasonable. Greenlon's fleet consists primarily of 6-cylinder vans.

For Wayne George, Green Seasons Lawn and Tree Care, Dover, DE, the increase in fueling five tankers, two pickups and a stake truck is also leading to tighter routing.

"We've had an increase in fuel costs of about \$120 per week. We're moving to more direct routes," he says. LCI

About the Author

Greg Smith is a freelance writer who lives in Cleveland, Ohio.



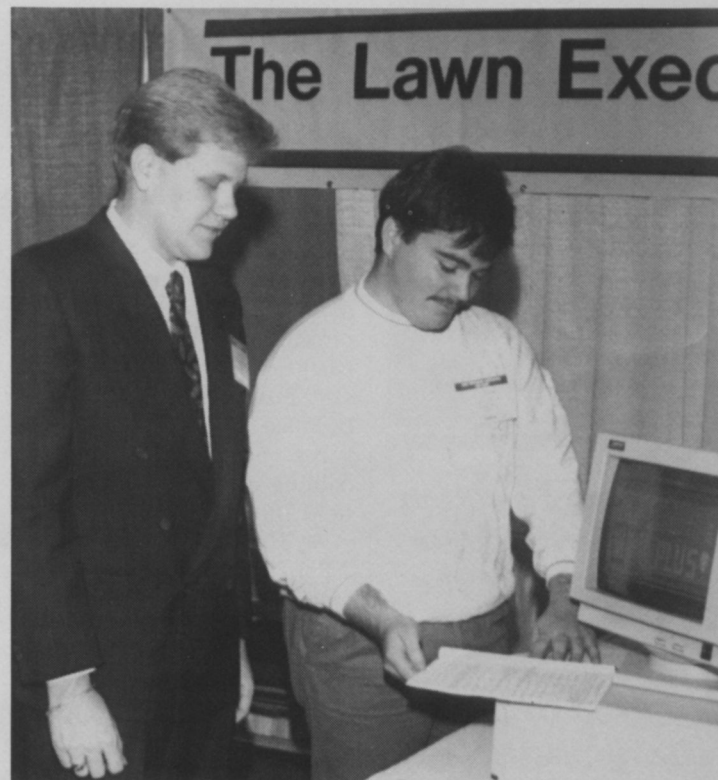
Gary Ross (l.), Bob Hockway, Custom Lawns, North Olmsted



Pat Imler, Imler Industries with Paul Garriss, LCI



Lawn Tech contingent at Ohio Turf Conference Show: (l. to r.) Robert Deeks, Paul Gargiulo, and Dale Mercer



New lawn care software. Richard Patton (l.) and Rick Hodgins of Patton & Associates, Inc., Indianapolis

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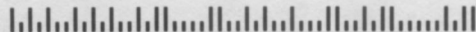
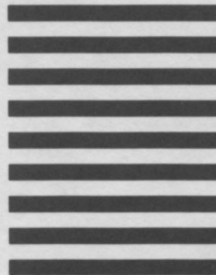
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University poll points out just how big turf is with Buckeyes

CINCINNATI, OHIO—Ohioans spent more than \$1 billion in 1989 growing, mowing and otherwise taking care of grass.

That's the finding of an Ohio State University survey presented at the annual meeting of the Ohio Turfgrass Foundation here in December.

"For some time we've

team surveyed businesses or individuals in 17 different categories. They used mail, phone and door-to-door surveys. Included in these categories were homes, commercial buildings, golf courses, cemeteries and state roadsides.

Sporleder also calculated that there are nearly 2.4 mil-

Industry spends about 40 percent as much as producers of all agricultural products in Ohio.

lion acres of turf in Ohio, and that weed control is the main problem that industry faces. Labor costs are also a big issue for lawn care companies, airports and other businesses.

"The industry can take this information and generate a description of the total economic impact of the turf industry," Sporleder says. "We have identified how much various populations within the state spend on turf."

The turf industry is big business in Ohio. Several national lawn care companies are based in the state and there are an estimated 1,500 landscape-management companies. Data gathered by the study will help the industry plan its expansion, marketing and research needs for the 1990s, Sporleder says.

LCI

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Ohio survey workers: (l. to r.) Bill Distad, James Ramey, John Fanning, Tom Sporleder, Cheryl Turner, Debbie Snyder. Ramey and Turner, the Ohio Agricultural Statistic Service; Fanning, 1990 president of the Ohio Turfgrass Foundation; and Sporleder, Distad and Snyder, The Ohio State University.

PLCAA insurance partner advises lawn pros about risk management

NASHVILLE, TN—Insurance is just one of several elements of risk management, said insurance specialist Lloyd Benedict.

Benedict, assistant vice president of Sedgwick James of Oregon, advised LCOs at the PLCAA Conference to take a more "proactive philosophy" to identify and limit risks.

Where are the risks? Obvious risks for LCOs include vehicles, equipment, inventory, and the products they apply to customers' lawns.

"After you've identified what you have at risk, you have to review the techniques you can use to handle those risks. Look at it from the standpoint as if you have no insurance at all," said Benedict.

For many companies this will probably mean increased emphasis on technician training and beefed up safety and loss control programs such as safe-driving training.

How much risk?

Ultimately, it's up to LCOs to determine which risks they're willing to assume. Generally, said Benedict, the more risk a company

can properly manage, the more it can reduce expenses, improve cash flow and control claim reserves and settlements.

Or, if the risk of a particular service or operation is too great for the profit it generates, an LCO may be wise to drop the service.

Speaking specifically about insurance, Benedict advised LCOs to periodically review their insurance programs for changes in coverage, and also to see if their deductibles are too low.

"In small dollar claims, there's no quicker way to lose a customer than involve an insurance company," he said. "If it's a small dollar item, cover that directly, but make sure you're getting credit for deductibles."

Added Benedict, "insurance is only one element of risk management. There are a number of other tools you should use to minimize your risk."

Sedgwick James of Oregon, Inc., has been working with the Professional Lawn Care Association of America the past nine months to develop "insurance products based on risk

See **RISK** on page 13

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GROUP

from page 1

they're proposing," says Phyllis M. Gillespie, executive director of the Green Industry Council (GIC), a coalition of 12 state and regional associations.

Specifically, GIC, in a fact sheet it distributed to members in October, claims:

- the regulation is not based on scientific data. GIC cited several university studies, and the EPA Cape Cod Well Study to back up its contention that currently registered turf pesticides, when properly applied, do not impact on groundwater either through leaching or as runoff.

- the tool used to determine a pesticide's leaching potential, the NPURG computer program, is in the developmental stage and should be field tested and better evaluated before it's extensively used.

- the procedure for pesticide-users to obtain a variance to the regulations is so unwieldy, expensive and time consuming that professional applicators, particularly those required to seek several variances to treat separate properties in a particular area, would have to walk away from jobs—even though their treatments pose no threat to groundwater.

The target of 333 CRM 12.00 are pesticides it identifies as "potential groundwater contaminants". A list of 21 has reportedly been compiled, including (brand names in parenthesis):

- fungicide—chlorothalonil (Daconil),

- herbicides—alachlor (Lasso), Bentazon (Basagran), Metolachlor (Pennant, Dual), Simazine (Princep).

- nematicides—fenamiphos (Nemacur) and terbufos (Counter),

- insecticides—disulfoton (Di-Syston), Lindane, and terbufos (Counter).

The proposed regulation would forbid anyone from applying "a potential groundwater contaminant" within a "primary recharge area". Or within an area of one-half mile radius from any public water drinking water supply well.

(333 CMR 12.00 says there are 275 communities in the state that rely, at least in part, on groundwater for potable water.)

"This really hasn't been thought out very well," Richard Ficco, president of Partners Quality Lawn Service, Inc., Easton, MA, tells LCI.

"No one can fault the intent of the regulation. It's just the means to the end they seek that's questionable. Industry is already working to achieve what they're asking."

Another LCO, Paul McDonough, Tru Green, Boston, describes the regulation as "confusing and arbitrary."

trary."

Adds Paul Harder, Prescription Turf Services, Inc., Middleton, MA, "there's an awful lot of work that must still be done on the political front to see that when this issue finally gets into regulation form it makes some sense and that it's fair to everybody." (Harder is president of the Massachusetts Association of Lawn Care Professionals.)

In December, about 30 members of the state's agricultural community, plus several representatives from the GIC, met with the Commissioner to build an agenda and set goals for Massachusetts. LCI



Gillespie hopeful of changes in the groundwater proposal.

More Mass. regs eyed; GIC's role may increase

BOSTON, MA—Pesticide mixing, loading and storage regulations may be next for Massachusetts applicators.

A coalition of user groups represented by the Green Industry Council (GIC) seeks a voice in the process of building these regulations.

How large a part it'll play in the legislative/regulatory arena is unknown, but there's little question it's role—and stature—as the spokesman for allied green industries appears

to be growing in Massachusetts.

This past year the GIC hired Phyllis M. Gillespie as its executive director and employed a legislative agent, a lobbyist. This is the most clear cut indication since its founding in 1985 that the GIC seeks a broader and more proactive role in the management of issues affecting turf, ornamental and tree care.

Not coincidentally, membership in GIC increased from

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22-0-6 Turf Fertilizer Plus Preemergent Weed Control combines urea, sulfur-coated urea, and a potassium feeding with unsurpassed control of 6 grassy weeds and 9 broadleaf weeds before they sprout. Fine particles increase weed control efficiency over typical competitive physical blends.

14-0-14 Nitrogen/Potassium Fertilizer Plus Turf Weedgrass Control combines nutrient sources with pendimethalin for effective preemergent control of 6 annual grassy weeds and 7 broadleaf weeds.

five state and regional associations, to seven and, by the end of 1990, to 12.

"There was an obvious need for us to come together and work together to address issues that are common to our industries," Gillespie tells LCI.

Member organizations include: the Associated Landscape Contractors of Massachusetts, Massachusetts Arborists Association, Massachusetts Association of Lawn Care Professionals (MALCP), and the Irrigation Association of New England.

Associate members: Boston Society of Landscape Archi-

tecs, Massachusetts Nurserymen's Association, New England Interior Landscape Association, Golf Course Superintendents' Association of New England.

Association of Professional Landscape Designers, New England Pest Control Association, Cape Cod Landscape Contractors Association, and Cape Cod Turf Managers Association.

"I still see the Council growing. There are a number of groups that can get involved but so far haven't," says Gillespie.

As the GIC has evolved, the issues it's dealt with have changed.

In 1985, when Massachusetts employment was the highest of any industrial state, the GIC explored the worker shortage problem for member organizations. Several years later it focused on water restriction issues. The pesticide issue came to the forefront this past year.

One of the biggest challenges the GIC has faced—and one it's apparently having success with—is gaining credibility in the eyes of Massachusetts state lawmakers and regulators.

GIC's strategy is to educate these decision makers about the green industries. LCI

RISK

from page 11

management guidelines," Benedict told *Lawn Care Industry* magazine. It has been offering these products to PLCAA members since August.

International firm

Sedgwick James of Oregon is part of the international Sedgwick Group that employs 17,000 people in 300 offices in 64 countries, and handles annual premiums amounting to \$8 billion.

The Oregon operation, the second largest Sedgwick

**"In small dollar claims, there's no quicker way to lose a customer than involve an insurance company"—
Lloyd Benedict of
Sedgwick James**

James office in the United States, is a full-service brokerage firm with a staff of more than 300.

"We have created a multi insurer group program to provide products to all PLCAA members," said Benedict. "The key in the success of the program is member participation. Rates are very competitive and we are signing up members rapidly." LCI

CLCA gives stipends to 5

NEW ORLEANS, LA—A fund raiser by the California Landscape Contractors Association scholarship fund raised \$10,000 here.

The money goes into the Foundation's scholarship fund.

Winners of this year's scholarships: Tiara Du Boise, Mission Landscape Services, Inc., Santa Ana; Rick Neugebauer, Neugebauer & Associates, San Bernadino; Ed Zuckerman, Delta Bluegrass Company, Stockton; Ray Hoffman, Ray's Landscapes, Escalon; and Barry Cohen, B.L. Cohen Landscape Inc., San Jose. LCI

Arctech products shown in Russia

ALEXANDRIA, VA—Arctech, Inc., introduced Actosol™ liquid fertilizer to the USSR at an international trade show in December.

The Virginia-based company showed two organic-based, liquid plant foods—one for lawns and the other for crops.

"We expect our products will give the Soviets a valuable tool to use in combating and reducing pollution," said Dr. Daman S. Walia, Arctech president. LCI

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RISE seeking exec. director

WASHINGTON, D.C.—RISE (Responsible Industry for a Sound Environment) is seeking an executive director.

RISE is an industry-supported organization that, working through the framework of the National Agricultural Chemicals Association (NACA), will be taking the lead in managing issues and providing education for industries using specialty chemicals.

The executive director of RISE will be:

- managing the RISE program.
- managing outside contractors as needed.
- developing and executing education programs.
- directing government relations programs.
- directing media programs and responding to media inquiries.
- developing and managing good working relationships with allied associations.
- developing and maintaining coalition groups.
- serving as a principal spokesperson on issues and speaking before regulatory and legislative bodies.

Submit resumes to either Jay J. Vroom, NACA, The Madison Building, 1155 Fifteenth St., N.W., Washington, D.C. 20005, or David Duncan, Monsanto Agricultural Company, 800 N. Lindbergh Blvd., St. Louis, MO 63167.

In a related matter, those individuals, companies, or organizations joining RISE before Jan. 31 will achieve charter member status, says Jay Vroom of NACA.

RISE Communications Committee members are: Newton Royster, Ciba-Giegi; Joe Wolf, Fermenta; Owen Steven, Knox Fertilizer; Allen Haws, Mobay Corp.; Paul Mengle, Lebanon Chemical Corp.

LCI

"Seed" money

BOUND BROOK, NJ—Lofts Seed Inc. paid \$364,000 in royalties in 1990 to Rutgers, the State University of New Jersey.

Rutgers co-developed 13 of Lofts' proprietary turfgrass varieties.

LCI

Cheyenne here

MADISON, GA—Pennington Seed says Cheyenne turf-type Bermudagrass will be available this spring.

Supplies could be tight, says the company, but production acreage will be expanded to meet demand.

LCI

Sandoz president predicts farmers will be getting biologicals by 1995

DENVER, CO—The president of Sandoz Crop Protection Corporation said farmers could start using genetically engineered biological chemicals by the mid-1990s.

"But biological materials alone will never totally replace chemicals," Sandoz's Dale A. Miller told about 500 agricultural bankers here in mid November. "Bioengineered pesticides will not do away with chemicals so much as complement them."

Miller said Sandoz scientists are working with a genetically altered fungus capable of controlling broadleaf weeds. Sandoz is also attempting to isolate spider toxins to use against certain destructive insects.

While research continues on biological agents, Miller said the American public apparently is taking a more realistic view of environmental issues.

This was evident as Californians soundly defeated the Big Green initiative, he pointed out.

"I see Big Green's defeat not as a rejection of the environmental ethic," said Miller "but as a movement forward in our thinking. The American public has shown a new sensibility to environmental concerns that will save millions of dollars and enable us to focus on real, rather than imagined, problems."

Sandoz is headquartered in Des Plaines, IL.

LCI

Old-line seed firm is sold

WEST FARGO, ND—VanderHave USA, Inc., bought 135-year-old J. & L. Adikes, Inc., Long Island, NY.

VanderHave USA, Inc., is a division of Royal VanderHave Group, Kapelle, The Netherlands.

J. & L. Adikes acts as a distributor of turf products, and markets these products to lawn and garden centers through the Northeast.

Also, J. & L. Adikes is one of the oldest seed firms in the United States.

LCI

BOOKSTORE

010 - ADVANCES IN TURFGRASS PATHOLOGY

by Joyner and Larsen
Leading U.S. turf pathologists report on turfgrass diseases, pythium blight, snow molds, fairy rings, leaf spot of Kentucky bluegrass in Minnesota, initial and field fungicide screening, turfgrass disease resistance, etc. Contains new ideas on how to combat turfgrass problems. \$27.95

220 - CONTROLLING TURFGRASS PESTS

by Shurtliff, Fermanian, Randell
New comprehensive guide provides the most up-to-date information available on the identification, biology, control and management of every type of turfgrass pest. \$46.00

230 - LAWNS-Third Edition

by Dr. Jonas Vengris and Dr. William A. Torello
Designed as a textbook or a practical usage manual, this book has been completely brought up-to-date. Care of lawns and turfgrass, from selection of varieties to maintenance of established grass is completely covered. \$27.95



235 - LAWN CARE: A HANDBOOK FOR PROFESSIONALS

by H. Decker, J. Decker
Written by turfgrass professionals, this handy guide will be invaluable for playing field managers, golf course managers, or any lawn care practitioner. Covers all aspects of turfgrass management. \$46.00

640 - TURF IRRIGATION MANUAL

by James Watkins
A guidebook for engineers, architects, designers and contractors. Keeps pace with the latest developments in turf and landscape irrigation. Specific chapters devoted to rotary sprinkler design systems. Golf course design systems and expanded engineering and reference material. \$28.50

615 - TURF MANAGEMENT FOR GOLF COURSES

by James Beard
Written by an eminent turfgrass researcher, this USGA sponsored text is an ideal reference and "how to" guide. Details all phases of golf course design and construction, turf management, course administration, irrigation, equipment and disease and pest control. Fully illustrated. \$52.75

620 - TURF MANAGEMENT HANDBOOK

by Howard Sprague
Practical guide to turf care under both healthy and poor turf conditions. Chapters cover turf in cooler and warmer regions, fertilizer use, regular turf care, weed and disease control and special turf problems. Useful seasonal schedules for management of turf areas. \$26.60

630 - TURFGRASS: SCIENCE AND CULTURE

by James Beard
Comprehensive basic text and reference source used in many leading university turf programs. Includes findings of current research compiled from more than 12,000 sources. \$52.00



225 - TURFGRASS MANAGEMENT

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An excellent reference for individuals involved in the design and development of plantings and constructed features for residential sites. Illustrations and actual residential case study examples are used to communicate graphic, planning and design concepts which are the focus of this text. \$53.00

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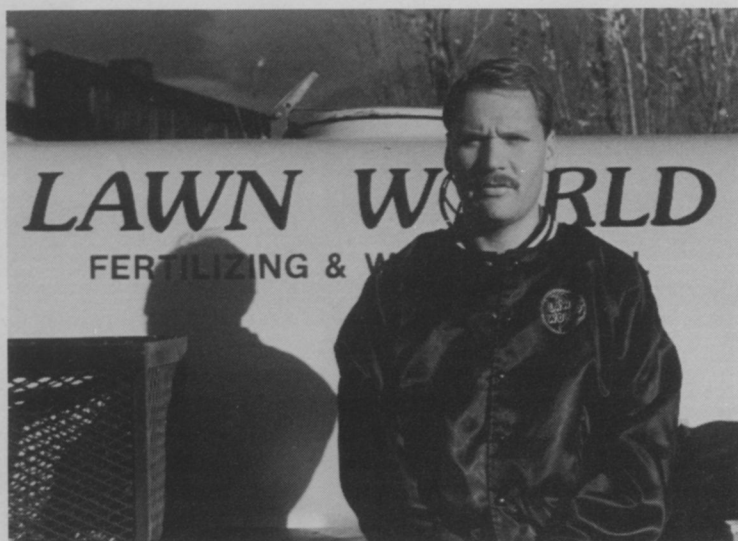
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by Edward C. Martin
An annotated black & white photographic guide to the design qualities of ornamental plants and their aesthetic and functional use in landscape design. Over 600 trees, shrubs, vines, ground covers and turfgrasses are described in non-technical language. Over 1900 photographs. Provides a basis for selecting the best plant materials for any particular use in landscape design. Contains detailed indexes that provide quick reference to particular design qualities and growing conditions. \$68.95

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Planting and Maintenance of Trees, Shrubs, and Turfgrasses. Describes the basic principles of cultural management of installed landscapes. The important factors of plant growth, soils and fertilizers, improved planting techniques and new pruning techniques, integrated pest and disease management, and spray-equipment calibration and care are all featured. \$35.95





Monte Aldridge is both a fulltime student and a top producer for Lawn World in Utah. He's excellent with clients, says Ingram.

January's PTP'er (Prime Turf Performer)

Aldridge's work, PR skills boost Lawn World's image

CLINTON, UTAH—Les Ingram describes Monte Aldridge as both a top producer and an excellent public relations spokesman for his company, Lawn World Inc., Clinton, Utah. "It would be hard to find someone who can out-produce him or who can handle problems better and, at the same time, make customers think that their lawns and trees are the only ones we take care of," says Ingram, Lawn World president/owner.

Aldridge serves Lawn World as assistant manager, zone manager and technician. He's also married with one child, and a fulltime engineering student at Weber State.

"Monte's strong suit is customer service. He's a great people person," said Ingram. "His positive attitude rubs on everyone he comes in contact with."

"All of his customers, co-workers and office personnel and, of course myself, have the

highest regard for him."

Lawn World, a five-truck operation, is located between Ogden and Salt Lake City in northern Utah, a region just finishing its third year of below-normal rainfall. As the drought continued, water restrictions in the area accelerated.

"We've been trying to educate our customers about proper watering," says Ingram. "Two years ago we put together a little brochure and it helped a lot."

In spite of the drought, Lawn World showed a respectable increase in business during the 1990 application season, reports Ingram.

Do you have a PTP'er in your company (Prime Turf Performer)? Contact: Editor Ron Hall, LCI, 7500 Old Oak Boulevard, Cleveland, Ohio 44130.

LCI

BOOKSTORE

410 - DISEASES & PESTS OF ORNAMENTAL PLANTS

by Pascal Pirone
This standard reference discusses diagnosis and treatment of diseases and organisms affecting nearly 500 varieties of ornamental plants grown outdoors, under glass or in the home. Easy to understand explanations of when and how to use the most effective fungicides, insecticides and other control methods. **\$39.95**

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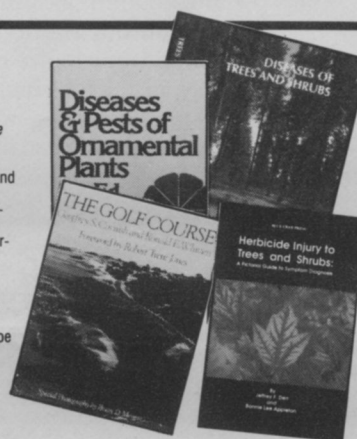
By Wayne Sinclair, Howard Lyon and Warren Johnson
A comprehensive pictorial survey of the diseases of, as well as the environmental damage to, forest and shade trees and woody ornamental plants in the United States and Canada. Reflects the most important developments in fungal biology and taxonomy, plant bacteriology, virology, and environmentally induced stress in plants. Summarizes information about newly discovered diseases and provides up-to-date accounts of old ones. **\$49.95**

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by Cornish and Whitten
The first book ever to give the art of golf course design its due, and golf course architects the credit and recognition they deserve. 320 pages and 150 color and black and white photographs. Traces the history and evolution of the golf course, analyzes the great courses, shows how they were designed and constructed. **\$35.00**

420 - HERBICIDE INJURY TO TREES AND SHRUBS

By Jeffrey F. Derr and Bonnie Lee Appleton
Describes how to diagnose herbicide damage to nursery crops and landscape ornamentals. Injury symptoms resulting from the herbicides used today are described and compared to other plant disorders to assist in diagnosing plant problems. Tables list common names, trade names, major uses and injury symptoms for the herbicides currently used in agronomic, horticultural, landscape and noncrop areas. **\$15.95**



510 - HORTUS THIRD

from Cornell University
A 1,300 page concise dictionary of plants cultivated in the United States and Canada. A reference which every horticulture professional should have. **\$135.00**

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by Ian Chet
Brings together alternative approaches and methods that have potential to control diseases caused by fungi, bacteria and viruses. Major concepts of disease control discussed include biological control systems, their possible mechanisms, potential application and genetic improvement. **\$54.95**

690 - INSECTS THAT FEED ON TREES AND SHRUBS

by Johnson and Lyon
Essential information for identifying more than 650 insect pests and the injuries they cause. More than 200 color illustrations. **\$49.95**

500 - THE 1990 PESTICIDE DIRECTORY

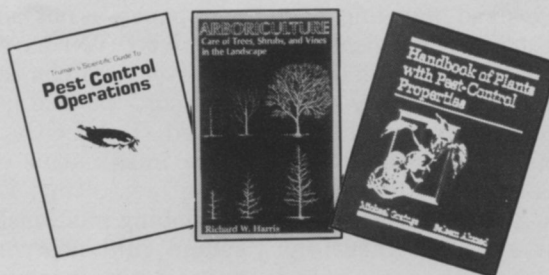
by Lori Thomson Harvey and W.T. Thomson
A Guide to Producers and Products, Regulators, Researchers and Associations in the United States. For the person who needs to know anything in the United States pesticide industry. **\$75.00**
Available in March 1990

665 - ARBORICULTURE: THE CARE OF TREES, SHRUBS AND VINES IN THE LANDSCAPE

by Richard W. Harris
Provides comprehensive coverage of complete planting, site analysis, preparation and special planting methods, fully detailed coverage of fertilization, irrigation and pruning guidelines on preventative maintenance, repair and chemical control, how-tos of diagnosing plant problems, practical data on non-infectious disorders, diseases, insects and related pests and pest management. **\$60.00**

450 - HANDBOOK OF PLANTS WITH PEST-CONTROL PROPERTIES

By Michael Grange and Saleem Ahmed
Provides information on approximately 2,400 plant species having pest-control properties in addition to the plant's specific common and family names, coded information is provided on such plant characteristics as life cycle, classification, and the ecological conditions suited for growth. Also lists 1,000 plants that are potential candidates for screening pest-control activity due to their poisonous nature or their ability to control human and animal diseases. **\$46.95**



125 - SCIENTIFIC GUIDE TO PEST CONTROL OPERATIONS

by G.W. Bennett, J.M. Owens, R.M. Corrigan
Fourth Edition. New chapters on fumigation, urban wildlife, special facilities, plus updated, improved chapters on pesticides, cockroaches, birds, termites, equipment, sanitation, stored product pests and more. Don't be without this updated edition. **\$49.95 Domestic All Others \$60.00**

400 - NATIVE TREES, SHRUBS, AND VINES FOR URBAN AND RURAL AMERICA

by Gary L. Hightshoe
This award-winning reference to native U.S. plants has now been expanded to include shrubs and vines. Over 250 major species are characterized by form, branching pattern, foliage, flower, fruits, habitat, soil, hardiness, susceptibility, urban tolerance and associate species. Includes unique color-coded keys that classify plant species by visual characteristics, cultural requirements and ecological relationships. **\$86.00**

720 - SHRUB IDENTIFICATION

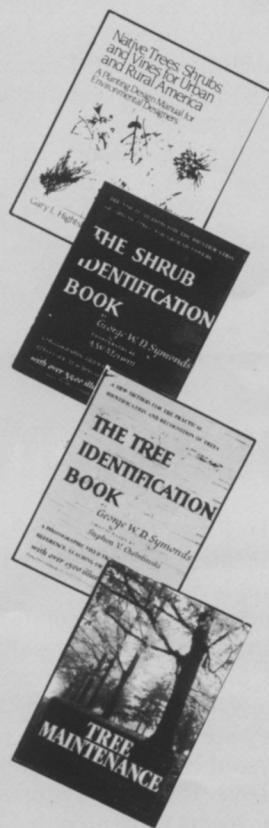
by George Symonds
Pictorial key to identify shrubs. Contains more than 3,500 illustrations to check specimens. Popular and botanical names are given for each shrub and handy index tabs for quick reference. **\$12.95 paperback**

750 - TREE IDENTIFICATION

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Pictorial reference to identifying trees by checking leaves, buds, branches, fruit and bark. Like its sister publication, SHRUB IDENTIFICATION, popular and botanical names are listed with index tabs for easy reference. **\$14.95 paperback**

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ISK of Japan buys Fermenta

MENTOR, OHIO—About \$300 million, that's what ISK Enterprises, Inc. paid Fermenta AB of Stockholm, Sweden, for SDS Enterprises, Inc.

ISK is a subsidiary of Ishihara Sangyo Kaisha, Ltd. (ISK) of Osaka, Japan. SDS has two wholly owned operating subsidiaries, Fermenta ASC Corporation and Ricerca, Inc. (Fermenta ASC, based in Mentor, has production facilities near Houston, and manufactures and markets agricultural and specialty chemical products.)

ISK says it will operate the two companies "in the same manner as they do currently". ISK had sales of \$800 million in 1990.

LCI

Name changed

BAGSVAERD, DENMARK—Novo Nordisk A/S changed the name of its biological insecticide unit to Plant Protection Division (PPD). Since 1987 it's been known as Novo Nordisk BioKontrol.

Entotech, Inc., Davis, CA, is a wholly owned subsidiary of Novo Nordisk and is responsible for the research and development of its biological insecticides.

LCI

A new logo

SAN DIEGO, CA—Mycogen Corporation changed the names and logos for several of the products it licensed from Safer, Inc., in 1990.

Safer® Insecticide Concentrate is now known as M-Pede™, and Moss & Algae Killer is now DeMoss™. SharpShooter® retains its name. All products now display the Mycogen "sunburst" logo.

LCI

LCOs must track, reduce callbacks if they want to keep making profits

NASHVILLE, TN—LCOs that don't track service calls are giving away money.

Larry Blackburn, 13 years with ChemLawn and now general manager of Conservation Technologies, Atlanta, said LCOs can't afford to provide free stops—not many anyway—if they want to stay in business.

"We have to reduce service calls to make money," Blackburn told attendees of the 1990 Professional Lawn Care Association of America Conference (PLCAA).

"If you're being paid for five applications and one of them is for profit, what happens if you make one service call per customer? You lose your profit."

Blackburn implied some LCOs don't know how many service calls their companies provide each year. "Get those service calls out of the drawer and up on the wall," he advised.

Some of the reasons for free return visits, said Blackburn, include:

- a poor application,
- uncooperative weather,
- poor customer relations ("when the customer doesn't feel like he's getting enough for what he's paid," said Blackburn.),
- an organization's philosophy, a "just-get-

your-production-done-and-we'll-worry-about-the-calls-when-they-come-in" attitude.

Blackburn said lawn technicians can reduce service calls with better communication with clients.

"Customers are looking for any personal notes. They want to know, what did they say about my lawn?" said Blackburn. "If a customer has a perfect lawn, say so. If it's not a perfect lawn, pinpoint the things the customer might call in about."

"For instance if an application is made over leaves, the technician might write, 'I recognize that there are leaves on this lawn today, but I made the application anyway because it's a dry application and it will filter through the leaves,'"

"Every note should talk about something specific within the lawn," said Blackburn.

Owners and managers, for their part, should know what their technicians are doing in the field. "Don't assume that you know what's going on out there," he said. "Find out what your specialists are doing and make sure they know you're looking at what they're doing."

Are your service calls at an unacceptable level? Service calls are usually linked with high receivables, low production and cancellations. LCI



Larry Blackburn told LCOs to track service calls.

Speaker advises LCOs to let actions speak for their concern for clients

NASHVILLE, TN—LCOs must "demonstrate" their concern with the proper use of lawn chemicals *before* they talk about it.

That was Dr. Barry Troutman's message at the 1990 PLCAA Conference recently.

"Being able to demonstrate that you're acting on your customers' concerns in your daily operations allows you to answer their questions honestly and believably," said Troutman, operations director for Massey's Green Up, Orlando, FL. Troutman, former education director for PLCAA, spoke at one of the Conference's educational sessions.

How does an LCO demonstrate proper respect for lawn chemicals?

• By urging clients to switch to improved turfgrasses better adapted to their regions. Most LCOs have little control over the types of grasses they're asked to improve, but they can recommend (upsell?) varieties of improved turfgrasses that require less pesticide and fertilizer.

• By applying only enough fertilizer per application to keep the turf healthy. "It doesn't necessarily mean you have to apply a pound of fertilizer with every application. It means responsible rates of fertilizer," said Troutman.

• By educating clients on proper watering.

• By practicing what Troutman termed *improved pest management*. "Weed control isn't in every application in most markets because it doesn't make sense to have it in every application," said Troutman. "The industry has moved away from the good old days of *spread and spray, the lawns turned green and the weeds all went away.*"

• By informing clients of the importance of proper mowing, and the benefits of other services such as aerification, etc.

In addition, LCOs show their respect for lawn chemicals by properly training their applicators, by storing and mixing products correctly, and by seeing to it that lawn chemicals are applied according to label directions.

Troutman also suggested that LCOs become more active in community affairs.

"You must demonstrate in the daily actions of your business that you're concerned about chemical issues, the environment, safety, and that you're a member of your community," said Troutman. "Then you're prepared to answer the questions your customers are asking about lawn care." LCI

'90 PLCAA Conference

PLCAA counsel outlines solid hiring procedures

NASHVILLE, TN—Don't hamstring yourself in hiring, but steer clear of making judgments based on stereotypes, said attorney Richard Lehr.

Lehr, who spoke at the 1990 PLCAA Convention, said the key factor in the employment screening process centers on the concept *are the factors you're asking of a job applicant job related?*

"You have the right to ask questions, but if the answers to those questions tend to disqualify an individual of a protected group (women? older workers?), then the questions have potential legal implica-

tions," said Lehr.

An employer must be able to substantiate the business reasons for asking certain questions, said Lehr. For example, instead of asking if an applicant has a physical disability, it's better to ask if that individual is physically capable of performing certain specific acts—climbing if the job requires climbing, lifting, etc.

"You may have to ask three or four specific questions rather than the one broad question," he advised.

Lehr, legal counsel for PLCAA, said LCOs should sharpen their hiring practices because of changes in the work force. He said the number of women and older people in the work force will increase, as the number of young, white, male workers become harder to attract.

"Those individuals are sim-

ply no longer available to everyone as they were in the past," he said. "You may be passing up some potentially qualified individuals."

Likewise, LCOs may have to change their employee recruiting efforts.

Lehr dismissed "help wanted" advertisements in newspapers as not particularly effective ("You have no control over who comes through the door," he said.), and suggested that LCOs practice more imaginative and "ongoing" recruiting. Examples: developing relationships with school guidance counselors, participating in job fairs, beefing up corporate citizenship efforts, etc.

All potential employees should be told up-front what the job requires of them, and all should fill out employment applications, said Lehr.

The attorney advised against disqualifying applicants because they lack experience in the industry. "Don't look so narrowly," he said. LCI



Be careful of stereotyping individuals in hiring process—Richard Lehr, attorney.

Data scarce for LCO/groundwater link

NASHVILLE, TN—More research on the leaching of pesticides and nitrates into groundwater is needed, said Dr. Stuart Cohen.

Cohen, former groundwater team leader for the Office of Pesticides and Toxic Substances for the U.S. EPA, told LCOs at the PLCAA Convention that there are virtually no data about groundwater in relation to professional lawn treatments.

What evidence there is, however, is encouraging.

For example, the Cape Cod Study completed in 1989 monitored the levels of pesticides and nitrates in wells at several golf courses on the Cape. No pesticides currently on the market were found in concentrations exceeding health advisory levels in the

tested wells. Five of the 19 wells monitored, however, showed nitrate concentrations greater than 10 parts per million, the so-called action level.

These concentrations dropped when golf course superintendents began using less water-soluble forms of nitrogen.

Even so, professional turf managers, including LCOs, should be extremely careful, he said, to protect groundwater even though they are just part of the pesticides-in-groundwater picture. In all, said Cohen, just over one billion pounds of pesticides are applied over the United States annually. These include some

See **DATA** on page 17

DATA

from page 16

510 active ingredients and 26,000 formulated products.

Supreme Court considering Mich. pesticide dispute

WASHINGTON D.C.—The U.S. Supreme Court may decide the fate of the Milford, MI, pesticide regulation ordinance early in 1991.

The Public Citizen Litigation Group asked the Court to decide the Milford case after the U.S. Court of Appeals for the Sixth Circuit in Cincinnati ruled against the village in September.

The Professional Lawn Care Association of America (PLCAA), which represents about 1,000 lawn care professionals and has opposed Milford's ordinance, responded with its own petition to the Court.

The Court reportedly sought data from The U.S. Solicitor General's office which, in turn, asked the U.S. EPA for information. The EPA responded within weeks but, sources say, the Solicitor General has not reported back to the Court.

Milford in 1986 passed an ordinance requiring professional pesticide users to pay an annual registration fee, post commercial businesses or public buildings (for 90 days or until the next application), and to notify "chemically sensitive residents" at least 24 hours prior to an outdoor application.

Since then, posting and pre-notification have been legislated in many communities across the United States. But those aren't the issues, says Thomas Delaney of PLCAA.

The heart of the matter, he tells *Lawn Care Industry*, is the authority of local subdivisions to draft pesticide regulations beyond those already in effect at the federal level.

"The possibility of having such a hodge podge of laws out there is frightening," says Delaney.

The Court is also, reportedly, considering debating the legality of a pesticide ordinance in the community of Casey in Wisconsin. LCI

'90 AAN book

WASHINGTON, D.C.—The *American Standard for Nursery Stock*, 1990 edition is available from the American Association of Nurserymen.

Purchase price is \$10 a copy. There is a special rate for quantity orders.

Order publication A-2-40240 from AAN, 1250 I Street, NW, Suite 500, Washington D.C. 20005. LCI

About 58 percent of the total are herbicides.

The problem particularly worrisome because as chemicals seep into the underground water supply they no longer break down rapidly.

"When the groundwater is contaminated, it's hard to clean up and it will stay contaminated a long time," said Cohen.

The scientist advised LCOs to have a working knowledge of the hydrogeology of the regions they work in. "You don't have to know everything, but you should know where to get information," he said. The extension service or the local of-

fice of the U.S. Geological Survey are good places to begin gathering knowledge about groundwater.

Also, LCOs should know about the mobility, persistence and toxicity of the products they use, he said.

Four key points LCOs should remember, he concluded:

- pesticides leach into groundwater as a result of turf management.
- there's little data about how much of a problem this is, but evidence so far is encouraging.
- preapplication screening on the possibility of leaching is probably a good idea.

• don't overlook the potential for surface runoff.

"More studies are needed, particularly in areas with different hydrogeology," said Cohen, manager of groundwater and environmental programs for Biospherics, Inc., Beltsville, MD. LCI

Once groundwater is contaminated, it stays contaminated a long time—Dr. Stuart Cohen.



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Promoting plant health is the cornerstone of IPM program

BY DUANE MOLL
Horticulture Concepts

Previous columns dealt with planning and business principles of an integrated pest management (IPM) program.

Let's now look at some of the technical service.

Here's where we look at the fancy new materials and trendy equipment. Right? Wrong, but not entirely wrong.

After a particularly galling defeat, Green Bay Packers' Coach Vince Lombardi called a practice the next morning. Holding a football in the air, he yelled, "OK, we get back to basics. Gentlemen, this is a football!"

There's a parallel with proper turfgrass care.

There are no secrets to IPM. There are no magic or special processes. IPM is knowing the basics, the princi-

ples that keep lawns and ornamentals healthy while providing organizational procedures that enable you to do it efficiently.

Goal: plant health

Your overall goal in IPM is to maintain, or improve, plant health while reducing chemical use. Plant health is maintained by using techniques that increase vigor while monitoring for pests.

Chemical use decreases with technology, better technique, and increasing plant vigor.

Understanding the basic factors that promote plant health is crucial when analyzing a yard and recommending a course of action. Try to move away from the mindset that a particular pesticide treatment will solve the problem.

A treatment may be necessary but, while plant care products do a good job of protecting plant material, we may become lazy about finding out why a particular problem exists.

Re-evaluate your practices. Study the relationships of soil,

air, light, water, and nutrients.

Do what you can

Identify cultural factors that key in on plant health: watering, aeration, thatch control, pruning, fertilization, etc.

Implement what you can. IPM is not an easy sale to the public. If appropriate, for example, you may have to convince the prospect to go with additional aerations at the expense of a fertilization if cost is a factor.

You probably don't have control of all the cultural factors, so you must make an extra effort to educate your customers.

Obviously, you must know your plant materials and what conditions are conducive as well as detrimental to them.

For example, the use of certain chemicals can prune the roots of turfgrasses which leads to diseases. You may want to discontinue the use of that product.

Know your pests: their life-cycles, what they feed on, what controls them, why they're present, and best timing for treatments.

Monitoring the health of the lawn on a regular basis and treating only as needed instead of using cover sprays will result in the greatest reduction in pesticide use of any single procedure.

Nerve needed

This takes some nerve, however. You risk the possibility of your customers' lawns suffering damage between visits if no preventive applications are done. But, unless you've already implemented a monitoring system you won't know what to expect.

Although you do risk pest damage you will find it's probably not as great as you feared. You must educate your customer and stand behind your service so if damage does develop the customer knows you will do what is necessary to satisfy him.

Of course this adds to the cost of the service.

There are not always easy solutions with IPM, only intelligent alternatives.

Some preventive needed

Spraying only as needed does not preclude preventive treatments, however. Sometimes that is the only effective method for certain pest problems and it may even be appropriate to keep a particular problem from spreading to another plant or another part of the yard.

Your strategy must be flexible enough to warrant an individualized approach to different yards.

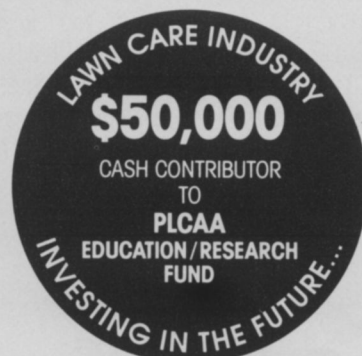
Set up a schedule for regular inspections. The intervals between inspections may vary from one part of the country to another and even from one yard to another but they

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113	128	143	158	173	188	203	218	233	248	263	278	293	308	323	338	353
114	129	144	159	174	189	204	219	234	249	264	279	294	309	324	339	354
115	130	145	160	175	190	205	220	235	250	265	280	295	310	325	340	355

LAWN CARE INDUSTRY

JANUARY 1991

This card void after Mar. 15, 1991

1. CHECK BELOW YOUR PRIMARY BUSINESS AT THIS LOCATION:

A. LAWN CARE COMPANY: Read each choice before answering.

- 10** ☐ Chemical lawn care company
25 ☐ Both chemical lawn care company and mowing/management lawn care company

B. SUPPLIER

- 70** ☐ Chemical and equipment dealer and/or distributor

C. OTHER (specify) _____

2. WHAT IS YOUR TITLE? _____

I would like to receive (continue receiving)
LAWN CARE INDUSTRY each month: Yes ☐ No ☐

Signature: _____ Date _____



BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 665 DULUTH, MINNESOTA

POSTAGE WILL BE PAID BY ADDRESSEE

READER SERVICE DEPARTMENT

LAWN CARE INDUSTRY

POST OFFICE BOX 6080
DULUTH, MINNESOTA 55806-9780

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



**GET
MORE
FACTS**

should be performed at least every two to four weeks.

If a particular yard has pest-sensitive plant types or other problems that justify closer monitoring then you may want to inspect it more often.

Treatment of the yard may be done with traditional chemicals, biorationals, or other alternatives. The concept of IPM does not exclude the use of traditional chemicals.

Keep in mind that alternative products often cannot be used in traditional manners nor be expected to perform as chemical products have.

Be sure an alternative will actually meet your needs. Some organic gardening publications tout alternative approaches that have not always proven themselves in practice, particularly in a commercial setting.

Key in on those plants that have current problems and on those that are high risk to develop a sound strategy for that

yard as well as for efficient servicing of that yard. It helps greatly to map out the yard for record keeping, technician training, and servicing purposes.

This can be done both manually or on computer. A computer database is helpful. It can help identify those accounts that have specific plants or problems if the need arises. Update your map and records yearly.

Finally, know what to use and when to use it when treating for specific pests.

What's normal?

Also, know what is normal and what is not. For example, I

have seen Sunburst honey locust misdiagnosed as iron chlorosis when the technician didn't realize the yellow color was normal. Problems like this occur when little or poor training is available for the technicians.

Give your technicians as much responsibility for customer contact as possible. They are on the front line and provide the best opportunity for public relations of anyone in your organization. This may mean giving them responsibility for account renewals, call ahead's, etc. because it keeps them personally involved with their customers and gives many

opportunities to develop a trust between the customer and the person who is servicing their property.

It makes sense to take advantage of this resource to its fullest. But the key to success in that area is training.

Providing personalized communication with your customers is essential for the success of an IPM program. Educational support literature that deals with such things as lawn pests and cultural principles aids in the sale and/or retention of customers and are extremely effective tools that help establish your credibility and improve customer satisfaction.

Instead of having the standard checkoff sheet to leave with your customers when servicing their yard you may want to consider writing a short hand-written report. 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.



Canada operation expects to double with "naturals"

WINNIPEG, MANITOBA — The Canadian lawn care company, Nutrilawn International Inc., points to two factors in doubling its customer base from 1989 to 1990.

- do-it-yourself consumers learning that it's easy for them to damage their lawns with fertilizer.

- public interest groups decrying the use of fertilizers and pesticides.

Nutrilawn says its customer base jumped from 14,000 in 1989 to 28,000 in 1990, while its corporate revenue rose from \$1.4 million to a projected \$2 million for 1990. Nutrilawn is a publicly traded company that operates ("or has commitments") for 20 lawn care franchises in Western Canada, Ontario and the Maritimes.

Nutrilawn markets what it describes as "ecology friendly lawn care".

Says Richard Nelles, president and founder of Nutrilawn, "It is worrying to note that in a misguided effort to protect their environment, many consumers actually do more damage by incorrectly administering lawn care products."

Nelles says Canadians spend \$45 million annually on fertilizers. He predicts that over the next five years the number of Canadian households using lawn services will rise from about 15 percent to 30 percent.

He says Nutrilawn has a business plan in place to have 87 franchises in Canada by the end of 1994.

Presently, the largest Nutrilawn franchise is in Edmonton, \$1 million in 1990. LCI



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We understand how important service is to you. That's why you can depend on Special Products for prompt delivery, quality products, answers to your technical questions, experienced sales representatives and an organization from top to bottom that puts you first.

"Great Service." It sets you apart from your competition. It sets us apart from our competition.

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A **LIAP** COMPANY

ON THE MOVE

Fred Grau dies of heart failure

Dr. Fred Grau, 88, died of heart failure December 5, 1990, in Cheverly, MD. His death marked the end of a lifetime of work in turfgrass that resulted in safer ball fields for young athletes, more attractive roadsides and public areas for motorists, and better playing conditions for golfers worldwide.

He obtained his Ph.D. from the University of Maryland in 1935 and began his professional career at Pennsylvania State College (now Penn State) the same year.

Grau:

- was the nation's first extension turf specialist,
- discovered crownvetch and brought it to the attention of the turf world,
- helped develop Merion Kentucky bluegrass,
- collaborated with H.B. Musser on the development of Penncross bentgrass in 1951,
- helped develop the first hydro-seeder for road banks.

In 1968 he began The Musser International Turfgrass Foundation and, in recent years, worked tirelessly, through the Foundation, to upgrade the turfgrass playing fields for the safety of young athletes.

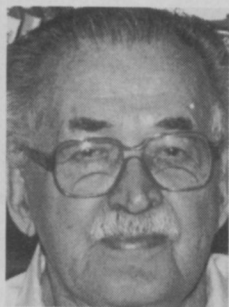
Moyer & Son Inc., Souderton, PA, promoted **Richard Shearman** to sales rep for the Specialty Fertilizer Division. Shearman, who came from the company's Lawn Care Division, lives in Allentown, PA.

CoRon Corporation, Souderton, PA, appointed **John Dorer** to technical and marketing manager for the East Coast. He will be helping distributors from Maine to Florida in their CoRon sales efforts. Dorer previously worked with Moyer & Son, Inc.'s Specialty Fertilizer Division.

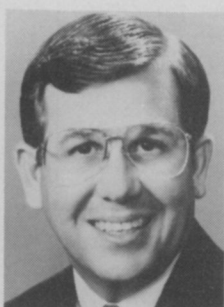
Kellie Newton became corporate counsel and assistant secretary of ChemLawn. She previously served as the senior attorney and assistant secretary to Warner Cable Communications Inc.

Mark Walmsley is now product manager, Turf in the Vegetation & Pest Control Department of Cyanamid's Agricultural Division. Walmsley joined Cyanamid in 1984 as a sales rep. Most recently he was regional manager.

Frank W. "Pat" Murphy received the Irrigation Association's Industry Achievement Award. Murphy founded the Frank W. Murphy Manufacturer Company, Mt. Carmel, IL, in



Dr. Fred Grau



Robert Emmerich

1939. Murphy instrumentation and controls can be found at irrigation sites around the world. He still serves as chairman of the board of the company.

Dr. Kenneth H. Soloman, director of the Center for Irrigation Technology, Fresno, CA, was named IA's 1990 Man of the Year.

Robert Emmerich, national golf accounts manager of The Toro Company, Riverside, CA, is the 1991 president of the Irrigation Association (IA). "We learned two years ago during the national drought that our industry is water, not just irrigation. We'll see more change in our industry over the next 10 years from regulations and technology than it has seen since its inception," said Emmerich.

"We'll have to be environmentally minded and externally oriented," added Emmerich, with Toro the past 16 years. Other IA officers: **Thomas Kimmell**, Hardie Irrigation, El Cajon, CA, president-elect; **William Koonz**, Koonz Sprinkler Supply, Springfield, NJ, vice president; **Joe Goecke**, Valmont Industries, Inc., Valley, NB, treasurer.

The Atlantic Seedsmen's Association honored two members recently. It named **Robert E. Wetsel** as its Seedsmen of the Year. Wetsel is senior vice president of Wetsel Seed Company, Harrisonburg, VA. He's a past president of both the Virginia and Atlantic associations.

Also, the Seedsmen honored **William R. Somers** as a Lifetime Honorary member. Somers, Somers Turf Supplies, Devon, CT, started in the seed business in 1934 and attended Atlantic's first conference in 1952 in New York.

Frank Welch, director of marketing, Beachley-Hardy Seed Co., Camp Hill, PA, was named 39th president of the Atlantic Seedsmen's Association. He and his wife Maria Ester live in New Cumberland, PA.

The Chemical Specialties Manufacturers Association (CSMA) elected **Thomas M. McKenna** chairman board of directors. McKenna is president of CCL Custom Manufacturing, Toronto.

Elected to the CSMA board: **J.R. Lieto**, Ortho Consumer Product, Chevron; **John A. Forrester**, DuBois Chemicals Inc., Cincinnati; **Donald Lofty**, The Drackett Company, Cincinnati; **Trevor D. Lloyd**, McLaughlin Gormley King, Minneapolis; **Robert Graham**, Sprayon Products, Bedford Heights, Ohio.

Larry Nouvel, Roussel Bio Corporation, Englewood Cliffs, NJ, now chairs CSMA's Pesticide Division.

Pennington Seed, Madison, GA, promoted **J. David Fischer** to director of turfgrass and governmental sales and marketing, and **Russell Nicholson** to turfgrass agronomist.

Fischer's been with Pennington five years and will market the company's line of specialty turfgrasses. Nicholson came from the golf course and turf industry.

Warren C. Thoma, Jr., joined Century Rain Aid, Madison Heights, MI, as a consultant for marketing and sales. He's previously been with

Garden America and Rain Bird. Century Rain Aid is a national wholesale distributor of irrigation supplies.

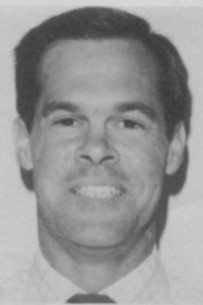
Fermenta ASC honored **Ron J. Thomsen** as its 1989 Salesman of the Year. Thomsen has been with Fermenta ASC, Mentor, Ohio, for 23 years. He, his wife Marilyn, and their three sons, live in Fresno, CA.

In other Fermenta news, **Andrew P. Murdock** was named as senior sales supervisor for the South Carolina and East Georgia territory, **Andrew P. Wenner** the sales rep for south central Texas, and **Doug Goudy** research and development manager. Goudy will be responsible for all Fermenta research, regulatory and commercial development activities in Canada.

Michael G. Pruett became vice president of Environmental Care, Inc., Livermore, CA.

Pruett joined the landscape maintenance firm in 1976 as foreman. In 1980 he was promoted to superintendent, in 1985 operations manager and in 1986 branch manager. He's a 1976 graduate of Cal Poly Pomona.

Lebo Newman, 1991 president of the California Landscape Contractors Association, told CLCA members:



Michael Pruett



Lebo Newman

"We face challenging times—recession, drought, and new regulations on employees, clean air, and chemical use." He proposed a new Environmental Committee for the organization.

Newman is president of Redwood Landscaping, Santa Rosa. Other CLCA officers: vp **Anthony Bertotti**, Novato; vp **Peter Berghuis**, Sacramento; vp **Jon Ewing**, San Diego; vp **Richard F. Jark**, Los Alamitos; and sec. **Rick Neugebauer**, San Bernardino.

Candy Fiske was elected 1991 chairwoman of the Landscape Educational Advancement Foundation of CLCA. An honorary life member of CLCA's Women's Auxiliary, Fiske was also named 1990 Women's Auxiliary Member of the Year. She's a past president of the Auxiliary.

John S. Shiely became vice president and general counsel of Briggs & Stratton, Milwaukee, WI. Shiely joined B&S in 1986.



Candy Fiske

Weed Man stresses benefits of healthy lawn to Canadians

MISSISSAUGA, ONTARIO—All 107 dealers in the Weed Man family of lawn care companies are promoting the benefits of a healthy lawn.

"A healthy lawn is a source of great pleasure and pride to a homeowner," says Des Rice, president of Weed Man, Canada's largest lawn care company. "However, there are also many other important benefits of a healthy lawn."

These benefits, says Rice, include:

- **Climate control.** A healthy lawn cools temperatures considerably.
- **Cleaner environment.** A healthy lawn removes dust and smoke

particles from the atmosphere.

- **Erosion and runoff control.** A healthy stand of grass effectively controls soil erosion by water.
- **Fire retardation.** A well-maintained lawn around buildings helps retard the spread of fire.
- **Filtration of water through the soil.**
- **Noise absorption.** Grassed slopes beside lowered expressways can reduce traffic noise by as much as 10 decibels.
- **Oxygen production.** "Scientists have found that a family of four can live on the oxygen produced by a healthy 50' by 50' lawn," says Rice.

"There are many other benefits of a healthy lawn, some related to the environment and some that are not," notes Rice. "A good lawn provides many aesthetic benefits, even psychological benefits, and also helps to make many sports much safer because of the cushioning effect of grass."

"It also greatly enhances the value of any property." LCI



Christine Coulthard, Weed Man, Goderich, takes soil sample.

LCAP plans its first ever training meet

HARRISBURG, PA—The Lawn Care Association of Pennsylvania (LCAP) announces its first-ever Winter Educational Session.

The day-long event is set for January 24 at the Harrisburg Marriott, Harrisburg, PA, and will cover topics ranging from the development of technical training manual to government affairs.

Contact: LCAP, 210 West Hamilton Ave., State College, PA 16801. LCI

Jan.

■ 8-11 Eastern PA Turf Conference.

Valley Forge Convention Center, King of Prussia, PA. Contact: PA Turfgrass Council, Landscape Management Research Center, Orchard Road, University Park, PA 16802. 814/863-3475.

■ 8-9 Wisconsin Turfgrass Association.

Olympia Village Resort. Oconomowoc, WI. Contact: Ed Devinger, % Reinders Brothers, Inc., 134 Watertown Plank Road, Elm Grove, WI 53122. 414/786-3301.

■ 9 Sacramento Valley

Landscape & Nursery Expo.

Sacramento Community Convention Center. Contact: Patti Adkins, 916/729-2606 (fax: 916/729-2607).

■ 14-17 Turfgrass Integrated Pest Management (IPM) Short Course.

College Park, MD. Contact: Dr. Lee Heilman, Dept. of Entomology, University of Maryland, College Park, MD 20742. (Enrollment limited to first 35 paid.)

■ 16 Professional Turf & Landscape Conference.

Westchester County Center. White Plains, NY. Contact: Carol Mueller, PO Box 307, Scarsdale, NY 10583. 914/636/2875.

■ 17-19 Mid-Am Horticultural

Trade Show.

Hyatt Regency Hotel, Chicago. Contact: Mid-Am Trade Show, 1000 N. Rand Road, Suite 214, Wauconda, IL 60084. 708/526-2010.

■ 20-22 Empire State Tree Conference.

Syracuse, NY. Contact: New York State Arborists Association 518/783-1322.

■ 21-23 Iowa Turfgrass Conference.

Des Moines Convention Center. Contact: Mike Agnew 515/294-0027.

■ 22-24 ILCA Design Seminar.

Inland Meeting Center, Westmont, IL. Contact: Illinois Landscape Contractors Association, 2200 S.

Main St. #304, Lombard, IL 60148. 708/932-8443.

■ 23-24 Nevada Landscape Conference.

Flamingo Hilton, Reno. Contact: Mike King 702-852-8952 or William J. Carlos 702-328-2650.

■ 23-24 Turf & Landscape Expo.

Santa Clara Convention Center. Santa Clara, CA. Contact: Northern California Turfgrass Council, 425 Oak St., Brentwood, CA 94513. 415/515-0146.

■ 24 LCAP Winter Educational Session.

Harrisburg Marriott, Harrisburg, PA. Contact: Lawn Care Association of Pennsylvania, 210 West Hamilton Ave., State College, PA 16801.

■ 25 Mid-Florida Turfgrass Conference.

Seminole Community College, Sanford, FL. Contact: Uday K. Yadav 407/323-2500.

■ 28-29 Think Trees/NMANI Short Course.

Holiday Inn Pyramid, Albuquerque, NM. Contact: New Mexico Association of Nursery Industries, Lynn Ellen Doxon 505/275-2576 or Linda McLain 505/384-2726.

■ Jan. 30-Feb. 1 International Society of Arboriculture Conference.

Embassy Suites Hotel, Oklahoma City, OK. Contact: Don Massey, CRD Services, PO Box 470069, Tulsa, OK 74147. 918/622/7513.

Feb.

■ 1-3 AAN Management Clinic.

Louisville, KY. Contact: The Management Clinic, 1250 I Street N.W., Suite 500, Washington, D.C. 20005. 202/789-2900.

■ 3-5 Fertilizer Institute Annual Meeting.

Loews Anatole Hotel, Dallas. Contact: The Fertilizer Institute, 501 Second St., N.E., Washington D.C. 20002. 202/544-8123.

■ 11-14 Pennsylvania Nurserymen & Allied

PLCAA trying to strengthen bonds with state lawn care organizations

NASHVILLE, TN—Representatives from 27 state associations related to lawn care and landscaping met here during the Green Industry Expo in November.

The meeting was called to set goals, establish guidelines and build communication between the state groups and the Professional Lawn Care Association of America.

Some of the programs that the state associations and PLCAA may cooperate on include:

- a regulatory affairs network,
- a publicity program,
- new officer seminars,
- the use of PLCAA counsel,
- a dues program,
- one annual joint event,
- a state reception at the PLCAA conference,
- and technician training.

"The goal is to accomplish two or three of these objectives during 1991," writes Lou Wierichs, vice president of the Grounds Management Association of Wisconsin, Inc.

"That may not seem to be much, but the state chapter programs are new and most people at the meeting felt it wise to move slowly to develop the relationship with PLCAA to the best interest of both parties." LCI



PLCAA's Anne McClure meets with (l. to r.) Lou Wierichs, PLCAA President Neal DeAngelo, and Kerry Kurth. Kurth is president of the Grounds Management Association of Wisconsin, Wierichs its vice president.

Green industry in Calif. says alliance good idea

SAN DIEGO, CA—Representatives from green industry organizations agreed that the formation of a "New Alliance" should be pursued.

Six green industry associations participated in an initial panel discussion of the Alliance at the annual meeting of the American Society of Landscape Architects here in October.

Represented were members from: The American Association of Nurserymen (AAN), The Association of Landscape Contractors of America (ALCA), The American Society of Landscape Architects (ASLA), the California Landscape Contractors of America (CLCA), the National Arborists Association (NAA), and the Professional Grounds Maintenance Society (PGMS).

"We are not in competition with each other and our associations are not in competition with each other," said Dick Campbell of the AAN.

Added Dennis McClosky,

also of AAN, "there is no reason for the void in communication that presently exists. We all have the same goals in mind and all have the same customers."

ALSA's representative Steve Trudnak said the need for the New Alliance "is long overdue," and he called for some form of ongoing communication among green industry organizations.

"Until every member of each related association participates in discussions like this and until they take action, only then can we say we have fully accomplished created an integrated and united industry," said Brian Kubota of ASLA.

Attendees agreed to study the possibility of joint programs, including publications, education, funding, etc. LCI

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Circle No. 103 on Reader Inquiry Card

Industries Conference.

Hershey Lodge, Hershey, PA. Contact: PNA, 1924 North Second St., Harrisburg, PA 17102.

■ 19-20 Northeastern PA Turfgrass & Grounds Maintenance School.

Luzerne County Community College, Nanticoke, PA. Contact: William Pencek, Lackawanna County Cooperative Extension, 200 Adams Ave., Scranton, PA 18503. 717/963-4761.

■ 21-22 Landscape Industry Conference & Trade Show.

Holiday Inn, I-70 East, Denver. Contact: Associated Landscape Contractors of Colorado, 3895 Upham St., Suite 150, Wheat Ridge, CO 80033. 303/425-4862.

■ 26-28 Western PA Turf Conference.

Pittsburgh Expo Mart/Radisson Hotel, Monroeville, PA. Contact: PA Turfgrass Council, Landscape Management Research Center, Orchard Road, University Park, PA 16802. 814/863-3475.

■ 26-28 ILCA Winter Seminar.

Rosemont Holiday Inn. Contact: Illinois Landscape Contractors Association, 2200 S. Main St. #304, Lombard, IL 60148. 708/932-8443.

March

■ 13-14 Reinders 10th Turf Conference.

Waukesha Expo Center, Waukesha, WI. Contact: Ed Devinger, Reinders Brothers, Inc., 13400 Watertown Plank Road, Elm Grove, WI 53122. 414/786-3301.

Nematodes to be jointly marketed

NEWTON, MA—Safer, Inc., headquartered here, and Biosys, Palo Alto, CA, will jointly market BioSafe® Lawn and Garden Insect Control.

BioSafe® is a biological insecticide that introduces nematodes into the soil. LCI

Turn Your Green Thumb Into Greenbacks.

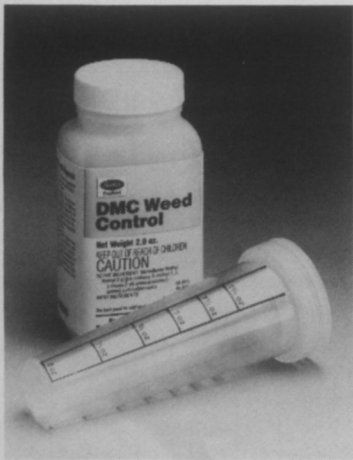
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Circle No. 111 on Reader Inquiry Card



O.M. Scott says DMC controls bahiagrass

O.M. Scott & Sons Company says its DMC Weed Control controls bahiagrass in Bermudagrass areas. The herbicide

acts upon the annual grassy weed as it sprouts.

DMC also fights foxtail and more than 25 broadleaf weeds including chickweed, henbit, dandelion, wild garlic, white clover and plantain.

Combined with water, the 60 percent dispersible granular herbicide is applied as a foliar spray.

Circle No. 120 on service card.

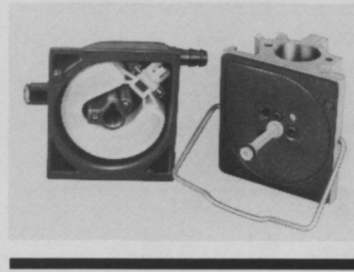
Carburetor easy to get to and easy to service

Tecumseh Products Company is fueling its new four and five-hp Vector rotary lawnmower engines with an advanced, aluminum carburetor. The carburetor's bowl removal system

allows easy inspection of the serviceable parts without use of tools.

The bowl, float, main nozzle and jetting are all non-metallic for greater resistance to rust, corrosion and varnishing. Removal of the bowl does not disturb the throttle or governor linkage, or the fuel line attachment.

Circle No. 121 on service card.



Wikco catalog has 94-pages of product

The 94-page Wikco Industries Grounds Equipment Catalog shows equipment designed for heavy-duty uses such as golf courses, cemeteries, schools,

amusement parks, businesses, etc. Write: Wikco Industries, Inc., Rt. 2, Box 154, Broken Bow, NE 68822. Request catalog 15.

Circle No. 122 on service card.



This concrete edge connected by pipe

E-Z Edging is a modular mowing strip that glues together like sprinkler pipe. PVC pipe reinforces each pre-cast concrete section, and connects end-to-end with PVC couplers and glue. The PVC conduit can be used for watering systems or low-voltage wiring.

E-Z Edge sections are cast in straights and curves and vary in dimensions. The sections can be finished in exposed aggregate, brick, adobe or smooth, and the concrete color can be ordered to any specification.

Circle No. 123 on service card.

Butcher, baker, candlestick maker.

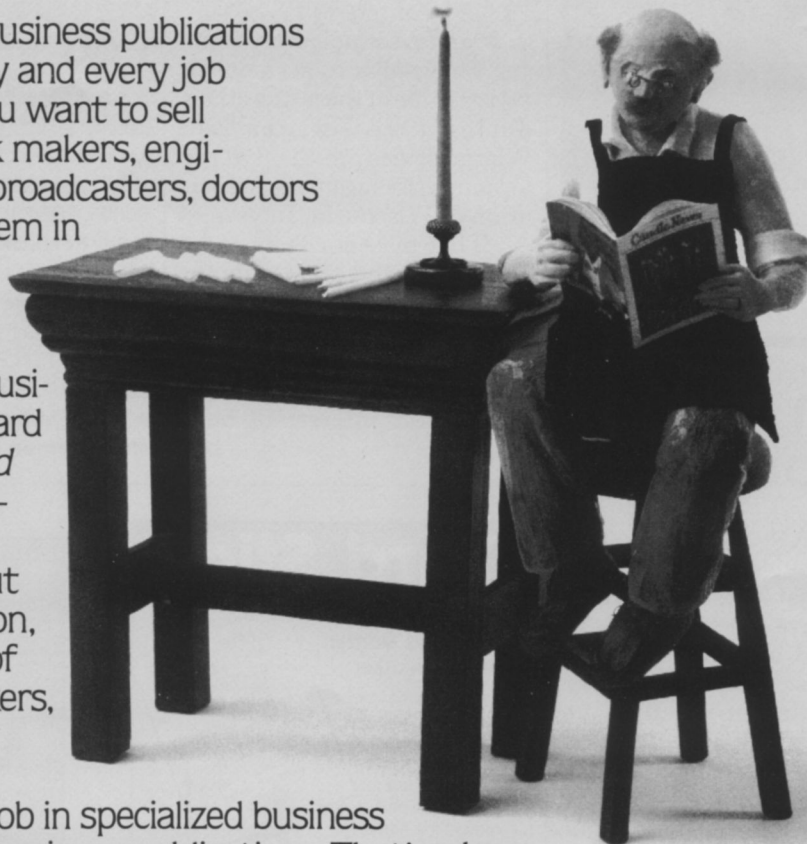
Excellent *specialized* business publications serve virtually every industry and every job function in America. So if you want to sell butchers, bakers, candlestick makers, engineers, electricians, bankers, broadcasters, doctors or dentists, you can reach them in publications that help them decide how, when, what and from whom to buy.

Important people in businesses important to you regard these publications as *required* reading. They are the publications that keep men and women knowledgeable about *their* business, *their* profession, *their* job. In a recent survey of 3,800 industry decision makers, 94 percent said they were more likely to find technical information helpful in their job in specialized business publications than in general business publications. That's why twice as many decision makers read the editorial and advertising content of these specialized publications.

Specialized business publications are the publications your customers read first. They are the publications you should advertise in first. For a complete list of our member publications, all independently audited, write Association of Business Publishers, 205 E. 42nd St., NY, NY 10017.

ABP

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The publications your customers read first.



Shipping container for damaged drums

The Justrite Overpac™ Salvage Drum with cushioning absorbent allows hazardous waste generators to ship damaged drums. A measured amount of high absorbency phenolic foam absorbent is supplied pre-packaged in the salvage drum.

After the damaged drum is put into the salvage drum, the absorbent is poured into void areas. After securing the salvage drum lid, the package is ready to ship.

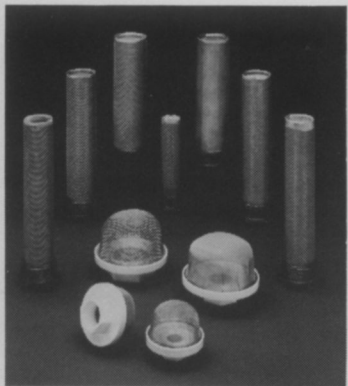
Circle No. 124 on service card.

Ron-Vik offers two styles of strainers

Ron-Vik, Inc., offers two styles of tank-mounted strainers. Use the suction-line types when drawing fluid from the tank; return-line models when sending fluid into a tank.

The strainers install

through the sidewall or through the tank top and into a standpipe. The tank side of the strainer bushing has a male thread NPT. The line side features a female NPT. Circle No. 125 on service card.



total, and a rate-of-flow button for calibration in pints, quarts, gallons or liters. It's made of chemically inert plastic parts and is powered by two AAA cells. Circle No. 127 on service card.



Husqvarna pruning saw weighs 15 lbs.

Husqvarna says its lightweight, hydraulic pruning saw is easier to use than conventional manual and pneumatic pruning saws. The Highcutter PS50 weighs 15½ pounds and its telescopic shaft is made of fiberglass and reinforced polyester.

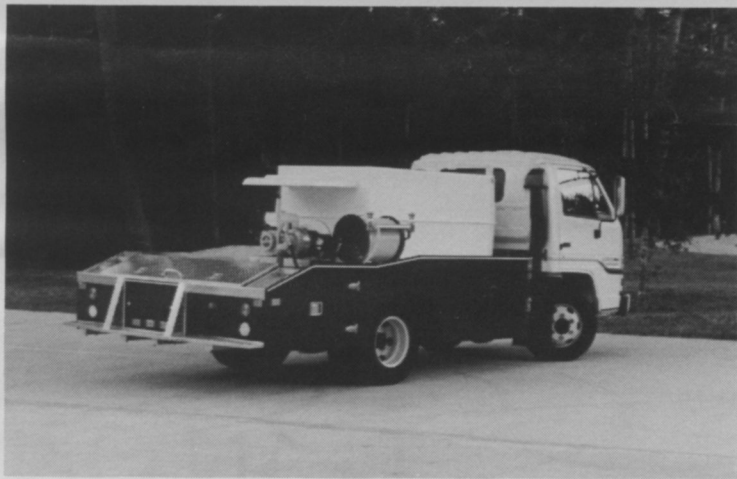
It comes in five different

lengths with a range of up to 20 feet, and a heat guard surrounds the engine for comfortable and safe use. Circle No. 128 on service card.



PRESERVATION...PLAN ON IT

National Trust for Historic Preservation
Dept. PA, 1785 Massachusetts Ave., N.W.
Washington, D.C. 20036



Neelco says spray truck user friendly

Neelco Industries, Inc., says its Premier lawn spray truck has an aluminum tread plate deck, painted aluminum side panels and large storage compartments.

The Premier model shown at the Green Industry Expo in November featured a 500-gallon fiberglass holding tank (fully baffled) and a 100-gallon fiberglass drop tank with dual-

jet agitation.

The Wanna Hydra Cell model D25 pump is powered by an 8-hp Honda electric-start engine. A curb-side compartment provides easy access to all valves, sight gauge for the drop tank, pressure regulator, pressure gauge and the remote starter switch for the pump engine.

Circle No. 131 on service card.



Hate brown spots? Use instant greening

Green Again is a ready-to-use spray-on that restores natural green lawn color instantly. It works by coating each blade of grass with a film. It won't wash off after drying and won't track. It comes in a 24-ounce spray bottle. Half-gallon and gallon ready-to-use bottles will also be available. Green Again is not toxic, claims its maker.

Circle No. 132 on service card.



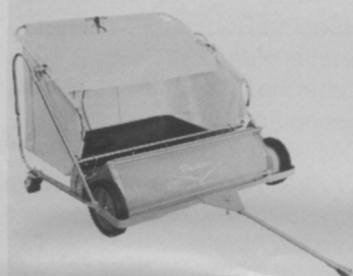
Woven composter will help solve waste woes

The Tidy Yard Composter™ recycles large volumes of yard waste on site. It consists of a large, woven polypropylene bag with handles and a skirt.

The skirt, attached to the top of the bag, can be pulled up to

increase the capacity of the bag. As the organic material settles, the skirt can be pulled down to expose the handles, and it can then be moved to a location where the compost is used.

Circle No. 129 on service card.



Parker sweeper now assembled at factory

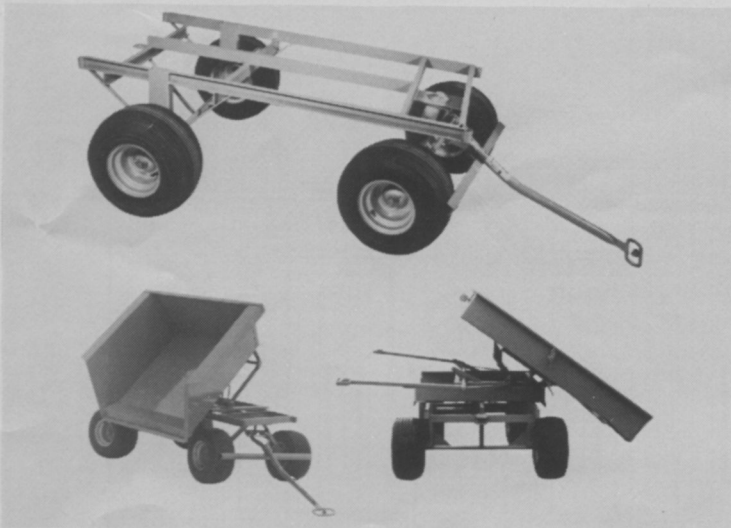
The Parker Sweeper Company's Tralette lawn sweeper is now preassembled in the factory to reduce customer set up time. It features a 10-cubic-foot capacity, easy-dump basket that collapses for convenient storage, cast-iron drive wheels, eight polypropylene brushes and a reinforced vinyl basket supported by rear swivel casters.

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The Little Giant an adaptable machine

The Little Giant utility trailer tows by hand or machine and is extremely maneuverable. Choose from a 30"X60" bed made with 2" steel channel or a 30"X84" bed with 3" chan-

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PUMPS: Reconditioned Wanner Hydra-Cell D-10, D-25 and John Bean Pumps. New and reconditioned parts and service for your pumps. Industrial Services Co., 2727 Rome Corners Rd., Galena, Ohio 43021 - Call Jim Hughes 614-965-4112. 1/91

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We are an aggressive, growing lawn care company looking for franchisees and/or working managers - working towards ownership. Insure your personal future and stop worrying about layoffs.

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Stop and see us at the PLCCA show, Booth #1534 or call for an interview. **Super Lawns 1-800-44-LAWN1.** Rockville, MD.

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ACHIEVERS - WHERE IS YOUR SECURITY? We are an aggressive, growing lawn care company looking for franchisees and/or working managers - working towards ownership. Insure your personal future and stop worrying about layoffs. We are looking to open the Philadelphia-Camden-Trenton market this Winter-Early Spring, plus a few others to be determined by the individual involved. Stop and see us at the PLCCA Show, booth #1534 or call for an interview. **Super Lawns. 1-800-44-LAWN1.** Rockville, MD. 1/91

SALES REPRESENTATIVE: Must have experience in selling fertilizer and turf products to lawn care industry. Chicago position. Excellent salary and benefits! Come grow with us! Send resume to: Tyler Enterprises Inc., P.O. Box 365, Route 53, Elwood, IL 60421, Attention: Sales Manager. 1/91

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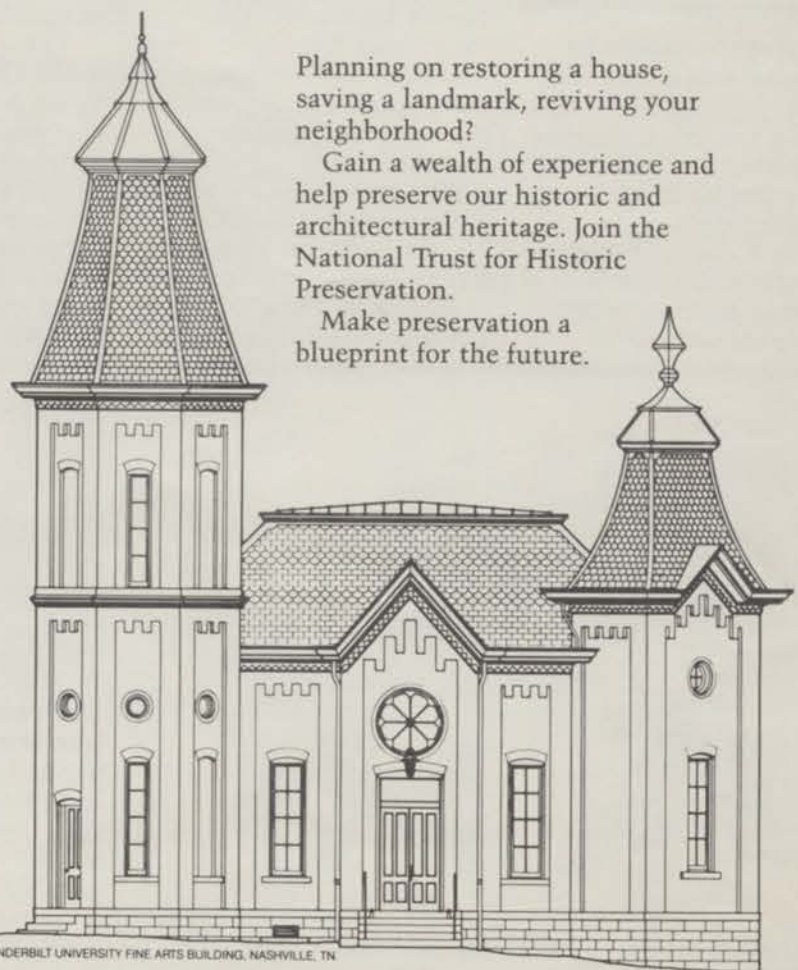
Landscape Supervisor: Established Michigan Contractor looking for self-motivated individual with 5 years minimum experience to manage crews and oversee landscape installation. Send resume and salary requirements to: DeAngelis Landscape Incorporated, 22425 Van Horn Road, Woodhaven, Michigan 48183. EOE. 4/91

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LANDSCAPE MANAGEMENT is written for golf course and landscape professionals, while LAWN CARE INDUSTRY satisfies the information needs of chemical lawn care professionals. Together, they provide total show and industry news coverage.

You could call their editorial and marketing teams "roadies," because they spend 50% of their time traveling to shows, tracking stories and getting candid perspectives from suppliers. Listed here is just a portion of the shows they'll be attending this year. Frankly, it's the only way to stay on top of late-breaking news and keep both books fresh and on the cutting edge of their market segments. This dedication makes them the authoritative voices on industry problems and opportunities readers need to be aware of...and explains why their competitors look like warm-up acts.

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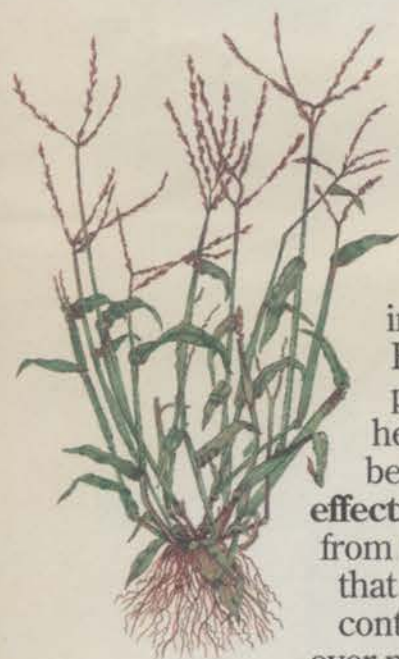
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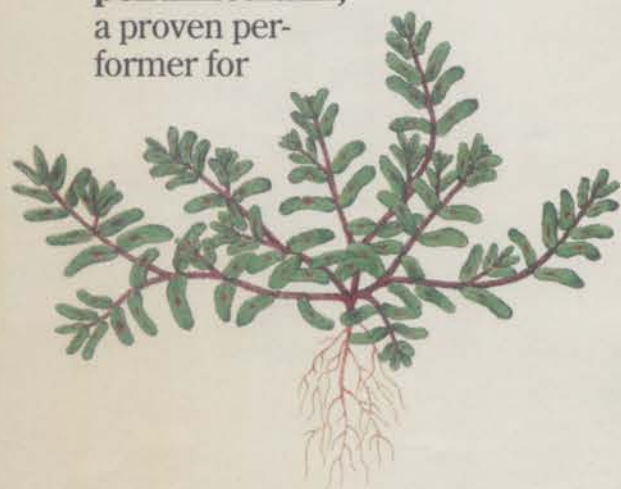


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