

# LCOs, contractors join fight against Lyme disease

By JAMES E. GUYETTE  
Managing Editor

**P**rofessional turf managers can help in the fight against Lyme disease, a potentially crippling and fatal ailment that is spread by a certain type of tick.

The relatively new disease was first identified in

1976 at Lyme, Conn. It is primarily found on the East Coast, but health authorities see signs that it could eventually be spread nationwide.

Turf managers can aid the battle by mowing vacant lots and adopting spraying programs that terminate the ticks.

"Most of the lawn care

chemicals are labeled for ticks," reports Lee Hellman, Ph.D., turf pest management specialist at the University of Maryland.

"The folks who are into mowing operations—as well as chemical operations—will find an opportunity here," according to

See **LYME** Page 17



**Deer tick:** A magnified view of a *Ixodes dammini* family. It likes grassy, wooded areas.



**Up close and personal:** The deer tick looks like this under a microscope.

## LAWN CARE INDUSTRY

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### ALCA study helps firms analyze costs

**SPECIAL REPORT**—A recent nationwide study commissioned by the Associated Landscape Contractors of America reveals that cash flow is the most critical factor in the success of a landscape management company.

The 1988 ALCA Operating Cost Study examines financial information provided by 326 contractors. The study was done by Ross-Payne & Associates, Inc. of Barrington, Ill.

The study analyzes financial data separately for each of the three primary industry trades: exterior landscape construction, landscape management and interior plantscape.

Information which is presented includes typical com-

pany profiles and comparisons of balance sheets, income statements and financial ratios.

Landscape management contractors are defined as those providing "the necessary horticultural expertise in order to maintain all or any part of their clients' exterior environment." The bulk of the services provided by these firms is landscape maintenance, with most firms also providing chemical applications.

The section devoted to the landscape management contractor reports that cash flow is the most critical factor, "for unlike an installation con-

See **STUDY** Page 8

### ALCA OPERATING COST STUDY

#### Industry Averages

|                        |                      |       |       |
|------------------------|----------------------|-------|-------|
| Years in business: 14  | Total Overhead:      | 1979  | 1988  |
| Number of clients: 280 |                      | 49%   | 55%   |
| CEO's salary: \$47,750 | Profit before taxes: | 1979  | 1988  |
|                        |                      | 5.04% | 2.45% |

### Environmental Care acquires Oyler Bros.

**CALABASAS, CALIF.**—Environmental Care, Inc., the nation's largest landscape maintenance firm, has expanded east by acquiring Orlando, Fla.-based Oyler Bros. Co.

Based on sales, it marks the largest acquisition in the landscape maintenance industry. Purchase price was undisclosed.

Oyler Bros. ranked fifth on **LAWN CARE INDUSTRY'S** 1988 Million Dollar Mowers List with \$4.7 million in mowing/management revenue in 1987. Environmental Care was first with \$30 million.

Oyler, which was principally owned by President Tom Oyler, has offices in Orlando, Jacksonville, Miami and Tampa. The company will now be called Oyler Bros. Co./Environmental Care, Inc.

The acquisition does not include Oyler's landscape installation business, Oyler Con-

See **BUYS** Page 33

### LCOs raising prices

By ELLIOT MARAS  
Editor

**NATIONAL REPORT**—Facing less competitive pressure to keep prices down than in previous years, LCOs are raising prices anywhere from 5 to 15 percent this year. But many feel they will barely be able to recover increases in operating costs.

ChemLawn Services Corp., the industry's traditional price setter, plans "significant" price increases in most of its markets, according to competitors. Company officials will not divulge specific figures.

"We've clearly said that one of the things that needed to be done was to raise some of the prices," says Bruce Bentcover, treasurer of Ecolab, Inc.,

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### NEW TECHNOLOGY

#### Priming spurs sprouting

By JAMES E. GUYETTE  
Managing Editor

**T**urf managers can gain a longer grass-planting season through a process called seed priming.

Currently being developed by the Jacklin Seed Co., seed priming differs from pre-germination in that the sprout does not puncture the seed's shell, so it doesn't have to be kept wet.

Called *osmoconditioning* the process promotes ger-

mination, yet the sprout is "stopped right in its tracks" before it becomes exposed.

"In priming nothing has broken the seed coat at all," explains Jacklin's Judy Brede, research associate.

With standard pre-germination, "If anything has broken the seed coat it must be planted in water with a hydro-

See **SEEDS** Page 20



**Primed seeds:** Jacklin Seed's Linda Drury takes a seed count during germination tests to monitor the progress of primed seed vs. untreated control seed.

### LATE NEWS

#### Federal judge supports N.Y. regs

**NEW YORK**—A federal judge has ruled in support of New York State's right to require warning signs and other printed material of for-hire pesticide applicators. The ruling was in response to a suit by the New York State Pesticide Users Coalition.

The coalition claimed that the New York Department of Environmental Conservation's pesticide regulations call for pesticide labeling in excess of that required by federal law, and hence violate federal law.

Judge Neal McCurn ruled that the DEC's notification requirements are a "complimentary adjunct" to federal law; that purpose being to prevent unreasonable injury to man and his environment.

"We're not finished with the federal case yet," says Elizabeth Seme, spokesperson for the New

See **RULE** Page 5

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# Regs make it tougher for New York LCOs

If New York's Department of Environmental Conservation had its way, no one would be applying pesticides on a for-hire basis. That's the impression you get in reading the regulations the industry has been fighting.

The only people who would be applying pesticides would be homeowners, who the DEC doesn't deem in need of regulation. Very dedicated to public safety, those New York regulators.

The hysteria that has characterized environmental issues in New York is understandable when you consider things like Love Canal and Three Mile Island.

This month we report that a federal judge in New York has ruled that the state has the right to impose notification requirements on commercial pesticide applicators. Some state suits are pending, and the industry is considering appealing the federal ruling.

The green industry in New York has spent a considerable amount of time and money confronting the DEC in both the public and judicial arenas. For this it is to be commended.

And the unification of the different sectors within the green industry holds promise for higher levels of professionalism. I'm referring to things like employee training programs, public education campaigns, and career awareness programs aimed at high school and college students.

But the industry also needs to set a limit on activities aimed at overturning the regs. The confrontational posture that is now going on its third year holds limited value for the industry, and lots for the regulators. That much has been obvious to anyone who has attended the informational sessions the DEC has been holding.

DEC officials light up like Christmas trees when they see how mad they can make green industry employers.

During a recent session in Syracuse, an LCO asked Marilyn DuBois of the pesticide bureau why owners of buildings are to be exempt from the notification requirements if they do the applications themselves. Her cynical answer: "Ask the Legislature."

The regs are excessive.

LCOs must have customers sign contracts stating application dates, a list of substance brand names and active ingredients, all warnings that appear on the labels, and more.

They must give 48-hour advance notice of the initial application and 24-hour notice with more product information for every

individual application. For commercial and multi-family buildings, 72-hour notice to the owner is required.

Signs of specific sizes with specific wording must be posted at specific space intervals.

And more.

The industry has done what it can to reason with the regulators for the time being.

Spring is almost here, and it's time to strengthen the focus on marketing, training and customer service.



**ELLIOT MARAS**  
EDITOR

Speaking of marketing, it's likely that the regulations will open up some new opportunities.

Chemical application specialists in states with more lenient regs have gained business by marketing their

services to landscapers and mowing/management contractors, who previously did the applications themselves.

New York LCOs have other matters to think about as well.

Speaking to audiences in Rochester and Syracuse recently, I was shocked to learn that very few have formal employee training and evaluation programs.

And in an industry where customer service is so important!

I was no less dismayed to

learn that virtually none had heard of the Job Training Partnership Act, the federal program that helps employers find, screen and train people. Employers in other industries have found this useful in light of today's labor shortage.

The regs in New York are making it harder to do business, but they can't put anyone out of business. Insufficient labor, unfocused marketing and poor customer service can. Stay on target.

*Elliot Maras*



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ABP BPA

**Cornell University's new turfgrass recommendations have been delayed** due to some uncertainties about the impact of New York's controversial pesticide regulations. Confusion over the regs has also caused some frustrated LCOs to close shop for the time being.

**If Japanese beetles are bugging you**, a beetle trap may not be the answer, according to Assoc. Prof. Daniel A. Potter, Ph.D., of the University of Kentucky. The traps smell like dinner and "a virgin female beetle on the make," says Potter. "You're offering them promises

of food or sex, and if you're a Japanese beetle that's all you're interested in."

Potter's studies show that yards with beetle traps attract more beetles and suffer more damage than yards without beetle traps.

Potter's conclusion on beetle traps: "Give one to your neighbor with the barking schnauzer."

**LCOs are being invited** to attend the mid-year meeting of the Chemical Specialties Manufacturers Association. Set for April 23-26 at the Chicago Marriott, the event will feature

"a comprehensive report on current lawn care... regulatory and legal issues."

Non-members are being urged to visit to check out the benefits of joining the CSMA.

**Use care when sending turf samples** to be analyzed by a university, says Penn State's Pat Sanders, who spoke at the Maryland Turfgrass Show. "Send in active diseases. Do not send in dead grass," she says.

"Do not put it in plastic—I get gunk." Be current: "People send in samples in November with a note that says, 'This happened in July.'" LCI

To: Bill Date: 9/21 Time: 8:42

**WHILE YOU WERE OUT**

M: Susan Jones  
of 2087 Cowan Rd

Phone: \_\_\_\_\_

| Area Code                                   | Number                              | Extension       |
|---------------------------------------------|-------------------------------------|-----------------|
| TELEPHONED                                  | <input checked="" type="checkbox"/> | PLEASE CALL     |
| CALLED TO SEE YOU                           | <input type="checkbox"/>            | WILL CALL AGAIN |
| WANTS TO SEE YOU                            | <input type="checkbox"/>            | URGENT          |
| RETURNED YOUR CALL <input type="checkbox"/> |                                     |                 |

Message: Says insecticide didn't work -

Beth  
Operator

To: Bill Date: 8/27 Time: 3:14

**WHILE YOU WERE OUT**

M: Mrs. Lingenfelter  
of 952 Macedonia

Phone: \_\_\_\_\_

| Area Code                                   | Number                              | Extension       |
|---------------------------------------------|-------------------------------------|-----------------|
| TELEPHONED                                  | <input type="checkbox"/>            | PLEASE CALL     |
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Message: Insect damage. Hants lawn re-seeded

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# Spot treating possible with herbicide in spray can

By JAMES E. GUYETTE  
Managing Editor

**W**eeds that escape a broadcast chemical application program can still be controlled if turf managers carry an aerosol spray can containing a selective herbicide.

The Triamine Jet-Spray Spot Weed Killer, made by the Riverdale Chemical Co. in Glenwood, Ill., is just entering the market.

The company says the product can be used by turf

managers in the field, it can be left with homeowners to cut down on callbacks, or it can be used by LCOs as a marketing tool.

"We see this as something entirely new for the professional lawn care person," reports Marvin R. Moore, Riverdale's national sales manager.

The 23-ounce can contains the three-way herbicide Triamine, plus an inert foam for marking treated areas. "It's for use on both cool and warm season grasses," he points out.

"We're going to supply a holster with this product," Moore continues, noting that a technician mowing a lawn can quickly dispatch individual weeds without having to interrupt his or her work rhythm.

The "jet spray" and foam marker aspect of the product can come in handy for hard-to-reach places or areas where broadcast spraying is not appropriate, Moore believes. "You can spray very close to vegetables or ornamentals without any danger."

LCOs can utilize the aerosol when recruiting potential clients. "It is an excellent selling tool: When they make a call on a new customer they will use this to demonstrate," Moore explains.

While making his or her pitch, the sales person can point to a weed in the lawn. "They spray it and say, 'Look at this 24 or 48 hours from now.'"

Potential clients will want to sign right up after they view the deceased weed, Moore maintains.

Once the customer is on board, "It can be used by the lawn care company or it can be left behind with the homeowner."

Moore acknowledges that some LCOs don't like the idea of letting customers possess their type of weed killer, but he says it can reduce costly callbacks.

"There's always going to be a missed area or stray weeds," Moore points out, adding that a callback can cost about \$40.

"Usually they find only a few weeds that were missed," he observes. "If only they could leave this behind. . ."

Moore comments that his favorite carpet cleaning contractor leaves behind a carpet cleaning spray can—and that concept can be applied toward lawn care: "You're not necessarily ready to have your whole carpet cleaned when you spill a cup of coffee on it."

The spray features pinpoint accuracy, and you can stand at arm's length while doing the treatment. "You can direct this thing just like a gun. It's very easy to hit the target," he says.

"This is not designed to do the entire lawn," Moore stresses. "It's more of a convenience item."

LCI



Moore: Use it as a selling tool.

## RULE

from Page 1

York State Turfgrass Association. Industry groups are considering appealing the ruling, which was made in the U.S. District Court of the Northern District of New York, Syracuse.

Notification requirements under the state statute include 24-hour sign posting and signed customer contracts.

Other regulations that are not specifically spelled out in the statute, however, are on hold, pending a ruling by a state court. These include a customer cover sheet listing possible pesticide symptoms, 48-hour pre-notification for every residential application, and other information.

The pesticide coalition and the state farm bureau will file an additional suit in state court.

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# Earthworms studied to gauge impact of chemicals

By JAMES E. GUYETTE  
Managing Editor

**S**tudies are being conducted to determine the impact of pesticides on earthworm populations.

"What we're hoping to do is to provide information to the turf industry that will allow them to weigh the costs and benefits" of a particular treatment program, says Daniel A. Potter, Ph.D., associate professor of entomology at the University of Kentucky. He spoke at the Ohio Turfgrass Conference.

"The intent is not to condemn chemical use on turf, but rather to provide food for thought for turf managers. There are clearly many situations for which the use of pesticides is essential for the maintenance of quality turf," Potter points out.

"However, pesticide applications, like human medicines, may have some side effects, and these must be weighed against the overall benefits that the treatment provides."

Earthworms play a role in Potter's studies because of

their usefulness in breaking down heavy thatch layers.

"We have demonstrated experimentally that earthworms are very important to the decomposition of thatch," Potter explains.

"The activity of earthworms is very much like a natural top dressing," he adds.

"Experiments with thatch pieces buried in mesh bags showed that thatch decomposition is much more rapid with earthworms present than without them. The earthworms pull down the organic matter into the soil, and mix

soil into the thatch."

Worms also aerify the soil and enrich it with their castings.

"Destruction of earthworms by pesticides results in slower thatch breakdown," Potter reports.

"After only three months, thatch pieces that were exposed to earthworms contained 33 percent less organic matter and 33 percent more soil by weight than pieces from which earthworms were excluded," Potter recalls.

"Particular pesticides are more toxic to earthworms

than others," says Potter, noting that information in this area remains sparse and that more research is needed.

It is not known how long it takes an earthworm population to recover.

Insecticides tested that showed the least impact on earthworms were isofenphos (Oftanol by Mobay) and trichlorfon (Dylox by Mobay and Proxol by TUCO/Upjohn), according to Potter's experiments.

Fungicides that stood out with little impact were fenarimol (Rubigan by Elanco), triadimefon (Bayleton by Mobay, Proturf Fung. 7 by Scotts) and chlorothalonil (Daconil 2787 by Fermenta and Proturf 101V by Scotts).

"Heavy use of ammonium nitrate fertilizer may also affect earthworms. Application of five pounds of nitrogen per 1,000 square feet per year for seven years resulted in a decline in pH (6.2 to 4.8), increased thatch accumulation and a 50 percent reduction in earthworm populations," Potter says.

Studies show that earthworms are intolerant of acidic soils.

As for herbicides, "None of them had much of an effect" on earthworm populations.

**O**ther beneficial animals may be found in lawns.

"Numerous kinds of predators and parasites are abundant in turfgrass. In Kentucky, more than 30 species of spiders, 42 species of ground beetles and 40 species of rove beetles were represented in pitfall trap samples from urban turf sites," he says.

"These creatures may be important in maintaining pests at non-damaging levels. For example, in one experiment we placed sod webworm eggs in untreated lawns and recorded their fate over time. Interestingly, turf-inhabiting predators consumed up to 75 percent of the eggs within 48 hours," Potter notes.

"Natural enemies that may help to reduce turf pest populations include parasitic wasps, nematodes, spiders, ants and beetles," he adds.

"Insecticides applied for the control of pests may also affect beneficial species.

For example, one surface application was found to re-

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Potter: Experiments continue.





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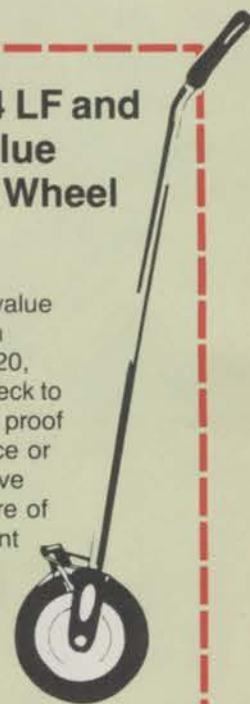
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duce predator populations by 60 percent for as long as six weeks.

"In another experiment, natural predation on sod webworm eggs was greatly reduced by a pesticide application," he says.

"Although there has been little research on this subject," Potter observes, "a few studies do suggest that pest outbreaks on treated lawns are sometimes related to interference with natural control agents."

Potter reports that "research is under way to identify insecticides that provide good control of pests with minimum impact on beneficial organisms."

LCI

## Garden State LCOs dealing with posting

By JAMES E. GUYETTE  
Managing Editor

ATLANTIC CITY, N.J.—Garden State LCOs are gearing up to comply with posting regulations due to go into effect March 1.

At presstime the completed rules had yet to be distributed, but so far the issue seems to be causing few problems.

"There's a little bit of consternation, but not a lot," reported Ilona F. Gray, executive director of the Alliance For Environmental Concerns, an industry organi-

zation.

Some LCOs were worried over a provision that requires customers to be given a list of all application dates before any work can begin.

They feared that keeping such dates could be difficult given weather conditions and other factors. "For most of the members that's pretty vague," Gray said.

The New Jersey Department of Environmental Protection will grant LCOs a "two-week window" to allow leeway when enforcing the dates clause, according to

John Orrok, southern regional field supervisor for the Bureau of Pesticide Control.

At the New Jersey Turfgrass Expo held in Atlantic City, several LCOs told Orrok that they were upset because non-professional consumers weren't included in the regulations.

"If it's a hazard, keep it away from the homeowner," said one man in the audience.

He added that the extra scrutiny "makes me a target for a lawsuit" from anyone upset over an application.

"These are your best de-

fense," Orrok replied, referring to the regulations. "Lawsuits are going to come whether we want them or not."

Orrok added that an LCO who follows the regulations can use that fact in court when arguing a case.

New Jersey lawmakers consider homeowner posting an invasion of privacy, said Ray Ferrarin, assistant director of the Bureau of Pesticide Control.

"We didn't want anything on the books that we can't enforce," Ferrarin pointed out. For LCOs facing posting regulations in other states, Gray urged them to become involved with industry organizations and to voice their opinions.

Several LCOs in New Jersey were caught by surprise. "They were totally unaware that there would be changes," Gray recounted.

"I got a couple who called me—who said they hadn't gone to any hearings—and now they're complaining." LCI

## STUDY

from Page 1

tractor, these companies sell predominantly labor and equipment services and very little hard material product."

A portion of the study involves a comparison to the financial statements of companies in a 1979 ALCA study and notes that while landscape management contractors have incorporated better management practices over the last 10 years, profits have fallen by more than 50 percent.

Much of this decrease is attributed to stiff competition and an inability to pass along the increasing cost of labor and equipment through price increases.

"It's a self-help text," says Bruce Hunt, president of ALCA. The study, presented in workbook form, encourages contractors to compare their own financial position with others in their particular trade. It then provides recommended values after which to model themselves.

The text is further enhanced as a management tool with the inclusion of a full explanation of relevant financial ratios and a definition of a contractor-focused chart of accounts.

Hunt emphasizes that "It is designed to inform you of areas needing attention, to reassure you, to educate and to assist you in the financial management of your company."

The 64-page study is available for \$40. For information, contact ALCA at 405 N. Washington St., Falls Church, VA 22046. (Phone: 703-241-4004. LCI

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MARCH 1989

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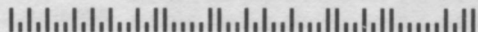
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# Industry input needed for better local water policy

By JAMES E. GUYETTE  
Managing Editor

Involvement in politics at the local level is necessary if LCOs and mowing/management contractors are to have a say in local water policies.

That's the advice of Robert N. Carrow, Ph.D., associate professor of turfgrass science at the University of Georgia. He spoke at the New Jersey Turfgrass Expo.

In some areas the survival of the industry depends on business owners uniting to convince local governments that extended sprinkling bans should be used only as a last resort, says Carrow.

"If you have years and years where your customers are under water restrictions, they won't want to pay for your services," Carrow warns.

Pride in a homeowner's landscape suffers if there is not enough water available to keep it looking nice.

"The lawn care industry gets hurt because you can't produce," he observes.

Industry involvement is particularly crucial in regions that have traditionally had enough water, yet increased development has put a dent in the available water supply.

"In many of these humid areas everyone thinks, 'We'll get enough rain,' but the population is catching up," Carrow points out.

Water conservation efforts are required, as is a public relations campaign to educate local government officials on the value of nice landscapes.

Because watering ban decisions are generally made within a community, local business owners should conduct the education process at that level.

Scientists and other outside influences are likely to have little impact on a local political body, Carrow cautions. "You can't rely on the university people to help you."

The green industry efforts do not have to be of a confrontational nature, he says. "It can be a very positive thing."

The authorities are unlikely to have any idea of the size of the local industry—and its contributions to the economy and a more aesthetic lifestyle in the community.

Turf managers may wish to arm themselves with facts gleaned from a booklet pro-

duced by The Lawn Institute in Pleasant Hill, Tenn.

Entitled *Lawn and Sports Turf Benefits*, the publication details why turf areas are a good thing to have around.

Environmental and health benefits discussed include noise abatement, temperature modification (a lawn can be 30 degrees cooler than asphalt and 10-14 degrees cooler than bare soil), glare reduction, allergy control, water purification, water table recharge, absorption of air pollutants, entrapment of airborne particles, oxygen generation (a 50-

foot by 50-foot turf area creates enough air for a family of four), fire retardation, soil building and erosion control.

It also notes that a nice landscape adds 15 percent to the selling price of a home, and that the recovery value of a landscape improvement is 100 percent to 200 percent.

Mowing/management contractors and LCOs need to watch their own water usage, too, says Carrow. Setting a good example is important.

People will notice a company with sloppy watering habits, Carrow cautions.

An education program for water conservation among landscape professionals would go a long way toward projecting a proper image—and it would save precious gallons of water.

They need also to get their clients involved, says Carrow.

"When you're selling your service you have to tell the homeowner that it's a cooperative effort."

Dropping off a brochure in the spring will not cut the mustard, Carrow believes. "You're going to have to provide the education—and you

have to come back—you can't just do it one time."

One education example is the time it takes to adequately water a lawn when using various types of sprinklers. A homeowner does not know how long it takes to put an inch of water on the grass, therefore a chart is needed.

Irrigation systems may deliver textbook results, but perhaps most people in your area own oscillating or spinning sprinklers that spray at a smaller volume: "With those end-of-the-hose things it usually takes a lot longer." LCI

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Carrow: Education is the key.



# More options available for controlling white grubs

BY PATRICIA J. VITNUM

**W**hite grubs continue to be the primary home lawn pest in much of the Northeast, and there are indications they may be expanding into areas of the Southeast as well.

To control this pest, turf managers must first understand the life cycle for most grubs and the chemical and non-chemical strategies available.

The primary species in New England is the Japanese beetle, but other areas of the Northeast and Midwest are blessed with overlapping species, including the oriental beetle, European chafer, masked chafer, and asiatic garden beetle.

Each of these has a similar life cycle—one generation per year, egg laying in June, July or August, (depending on species and location) and most feeding in September and October, and again in April and May.

Some areas have notable populations of "May beetles" or "June beetles." These are the large (one inch or more) beetles which fly rather clumsily at twilight and are attracted to lights. The grubs of these species are also very large (two or more times the size of Japanese beetle grubs).

These species, sometimes referred to as *Phyllophaga*, have a two- or three-year life cycle, with the extra time spent in the large grub stage, feeding on turf roots.

Usually, populations of these species are synchronized so that most of the population will be in the same year of development. As a result, there will be alternating years of severe damage (when the bulk of the population is in the large grub stage feeding actively) and years of reduced activity (when the bulk of the population is in the non-feeding beetle or small grub stages.)

## Detection important

As in any pest management regimen, the key to successful grub control is early detection and accurate identification. In

some cases, the species identification may not be critical to your control efforts, but in other cases an accurate identification can make the difference between getting control and wasting your time and money.

The identification will have a bearing on the subsequent timing of application and in some cases will dictate what insecticides or biological agents you might select.

The next step is determining whether control is really necessary. In other words, how

many grubs does it take to cause a problem? Unfortunately, there is no simple answer to the question, but in our experience, most moderately maintained home lawns in the Northeast (moderate fertilization, mowing at 1.5 to 2 inches, receiving water to avoid drought stress) can tolerate five to eight grubs per square foot.

This holds true as long as the grubs are of the one-year life cycle variety. In any case, these numbers are probably higher than many quoted in

the past.

We have learned that a turf area can be quite tolerant of insect activity as long as it is not subjected to other stresses.

## Homeowner demands

While a home lawn should be able to tolerate five to eight grubs per square foot, it seems that many homeowners cannot tolerate the thought of such a grub population. One of the goals of the LCO must be to educate the homeowner on a variety of environmental issues.

We must find a way to explain that complete eradication of a grub population is impossible and, in fact, undesirable because the pesticide load that would be necessary would be detrimental to a number of other animals.

We must convince homeowners to learn to live with low level populations of pests, as long as the overall vigor of the lawn is not adversely affected.

A successful grub control program should incorporate common sense agronomic practices. Start each season

## Four Reasons Why You Need TERRANE SP.



### About the Author

Patricia J. Vittum, Ph.D., is associate professor of entomology at the University of Massachusetts in Waltham.





**Hunting for grubs:** Reg Mimms, a field technician at the University of Massachusetts, studies a Japanese beetle population.

with a soil test on every property.

This will ensure that soil pH is being maintained in an acceptable range, and will confirm the nutrient level of the site. (In an ongoing program where we scout 120 homeowners' properties each season, we have been astounded to find most home lawn soils out of kilter in at least one aspect of the standard soil test.)

Concentrate on educating the homeowner on the importance of certain maintenance practices—mowing before the grass becomes too long, mowing at 1.5 to 2 inches instead of aspiring to maintain golf course fairway for a front yard,

watering infrequently but deeply (to encourage deeper rooting).

All of these practices will enhance the vigor of the turf and make it more tolerant of insect pressure.

#### Benefits of weed control

In many cases, an early season crabgrass and/or broadleaf weed control program will also promote more vigorous turf and make it more tolerant of insect or disease activity.

While some environmentalists would argue that such a use of herbicides does not fall within an integrated pest management (IPM) program, it can be argued that

such an application gives the turf a headstart for the rest of the season and often reduces or eliminates the need for any other pesticides during the growing season.

If scouting or past records show that an insecticide application will be necessary to control a grub population, use common sense and get the most out of the material. First of all, use the material at the right time.

In the Northeast, grub applications should be made in August (right after the eggs have been laid but before the grubs are large enough to cause significant damage) or in mid-April to mid-May, when the large grubs are in the root zone feeding actively.

If you use the material properly in August and get a good level of control (at least 80 percent), a follow-up application in April will not be necessary.

Application dates will vary depending on location (earlier in the spring in more southerly locations and possibly extended a bit later into autumn in those same locations). Contact your local cooperative extension agent to determine the appropriate periods for your area.

#### The best time

August applications are preferable in that the grubs are most susceptible (just hatching out of eggs and still very small) at that time. However, the summer heat and typically droughty conditions make it difficult to get the material in contact with the grubs.

Copious amounts of water (at least half an inch shortly after the application is completed) must be applied to the area to move the material downward and the grubs upward. In most lawn care circumstances, counting on the homeowner to apply a half inch of water evenly over the lawn is pretty risky at best.

As a result, some turf managers apply grub materials in April instead, when the "spring showers" take care of the watering problem naturally. (Application dates for the *Phyllophaga* complex will be quite different because egg laying occurs earlier in the growing season.)

Either period should provide reasonable levels of grub control as long as the turf manager selects a suitable material and applies it at the right rate.

Every pesticide applicator knows that "the label is the law." What he or she may not know is that the labelled rates of application are there for a reason. The manufacturer has conducted extensive tests, and university researchers have tested the materials at a variety of rates, before the material is ever cleared for use.

The rate on the label is the rate which is needed to control the target pest. If you apply

## 1 BROWN PATCH

The most common turf disease, Brown Patch, can destroy a stand of bentgrass within a few days. Prevalent during extended periods of high temperature and humidity, the disease is also encouraged by poorly drained soil, lack of air circulation and excessive nitrogen. At first it appears as a circular area of light brown grass, ranging from a few inches to several feet long. The circular areas grow and turn brown.

## 2 SCLEROTIUM BLIGHT

Also called Southern Blight, Sclerotium Blight attacks annual bluegrass, Kentucky bluegrass, ryegrass and bentgrass in all sections of the country. The fungus begins to spread from the soil and surrounding debris to the grass during hot, humid weather. In its early stages, the disease looks like a frog-eye, having small, circular dead areas with tufts of apparently non-diseased grass. The circles may grow up to three feet in diameter.

## 3 PYTHIUM

Pythium attacks all cool season turfgrasses and Bermudagrass, especially grass seedlings, which will die (damping off), resulting in irregular dead patches in the turf. Normally, it is a high temperature, high humidity and wet weather disease. Mower movement will spread fungus from diseased areas to healthy areas, thereby quickly spreading the disease. Late stages of

pythium can spread very quickly and can kill large, irregular sections of turf in 24 to 48 hours.

## 4 GRAY SNOW MOLD

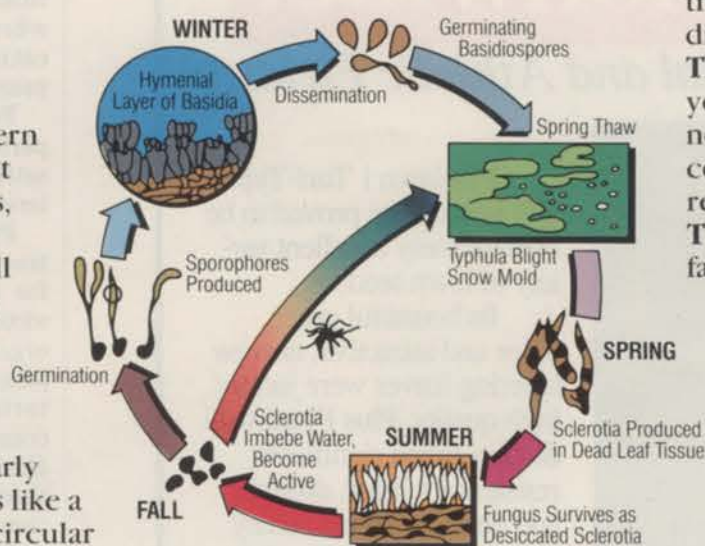
Also known as Typhula Blight, Gray Snow Mold attacks most northern turfgrasses. The disease usually develops under a snow cover and is seen as the snow melts. Fungus development is favored by high soil moisture and temperatures between 32° and 40° F. Usually visible at the first spring thaw, it

reasons enough to find help, and with one product, **TERRANE SP**, you get fast, effective control.

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appears as circular dead areas up to 6 inches in diameter, but can grow to 2 feet or more and eventually kill large irregular areas of turf. Typhula Blight not only attacks foliage, but infects deep into the crown area, completely destroying the grass plant.

#### HOW TO GET CONTROL

Keeping your turf looking good all year long is a tough job. The turf invaders such as Brown Patch, Sclerotium Blight, Pythium and Gray Snow Mold can easily destroy all your hard work. Any of these four most common turf diseases are

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*In most lawn care circumstances, counting on the homeowner to apply a half inch of water evenly over the lawn is pretty risky at best.*

less than the label recommends, you will not have good success—and you may encourage the development of resistance of the pest to the material.

If you apply more than the label rate recommends, you will be subjecting the environment to an unnecessarily high pesticide load—and you will be wasting money, too.

There are several insecticides labelled for controlling white grubs. Each has its own particular characteristics. Some materials (notably diazinon) are very toxic to wild fowl and should not be used in areas where geese or ducks are active.

Some materials (such as Proxol or Dylox) move through thatch very readily—

and may move through sandy soils more rapidly than some others.

Others (such as Dursban) are tied up in the upper thatch very rapidly and essentially do not move down to the thatch-soil interface.

Some materials begin to kill grubs within a matter of a couple days (for example, Proxol or Dylox, Triumph) while other materials (such as Oftanol) work more slowly so that a week may pass before the applicator sees evidence of dead or dying grubs.

Similarly, some materials break down quite quickly in the soil-thatch setting so that they remain active against

grubs for only a couple weeks, while other materials break down much more slowly, remaining active for several weeks.

#### Consider circumstances

A turf manager must consider his or her circumstances before buying or applying a material. If he or she is applying a material early in the egg laying period (late July or early August in New England), he or she probably should use one of the slower but longer lasting materials.

If the turf manager is responding to a late season call-back to clean up a grub problem that got out of hand,

he or she should use one of the fast acting but short residual materials.

If the areas being treated are on particularly sandy soils, he or she should be sensitive to statements on the label which pertain to such areas. (Note, however, that the movement of pesticides applied to turf areas is very different from the movement of the same materials applied to open soils.)

#### The IPM option

All of the concepts we have discussed come under the broad heading of IPM. If common sense approaches are used in maintaining turf areas, pesticide applications will be minimized (but not necessarily eliminated) and the effectiveness of those applications will be enhanced.

Meanwhile, with white grubs there are at least a couple biological control agents available as alternatives for the homeowner who is absolutely opposed to the use of 'chemicals.'

Perhaps the most familiar is milky spore, which is a bacterium that is produced on a commercial scale and can be applied to turf areas in a manner similar to standard pesticides. Eventually, the bacteria break through the gut lining of the grubs and cause a septacemia—essentially grubs leak to death!

Milky spore is only effective against Japanese beetle grubs. It can be extremely effective, particularly in the Middle Atlantic states, and when it works, a single application may provide several years of control.

For a variety of reasons, its performance in more northern settings (New York, New England) is inconsistent.

Perhaps the single most attractive feature of milky spore for grub control is that it is virtually non-toxic to all other organisms, so it will not harm people, birds or pets. The material (available in several commercial formulations as *Bacillus popilliae*) costs two to three times as much as a traditional insecticide for the same area, but in many cases a single application will remain effective for three to five years.

#### Nematode option

Another biological control alternative is showing a great deal of potential for control of a wide range of species of white grubs. *Entomogenous nematodes* (nematodes which feed

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*There are at least a couple of biological agents available for the homeowner who is opposed to the use of "chemicals."*



on insects) are now available commercially.

Nematodes are tiny worm-like animals that feed on a variety of things. The nematodes we are concerned with live in the soil and actually can detect and move to grubs and other insects that are active in the soil. Nematodes penetrate a grub's body and release bacteria that break down internal tissue.

These nematodes feed on the bacteria and the broken down tissue, and then emerge from the grub cadaver to repeat the cycle. Nematodes will feed on most species of grubs, as well as other soft-bodied insects in the soil.

The primary difficulty in using nematodes to control grubs in turf seems to be the application of water immediately after treatment.

While the nematodes are very resilient and can tolerate being applied through standard hydraulic sprayers, they must then have enough moisture to move through the thatch and into the soil.

Thus the treated area must be watered in immediately with at least a half inch of water.

University trials have shown the use of nematodes to be somewhat inconsistent in the control of grubs. Some tests have yielded more than 90 percent reduction of grub populations, while others have provided less than 30 percent control.

#### Watering needed

In virtually every instance where control was not acceptable (at least 80 percent), the application of water after the nematode treatment was delayed for a few hours or more.

Until the phenomenon is understood more clearly, LCOs may want to avoid using entomogenous nematodes in their programs unless they have been able to explain the importance of watering to each homeowner who has requested the procedure.

The LCO should receive assurance that the homeowner will be able to water in the material immediately after application.

There is no simple answer to controlling white grubs on lawns, but a little attention to detail—and concentrating on the common sense agronomic steps necessary to maintain vigorous turf—should improve your chances. LCI



**In trouble:** Nematodes attack a white grub.

## New dwarf tall fescue due this summer

**TANGENT, ORE.**—A new dwarf turf-type tall fescue, called Shortstop, is expected to be on the market by August.

"We'll have a good amount of seed available this summer," said breeder Jerry Pepin, Ph.D., of Pickseed West, Inc. in Tangent, Ore.

Pepin has spent five years developing the dwarf plant, and he is pleased with the results.

"I think it's going to be a successful variety," he said.

At Pickseed's Oregon research station, Shortstop exhibited the lowest and slowest

growth habit of all the varieties tested.

Tests at universities throughout the United States are expected to show equally positive scores. "We think we'll do really well in the national trials," Pepin said.

"It's lower and slower growing than most of the new varieties coming out."

According to the company, Shortstop has been rated as one of the best for overall turf quality and color. "It's very attractive," Pepin reported.

The low growth habit, finer leaf texture, dark green color,

and its ability to produce a dense turf in a variety of climatic and soil conditions makes Shortstop ideal for home lawns, parks, athletic fields, golf course roughs and low maintenance areas, he said.

According to Pepin, it is anticipated that the new grass being developed will not cost much more than other certified tall fescues on the market.

On the production level, Pepin said the new variety is a good seed producer, which should help it be an economic success.



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## Jacklin expands into Southwest

POST FALLS, IDAHO—The Jacklin Seed Co. is expanding its operations into the South-

west, the company said.

An office will open in Phoenix, Arizona, and there will be research stations in the Yuma and Imperial Valley areas.

The Arizona facilities will concentrate on warm season

grasses—particularly newly released improved varieties of bermudagrass and Zoysia grass.

The company plans to double its Arizona acreage this year and again in 1990.

In addition to work on a seeded Zoysia, "Our Arizona facilities also enable us to grow and further develop our new bermudagrass varieties, which are more cold tolerant," said Doyle Jacklin.

"These releases have a shorter dormancy period... The varieties will replace common types of bermuda in areas which have previously experienced winter damage," Jacklin said. LCI

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## LYME

from Page 1

Hellman, who spoke at the Maryland Turfgrass Conference in Baltimore.

"The key is to reduce the habitat for small animals" that may carry the deer tick (*Ixodes dammini*), not to be confused with the larger, more common, American dog tick (*Dermacentor variabilis*). The deer tick is about the size of this "bullet."

Lyme disease is caused by a coiled bacterium—called a spirochete—which is carried by the tiny deer ticks.

"It's been a problem for years, but it's now just coming to light," Hellman notes, adding that deaths caused by the disease are often not reported because the symptoms mimic a number of other ailments.

A person who is coming down with Lyme disease may notice a red, target-like rash. Only 75 percent of the victims get such a rash, however.

Other signs are fatigue, a headache, pain and stiffness in muscles and joints, a fever, or swollen glands. If left untreated Lyme disease will create complications within the heart, nervous system or joints. Some patients may experience drooping facial muscles.

It can be crippling or fatal if left untreated. "Many people are dying of this disease because it's undetected," Hellman warns. "If you have small ticks feeding on you and you feel ill I'd strongly recommend that you mention this to your physician."

Because the pinhead-sized deer tick can go undiscovered on a person's body, Hellman urges that field workers and others exposed to the critter be given a "tick talk" warning them of the danger.

(It should be noted that not every deer tick carries Lyme disease, and not every person bitten by the tick gets sick.)

**T**he deer tick is currently found mostly on the East Coast, but it is expected to hit other regions. "This tick is spreading. We expect it to go all the way to the mountains," says Hellman, referring to the Appalachians.

The range of the tick continues to expand as birds and other animals carry it inland, and more houses are being constructed in wooded and

grassland areas.

The deer tick has been discovered in Minnesota and Wisconsin.

(A different type of tick, *Ixodes pacificus* has been spotted carrying the same nasty spirochete in California and other Western states. Researchers have located it in the South, too.)

Authorities continue to be on the alert as the deer tick—and Lyme disease—continues to expand.

Lyme disease is now recognized in 26 states.

"Here in Ohio, people at the health department have been asking me questions about it,"

says Kathleen L. Curran of Ohio State University. "The way the tick is spreading, it's probably only a matter of time before it reaches here."

Curran is a graduate student in acarology, which is the study of ticks and mites. She also is a former Lyme disease victim.

"I was familiar with the symptoms, so when I got the rash I went and got treatment," Curran explains. "I have my blood taken every six months to make sure that I haven't been re-exposed to the disease."

She believes the offending tick was carried into her

former house by her cat. Curran and her cat used to live in Westchester County, N.Y., which is described as a hotbed of deer ticks.

More than 3,000 cases were diagnosed last year in New York State, and many of those came from the Westchester area and on the north and south forks of nearby Long Island, according to Michael A. Deutsch, an entomologist with the Excelsior Exterminating and Chemical Co. in New York City.

There were about 14,000 reported victims of Lyme disease in 1988. "The cases are increasing every year," De-

tsch reports.

In Westchester County deer tick bites are "almost a daily occurrence," says Curran at OSU.

"You could get bitten going to get your mail," she adds. "The lawns are infested and the woods around the houses are infested."

This is where turf managers can be of help. "Be prepared and be of service," says Hellman at the University of Maryland.

"This tick is easily controlled with chemicals registered in the industry today," Hellman observes.

"Anything that's labeled



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Hellman: Check the labels.



**'This tick is easily controlled with chemicals registered in the industry today.'—Hellman**

for turf insects will probably work," says Deutsch. He points out, though, that a tick is technically not an insect—it's closer to mites and spiders. "They have to check the label to see its intended use."

These rules may vary from state to state, so it is important to check with the chemical manufacturer or your state's pesticide bureau to see what's appropriate.

(Some of the chemicals

cited as being effective tick controls are bendiocarb (Turcam), carbaryl (Sevin), chlorpyrifos (Dursban) and diazinon. Deltic was listed as a good control, but Nor-Am has stopped making it. The company says, though, that there should be enough on the market to last this year. These chemicals do not control Lyme disease—just ticks.)

Hellman has another caution: State regulations may

vary when it comes to defining turf or an empty lot. "What is a lawn and what isn't? A field might not be considered a lawn in some states."

This is important to the LCO because effective tick control often involves clearing tall grasses in fallow areas. (The deer tick is carried by a number of animals such as raccoons, skunks, mice, birds, deer, dogs, cats, horses, etc.)

"I think a lot of calls will be to vacant lots next to homesites," Hellman notes.

Mowing/management contractors can play a role, too. "Vacant lots should be mowed, but even if you mow you don't get rid of the ticks.

They can mow it down and then they can treat it. They're going to have to contact a lawn care company," Hellman says.

Deer ticks do not actively seek out humans, yet they can sense carbon dioxide and body heat, plus they can hang from plant material and latch onto a person as he or she walks by.

Deutsch compares it to the trackside "snagging the bag" postal "mail hook" system used in the days of steam locomotives: "It's like when the old train would go by and pick up the mail."

Birds and domestic animals can bring the deer tick onto home lawns. One way to test for them is to take a piece of

flannel cloth and drag it across the grass. The little ticks will stick to the cloth.

LCOs "can do 'the drags' and make population estimates," says Hellman.

"If there are ticks in the area, people would rather treat than take the risk."

However, Hellman recommends that tick treatments be done on a demand basis, rather than as part of a marketing push: "We don't want to set a scare (into people), and not everyone's lawn needs to be treated."

Authorities are still unsure of the best tactics to use in the battle against deer ticks, but some local governments may be open to a large-scale spraying effort to terminate the ticks.

"Certain communities... may want some community-wide programs," Hellman suggests.

Deutsch cautions that a tick program may require extra effort because of the deer tick's size. "It's very, very small, and it can evade the droplets of the pesticide."

Curran concurs. "They have to be in direct contact with the poison itself. The spray has to be a fine mist, and it would have to be done often."

People are most likely to be bitten by a deer tick during May through September.

The Pfizer Chemical Co. offers these tips for people in tick-infested areas:

- Wear protective clothing.
- Check your body thoroughly for ticks and bathe soon after returning home.
- Check your pets thoroughly before letting them in the house.
- Remove ticks carefully with tweezers, using a gentle, firm tugging motion. Don't kill the tick before it has been removed.
- Save the tick in a small glass jar.

LCI



Curran: Tick is spreading

## Diesburg joins Internat'l Seeds

**HALSEY, ORE.**—Kenneth Diesburg, Ph.D., has joined the research staff at International Seeds, Inc.

He will manage breeding and agronomic service programs in turf and forage grass seeds, said Research Director Craig Edminster.

Diesburg was graduated with honors from Iowa State University.

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How do franchisers who use it justify broadcast spraying TURFLON at about \$9.50 per acre? "Reduced callbacks," Russ says. He adds that independent Lawn Doctor operators select their own products. Most are skeptical of TURFLON until they prove for themselves that it does a better job of controlling tough weeds. "Many who use it full service started with spot (spraying)."

Finally, Russ says one word describes the experience Lawn Doctor franchises have had using TURFLON: "Excellent."

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## INNOVATIONS

## SEEDS

from Page 1  
seeder."

A primed seed stays dry until planted.

Seed priming makes the seed better able to withstand temperature extremes, which means that turf managers can make use of an extended planting season, she says.

Currently, sowing efforts in the spring and fall can be foiled by a climate that is either too hot or too cold.

"In most places when they plant their seed the weather is variable," notes Brede, who spoke at the Maryland Turf

Conference.

And because seed priming allows the seeds to sprout quicker, treated seeds can be helpful for use at athletic events like the Super Bowl, "where they are under the gun to get it established in a short period of time."

The concept can also be "very valuable for seed production" because growers can plant their fields sooner. A plot planted just two weeks earlier means an extra 100 pounds of seed per acre, according to Brede.

Unlike a more expensive seed priming method requiring polyethylene glycol, the

*Primed seeds can be used at athletic events like the Super Bowl, 'where they are under the gun to get it established in a short period of time.'—Brede*

company is using a more economical mixture of experimental salts and water.

Jacklin is in the process of getting a patent. "We have the technique and the timing down, all we need to do is implement it."

It is likely that the seed priming process will be used by

seed distributors, who will then sell bags of primed seed.

It is expected to be on the market within two years, Brede explains.

Look for additional news on the seed priming front, promises Jesse Johnson, vice president of

Liquid Sod, Inc. in Brighton, Mich.

He declines to publicly discuss what is on tap, except to say that "we also have a product coming out that will be germinated seed—sproutable overnight."

Johnson is excited about the entire concept: "It is one of the hottest things coming into the industry. They're going to have seeds that sprout overnight; they'll sprout within hours."

At the moment, the company is marketing the Liquid Sod Pre-Germinating Unit, which allows the grass seed to be sown dry.

"It isn't all wet and sticky" like a traditional pre-germination process, says Johnson. "It goes right through a broadcast spreader."

It also works in a slitseeder, drop spreader or liquid sod machine.

Part of the problem with traditional pre-germinating ("It has a stigma involved with it.") is that the various seeds are left to soak overnight, leading to fermentation and damage, Johnson says.

No seed should soak more than four hours, he maintains. "We have a system that shows them how to sprout their seeds correctly."

Traditional soaking generates too-high temperatures, but the easy-to-use pre-germination bags he sells eliminate that problem, according to Johnson. "This system, without electricity, has a way of controlling the heat."

The quick and efficient germination rate makes the seeds perfect for erosion control, he says, plus there is a "phenomenal reduction in watering costs" when planting.

At Pennington Seed, Inc., they are pleased with their line of Penkoted seed.

The seed has coatings of fungicides, natural insect and bird repellents, growth regulators and stimulants.

"It improves the environment that the seed grows in," reports Ronnie Stapp, Pennington's vice president for acquisition. "It protects the seedling from diseases."

A typical seed is planted in a warm, wet area, says Stapp. "It's a good place for diseases to develop."

The seeds "have a better chance of surviving" with the Penkote, he believes.

Celpril Industries, Inc. has been marketing its Rhizo-Kote and Nutri-Kote products with positive results. "We had a really good increase in sales last year," observes Duane Borcharding, technical sales representative.

According to the company's John Walsh, Ph.D., the coatings required seven to eight years of research before being introduced.

Originally the main buyers

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# When Jim Gourley moved up to TURFLON, callbacks in Kenosha went down, way down.



**"Our resprays have decreased by almost 50%."—**

**Jim Gourley, owner  
Lawn Masters,  
Kenosha, WI**

If you're like most LCOs using standard three-way herbicides, there are days when you wish the phone wouldn't ring again. Callbacks and cancellations can really get you down. Well, maybe it's time you moved up to TURFLON\* herbicide.

#### **One good reason to switch.**

"We switched to TURFLON because we were having too many resprays," explains Jim Gourley. And after 22 years in the business, he's happy with the results: "Our records show that we do have much better weed control and many fewer resprays this year than we've ever had."

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"Yes, we pay more for TURFLON," Jim says. "But when I figure how much it costs us per respray, it's saving us lots of money. And that justifies the extra cost."

Jim adds that there's another reason he can't afford to make too many callbacks. "When you have to go out and do a respray, you're taking a chance on losing that customer."

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**Brede:** Grass grows quicker.

were golf course people, says Borcharding. "Now it's starting to spill over into other

areas such as lawn care."

"Fast greenup" is a big plus, says Walsh. "You get a very rapid early development."

The coating is the key, says Borcharding. "Basically we're putting the nutrients around the seed, and this allows the nutrients to get to the seed. We're not affecting germination, per se, we're working on the survivability."

Fertilizers and fungicides are among the ingredients, Walsh notes. **LCI**

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## New non-phenoxy products showing promising results for Elanco and Dow

**T**wo new non-phenoxy herbicides are scheduled to enter the market this year.

The Dow Chemical Co.'s Confront herbicide should be registered by late 1989, says Rob Peterson, lawn care products marketing manager.

It will be registered for control of annual and perennial broadleaf weeds in ornamental turf.

Registration is pending for Gallery, which is due for release in the spring. The Elanco

Specialty Products entry will be a pre-emergence dry flowable for mainly broadleaf weed control in turf and established ornamentals.

The isoxaben in the product was first discovered in 1979, and Elanco is pleased with the results.

"This is totally new chemistry," according to Scott Eicher, marketing associate.

Dow reports that promising research was conducted on Confront in the spring and summer of 1988 by Dow spe-

cialists working with three universities.

The tests compared efficacy of the postemergence herbicide applications on broadleaf weeds in turf.

Overall, Confront provided excellent control of major broadleaf weeds, according to the company.

Gallery was a success in both warm and cool season experiments, Eicher says. "It's been widely tested for the last several years in the East and West; North and South."

Confront is composed of two active ingredients—triclopyr and clopyralid. Both act as a plant hormone mimic, disrupting plant cell growth.

Initial control symptoms are noticed four to six days after treatment, with complete kill in six to eight weeks.

Each active ingredient in Confront has a variety of weeds it controls.

Triclopyr controls weeds such as ground ivy, oxalis, spurge, violets, chickweed and speedwell, while clopyralid controls musk thistle, clover, dandelion and plantain.

Together, these two ingredients give LCOs a broad spectrum of weed control, according to the company.

According to Elanco, "In our research isoxaben has been found to be herbicidally active on many broadleaf weeds while exhibiting excellent safety to ornamentals, established turf and orchard crops."

The weed control spectrum of isoxaben is complementary to Elanco's oryzalin. **LCI**

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**Peterson:** Tests look great.

### Brouwer doubles facility

**KESWICK, ONTARIO**—Brouwer Turf Equipment, Ltd. recently doubled its facility to 124,000 square feet of plant and office space, the company recently announced.

The expansion marks the fourth in the company's 17-year history.

The company, owned by Outboard Marine Corp. Co., has had three expansions since 1974. **LCI**



# When Tim Doppel moved up to TURFLON, his bottom line followed.



"The first year we used TURFLON, we realized a \$1,200 savings on service call costs." —

Tim Doppel, president  
Atwood Lawncare, Inc.  
Sterling Heights, MI

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"Even though the product costs more, I still end up saving money by using TURFLON," explains Tim Doppel. And he has three years' worth of documented results to prove it pays to broadcast spray TURFLON at about \$9.50 per acre. "The first and foremost advantage of using TURFLON is its effectiveness. It works."

#### **Reducing callbacks and cancellations is the key.**

"The first year we used TURFLON, we had a 20 percent reduction in callbacks and that has held steady over the years," Tim says. "We've also seen an increase in customer retention in the three years we've been using TURFLON."

And using TURFLON has one more advantage, Tim adds. It's the reason he's been able to reduce callbacks and cancellations: "My customers are happier."

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Move up to TURFLON



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**Murphy:** Know your customers.

## PRICES

from Page 1  
which owns ChemLawn.



**Celmer:** Materials up.

Russ Frith, president of Lawn Doctor, Inc., told Lawn Doctor dealers he believes ChemLawn plans major price

increases this year. Speaking at the recent Lawn Doctor convention in Atlantic City, Frith recommended price increases this year. None were recommended last year.

LCOs interviewed at random cited increasing costs in materials, labor and insurance. Those operating in states like New York with stringent regulations also cited compliance costs.

Among materials, urea and seed costs have increased the most. Some LCOs cite increases as high as 20 percent for urea, and as much for seed compared to two years ago.

"I want to maintain my profitability," says Dave Mur-

phy, president of Green Valley Co., Shawnee Mission, Kan. He feels that he has established enough loyalty from his customers that they won't leave him because of the price increase.

"There have been many years where my costs have gone up 10 and 15 percent where we haven't been able to make that up with our customers," Murphy says.

One LCO who wished to remain anonymous fears his 5 percent price increase will not be enough to maintain his profit margin. He fears losing too many customers if he asks for any more.

Some LCOs plan increases

only for new customers. Others will raise all customers, making the new ones pay more than the old ones. Still others will raise all customers equally.

In recent years, many LCOs have raised prices 2 to 5 percent annually to avoid larger one-year increases. This year, however, many are going higher.

Sheila Freeze, owner of the Lawn Doctor franchise in Fairfax County, Va., has been raising new customers 4 to 5 percent every year. This year, she is raising the customers who have been with her for two or more years by 10 percent.

Freeze says she can only do this because of ChemLawn's increase. "We're in the most highly competitive market that there is on the eastern seaboard," she says.

Akron, Ohio-based Erbaugh Corp./Lawnmark is boosting prices 8 to 13 percent, depending on the market, says President J. Martin Erbaugh. He notes that wages are rising faster than inflation.

With a large portion of his branches in New York, Erbaugh is also concerned about the cost of complying with that state's new regulatory requirements. "It's no big deal, but it is a cost," he says.

### Regs have impact

Don Burton, president of Bergen, N.Y.-based Lawn Medic, Inc., expects 20 to 30 percent higher administrative costs because of the regulations. This, coupled with higher wages and seed costs, is causing him to raise prices 5 or 6 percent.

Kent, Ohio-based Davey Tree Expert Co. plans an increase in the 7 to 10 percent range in most markets, says Ken Celmer, vice president of operations. He cites rising materials' prices.

West Coast prices are rising too.

Yearround Lawn Care, the largest company on the West Coast, will raise prices 8 percent in most locations. "The cost of chemicals is not the factor," says Curtis Couch, general manager. "It's the cost of people."

Atlanta, Ga.-based Orkin Lawn Care, Inc. plans increases of 5 percent, as in 1988. Gordon Crenshaw, vice president, points to a larger marketing investment needed in a more competitive business climate.

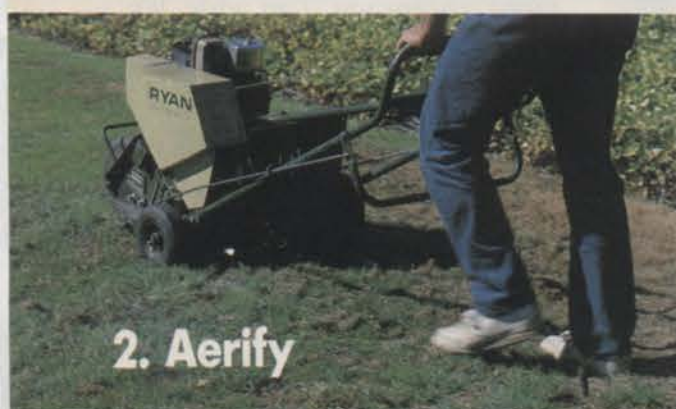
"The effectiveness of your marketing just isn't as effective as it once was," Crenshaw says. "You've got to spend more money." **LCI**



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



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# Expect price increases for mowing contracts, too

By **ELLIOT MARAS**  
Editor

**NATIONAL REPORT**—Steeper operating costs, notably labor, are forcing mowing/management contractors to defy competitive pressure and pass more costs on to customers.

Contractors, interviewed at random, are less certain than LCOs about price increases this year, but most say prices will at least reflect the country's 4 percent inflation.

Contractors, unlike LCOs, usually set prices on a per-job basis. Since costs are higher this year than last, prices will naturally be higher.

"It's mainly that it costs more to get labor," says Bill Peterson, general manager of grounds management for Dubrow's Nurseries, Inc., Livingston, N.J. (Prices for most of the company's contracts will be up by 5 to 15 percent.)

Bill Davids, vice president of Clarence Davids & Sons, Inc., Blue Island, Ill., agrees that higher labor costs must be passed on. The company will charge 4 to 6 percent more this year.

Reinhold Landscape, Flat Rock, Mich. will charge 3 to 6 percent more, says President Melanie Reinhold Sawka. She blames the rising cost of equipment as well as labor.

## Selective increases

Ron Kujawa, president of KEI Enterprises, Cudahy, Wis., and Bob Scofield, vice president of corporate relations for Calabasas, Calif.-based Environmental Care, Inc. are among several contractors who say prices will be raised on a selective basis.

"We're going to do it based on the relationship we have with the client," concurs Dave Minor, whose firm, Minor's Lawn Care, caters mostly to single-family residential customers in Ft. Worth, Tex. He expects most accounts will be raised by 5 percent.

Minor held off on raising prices last year because customers in Texas had just been saddled with a sales tax on services.

His biggest cost increase, he notes, is for worker's compensation.

Some companies would still rather look for ways to cut expenses than raise prices.

"The pressure of the com-

petition continues to be severe," notes Bruce Hunt, a vice president with the Langhorne, Pa.-based The Brickman Group, Ltd. The company will work harder at controlling its costs.

The construction boom in the Mid-Atlantic region has eaten up much of the area's available labor, notes Bob Berry, vice president of Lancaster Landscapes, Inc., Arlington, Va. Higher wages will result in an overall 10 percent jump in prices.

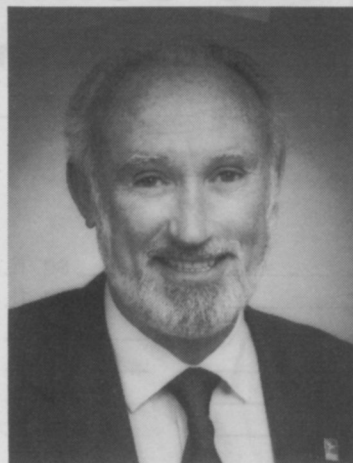
Labor costs have risen the most on the West Coast,

where enforcement of the recent immigration law has been fierce.

Mission Landscape Services, Inc. in Costa Mesa, Calif. will be charging 10 to 20 percent more, says President Wayne DuBoise. "It may cost business, but it needs to be done."

Raising prices is impossible, however, in areas with a poor local economy.

Commercial property owners in Denver are "looking to cut budgets," says Eldon Dyk, vice president of Allen Keesen Landscape, Inc. **LCI**



**Scofield:** Labor costs keep going up.



**Sawka:** Equipment costs are going up, too.

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**The construction boom in the Mid-Atlantic region has eaten up much of the area's available labor—Berry**



# MAINTENANCE METHODS

## Measuring the commercial landscape accurately

### Property Analysis Report

|                                 |                  |                                                 |         |
|---------------------------------|------------------|-------------------------------------------------|---------|
| Name: _____                     | Date: _____      | <b>TREES AND SHRUBS:</b>                        |         |
| Address: _____                  | Report By: _____ | 9. Trees: Canopy Sq. Ft. _____                  | sq. ft. |
|                                 |                  | 10. Shrubs: Canopy Sq. Ft. _____                | sq. ft. |
|                                 |                  | 11. Total Canopy Sq. Ft. _____                  | sq. ft. |
| <b>TURF:</b>                    |                  | 12. Tree Mulch: No. of Trees _____ X 28 sq. ft. | sq. ft. |
| 1. TYPE: _____                  | _____ sq. ft.    | 13. Shrubs Mulch _____                          | sq. ft. |
| 2. TYPE: _____                  | _____ sq. ft.    | 14. Other Mulch Area _____                      | sq. ft. |
| 3. Total sq. ft. of turf: _____ | _____ sq. ft.    | 15. Total Mulch Area _____                      | sq. ft. |
| 4. % Large Mower _____          | _____ sq. ft.    | 16. Prune Area (same as total canopy area)      | sq. ft. |
| 5. % Push Mower _____           | _____ sq. ft.    | 17. Special Prune Area (corrective)             | sq. ft. |
| 6. Other Grass Area _____       | _____ sq. ft.    | 18. Weed Control Area (same as mulch)           | sq. ft. |
| 7. Weedeat Areas _____          | _____ sq. ft.    | 19. Clean-up Area (same as turf)                | sq. ft. |
| 8. Edging _____                 | _____ lin. ft.   | 20. Leaf Removal _____ % of total turf area     | sq. ft. |

It is difficult to define commercial landscape in specific terms. The commercial landscape occupies the area remaining after the completion of construction of buildings, walks, drives and parking areas.

The need to know the exact area of the landscape is being fueled by two trends in the landscape industry. One is that the industry is moving toward full landscape services.

The full service trend will offer an opportunity to include more commercial work in your 1989 billings. The need to know accurate quantities for the entire landscape will increase with expanded services and increased property size.

The demand for greater accountability also increases the need for accurate, clearly defined quantities. The application of chemicals, other material, and labor to a specific area of the landscape will improve accountability.

Accurate application rates, specifically with chemicals, is part of the quality equation in landscape maintenance.

The agriculture industry is a good example of "efficiency in operations" based on quantity-driven and controlled management systems. The successful farmer equates all activities to the area being cultivated. The success of the crop is measured not in dollars but in bushels, pounds, or tons per acre.

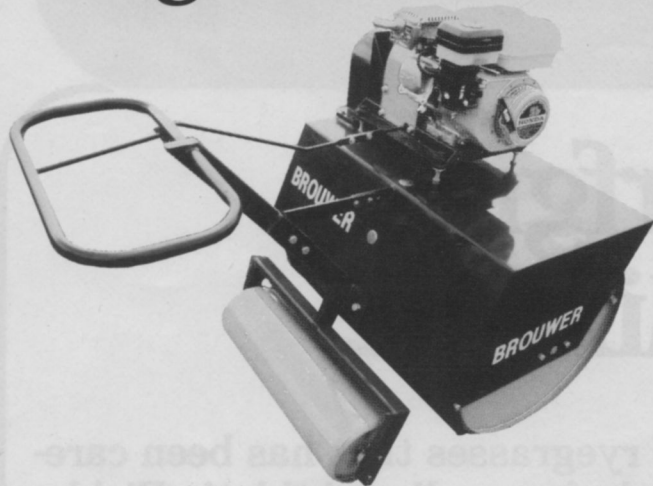
Accurate quantities offer the opportunity for improved management.

#### The ideal system

What does the ideal quantity system look like? A current, large scale, full color, contoured photograph of the property would be the ideal basis for a measured system.

Time and cost factors do not allow this ideal solution today, but there is a manual measuring system that offers

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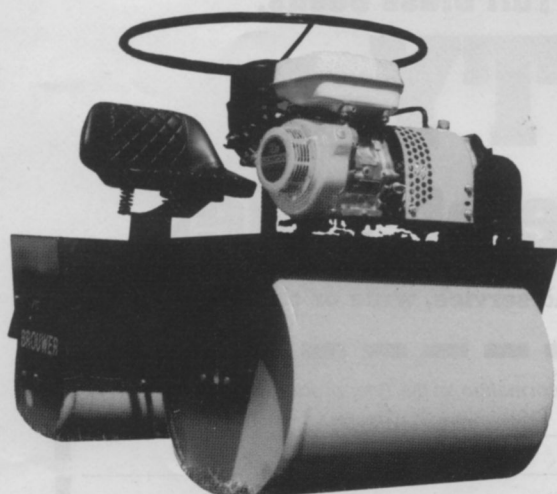
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#### About the Author

Philip D. Christian, III, is a business consultant based in Alpharetta, Ga. He was chief of ChemLawn Service Corp.'s maintenance division in the 1970s.



equal results in accuracy and consistency as the aerial photography method.

This systematic method of measuring the commercial landscape is measured on the ground (in the field), and the quantities are compiled as they would be in an aerial photo summary.

The system requires the measuring of only four basic quantities: 1) The total area of turf in square feet; 2) The area to be edged in linear feet; 3) The total area in square feet to be pruned; and 4) The area in square feet to be mulched.

The measurements are made using a standard, lawn care type, measuring wheel. The spaces provided on a quantity survey sheet are filled in with the dimensions.

The calculations are made for each area and the totals are added by column. The totals from the quantity sheet are transferred to the property analysis sheet.

When the property analysis form is complete, you can estimate the cost of all services required for that landscape.

#### Rules of measuring

A measuring system must yield an accurate and consistent interpretation of the actual area to be serviced. To insure accuracy, your people must be trained in basic skills of measuring and must know the following rules of measuring:

1) Measure all of the turf area without regard to its condition or density. Note on the quantity sheets if there are large bare areas and the different types of turf.

2) Identify turf areas that cannot be mowed with a 36-inch walk-behind mower. The area must be noted on the quantity sheet as a "push" area.

3) Special turf areas should be noted on the quantity sheets and include: a) Rough cut areas, areas requiring infrequent mowing, or areas to be mowed with special equipment; b) Steep slopes or banks that cannot be safely mowed

with push or walk-behind equipment; c) Large, open areas, such as athletic fields, that require special equipment or increased service frequency; d) Swamp or wet areas that cannot be serviced with standard equipment.

The turf area, like other parts of the landscape, is usually irregular in shape. Divide the irregular areas into common geometric figures, and then calculate the area by using an appropriate formula for the geometric figure.

Areas of circles can be easily determined by using the radius chart as shown.

Measure all of the trees on the property, except the large,

native or mature trees that will not be pruned. Trees are measured in canopy square feet.

The canopy is the area on the ground under the tree that falls within the drip line of the tree. Note on the quantity sheet the total number of trees, their radius size, and then use the radius chart for the calculation.

Measure in linear feet the total feet to be edged. This includes all sidewalks, backs of the curbs, areas around flat slabs, and any other joint between the turf and the hardscape.

In most landscapes, you may measure the shrubs to be pruned and the mulch areas as

the same dimensions. In newly-planted or immature landscapes it may be necessary to separate the measurements and note that separation on the quantity sheet.

Measure areas that will receive mulch only and place the dimensions in the appropriate column of the quantity sheet.

Make a special note if the property, or a portion of the property, needs corrective pruning. We assume maintenance pruning unless otherwise noted.

We have simplified the measuring process by only measuring four quantities. We combine these areas, or take percentages of them, to esti-

mate all of the maintenance activity.

The landscape analysis sheet is the summary for all of the quantities and is the key document that forms this quantity "photographic picture" of the landscape.

Consistency in our measuring system is achieved by a systematic summarization or listing of the quantities on the landscape analysis form. You may choose to modify the standard form to fit your firm, and that is okay, provided that you use the same form throughout the firm.

The first seven lines of the property analysis report are See **MEASURE** Page 36

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#### Canopy Radius Chart

| RADIUS<br>IN FT. | SQ. FT.<br>CANOPY |
|------------------|-------------------|
| 1                | = 3               |
| 2                | = 12              |
| 3                | = 28              |
| 4                | = 50              |
| 5                | = 78              |
| 6                | = 113             |
| 7                | = 154             |
| 8                | = 201             |
| 9                | = 254             |
| 10               | = 314             |
| 11               | = 380             |
| 12               | = 452             |
| 13               | = 531             |
| 14               | = 616             |
| 15               | = 707             |
| 16               | = 804             |
| 17               | = 908             |
| 18               | = 1018            |
| 19               | = 1134            |
| 20               | = 1257            |

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# The value of the operating statement: Avoid errors

**T**he operating statement, sometimes called the income statement or profit-and-loss statement, can help a manager avoid financial mistakes.

It summarizes the earnings of the company for a given period of time—usually a calendar or business year. It may be arranged in any one of several different formats, some of which may be more adaptable to managerial use than others.

The format used in the sample operating statement contains:

- Cash receipts (by major categories).
- Cash operating expenses (by major categories).
- Adjustments for changes in operating inventory.
- Adjustments for capital gains.

Profit or loss, a measure of business success for the stated time period, is obtained by adjusting net cash income (total cash receipts less total cash operating expenses) for changes in operating inventory and capital items.

## Cash receipts

Total cash receipts indicate the value of business done during the period of time covered by the statement, and thus is a measure of business size. Cash receipts should be listed by source. This provides management a feel for the probable timing (frequency) of cash receipts.

This is an important factor for scheduling loan repayments. Some feel there is less risk associated with loan repayment with greater frequency of cash receipts.

## Cash operating expenses

Total cash operating expenses reflect the amount of cash expenditure to produce a given amount of gross income. This section should provide sufficient detail to analyze the nature of cash operating expenses.

Controlling costs is a major factor in the success of today's lawn care business. Management has little control over the level of business receipts as compared to business expenses.

Management has more of a direct influence on business

costs and must implement strategies that hold costs at the level that will maximize profits. Essential to effective cost control is knowledge of business costs.

## Controlling costs

To begin cost control, rank the expense items in order of importance. Try to reduce the costs that have the most influence.

Labor cost will undoubtedly be the largest cost item (53 percent of receipts in the example), so this cost must be

| THE OPERATING STATEMENT        |           |                               |           |
|--------------------------------|-----------|-------------------------------|-----------|
| PERIOD: JAN. 1 - DEC. 31, 1988 |           |                               |           |
| CASH RECEIPTS                  |           | CASH OPERATING EXPENSES       |           |
| CONTRACTS                      | \$105,600 | SALARIES                      | \$ 23,414 |
| MISC. SERVICES                 | 8,700     | LABOR (INCL. PERQUISITES)     | 43,540    |
|                                |           | REPAIR & MAINTENANCE          | 5,610     |
|                                |           | INTEREST                      | 7,453     |
|                                |           | SEEDS, PLANTS                 | 300       |
|                                |           | FERTILIZER-LIME               | 4,880     |
|                                |           | CHEMICALS                     | 3,990     |
|                                |           | SUPPLIES-SMALL TOOLS          | 1,320     |
|                                |           | ADVERTISING                   | 150       |
|                                |           | GAS, FUEL, OIL                | 5,060     |
|                                |           | PROFESSIONAL FEES             | 700       |
|                                |           | TAXES                         | 1,470     |
|                                |           | INSURANCE                     | 3,520     |
|                                |           | UTILITIES                     | 620       |
|                                |           | DUES, SUBSCRIPTIONS           | 280       |
|                                |           | OFFICE SUPPLIES-POSTAGE       | 400       |
|                                |           | OTHER                         | 850       |
| TOTAL CASH RECEIPTS            | \$114,300 | TOTAL CASH OPERATING EXPENSES | \$103,557 |

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So it's ideal for use on lawns, parks, golf courses, or any



R.K. Reynolds



W.R. Luckham

## About the Authors

R.K. Reynolds and W.R. Luckham are associate professor emeritus and extension marketing specialist, respectively, in the Department of Agricultural Economics at Virginia Tech.



|                                               |                       |                      |           |
|-----------------------------------------------|-----------------------|----------------------|-----------|
|                                               |                       | NET CASH INCOME      | \$ 10,743 |
| ADJUSTMENTS FOR CHANGE IN OPERATING INVENTORY |                       |                      |           |
| BEGINNING INVENTORY (1/1/88)                  | SUPPLIES \$ 5,300     |                      |           |
| ENDING INVENTORY (12/31/88)                   | 3,548                 |                      |           |
| NET CHANGE                                    | \$(1,752)             |                      |           |
|                                               |                       | NET OPERATING PROFIT | \$(1,752) |
|                                               |                       |                      | \$ 8,991  |
| ADJUSTMENTS FOR CAPITAL ITEMS                 |                       |                      |           |
|                                               | MACHINERY & EQUIPMENT | BUILDINGS            |           |
| BEGINNING INVENTORY (1/1/88)                  | \$ 35,870             | \$ 28,970            |           |
| + PURCHASES (in 1988)                         |                       |                      |           |
| A. SUBTOTAL                                   | \$ 35,870             | \$ 28,970            |           |
| ENDING INVENTORY (12/31/88)                   | \$ 31,566             | \$ 27,522            |           |
| + SALES (in 1988)                             |                       |                      |           |
| B. SUBTOTAL                                   | \$ 31,566             | \$ 27,522            |           |
| NET CHANGE (B - A)                            | \$(4,304)             | \$(1,448)            | \$(5,752) |
|                                               |                       | PROFIT (LOSS)        | \$ 3,239  |

examined in detail.

Watch out for interest expense showing up in the top three to five cost items. This could indicate possible finan-

cial problems.

Remember, in analyzing costs, it is important to check all items.

Net cash income represents

cash above operating expenses or net margin. The addition of cash received from the sale of capital items to net cash income (\$10,743 in the example

since there were no sales of capital items) indicates cash generated. That is, cash generated in the period covered by the operating statement for current debt principal payments, new investments, emergencies and other uses.

#### Adjustments for change

The nature of the lawn care business may require accounting for changes in operating inventory items on hand (chemicals, fertilizer, etc.) since expenses are likely for these items. But these expenses have not been converted to receipts within the period covered by the statement.

Net cash income, adjusted for changes in operating inventory, results in net operating profit, which represents profit before depreciation.

#### Adjust for capital items

The final adjustment needed to determine profit before income taxes is to account for depreciation. The adjustment for capital items section provides a means for calculating depreciation of machinery/equipment and buildings, the primary assets associated with lawn care.

The procedure shown in the sample shows a summary of purchases and sales as well as inventory values for these essential business assets.

Net operating profit adjusted for depreciation indicates profit or loss, before income taxes, earned by the company during the statement period. With profit as the primary objective, this figure is the ultimate measurement of management skill.

#### Profitability ratios

Using figures from the net worth statement (described in the previous article) and the sample operating statement, it is now appropriate to look at several ratios that measure the firm's ability to generate profits.

**Return to equity**—This ratio is used to measure profitability as it relates to the owner's investment. Profit represents earnings after all costs, including interest on borrowed capital.

Net worth represents accumulated owner's equity in the firm. Therefore, this ratio indicates return to owner's equity and may be compared to returns to alternative investments, such as stocks, bonds, savings accounts, etc.

Even though the return on investment may be high, the financial position of the firm can still be questionable.

The firm in this example is earning 12 percent return on net worth or the owner's equity. As the firm matures and the owners build equity, the percent return to equity will decline.

**Return to assets**—This is another ratio to measure profitability as it relates to total investment. This ratio allows a lawn care manager to determine return on the total business (owned plus borrowed capital).

This ratio reveals the opportunity cost of total investment. In other words, what return would have to be earned from other investments in order to make them more attractive than the present income producing assets?

The firm is earning a 4 percent return on the total assets employed in the business. Since this ratio ignores how the business is financed, the ratio can be readily compared with similar ratios of other businesses. It is a measure of

# These we don't.



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managerial ability.

**Net profit margin**—This is another measure of profitability that may be used to evaluate the degree of cost control or to compare with similar businesses.

For each dollar cash income, the sample firm earned three cents profit. This includes changes in operating inventory values as well as cash above operating expenses, and is a long-run concept.

The operating statement provides a picture of what occurred in the business within a specified period of time.

Without this kind of picture, management could not

gauge what level of success was attained, much less where cost control should be directed to head off cash crises and enhance success.

To get the full financial picture, management must use the net worth statement, the operating statement and the cash flow statement.

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## Quality turfgrass difficult to maintain without using pesticide products

By **ELLIOT MARAS**  
Editor

**ATLANTIC CITY, N.J.**—There's no getting around it—LCOs who want to offer a pesticide-free lawn care program have to alter their customers' expectations.

"We cannot maintain the quality most people associate with good turf without occasionally using pesticides," says Tom Turner, Ph.D., turf specialist at the University of Maryland.

Any LCO who wishes to significantly reduce his or her use of pesticides must convince customers that they can't expect the same quality of turf, Turner says.

Before addressing the methods LCOs can use to reduce pesticides, Turner encourages LCOs to realize that the benefits of a quality turf are more than just visual.

Quality turf reduces mowing demands (One cemetery's mower fuel costs were cut in half.), contains soil erosion

and cushions people when they fall, Turner says.

To reduce pesticides, Turner offers five basic steps:

- 1) Select proper grasses.
- 2) Keep the soil healthy.
- 3) Use proper amounts of nitrogen at the right time.
- 4) Mow properly, particularly in regards to mowing height.
- 5) Irrigate properly.

Grass selection is crucial in minimizing weeds, Turner says. In the Maryland area, for example, tall fescue will have 50 to 75 percent fewer pest problems than bluegrass or perennial ryegrass.

The grass selected will also impact on the amount of thatch, which correlates to the amount of pest problems. "If you're not able to perform aerification procedures, bluegrass (in Maryland) would be as very poor choice," he says.

Keeping soil healthy requires maintaining the proper amounts of nutrients. The soil should be tested for proper amounts of nutrients.

"It (soil testing) is a very simple procedure that can reduce a pest problem later on," Turner says.

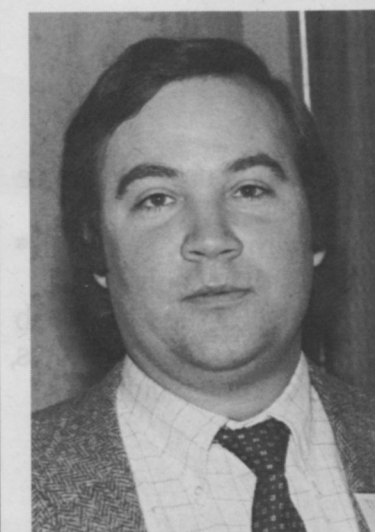
In one case, dandelions and crabgrass were reduced years after recommended amounts of phosphorous were applied to the seedbed. "These recommendations are based on a fair amount of research," he says.

Turner warns LCOs that aerifying in mid-March to mid-April may stimulate crabgrass in the Mid-Atlantic area.

Keeping the lawn free of debris during establishment of seedbed will reduce potential water-related stresses, which in turn can reduce potential pest problems.

Using proper amounts and timing of nitrogen will reduce weed problems significantly. Turner says LCOs can find out what the best rate of nitrogen is for their geographic region from extension services.

Following proper mowing heights will also keep weeds to a minimum. Deep, infrequent watering will deter some diseases and weeds. **LCI**



Turner: Pesticides important.

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| 114 | 129 | 144 | 159 | 174 | 189 | 204 | 219 | 234 | 249 | 264 | 279 | 294 | 309 | 324 | 339 | 354 |
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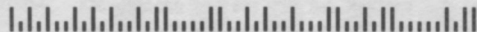
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# Alternatives to 2,4-D are available for weed control

By JAMES E. GUYETTE  
Managing Editor

**A**lternatives to 2,4-D are available for fighting a number of common weeds, but these products require closer monitoring—and perhaps retreatments may be necessary.

That's the result of experiments conducted by Richard D. Ilnicki, Ph.D., research professor of weed science at Rutgers University.

Ilnicki, who spoke at the New Jersey Turfgrass Expo in Atlantic City, says he is pleased that the U.S. Environmental Protection Agency decided that a special review of 2,4-D is unnecessary.

"Can you imagine what many users of herbicides would do without this safe, inexpensive, and very effective herbicide? Lawn care professionals would be at a disadvantage because many of the lawn weeds they must control can be controlled with 2,4-D."

Ilnicki and graduate student Adrian J. Enache did indeed think about what would happen if 2,4-D were banned, and they set out to study alternative chemicals for weed control.

"Rest assured, we do not advocate or encourage the elimination of 2,4-D, or use of other herbicides in deference to 2,4-D," Ilnicki points out.

"As a matter of fact, if the weed problem can be taken care of by 2,4-D we encourage its use."

Ilnicki believes that 2,4-D is safe and cost effective. "But it may be important and of interest to LCOs to know that some of the common weeds respond to other herbicides."

An accompanying chart illustrates some of the research.

"A check mark alongside a weed for a particular herbicide indicates that the weed is susceptible, to some degree, to that herbicide." This does not mean that complete control can be obtained with one application.

"It may be necessary to increase the usual rate for some weeds, but this should be done without injuring the turfgrass. Read the label for the rate to use and what turf species and varieties are tolerant." Stars indicate where repeat or multi-applications may be required.

Ilnicki notes that "sometimes a re-treatment with 2,4-D might be the better route" when costs are computed. "Compare price," he urges.

The technician needs to be aware that the 2,4-D alternatives may require special care when being applied, particularly if root systems are nearby. "In many of these you don't want to go beyond the drip line of a tree or get too close to a shrub."

**N**ote that Ilnicki and Enache have prepared weed responses to single herbicides. This will give a better view of which weeds respond to which herbicides.

"At present, LCOs can still purchase single herbicides, but the trend is toward commercially prepared products containing mixtures of two or three herbicides," Ilnicki explains.

"These have been effective not only because a broader spectrum of weeds can be controlled, but often difficult-to-control weeds can be better controlled with mixtures."

"Researchers have called this *synergism*, i.e., control is greater with two or more herbicides than the sum of control of the individual herbicides."

He adds that "these commercially prepared mixtures might be cheaper" for LCOs to use.

Ilnicki says that when using bromoxynil herbicide it is important to know that the weeds must be seedlings or very young.

"If you study the table," he continues, "you will note that 2,4-D is effective on a number of weeds. Closely related, chemically, to 2,4-D are dichlorprop (2,4-DP) and mecoprop (MCP), and these two herbicides control just about as many weeds, some different than 2,4-D and some the same. Generally, propionic herbicides (dichlorprop and mecoprop) cost more and may persist longer."

Dicamba has an effect on a number of weeds, Ilnicki says, and it can control some weeds better than the phenoxy herbicides (2,4-D, dichlorprop and mecoprop), but greater care is required when applying

## The response of some important lawn weeds to single turf herbicides

| WEEDS                                    | LIFE CYCLE | BROADLEAF WEEDS RESPONSE <sup>2</sup> |             |                |         |                |           |              |           |      |               | GRASS HERB. <sup>3</sup> |            |           |
|------------------------------------------|------------|---------------------------------------|-------------|----------------|---------|----------------|-----------|--------------|-----------|------|---------------|--------------------------|------------|-----------|
|                                          |            | 2,4-D                                 | dichlorprop | mecoprop       | dicamba | bromoxynil     | endothall | MSMA or DSMA | triclopyr | DCPA | Pendimethalin | benefin                  | bensulfide | oxadiazon |
| Dandelion                                | P          | ✓ <sup>4</sup>                        | ✓           | ✓              | ✓       |                |           |              | ✓         |      |               |                          |            |           |
| Buckhorn Plantain                        | P          | ✓                                     |             | ☆ <sup>6</sup> |         |                |           | ✓            | ✓         |      |               |                          |            |           |
| Broadleaf Plantain                       | P          | ✓                                     |             | ☆              |         |                |           |              | ✓         |      |               |                          |            |           |
| Comm. Chickweed                          | A          | ✓ <sup>5</sup>                        | ✓           | ✓              | ✓       |                | ✓         | ✓            |           | ✓    | ✓             | ✓                        |            |           |
| Mouseear Chickweed                       | P          | ✓                                     | ✓           | ✓              | ✓       |                |           |              |           |      |               |                          |            |           |
| Ground Ivy                               | P          | ☆                                     | ✓           | ☆              | ✓       |                |           |              | ✓         |      |               |                          |            |           |
| Henbit                                   | A or B     | ☆                                     | ✓           | ☆              | ✓       | s <sup>7</sup> | ✓         |              |           |      | ✓             |                          | ✓          |           |
| Prostr. Knotweed                         | A or B     | ☆                                     |             | ☆              | ✓       | ✓              | ✓         |              |           |      |               |                          |            |           |
| Red Sorrel                               | P          |                                       | ✓           | ✓              | ✓       |                |           |              |           |      |               |                          |            |           |
| Prostr. Spurge                           | A          |                                       | ✓           | ✓              | ✓       | s              |           |              |           | ✓    | ✓             |                          |            |           |
| Knawel                                   | A or WA    |                                       |             |                | ✓       | s              |           |              |           |      |               |                          |            |           |
| Wild Carrot                              | B          | ✓                                     |             | ✓              | ✓       |                |           |              | ✓         |      |               |                          |            |           |
| Yarrow                                   | P          | ✓                                     | ✓           | ☆              | ✓       |                |           |              | ✓         |      |               |                          |            |           |
| Yellow Woodsorrel (Oxalis)               | P          | ✓                                     |             | ✓              | ☆       | s              | ✓         | ✓            | ✓         |      | ✓             |                          |            | ✓         |
| Healall                                  | P          | ✓                                     | ✓           | ✓              |         |                |           |              |           |      |               |                          |            |           |
| Black Medic                              | A          |                                       | ✓           | ✓              | ✓       | s              | ✓         |              | ✓         |      |               |                          |            |           |
| Speedwells (Comm., Thyme-leaf, Creeping) | P          | ☆                                     |             | ☆              | ✓       |                | ✓         |              |           | ✓    |               |                          |            | ✓         |
| Hawkweed (Orange, Yellow)                | P          | ☆                                     |             |                | ✓       |                |           |              |           |      |               |                          |            |           |
| Wild Garlic                              | P          | ☆                                     | ✓           |                | ✓       |                |           |              |           |      |               |                          |            |           |
| Dwarf Mallow                             | B or P     | ☆                                     | ✓           | ✓              | ✓       |                |           |              |           |      |               |                          |            |           |

<sup>1</sup> A = Annual; WA = Winter annual; B = Biennial; P = Perennial

<sup>2</sup> Response to single herbicide; i.e. no combination of herbicides

<sup>3</sup> Crabgrass herbicides which give some broadleaf weed control

<sup>4</sup> Herbicides having some degree of control on the weed indicated

<sup>5</sup> Blank indicates herbicide has no effect on weed or no information available

<sup>6</sup> Indicating some initial response; repeat application often necessary

<sup>7</sup> s = seedling; must be seedlings.

it—particularly around ornamental plantings and shrubs. Dicamba is often one of the components in two-way and three-way commercially prepared mixtures because it increases the activity of the other components.

"Triclopyr is a relatively

new herbicide on the turf scene, and you'll hear more of it as time goes by," Ilnicki reports, commenting that the table of weed responses is not yet complete pending additional research.

Weeds of lesser impact were left off the list. **LCL**

## BUYS

from Page 1

struction Co., or his landscape maintenance franchise operation, U.S. Lawns, Inc.

Environmental Care did buy the service division of Farm & Home Irrigation, Inc., another Oyler subsidiary. It did not buy the irrigation installation division of that company.

Tom Oyler remains with the company as vice president of marketing. Operations will be managed by Gary Tungate, who previously managed Environmental Care's Denver, Colo. operations.

"We envision the same success and opportunity here in Florida as we've had in California," says Tungate. "You've got a market, economically, that's growing by leaps and bounds."

"Oyler Brothers has had a reputation of providing quality landscape maintenance," he says. "We're just going to continue that further."

About 95 percent of the Oyler employees have remained with the company, Tungate adds.

Environmental Care provides landscape maintenance,

interiorscape services and mature tree care through 15 branch offices in Arizona, California, Colorado and Texas.

It is a wholly-owned subsidiary of Environmental Industries, Inc., a horticultural services company based in Calabasas, Calif. Other subsidiaries provide landscape and irrigation construction and specimen tree growing and tree moving. **LCL**

## Green Team set for St. Louis

**ST. LOUIS, MO.**—The 1989 Green Team Conference and Trade Show will be held Nov. 10-13 at the Cervantes Exposition Center in St. Louis, Mo. The show is co-sponsored by The Associated Landscape Contractors of America and the Professional Grounds Management Society.

For the first time, the trade show and educational sessions will be at separate times. The educational sessions will be in the morning and the trade show will be in the afternoon.

The adjacent Sheraton Hotel will be the convention headquarters. **LCL**



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## THE LAST WORD

# Local organization provides good advice

Once again it's time for the wearin' of the green as St. Patrick's Day arrives.

But many business owners have green of a different sort on their minds—they're thinking about methods for making their operations more profitable.

Such considerations have made for a strong local organization among mowing/management and landscape construction contractors in Northeastern Ohio.

Called the Ohio Landscapers Association, the 216 members mostly come from the Greater Cleveland metropolitan area.

Keeping the focus close to home has made the various sessions much more useful to the membership, according to Herrick A. Mann, an OLA past president and the owner of H.A.M. Landscaping, Inc. in Warrensville Heights.

"It's really beneficial," says Herrick. "I've never attended a meeting without learning something of value."

Although Herrick also belongs to a large national trade organization, he believes that his business' bottom line gets more of a boost from his involvement with the OLA.

He doesn't feel comfortable spending the airfare, hotel fees and days off required to attend conferences at luxury resorts. Plus, he'd rather share experiences with business owners who own operations that are similar in scope to his.

Simply put, Herrick likes the national conventions, but feels that the local organization serves him better.

When the OLA was founded 24 years ago it consisted mostly of business owners getting together over beers to gripe about which customers don't pay their bills. "Now it's getting to be more of an education-type system."

As opportunities for gaining knowledge increased, so did the membership. "A lot of the growth right now is with the younger people."

Herrick has some basic advice for contractors in other regions wishing to start an organization or boost an existing one: "You have to attack it 100 percent and know that it's time consuming. It's very time consuming."

The OLA was fortunate to have a retired contractor, Raymond C. Swinerton, on hand to help do a lot of the work.

However, if someone like Ray isn't available in your area, you may wish to hire a non-horticultural person experienced in marketing, promotion and other skills.

The OLA meetings are held at nice settings, such as banquet rooms at Holiday Inns and Sheratons. Programs have included sessions by na-

tionally-known Consultant Charles VanderKooi and an inspiring (?) talk by Yours Truly.

Detailed local industry surveys are conducted for the benefit of the membership. The dues are \$100 annually, \$25 for students. They also have a newsletter that contains advertisements.

The programs are largely paid for by the use of sponsors. In return for an investment of under \$2,000, the sponsor gets to pitch its products.

"We haven't had a sponsor



**JAMES E. O'GUYETTE**  
MANAGING  
EDITOR

who has not been willing to do it again," says Herrick.

Supporters have included Bunton and Snapper.

One recent session was sponsored by Tim Lally Chevrolet, Inc., which sells trucks to the local industry.

"We will sponsor anything that comes down the pike," says enthusiastic OLA supporter Patrick Lally: "I didn't expect people to come walking through the door the next day—but some people did."

He did a short presentation. "You have a captive audience. I just want to lay my card on the table and let people know what I have to offer," says Patrick.

He and Herrick say that other organizations should not have trouble enlisting support under similar situations.

Another OLA sponsor has been Great Lakes Truck Equipment, which includes snowplows in its line.

The company's John Mueller got to pitch his plows to about 160 people at a winter meeting. John was impressed.

"You should really be proud of yourselves. I've belonged to a number of organizations over the years, and this is the strongest I've seen," John told the crowd. "I haven't been this afraid to stand in front of a group of people since I was in Viet Nam."

*James E. O'Guyette*





# Selling services is a big part of success

In the green industries, a great deal of time is spent on technical training. Whether in arboriculture, horticulture or turf management, the people in the industry are aware of the need for education in the technical and operational side of the business.

The sales side of the business, however, is often ignored.

Selling is a communication skill which can be learned. The ability to sell is certainly not inborn at birth, and people who are interested in becoming

better at sales can certainly do so.

One question that is often posed is, "How big a difference between selling lawn care and selling maintenance is there really?" The answer is simple: almost none.

If you look at the selling part of the process, not the information part, you'll find that almost all sales, residential and commercial, maintenance and lawn care, consist of a basic core of interactions between the seller and the buyer.

There are several "modules"

through which one goes that make up a standard selling action. Each of these "modules" takes place in a sales interaction, and each one is extremely important if you are to make a professional presentation.

**Opening**—In the opening, you must establish communication with the person so that you are sure that he/she is listening to what you have to say. The best way to do this is to make sure you engage him in some form of conversation.

Asking the prospect a ques-

tion to which they must respond is one way of doing this. Showing them something is another.

But remember, don't just simply start out into your selling presentation without making sure your prospect is listening to you. This costs many salespeople a great deal of time.

**Interviewing**—All good salespeople are good at interviewing their prospects. There are two basic types of interview in the sales process, the closed and the open.

In the open interview you are trying to establish communication with the prospects and are doing this by asking questions that will force the person to talk with you.

"What did you do with your lawn last year?" is an example of an open question. The prospects are the only ones who know the answers to open questions and it gets them to talk to you and to start the communication process.

The closed interview forces the buyer to respond to a set of options. You might list a few of the benefits the buyer will get and then ask, "Which of these is most important to you?"

Clearly, the buyer must answer with one of those that you have listed. This is a closed interview in which the answers are predetermined.

**Responding**—You must always respond to a communication act of the buyer. If he/she says that he/she is interested in buying your lawn care/maintenance service because it will give more leisure time, you need to respond to this.

Generally, when responding you need to show that you have listened and be able to comment on their choice. All good salespeople do this.

**Proof and transfer**—Most green industry companies sell by telling prospects that they will receive quality and service. The problem is that often these claims are left unproven.

You might say that you have the best crews in the city but fail to show why you have made that claim. In proof and transfer you need to have some proof of the fact that the information you are giving is something more than phrases you thought up.

If you say you have a good company, show the prospect a letter from someone else who indicates that they have worked with you and that you are a good company. The key is to get proof from a third party, someone or some company that has worked with you.

Most sellers don't bother to obtain proof from others. If you do, you will sell more.

## History tells us throwing packages into the water can be a revolutionary idea.

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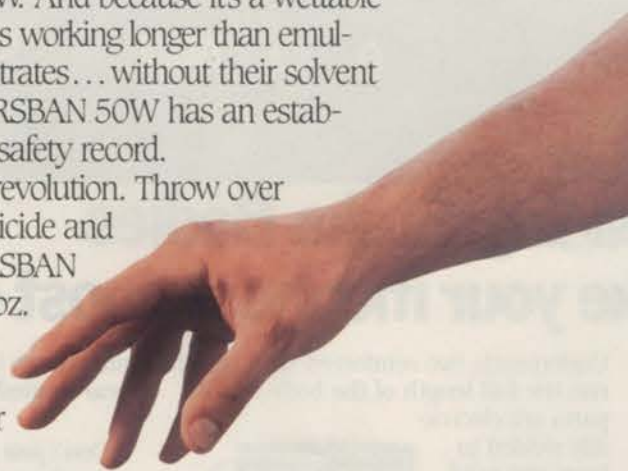
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### About the Author

Rudd McGary, Ph.D., is a senior consultant with All Green Management Associates, Columbus, Ohio.



**Motivation**—When someone buys a lawn mowing job, they aren't buying the walk-behinds and pushers, they're buying a good looking lawn.

In order to be good at sales you must motivate the prospects to buy. In order to do this you need to learn exactly what people are buying and learn to describe the results to them as clearly as possible.

You can't say that their property will look the best in the community if it hasn't been properly kept for the past five years, but you can say that the property will begin to look better almost immediately and that in the future it will be one

of the best looking in the area.

If you match up the motivation part of the sales process with what the prospect expects to get as a result of your service, your selling will be much more professional and result in a much higher closing ratio. Remember to communicate results in the motivation process and to make the results you communicate realistic.

**Closing**—Closing consists of asking for the order.

Many people are nervous when it comes to closing, hoping that the prospect will say "yes" on his own without any prompting from the seller. This probably won't happen

very often.

The prospect has already said he/she wants to buy something or you wouldn't be at the property. Your job is to look them in the eye and to ask for the business.

The worst thing that can happen is that the prospect will say no, and all that does is put you back where you started. That's not bad.

If they say yes, you get a chance to work with them to make their property look better.

All good salespeople close. At least learn how to say, "Can we get started with this?" to all your prospects. You'll find that a lot will say yes.

**Objections**—Although this isn't actually a module in the sales process, it still is a part of the process. Objections often mean that the seller hasn't done a strong job of explaining why the prospect should buy.

I suggest you learn how to do a "reversal" in handling objections. An example would be: "Your price is too high." The reversal is, "That's exactly why you should choose us. We have the best people and materials and will be delivering the type of quality that your property needs to look its finest."

The reversal uses the original objection as a positive point.

The selling process doesn't change much from service to service. The consumers always want to know what's in it for them and want to be comfortable that the person selling the service is professional.

The actual selling part of a presentation is only three or four minutes. You may think you need a lot more time, and in some cases you do need some time to make sure that the information you wanted to get across is understood by the buyer.

But remember that the actual process of selling is a fairly short one. The better you are at learning how to get to the point and to sell professionally, the more often you'll hear the prospects say yes. **LCI**

## MEASURE

from Page 27

listings of the turf areas. Notice that line 4 is the large mower area, and line 5 is the push mower area. On the quantity sheet we identified the areas that will be mowed with the push mower.

That total is deducted from the total turf area to find the large mower area. The percentages of the two are important in property analysis.

The tree and shrub quantities are listed in lines 9 through 17 on the property analysis report. Line 12, tree mulch, shows the number of trees multiplied by 28 square feet of mulch per tree.

This assumes an average mulch bed radius of three feet. Line 11 is the total canopy square footage, and the same quantity will be used in line 16, prune area. Line 15 is the total mulch area. That quantity will also be used in line 18 for weed control.

Line 20 should represent the total area of the landscape that will be covered by leaves if all of the leaves dropped at once. The percentage shown in line 20 is multiplied by line 1 to find the leaf removal quantity.

The next step is the beginning of the estimating process. We convert the quantities in square feet and linear feet to production man hours by dividing them by production factors.

**NEXT MONTH**—Landscape estimating. **LCI**

## Industry group in Wisconsin

**MILWAUKEE**—A new organization in Wisconsin is seeking LCOs and mowing/management contractors to join.

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An Outboard Marine Corporation Company

7320 Haggerty Rd.,  
Canton, MI. 48187  
Tel. (313) 459-3700  
Fax. (313) 459-8778



Circle No. 106 on Reader Inquiry Card





# Worried about shade, drought and maintenance?

# Use **Rebel**!

TURF TYPE TALL FESCUE

Whether it's an industrial site, a home lawn, along a highway, on a golf course or on an athletic field, Rebel turf type tall fescue can take some of the worry out of your turf program.

Rebel is so adaptable. Different soils, different climate, direct sun, shade, heat, cold or even drought conditions . . . they don't alter the improved performance of this variety. That's right, even under the stress and abuse on an athletic field, Rebel is proving itself . . . over and over again.

And as far as maintenance, Rebel thrives with less fertilizer than other cool-season grasses or Bermuda-grass and is less susceptible to disease and insects, so there's less need for fungicides or insecticides. It produces virtually no thatch which saves labor and aids performance.

Of course you're also concerned about appearance. Compare the density and leaf texture to other varieties. Rebel is 188% more dense than K-31 with a leaf width that's 30% finer. That makes for a nice carpet-like appearance with desired, pleasing color.

Rebel — it's the turf type tall fescue that performs well in sun, shade, drought or low-maintenance. Stop worrying, use Rebel!



## Lofts Inc.

**World's largest marketer of turfgrass seed**

Bound Brook, NJ 08805  
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Albany, OR 97321  
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**Sunbelt Seeds, Inc.**  
Norcross, GA 30071  
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**Lofts/Maryland**  
Beltsville, MD 20705  
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**Oseco Inc.**  
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To locate the Lofts' distributor nearest you, call:  
**(800) 526-3890 (Eastern US)/(800) 547-4063 (Western US)**





# For tall fescue control, put TFC™ on the spot.

For selective spot control of tall fescue, there is just one product to choose. LESCO TFC Herbicide.

It's the only herbicide that selectively eliminates tall fescue from established Kentucky bluegrass, fine fescue, bentgrass, bahiagrass and bermudagrass turf.

Spring or fall application gradually eliminates tall fescue while the desirable grass fills in. Active at a rate of just a few ounces per acre, the convenient water dispersible granule is easily applied with a handheld or backpack sprayer. Convenient blister-type packaging makes mixing easy.



Getting rid of tall fescue used to require either physical removal by digging or chemical removal with a non-selective herbicide that left brown patches for weeks. LESCO TFC changes all that. Put it to work for you.

Order by contacting your LESCO sales representative, visiting the nearest LESCO Service Center or calling toll free.

**LESCO** (800) 321-5325  
Nationwide  
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Rocky River, OH 44116, (216) 333-9250

Always read and follow label instructions before applying any chemical product.

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