

Congressman Charles Stenholm (D-TX) greets PLCAA President Rick Steinau (r.) and Monsanto's Dave Duncan.

Industry informs Washington on lawn care's importance

#### s hustle on 'The Hill'

McGuire didn't know exactly what to expect, but he knew what to say.

And, given the opportunity after a mad dash through (and under) Capitol Hill, he said it to Massachusetts Congressman Gerry E. Studds.

McGuire, president of The Lawn Company, Inc., was one of 50 lawn care professionals participating in the industry's

ape Cod-based LCO Ed | first "Day on the Hill" in Washington D.C. co-sponsored by the Professional Lawn Care Association of America (PLCAA) and the Monsanto Company. Part of that 11/2-day program was devoted to face-to-face meetings between LCOs and congressional and administrative

> Making the first "Day on the Hill" particularly un

forgettable was the senate subcommittee hearing on lawn chemicals. Both-apparently it was a coincidence-began the morning of March 28. The hearing had originally been planned for the fall of 1989. "We couldn't have been there at a better time," said PLCAA President Rick Steinau.

The most obvious effect of the two concurrent events was See HILL page 22

## Serving the needs of the professional lawn care operator

**VOLUME 14 NUMBER 5** 

AN HIMELL PUBLICATION

**MAY 1990** 

### GAO rips ads

BY RON HALL editor

WASHINGTON, D.C.-Lawn care safety advertising claims came under fire at a senate subcommittee hearing this spring.

Peter Guerrero, of the General Accounting Office (GAO) and Robert Abrams, attorney general of the State of New York, asked Congress to direct the U.S. Environmental Protection Agency (EPA) to go after lawn care companies that provide "false or misleading pesticide advertising" concerning the safety of the products they use on customers'

That was the opening salvo directed against professional lawn care providers in the Senate environmental subcommittee hearing here March 28. Committee members present were Senators John Warner (R-VA), Harry Reid (D-NV) and Joe Lieberman (D-CT), and an audience of about 200 spectators.

"Professional lawn care pesticide applicators are mak-



Barry Troutman: don't hide anything from clients

Tom Delaney, PLCAA (left), and Dr. James Wilkinson, PPPF, defended industry at Senate hearing

ing claims that could lead consumers to believe that the pesticides applied around their homes are safe or nontoxic," claimed Guerrero, referring to a recently completed 26-page GAO report. "We believe that such claims may persuade consumers to purchase a service they otherwise would not use or discourage reasonable precautions to minimize exposure, such as avoiding

See GAO page 8

BY RON HALL editor ATLANTA, GA-Be precise in advertising or discussing the safety of the control products you use, said Dr. Barry Troutman, education director of the Professional Lawn Care Association of America (PLCAA).

"We haven't been given strong guidelines by either the Federal Trade Commission or the Environmental Protection Agency," Troutman told Lawn Care Industry magazine, "and it's very clear we have to be very careful about safety statements. There's a

very fine line that we cannot cross."

reissues ad guidelines

Troutman's comments were in response to a General Accounting Office (GAO) report highly critical of the industry's advertising. Peter Guerrero of the GAO presented the report during the March 28 senate subcommittee hearing.

Troutman said LCOs should ask themselves if they are in any way misrepresenting the safety of the products they use in their advertising.

Said Troutman, "People are asking the question, 'Are these products safe?' and we have to answer with something like 'They're very low in risk when compared to the benefits you derive from having a good lawn.' I don't think we can use the statement that they're safe."

Beyond that, Troutman said LCOs should provide customers with more information about lawn care, including information about products, concentrations, even the amounts of products being used. "I don't think we can even begin to act like we're trying to hide something from the customer," he said.

See PLCAA Page 6

PIEVT MACRITH LIBRARY W-121 USGA TURFGRASS MICHIGAN STATE EAST LANSING INFO UNIV MI

### A thorough, accurate survey of lawns allows LCO to provide quality service

BY CHRISTOPHER SANN

ongratulations! Your best efforts to market your company and to establish and maintain a good professional reputation in the community are about to pay off again.

Another potential client seeks your lawn care expertise. What an opportunity to do more than just measure the area of the lawn correctly. This is your chance to use your diagnostic skills to record the problems and potential problems of this client's lawn. And, to offer potentially profitable add-on services.

That's one good reason to use a well-designed "Client Property Survey" form. It records your diagnosis and provides a basis for your recommendations to the new client. If, perhaps, a dispute arises, it's written proof of preexisting conditions. Also, and don't underestimate the importance of this; it provides comparative baseline information for as long as you have the client.

Here are some elements to consider in designing a form, or amending the form you already use:

1 Client information— Date of survey, client name, street address, development, city, state, phone numbers (home and office), etc.

2 Turf area plot plan—A blank space or grid area on the back of the form to map out turf areas with their measurements. Mapping doesn't have to be exact but it should have a series of forms (i.e. circles, rectangles, squares, etc.) that approximate the actual shapes of the area. The use of these geometric shapes helps the measuring process.

If you break up a lawn into parts such as front, back, left or right side, clearly define the limits of these areas in a key on the plot plan. For instance, the front of a lawn could consist of all of the area from a line formed by the actual front wall of the house to the road. Or it might consist of all the area in front and all areas on the sides of the house back to a line formed by actual back wall of the house.

3 Turf quality analysis-An area on your form where the technician can express his subjective view of the lawn. It might contain a number of categories: first impression, turf color, shoot density, absence of damage, etc. Each category should have some means of rating that category against a theoretical standard. You can use a 0-10 scale where 0 represents dead turf and 10 perfection. Define what each gradation within the system represents and stick to the definitions.

If you survey each client at the end of each year then this type of analysis, though it's subjective, can provide you with a valuable tool to measure the success or failure of your efforts on that lawn that year.

4 Broadleaf weeds—Divide this section into two categories, "Easy-to-Control Weeds" and "Difficult-to-Control Weeds." Difficult weeds require special herbicides or multiple applications of standard herbicides. If space on your form isn't a

problem, then a simple check list of the possible weed species for each category makes things simple. If space is at a minimum, leave three or four blank spaces for each of the two categories.

5 Monocot weeds—
Again, two categories: "Preventable Monocot Weeds"
and "Non-preventable Monocot Weeds." Non-preventable
monocot weeds are those
weeds your pre-emergence
herbicide will not prevent but
that are controllable with a

	Initial Cli	ent Survey 1990
DATE: / / CLIENT NAME:	STATE:	Overall Turf Quality- let Apearrance - (0-9) Color - Shoot Density - Absense of Damage - (0-36)
CORE SAMPLE CONDIT Core Sample Sample Depth-	in. (average)	Root Depthin_ (average)
Compaction-#	in, toin,	Layering-0 in. to in.
	in. Root I	nvaded-
Thatch Depth-		
Thatch Depth Thatch Cond		osed?- no, 1/4, 1/2, 3/4, unifor

post-emergence herbicide.

6 Noxious weeds—Any undesirable species, monocot, dicot, cultivated or uncultivated that cannot be selectively controlled and must be eradicated with a kill-all herbicide. Leave two or three

blank lines for the surveyor to use, if needed.

7 Insect activity—A check list of the most commonly found turf-damaging insects for your area and at least one blank space for unexpected species. There should

#### Dependable, economical post-emerge control

### Crabgrass & Nutsedge

#### Plus the broadleaves in ornamental turf

Take advantage of our special get-acquainted offer to find out for yourself why Trimec® Plus



is the fastest growing new product in professional turf management...
You're in for a pleasant surprise.

Everett Mealman, President PBI/Gordon Corporation

Yellow nutsedge can be devastating if it gets out of hand because of the way it spreads from its roots. Just ask Lentz Wheeler, superintendent of the Hidden Creek Country Club in Reston, Virginia, which is recognized as one of the better maintained courses in the Washington D.C. area.

"We had two years of drought," says Wheeler, "followed by a year of excessive rain, and it brought on an undesirable infestation of yellow nutsedge" — totally unacceptable for a course like Hidden Creek.

Wheeler goes on to say that he tried several post-emerge herbicides but, in his words, "the main thing we got from them was a lot of phyto, which I wish had been on the nutsedge rather than on our fairway grass.

"Trimec Plus turned out to be the product that came to our rescue. One treatment with Trimec Plus," says Wheeler, "gave us back the type of fairways we could be proud of." So Trimec Plus gets yellow nutsedge, and it is economical. But how about crabgrass?

"If you want to talk about crabgrass, talk to us," say Ted Davenport and Gerald Krohn, of Bay Landscaping, Inc., Essexville, Michigan (Saginaw, Midland, Bay City).

To fully appreciate what they have to say about Trimec Plus and crabgrass, you need to know that the residential division of Bay Landscaping mainly services upscale homes, most of which they originally landscaped. They have their own pride in those lawns, and they can't abide even the slightest blemish.

"We nearly always have excessive spring moisture," says Davenport. "It tends to leach out the pre-emerge and when the hot weather hits, so does the crabgrass, right along with the summer annual broadleaves. To be on the safe side, our program consists of a broadcast treatment of Trimec Plus for the second and third applications.

"This will be our fourth year with Trimec Plus," continues Krohn, "so you know what we think of it . . . It does a beautiful job of controlling crabgrass and other course grasses, along with every conceivable type of broadleaf."

So Trimec Plus gets yellow nutsedge; it gets crabgrass; it gets broadleaves; it's economical. But how fast does it work?

Lentz Wheeler, superintendent of Hidden Creek Country Club in Reston, Virginia, savors his handiwork on an immaculate fairway that once was plagued with yellow nutsedge. Wheeler says that Trimec Plus did a thorough job of cleaning out the nutsedge, and the cost was surprisingly low. Wheeler was equally impressed by the fact that Trimec Plus also did an excellent job on the few tough broadleaves that were present.

JRF CONDITION- Damage Causes-		Key (low=0-2%, me Severity	d.=2-5%, Active	high=>5% Treat?
Diseases-	Location	low med. high	Y N	now late
Necrotic Ring Spot		low med. high	YN	now late
Summer Patch Leaf Spot		low med. high		now late
		low med. high	YN	now late
Pythium Brown Patch		low med, high	YN	now late
Dollar Spot		low med, high	YN	now late
Rust		low med, high	Y N Y N Y N Y N Y N	now late
Powdery Mildew		low med. high	V N	now late
Fowdery Dildes		AUG REGALITANTI	-1	6772 9372
Insects-	Location	Severity	Active	Treat?
Chinchbugs	ACCES AND	low med. high	Y N	now late
Sod webworm		low med, high	Y N	now late
Grube		low med, high	YN	now late
Other		low med, high	Y N	now late
Weeds- Monocot Type Dicot Type	Variety	Control A	genta	
Other- Poor Irrigation Improper Mowing	Location	Comments		
Roct Competion Shade Improper Variety				
Thin Turf				
ECOMMENDATIONS:				

Many LCOs use lawn survey forms for their clients' lawns.

be room to note the location of the infestations and a scale to rate the severity of the infestions. As you become more practiced at diagnosing insect damage you may want to include space to differentiate between active insect damage and past insect damage. Leave room for treatment recommendations, such as when to treat and with what insecticide.

8 Disease activity—This is one of the most difficult areas on the survey. Make a check list of all the diseases that are a problem in your area. Leave at least two blank spaces for unexpected disease infestations. Record the loca-

tion and, using a scale, the severity. Also, don't forget active or past damage and a recommended treatment.

9 Core sampling—Many times chronic lawn problems that don't fit into the preceding categories have subsurface origins. Take four or five samples with a sampling tube. Use the same technique with each

Examine the cores for:

- average thatch depth
- root-invaded thatch layer
- · thatch condition (dry, normal or litter/debris based)
- percent of thatch decomposed (0, 25, 50, 75, etc.)
- · soil compaction and depth of compacted layer

 soil layering and depth of layering

Leave blank spaces to describe the condition(s) and a comments or recommendations section-core aeration, verticutting, dethatching, wetting agents, etc.

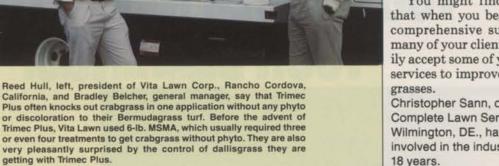
10 Other factors—Divide this into at least three categories: "Unusual Physical Conditions" (slope, standing or running water, traffic, tree root competition, etc.), "Cultural Practices" (improper mowing techniques, debris clean up, improper watering) and "Other" (vehicles on turf, pets in yard, children play areas). Leave room to note location and comments.

11 Program priorities and recommendations-Set aside a large area of six to seven full page width lines to list the problems and any recommendations from the surveyor. List any fertilization, control application and servicing recommendations too.

Your form may not be exactly as described. That's fine as long as it provides you with what you need.

You might find, however, that when you begin using a comprehensive survey form, many of your clients will readily accept some of your add-on services to improve their lawn LCI

Christopher Sann, owner Complete Lawn Service, Wilmington, DE., has been involved in the industry the past 18 years.





Ted Davenport, left, lawn care applicator of Bay Landscaping, Essexville, Michigan, and Gerald Krohn, in charge of lawn service. They always carry an SP1 Back Pack Sprayer loaded with Trimed They have found that the SP1 and Trimec Plus are the ideal combination for spot weeding. Not only does Trimec Plus get grassy weeds and nutsedge, but broadleaves as well. The SP1 Back Pack Sprayer is a \$100.00 value, but you can receive one for only \$35.00 when you buy Trimec Plus.

You want fast results — you want to talk to Reed Hull and Bradley Belcher

Vita Lawn is a very highly regarded

of Vita Lawn Corp., located in the Rancho Cordova surburb of Sacramento.

lawn service company, and when the

crabgrass hits in Sacramento, Vita

Lawn's phone rings off the wall with

homeowners who want to become new

"We've traditionally sold these new

customers a three-application rescue

program for their grassy weeds," says general manager Belcher. "In the past,

using 6-lb. MSMA, we had to spread it

out over three treatments or more to

get the crabgrass without phyto.

Trimec Plus often will do the job with

just one application and, if we're back

two or three times, it is usually

Trimec Plus is a Complex that was

designed by PBI/Gordon research to

solve the problem of grassy weeds like

crabgrass, dallisgrass and barnyard-

grass, as well as nutsedge, in ornamen-

In terms of cost and effectiveness,

MSMA used to be the herbicide for

nutsedge and grassy weeds . . . but it

because we're after dallisgrass."

What is Trimec Plus?

tal turf.

customers . . . right now!

has a major flaw when used in ornamental turf. To get enough of it into grassy weeds requires rates of application that can result in burning and discoloration of the turf.

When MSMA is locked into a Complex with Trimec, you have the ultimate post-emergence herbicide for ornamental turf...excellent control of grassy and broadleaf weeds, plus yellow nutsedge, plus maximum safety to Kentucky bluegrass and Bermudagrass. Plus unmatched economy.

We are so eager to get a gallon of Trimec Plus into your hands that we are making an offer you just can't - or at least shouldn't - refuse. We're offering to send you a SP1 Back Pack Sprayer that is worth \$100.00 for only \$35.00 when you buy 21/2 gallons or more of Trimec Plus. It is also packed in a gallon size which treats up to one acre of turf.

We sent out hundreds and hundreds of these sprayers last year to people who bought Trimec Plus and we have never experienced such a flood of appreciation — for both Trimec Plus and the sprayer. This year it's your turn to do yourself a favor.

Toll-free 1-800-821-7925



ANDSCAPE\_CARE

- · Sealed diaphragm.
- up to 70 psi pressure Four-gallon capacity.
- Large 6-in. fill opening. Built-in carrying handle
- Check valve in lid. Brass nozzle and wand

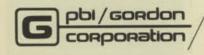
\$100 Value For \$3500 Only Delivered via UPS



How to get your sprayer: Buy at least 21/2 gallons of Trimec Plus between April 1 and October 30, 1990. Send proof of purchase (sales receipt or invoice) to PBI/ Gordon, 1217 West 12th St., P.O. Box 4090, Kansas City, Mo. 64101,



along with your name and address and your check for \$35.00. This offer is limited to one sprayer per customer.



1217 WEST 12th STREET P. O. BOX 4090 KANSAS CITY, MISSOURI 64101

Circle No. 118 on Reader Inquiry Card

HERBICIDE 738-490

#### Lebanon clinics attract 500 pros

LEBANON, PA-To learn about future lawn care clinics sponsored by Lebanon Chemical Corporation's Turf Products Division, write to Lebanon Turf Products Clinics, P.O. Box 180, Lebanon, PA 17042, or call 1-800-233-0628.

The spring turf care clinics in Pennsylvania, New Jersey and New York drew about 500 lawn care, golf course and grounds maintenance pros, reports the company.

#### Du Pont backs siduron effort

WILMINGTON, DE-The Du Pont Company is supporting EPA reregistration of siduron, active ingredient in Tupersan pre-emergence herbicide.

"We do not see any toxicological or environmental problems with this product, but the new studies will bring this product up to date with new registration standards," said James Denny, Du Pont registrations specialist. EPA requested eight new environmental fate studies.

Tupersan and fertilizerscontaining siduron will be available (except in California and Arizona) through the reregistration process.

#### **MEMOS**

IPM gets \$95,961 at Penn State. Turfgrass extension and research personnel will begin working on a three-year project called "Turfgrass Integrated Pest Management" because of the grant, reports The Keynoter newsletter.

Dr. C.E. "Ed" McCoy received the Robert J. Kapp Award from the board of directors of the Indiana State Lawn Care Association. McCoy, a longtime educator, was deputy pesticide administrator from 1982-1988 and was primary author of the "Registered Technician Training Manual". LCOs say McCoy dealt fairly with the turf industry. 1990 Desert Turf/Landscape Conference. Call for speakers and papers. Dec. 12-14, Las Vegas. Contact: Desert Turf/Landscape Conference, 953 E. Sahara, S.T.&P. Bldg., Suite 207, Las Vegas, NV 89103.

Almost 2 million men and women between the ages of 50 and 64 would like to work, says the March 1990 issue of U.S. News Business Report. Most want to work full time.

The attorneys general from 8 states along with government officials, activists, and industry met in Minnesota to hash over

alleged abuses by manufacturers who claim their products are environmentally safe. Look for rules on the use of terms such as "degradable", "recyclable", etc.

Grass stops noise pollution says Sabih Hayek, professor of engineering science at Penn State. He says grass-covered mounds of earth may be the most cost-effective device to reduce traffic noise for residential areas near highways.

The Michigan Turfgrass Industry Report says 53,700 acres of new turf were established in Michigan in 1988, giving the state 3 million. LCI

# NO MATTER HOW BIG THE LAWN, YOU SHOULD NEVER LOSE YOUR BEARINGS.



A transmission that falls apart can finish a job for you whether the work is done or not.

So Toro has made their heavy-duty walk power mowers even more dependable with improved long life

transmissions. New needle bearings and grease seals significantly increase durability, while the center pull rear wheel drive ensures smooth operation.

In addition, Toro has added full-diameter wheel covers and sealed pivot arm bearings. These important features keep sand and dirt out of the wheels for less wear and tear.

When you add to this Toro's proven two-cycle engine, and a full year product guarantee, it's no wonder these machines are the choice of professionals. Stop in to your Toro ProLine dealer and see the improvements that are geared to keep you cutting.



ProLine
The Professionals
that keep you cutting.

#### LAWN CARE INDUSTRY

RON HALL

JERRY ROCHE Executive Editor JON MIDUCKI

Publisher

ROBERT EARLEY
Group Vice President
LINDA O'HARA
Production Manager
ROSY BRADLEY
Production Supervisor
BRYAN VOLLMAN

Graphic Design
MARILYN COPP
Circulation Supervisor
GAIL PARENTEAU
Reader Service Manager
THEODORE C. MATHEWS

Promotion Director

JOHN PRESSELLO

Graphics Manager

#### **BUSINESS STAFF**

Midwest Office: JON MIDUCKI (216) 826-2855

(216) 826-2855 Publisher MARSHA DOVER (216) 891-2739

(216) 891-2739 Regional Sales Manager 7500 Old Oak Bivd. Cleveland, OH 44130 FAX (216)826-2832 Southern Office:

DICK GORE (404) 233-1817 FAX (404) 261-7022 3475 Lenox Road, N.E. Suite 665 Atlanta, GA 30326

Western Office: BOB MIEROW (206) 783-0549 FAX (206) 784-5545 1515 N.W. 51 Street Seattle, WA 98107

Classified
DAWN NILSEN
(218) 723-9349

1 E. First St., Duluth, MN 55802
Please send advertising
materials to:
LAWN CARE INDUSTRY
120 W. Second St.
Duluth, MN 55802
218-723-9192

EDGELL COMMUNICATIONS, INC. PUBLICATIONS

ROBERT L. EDGELL, Chairman
RICHARD MOBELLER, President
LARS FLADMARN, Executive V. Pres
ARLAND HIRMAN, Vice Pres./Treasurer
THOMAS GRENEY, Senior V. Press
EZRA PINCUS, Senior V. Cresident
JOE BILDERBACH, Vice President
JAMES GHERNA, Vice President
GEORGE GLENN, Vice President
HARRY RAMALEY, Vice President

#### LCI ADVISORY COUNCIL



MARTY ERBAUGH Erbaugh Corp. Peninsula, OH



A. J. POWELL U. of Kentucky Lexington, KY

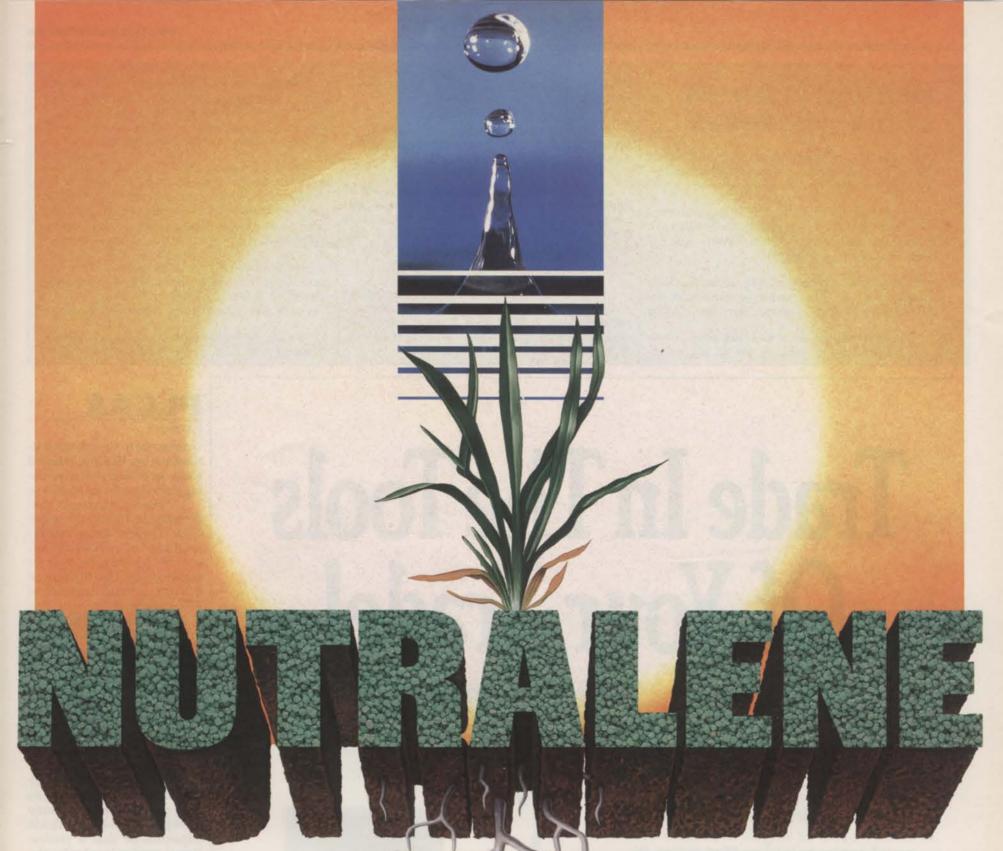


JACK ROBERTSON Robertson Lawn Care Soziogfield II

LAWN CARE INDUSTRY (ISSN 0160-6042) is published monthly by Edgell Communications, inc. Corporate and Editorial offices: 7500 Old Oak Boulevard, Cleveland, Ohio 44130, Advertising Offices: 7500 Old Oak Boulevard, Cleveland, Ohio 44130, 233 North Michigan Avenue, 24th Floor, Chicago, Illinois 50601 and 3475 Lenox Road, N.E. Suite 655 Atlanta, Georgia 30326, Accounting, Advertising Production and Circulation offices: 1 East First Street, Duluth, Minnesota 55802. Subscription rates: \$25 per year in the United States: \$50 per year in Canada. All other countries: \$100 per year. Current issue single copies (pre-paid only): \$2.50 in the U.S.; \$5.00 in Canada: elsewhere \$10.: add \$3.50 for shipping and handling per order. Back issues, if available \$10, add \$3.50 per order for shipping and handling (pre-paid orders only). Office of publication: Edgell Communications, Inc., 1 East First Street, Duluth, Minnesota 55802. Second class postage paid at Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 1 feast First Street, Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 1 feast First Street, Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 1 feast First Street, Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 3 feast First Street, Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 3 feast First Street, Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 3 feast First Street, Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 3 feast First Street, Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 4 feast First Street, Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 4 feast First Street, Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 4 feast First Street, Duluth, Minnesota 55806. Copyright © 1990 by Edgell Communications, Inc., 4 feast First Street, Duluth, Minnesota 55806. Copyright © 1

POSTMASTER: Send address changes to LAWN CARE INDUSTRY, P.O. Box 6200, Duluth, Minnesota 55806.

JBP ▼BPA



### The New Name in NITROGEN!

This advanced controlled-release material derived from methylene urea polymers is the ideal nitrogen source for all your turf needs. That's because NUTRALENE™ works two ways. First, it provides a quick-release nitrogen through hydrolysis. Second, NUTRALENE releases nitrogen more slowly through microbial action for sustained feeding. This dual action (the result of its unique molecular structure) makes NUTRALENE the superior controlled release nitrogen source. The following points show that NUTRALENE meets all the professional's requirements for a broad-use nitrogen.

This quality nitrogen source offers...

- Quick greenup
- Controlled-release nitrogen feeding for up to 16 weeks
- Both hydrolysis and microbial action not dependent on coating or particle size for release
- Minimal leaching and volatilization
- Consistent release of all nitrogen in one growing season, under all conditions, even during cool soil temperature situations
- Low salt and low burning potentials
- 40-0-0 guaranteed analysis



3509 Silverside Road, P.O. Box 7495, Wilmington, DE 19803

IMPORTANT: Please remember always to read and follow carefully all label directions when applying any chemical.

Copyright © 1989 NOR-AM Chemical Company. All rights reserved.

### Hearing in words of the witnesses

"EPA should seek legislative authority over safety claims by professional pesticide applicators."-Peter F. Guerrero, GAO associate director

"The risks posed by these carcinogens (pesticides) are not outweighed by the benefits of a picture-perfect lawn."-Robert Abrams, State of New York attorney general

"The American people need to be assured that lawn chemicals are safe. They need to be assured that the EPA is doing its job."—Senator Harry Reid (D-VT)

"Please senators, do something about these pesticides. They're robbing me of my childhood."-11-year-old Kevin Ryan, Arlington Heights, IL

"Millions of Americans are exposed to pesticides without their knowledge or consent."-Sharon Malhotra, Murrysville, PA

"To pass turf and ornamental plants off as 'purely cosmetic' is wrong and scientifically narrowminded. We will not derive the benefits of turfgrass without the judicious use of lawn chemicals."-Dr. Michael P. Kelty, The O.M Scott & Sons Company

"We do not intend to deal in the emotions of the moment. We will spend our dollars on research and education." - William R. Roberts, golf course superintendent, officer Golf Course Superindents

"Lawn care operators are committed to the safe use of lawn care products and are willing to work with Congress, EPA, the public, and the states to address any concerns."-Thomas Delaney, PLCAA director of government affairs

"Lawn care products-many of which have stood the test of time and scrutiny in our food production system—are not only wanted but needed to maintain the quality of life we have come to demand in this country."—Jay Vroom, National Agricultural Chemicals Association

"We are faced with a hodge-podge of local and state initiatives which confuse right-to-know issues with pesticide labeling."-Roger Yeary, Chemical Specialties Manufacturers Association

"We are opposed to indiscriminate use of fertilizers and pesticides."-Dr. W. E. Stickle, CPDA

In response to the subcommit-

tee hearing, PLCAA reissued these recommended advertising guidelines for its members: 1 Avoid statements that directly or indirectly imply that a pesticide is recommended, approved or endorsed by any federal or

state agency. Use the phrase EPA-registered instead of

2 Avoid false and misleading claims as to the safety of a pesticide or its ingredients. Be wary of using statements such as safe, nonpoisonous, noninjurious, harmless, no health hazard, low in toxic-

ity or nontoxic to humans

and pets with or without a qualifying phrase such as

3 Avoid extraordinary or

inflammatory references that do-it-yourselfers may

have greater risk of pesticide

exposure or that a profes-

sional service is safer for the

environment because of pre-

cations in regard to safety. 5 Use words such as mate-

rial, product or control in place of the word chemical. 6 The words control and

manage are preferable to the

words kill and destroy inas-

much as LCOs can never

hope to totally eradicate any

weed or insect pest problem.

The key to LCOs' success is

to work with customers to

manage and control growth

of both desirable lawn

grasses and unwanted weeds

4Avoid comparisons between liquid and dry appli-

cise measurements.

"when used as directed."

EPA-approved.

## Trade In The Tools Of Your Trade!

Trade in any broken or used cutter, trimmer, blower, or sprayer for a Maruyama product and get factory cash back for your trade!

You can depend on the uncompromising quality of Maruyama commercial equipment. It's built for long life and backed with parts & service by local qualified dealers. We make long life products. When you're looking for the very best, look for Maruyama.

Call your local dealer today Trade in offer ends soon.

#### Maruyama's total line includes

- BRUSHCUTTERS
- · BLOWERS
- HEDGE TRIMMERS
- · MIST DUSTERS
- · POWER SPRAYERS GRANULE SPREADERS
- SOIL INJECTERS
- MANUAL SPRAYERS FRAME MOUNT SPRAYERS
- WATER PUMPS

U.S. Office

MARUYAMA U.S., Inc. 15436 N.E. 95th St., Redmond, WA 98052 P.O. Box 2167, Redmond, WA 98073 Phone: (206) 885-0811 Fax: (206) 885-0123

Singapore

MARUYAMA MFG. CO., Inc. 16 Raffles Quay Level 36, Hong Leong Bldg., Singapore 0104 Phone: 321-8943 Fax: 225-9060 Telex: RS 43382 COHOHL



Quality equipment since 1895

MARLIYAMA

Paris

MARUYAMA MFG. CO., Inc. 34, BD. Haussmann, 75009 Paris, France Phone: (1) 47 70 28 52 Fax: 011-331-45231830 Telex: MBI 290266F

International Headquarters:

MARUYAMA MFG. CO., Inc. 4-15 Uchi-Kanda 3-Chome Chiyoda Ku, Tokyo, 101 Japan

7The word hazardous is often preferable to the word danger which EPA uses as a signal word on the most haz-

> ardous class of products used in pest control.

and insects.

8 A material can be used without unreasonable risk to health or the environment is a more accurate statement than a material is safe. EPA determines that a product "can be used without unreasonable risk of adverse effects" before it allows its sale or use.

#### The Hearing is over but safety issue won't go away

he lights in Room 216 of the Hart Senate Office Building are so bright and focused you can feel their heat even though the room itself—it'll hold about 200 spectators—is open with high ceilings. The room's dominated by a huge, brown-mottled marble wall behind the dais where Senators Harry Reid, Joe Lieberman and, during the morning session, John Warner sat.

Facing the senators and about 15 feet away, at a long table with microphones and pitchers of water, witnesses testified, in groups of three and four. Most read from prepared statements, then fielded questions from the senators. Senator Reid (D-Nev.) usually began the questioning. Senator Lieberman (D-CT) often



(I. to r.)Prior, Ryan, Malhotra

picked up one of the pesticide containers he sat behind, products you can buy just about anywhere, when he asked a question.

Industry critics dominated the first half of the hearing which began about 9:35 a.m. with the reading of a synopsis of the General Accounting Office report blasting LCOs' safety advertising claims. Then came personal accounts of suffering caused by lawn chemicals. Speaking were Kevin Ryan, Sharon Malhotra and Thomas Prior, followed by calls of action by the activitist groups Public Citizen and the National Coalition Against the Misuse of Pesticides (NCAMP).

Ryan, a slight, red-haired 11-year-old from Arlington Heights, IL, claimed lawn chemicals kept him a prisoner in his own home. Malhotra, a nurse from Murrysville, PA, explained her own sensitivity to control products. She painted both industry and government as uncaring. But, the most forceful and bitter testimony came from Thomas Prior, Maplewood, NJ, who graphically recounted the death of his brother Lt. George Prior eight years ago. Lt. Prior died several weeks after playing golf at a Washington D.C.area course and his brother Thomas unhesitantly blamed the death on exposure to a fungicide on the golf course.

These were the faces many

of you saw on the network news the evening of March 28 and again the following morning.

Even so, the testimony of these alleged victims wasn't the cornerstone of the hearing. And the criticism from Public Citizen and NCAMP produced no surprises.

No, the backbone of the hearing was the GAO report. That's what most of the testimony—sometimes it took a circular path—zeroed in on. That too, didn't break new ground since the GAO was



RON HALL

basically following up on what it had reported four years ago. Only this time the GAO report gained an audience of three senators and, through the media, several million lawn care customers and potential customers.

When the hearing resumed at 2 p.m. industry got its chance to address the subcommittee, but the television cameras were long gone along with about half of the audience and most of the print media. Only five of 15 reporters remained.

By 2 p.m. the emotion of the hearing had just about run its course though industry spokesmen presented their case until just after 5 p.m.

LCOs would be naive to expect a hearing devoted to the safety of its products to generate positive reaction in the minds of people who saw the resulting media reports. Just raising the question of safety does, fairly or unfairly, put professional lawn care providers on the defensive.

The subcommittee hearing is over, the media has moved on to other issues but it's unlikely the safety question—never mind reason or facts—will go away soon.

Ron Hell

#### Some Things in Nature Were Meant to Have Spots. Your Turf Just Wasn't One of Them.



DYRENE\* 4 turf fungicide. Effective control in the prevention of leaf spot. It keeps your turf, and your reputation, looking good. There's no better way to keep your turf spotless.

Mobay Corporation

DYRENE 4



recently treated areas."

Abrams signaled out two statements which he said led him to initiate a court action in his state in 1988-the use of the word "safe" and of the phrase "practically nontoxic" by ChemLawn Services Corporation. "We brought the first false advertising case in the nation against a lawn care company. New York State has attempted to protect our citizens when the federal government failed to do so, but the efforts at the state level alone are not enough." (ChemLawn is challenging Abram's asser-

tions in court.)

Abrams said misleading advertising by LCOs is "pervasive nationwide."

The heart of the problem, both Guerrero and Abrams said, is the Federal Trade Commission's (FTC) unwillingness to go after LCOs because it feels the EPA is more knowledgeable about pesticides. But, EPA, under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), has authority only over safety claims made by the manufacturers and distributors of pesticides and not over the users.

"Thus, EPA has no enforcement authority over product safety claims made by pesticide applicators," said Guerrero.

Abrams said Congress should clarify the issue, and that EPA and FTC "be more aggressive in policing false or misleading pesticide advertis-

Said Guerrero: "Without an effective federal enforcement program, the lawn care pesticides industry will continue to make prohibited safety claims that EPA classifies as false and misleading."

Victor J. Kimm, of the EPA, told the senators that his agency is well aware of the GAO's concerns and has taken steps to address it. Kimm,



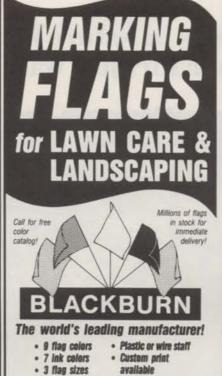
Senators John Warner, Harry Reid, Joe Lieberman (l. to r.)

deputy assistant administrator for pesticides in the EPA, said members of his agency met with the FTC February 22 to agree on formal procedures for referral of pesticide advertising cases between the two bodies. A draft of the procedures is being considered by policy makers at both EPA and FTC.

For the time being, however, Kimm said "self-policing" by the lawn care industry identifies many inappropriate safety claims, and that his agency intends to continue following up on these tips and complaints.

A more elusive problem, he added, is that of inaccurate oral claims delivered by LCOs to individual customers. "No regulatory system can wholly prevent such abuses," he told the senators.

## It's Tee Time DURSBAN



West of Rockies P.O. Box 276 Cambria, CA 93428

ORDER FACTORY- DIRECT TOLL-FREE

800/552-FLAG 800/942-5816

Circle No. 103 on Reader Inquiry Card

#### EPA doesn't favor a national posting law

WASHINGTON, D.C.-A national posting requirement for the application of lawn care products? The U.S. Environmental Protection Agency isn't convinced it's needed. Or that it's workable.

EPA's Victor J. Kimm, at the recent senate subcommittee hearing on lawn care, said: "There is the question of whether we should embark on requirements that involve treating homeowners like commercial applicators. Since most lawn care pesticides are applied by homeowners, should they be required to post their own lawns?...Would it be realistic to enforce such requirements, or would they end up being generally ignored?"

Kimm was one of 19 people who testified during the lawn care hearing.

Kimm said the EPA is looking at alternatives to a national posting regulation, including requiring LCOs to give customers brochures



Dr. Roger Yeary said EPA is "gatekeeper", for products

identifying the pesticides used, and including objective information on toxicity and possible health effects, etc.

At least one spokesman for industry, however, questioned just how much information LCOs should be required to provide. Late in the hearing Dr. Roger Yeary, representing the Chemical Specialities Manufacturers Association, said that requiring LCOs to provide customers with government information on the known and potential health effects of lawn care products unfairly singles them out from other businesses that use chemicals.

"It is unrealistic to expect consumers to make complex risk assessments from information on product labels or in other information and it is for this reason that agencies such as the EPA are gatekeepers to product availability," he added.

Kimm told the senators that the Professional Lawn Care Association of America (PLCAA) "has taken a constructive role" concerning posting. "The industry has taken a positive approach in support of posting and notification, although it would prefer to deal with state or federal requirements and not with regulations at the local level," he said.



#### Trim your Paperwork Down to Size!

✓ Organize your work. . . ✓ Build your Business. . .

✓ Save Time. . .

✓ Reduce Paperwork. . .

with forms and promotional products created especially for Landscape and Garden businesses.

Free brochure and samples!

Call Toli Free 1-800-527-9530

Refer to Sample Pack No. LGMY90-2

The Drawing Board P.O. Box 620004, Dallas, TX 75262-0004

Circle No. 106 on Reader Inquiry Card

#### **With The Andersons choice** of Tee Time fertilizers plus DURSBAN, you get to have it your way!

Combine quality-formulated Tee Time fertilizers with the proven performance of DURSBAN turf insecticide. The result is a superb combination product that provides active double duty in a

The Andersons Tee Time 38-0-0, 18-3-5 and 30-3-5 -each with DURSBAN-are now available at your nearby Tee Time distributor. Or you can have it your way with a custom blend fertilizer/DURSBAN combination product made to your specifications in our state-of-the-art plant.

The Andersons lineup of performance-proven lawn care products is available in your area from one of our quality distributors.

For the name of your local Tee Time distributor or for more information, call toll free: 1-800-225-ANDY (2639)

the professional's partner





DURSBAN is a trademark of DowElance
 1990, The Andersons

Circle No. 102 on Reader Inquiry Card

### Seed seller gets raided by the feds

SALEM, OR—The Oregon Agriculture Department in March started action to lift the Wholesale Seed Dealers License of Olsen-Fennell, Inc., for 90 days.

The "Notice of Intent to Suspend License" filed March 9 by Bruce Andrews, director of the Oregon Department of Agriculture, alleged that Olsen-Fennell, Inc.:

 Sold Alta tall fescue and, on a different occasion in 1989, Kentucky 31 tall fescue when in both cases the seed was an uncertified tall fescue seed from Argentina.

 Sold grass seed labeled as Falcon when the seed was not Falcon, and sold seed labeled as Houndog when that seed was not Houndog.

• Sold the seed while it was quarantined by the state because it contained serrated tussock seed, a prohibited noxious weed seed.

Olsen-Fennell, Inc., James Olsen, Greg Fennell and Richard/Olsen were given 21 days to request a hearing in response to the allegations. (A settlement of this case was pending as of press time.)

In an apparently unrelated action, state and federal officials entered the offices of Olsen-Fennel Seed on April 5 to gain evidence that representatives of that company made false statements to obtain phytosanitary inspection certificates. The officials allege that the company obtained the inspection certificates by representing seed as U.S. grown when, in fact, it came from Argentina. Investigating officials from USDA's Oregon offices, U.S. Customs Service and the state justice department, armed with search warrants, gathered company records.

"This Argentina tall fescue entered the country with (federal) approval and they authorized us to go ahead and distribute it," claimed Richard Olson, company vice president. "After we did distribute it, that is when they found the serrated tussock in it, and found out that their records were not correct and they should not have allowed it (into the U.S.) in the first place."

#### Lawn Expo to stay in St. Pete

ST. PETERSBURG, FL—The 2nd Annual National Lawn Equipment Expo attracted 2,000 attendees and returns to the Bayfront Convention Center here in 1991.

About 125 exhibitors took advantage of the mile-long demonstration area.

Minnesota firm looks to summer startup

#### Paper recycled to turf product

FLOODWOOD, MN—That newspaper you read with your evening coffee could become your lawn someday.

That's what Joe Karpik is hoping any-

Karpik's the manager of Mat Inc. and he thinks that newspaper can be recycled to make lawn care products. He began his experiment early this spring by recycling newsprint to make a fibrous material that can be spread and used to grow grass, or melted and sprayed over dirt where grass has been seeded. It helps establish grass itself, Karpik told the *Duluth News Tribune*. "It's fibrous enough that it sticks together and holds together to keep things in place.

Previously Karpik blended waste wood products with virgin wood chips, but now he's convinced a blend of 25 percent virgin wood, 25 percent waste wood and 50 percent recycled newspaper will work just as well.

Karpik is being aided in his business venture by St. Louis County Commissioner Martin Lepak who would like to see a big dent put in the 20 tons of newspaper being dropped into the county landfill every day.

Karpik says he wants to have his recycling stations in place and ready to go by July. So far, he's been getting his waste paper from a company in Detroit Lakes, MN.

"Nobody is recycling (newspaper) now. The homeowners are dumping it," he said. LCI

#### CA oks Tempo for lawn use

KANSAS CITY, MO—Mobay Corporation reports that California has accepted registration of Tempo 20 WP insecticide for use on home lawns and ornamentals. Tempo is a synthetic pyrethroid.

Dan Meek, Mobay turf and ornamental product manager, says Tempo 20 WP is available in 600 gram jars. LCI

> Have a SPILL? Call Chemtrec 1-800-424-9300

When it comes insects combined. Better yet, once grub damage. Triumph<sup>®</sup> applied to the soil, And protect you to grubs, it's PERCENT OF GRUBS CONTROLLED is changing Triumph keeps on from losing what not enough all that. working for up to profits you have just to sup-10 weeks, dependmade to callbacks. press them. Unlike Compiled from 18 iversity trials, 1985-86. You want most insecing on the target ticides, which are to squash them. unpredictable at **Pulverize** them. Grind them into best, Triumph dust. Send the lithas been tle buggers to the proven in root zone eternal. over ten And who could years of blame you? testing After all, this one to consiscreature has probtently rid ably baffled more turf of over turf professionals, 90 percent of grubs presmade a mockery ent. And within of more chemical To find out more, company claims, just 2-3 days of So one precontact your turf than all other turf application. ventive application products distribuin late summer or early fall is all that's tor or Ciba-Geigy **HOW TO** 

© 1990 CIBA-GEIGY Corporation, Turf and Ornamental Products, Box 18300, Greensboro, NC 27419. Always read and follow label directions

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the applicator certification.

needed to protect

turf from costly

representative.

TRIUMPH

SQUASH A GRUB.

#### Widening the "Windows of Maximum Opportunity"

BY JOHN R. HALL III extension agronomist

awn care professionals labor under the real-world constraint of having limited time periods to most effectively complete each management practice. These are called "windows of maximum opportunity."

But economics dictate that each application unit (one man and one truck) must reach a certain number of accounts. Often the technician requires from 45 to 70 days to provide any one treatment to all lawns being serviced. Weather, mechanical break-down, material availability, personnel problems etc. often prevent lawn service companies from hitting "the window of maximum opportunity."

Mowing, fertilization, weed control, irrigation, dethatching, aeration, disease and insect control or the application of supplemental materials such as iron and lime; all have certain time periods to produce the maximum positive effect on the turfgrass. LCOs routinely offer some of these

services. The homeowner usually is responsible for genetic potential, mowing and irrigation.

What then are the "windows of maximum opportunity" for the management factors provided by the LCO, and how can they be widened?

#### Nitrogen applications

Nitrogen fertilization of cool-season grasses has been shown to have its greatest effect on Kentucky bluegrass and other cool-season turfgrasses when applied in the fall and early winter to promote increased root growth and the enhancement of carbohydrate reserves in the summer growing period. It also increases turf density and drought tolerance and decreases summer crabgrass problems, summer disease activity and spring mowing.

Nitrogen applications beyond January 15 in the transition zone act more as spring applications although in years with extended growing periods and high winter rainfall, there may be a need for moderate nitrogen stimulation in May or August is seldom justified in the transition zone.

#### Pre-emergence herbicides

Pre-emergence herbicide applications for summer annual weeds such as crabgrass, foxtail and goosegrass are time specific. The materials must be applied prior to germination of the annual weed, but if they're applied months ahead of germination effective control falls off into the summer. An application nearest the time of germination maximizes the positive effect.

While some pre-emergence materials have shown limited post-emergence control of crabgrass, it does not seem to be a reliable characteristic for most. Dithiopyr (Dimension), a new pre-emergence herbicide, shows some promise in providing reasonably good pre- and early post-emergence crabgrass control. Post-emergence annual grass herbicides such as fenoxaprop-ethyl (Acclaim) or disodium methane arsonate (DSMA) kill germinated summer annual weeds quite effectively, but they have no pre-emergence activity and proper rate of application, and timing is difficult given the variable slope facings and shade factors in most lawns. As the summer annual weed matures, it's more difficult to control and higher rates of material are required to achieve maximum effect.

Broadleaf herbicides such as 2,4-D, MCPP and dicamba need good foliar and root absorption to be effective. The weed must be actively growing and not in heat or drought stress. The younger the weed, the greater the possibility of successful control.

Each weed is best controlled at a particular time of the year. Weeds such as bedstraw, black medic, hop clover, ground ivy and lambsquarter are best controlled in April-May; bindweed, carpetweed, honeysuckle, horsenettle, purslane and spotted spurge May-June. Weeds best controlled in October-November include bittercress, buttercup, chickweed, oxeye daisy, heal-all,



About the Author John R. Hall II is extension agronomonist, Turfgrass Management, Virginia Tech.



Triazune A Division of ARCADIAN® Corporation

Formolene.

13

henbit, knawel and red sorrel. In general, for broadleaf control the window occurs in late spring and early fall.

#### Insect control

Insect control is reasonably time-specific; white grubs, for example, are best controlled in late summer to minimize the damage that can be caused by their foraging next spring. Spring treatment from mid-April to Mid-May is effective, but timing is critical as significant damage can occur if the treatment is late.

The first generations of chinch bug and sod webworm are normally controlled in mid-June in the transition zone. Target second-generation control for mid-August. With the bluegrass billbug, early spring control of the adult can preclude damaging populations of larvae. Later applications in June are most effective on the newly emerging billbug larvae. Probability of maximum effect for insecticide application is greatest from May through September for most damaging turfgrass insects.

#### Aerification

Aerification in cool-season grasses is best timed to coincide with increased foliar growth, the spring and fall. This minimizes the time the lawn is damaged by the aerification and reduces the probability of annual weed invasion. Aerifying too late in the fall or too early in the spring leaves a lawn open to additional winter annual weed germination from knawel, speedwell, henbit and chickweed and summer annual weeds like knotweed. Aerifying too early in the fall or too late in the spring provides a seedbed for summer annual weeds such as lespedeza, prostrate spurge, purslane and crabgrass.

The opportunity for maximum effect from aerification generally occurs for cool-season grasses in April, May, September and October.

Late fall iron applications enhance root growth and early spring green-up in cool-season grasses. In some instances application of chelated iron in the spring has actually been detrimental. Mid-summer applications of iron in lieu of nitrogen have provided greening with less risk of too rapid growth.

If the spring fertilization treatment is late, increase the slow-release, water-insoluble nitrogen (WIN) portion of the fertilizer. This minimizes risk of excess stimulation in hot weather and reduces probability of fertilizer burn. If this treatment is running very late, consider lowering the total amount of nitrogen and substitute iron to preclude the possibility of too much hot weather stimulation.

If fall fertilization is running late, increase the portion of the fast-release, water-soluble nitrogen (WSN) fertilizer. If fall fertilization is extending beyond January 15, lower the WSN portion of the fertilizer to avoid excessive spring stimulation.

Encourage customers to mow at the higher recommended heights to reduce the probability of crabgrass germination and put less pressure See Window page 23

Probability table of coolseason turfgrasses in the Mid-Atlantic transition zone. Similar tables can be developed for each region to aid in explaining the importance of "hitting the window" to your employes.

#### The probability of achieving the maximum effect from the application of various management practices

	WINDOWS OF APPLICATION OPPORTUNITY											
	J A N	F E B	M A R	A P R	M A Y	JUN	JUL	A U G	SEP	0 C T	N O V	D E C
	% PROBABILITY OF MAXIMUM EFFECT											
NITROGEN	60	40	30	20	80	80	10	10	100	100	100	100
PRE-EMERGENT	60	80	100	90	50	10	0	0	10	30	40	50
POST-EMERGENT	0	0	10	30	80	100	100	80	60	0	0	0
BROADLEAF	0	20	40	80	100	100	40	40	60	100	70	10
INSECTICIDE	0	0	20	70	100	100	100	100	100	60	10	0
AERIFY	0	20	70	100	100	80	30	30	80	70	40	0
IRON	20	30	40	40	70	70	60	70	80	90	100	80



### Get all the yellow nutsedge and none of the innocent bystanders.

Now you can really control yellow nutsedge from sod and use. And as effective against ornamental grass\* - without damaging the grass.

It's simple. Just put down BASAGRAN® herbicide from BASF. No need for you to be selective. BASAGRAN does that for you.

BASAGRAN is a registered trademark of BASF AG © 1988 BASF Corporation.

It's safe to grass and easy to



yellow nutsedge as anytning you can buy.

Always follow label directions.

\*Do not use on golf course greens.

**BASF Corporation** Chemicals Division



### Fermenta is selling its U.S. subidiaries

MENTOR, OHIO—Swedenbased Fermenta AB said it hopes to sell its U.S.-based subsidiaries, Fermenta Animal Health and SDS Biotech Corporation by the end of 1990. SDS Biotech, of which Fermenta ASC is a part, is headquartered in Mentor, Ohio.

Fermenta ASC produces and markets crop protection chemicals, industrial biocides, wood preservative products and specialty chemicals including Dacthal, a herbicide, and Daconil, a fungicide, both used in the turf industry.

Franklin Barry, president

of SDS Biotech, told Lawn Care Industry that the Sweden-based Fermenta AB is selling its U.S. holdings because of economic considerations arising from new Swedish tax laws. He said the U.S. properties have performed well over the past several years and should be attractive to perspective buyers. In 1989, the U.S. subsidiaries reported record profitability on aggregate revenues of \$258 million.

### ChemLawn's '89 not as strong as Ecolab sought

COLUMBUS, OHIO—ChemLawn Services, which lost \$8 million in its on-going operations last year, is expecting "moderately better" sales in 1990, officers told shareholders this spring.

Last year was not a bright one for Chem-Lawn which, late in 1989, fired 1,500 workers in a reorganization (1,000 of the positions are being refilled) which cost the company \$34.5 million. Ecolab, which bought Chem-Lawn in April 1987 for \$376 million had not expected those costs to exceed \$32 million.

In 1988 ChemLawn reported a profit of \$14 million, but this year's report said ChemLawn's 1989 performance fell far short of expectations even though the report said sales rose 5.4 percent to \$394.8 million. The customer base, however, reportedly fell six percent to 1.5 million.

At least part of the blame fell on a wet, cold 1989 spring that hampered the delivery of timely customer service and shortened the prime selling season. Ecolab Chairman and CEO Pierson Grieve, however, did admit that much of the loss was caused by the company's efforts to force growth on Chem-Lawn's organization. He said that organization "was not prepared to handle all the new initiatives we undertook."

Ecolab officials say they're attempting to strengthen ChemLawn's field management team.

#### Resistance in weeds studied

LONDON, ENGLAND—Representatives from at least nine agrochemical companies have joined to study the growing resistance of weeds to herbicides. Participating companies include ICI, Du Pont, Ciba Geigy, Schering, Bayer, Hoechst, Shell, American Cyanamid and Monsanto.

The new Herbicide Resistance Action Committee (HRAC) seeks to prolong the effectiveness of herbicides likely to encounter resistance problems and also to limit crop losses during the emergence of new resistant strains. The first formal meeting of HRAC was held at Brighton in southern England and established technical working groups.

Globally, 107 weed biotypes are now resistant to herbicides, including 57 species with biotypes resistant to triazine herbicides and 50 species with biotypes resistant to 14 other classes of herbicides, HRAC says.

Resistant weeds are reportedly found in 18 European countries, in 40 of the 50 states in the United States, in eight of Canada's 10 prvices, and in at least 10 other countries. LCI

#### Pickseed says R&D continuing

TANGENT, OR—Pickseed West Inc. continues to emphasize research and development under the direction of plant breeder Dr. G.W. Pepin, says company president Kent Wiley.

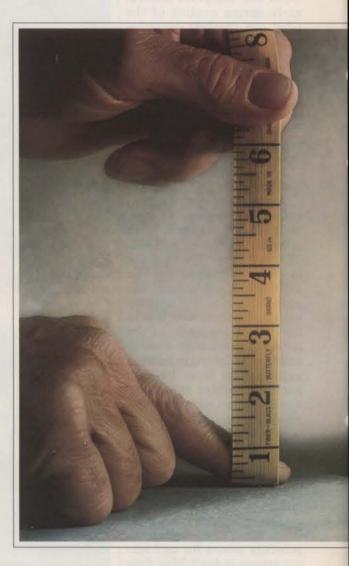
Pickseed introduced Shortstop turf-type tall fescue this past year. It had the lowest vertical growth rating out of 64 entries in recent NTEP tall fescue trials.

Other new "dwarf" varieties include LowGrow perennial ryegrass, Crossfire turf-type tall fescue and Mini-Mustang turf-type tall fescue.

#### Introducing Tempo For Home Lawns And Ornamentals.

Use new TEMPO<sup>™</sup> 2 ornamental insecticide and it will become your new standard of measure for all other insecticides. New TEMPO is the first affordable pyrethroid labeled for both ornamentals and home lawns. Better yet, it treats the same area as effectively as the leading insecticide, but with 80% less active ingredient. And that's a sizeable difference.

Weigh the alternatives. New TEMPO uses approximately 80% less active ingredient than the leading insecticide. Which means there's approximately 80% less chemical for you to carry around. And 80% less chemical to impact the environment.



## How To Size Up

Measure the effectiveness. TEMPO is a broad-spectrum, advanced-generation pyrethroid.

In simple terms, TEMPO effectively controls the surface-feeding insects attacking your customers' lawns. Plus, T

customers' lawns. Plus, TEMPO controls the toughest ornamental pests. So using TEMPO eliminates the need to stock several different insecticides.



TEMPO effectively controls surface-feeding pests like cutworms, armyworms, chinch bugs, and sod webworms

Here's another good reason to put TEMPO in your tank. More and more of your customers have a growing concern about Lyme disease. TEMPO effectively controls the deer tick which carries

the Lyme disease virus.

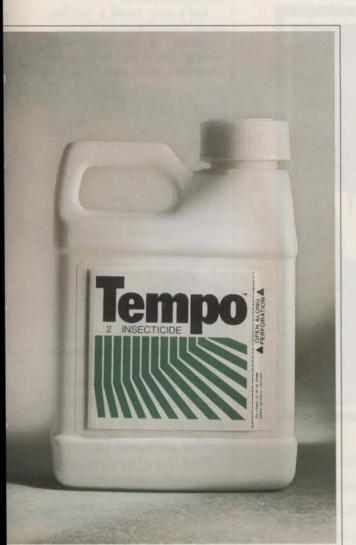
Calculate the cost. TEMPO is the first affordable pyrethroid labeled for use on home lawns. Better yet, it's competi-



#### Busy men

Neal DeAngelo, left, president of Lawn Specialities, Hazelton, PA, hopscotched between the March 28 senate subcommittee hearing on lawn care and the PLCAA "Day-on-the-Hill" program. The two events unfolded simultaneously. It was apparently a coincidence. De-Angelo, is secretary/treasurer of PLCAA. Right, Congressman Steve Bartlett (R-TX) spoke at the U.S. Chamber of Commerce breakfast. LCOs were guests at the event. Bartlett spoke on employees





And 80% less chemical means fewer handling, mixing, and disposal hassles. In addition, TEMPO tank mixes with most fungicides and fertilizers.

Analyze the safety. TEMPO has a very low mammalian toxicity. So TEMPO offers maximum safety for your customers and your employees.

TEMPO is not a cholinesterase inhibitor like other insecticides. So you don't have the chore of constantly moni-

toring your applicators. And you don't have the applicator downtime caused by cholinesterase depression.

Add it all up. Effective broadspectrum control on



TEMPO reduces exposure to your customers, your employees, and the environment.

both lawns and ornamentals. Reduced handling, storing, and disposal. Reduced potential for exposure to your customers,

## Your Insecticide.

tively priced with what you probably use right now. So with TEMPO, you get the

TEMPO uses 80% less active ingredient than

the leading insecticide.

latest advancements in insect control for the same price of the older insecticides.

Gauge the work involved.

TEMPO uses 80% less active ingredient than the leading insecticide. So, TEMPO takes up 80% less storage space, both on and off the truck.

your employees, and the environment. Plus, TEMPO has virtually no odor. And it's competitively priced.

Now contact your Mobay distributor or Mobay representative. Then compare insecticides. We think you'll find that new TEMPO has some sizeable advantages.

Mobay Corporation



TEMPO is a TM of Bayer AG, Germany ©1990 Mobay Corporation

#### Wilkinson new CEO of Lawnmark HUDSON, OH-Dr. James F. Wilkinson becomes Chief Op-

HUDSON, OH—Dr. James F. Wilkinson becomes Chief Operating Officer of Lawnmark June 1, reports J. Martin Erbaugh, Lawnmark president and chairman.

Wilkinson most recently served as the executive director of the Pesticide Public Policy Foundation (3PF) and previous to that he was the president of the Professional Lawn Care Association of America, director of research for ChemLawn, general manager of Old Fox Lawn Care in Rhode Island and professor of agronomy, The Ohio State University.

"Jim brings to us experience, perspective and understands our industry and the challenges it faces for the 90s," said Erbaugh. "Everyone who knows the Green Industry respects him. I'm glad he's now on our team."

As for 3PF? The board of directors of that organization meets in May to decide its fate.

Lawnmark is a professional lawn care service business with 13 branch operations from Ohio to Maine. It provides service to 50,000 residential and commercial customers and has annual revenues exceeding \$10 million.



Wilkinson's new challenge

#### Lybarger's aim; national firms

MARYSVILLE, OHIO—Dale Lybarger is the new national accounts manager for The Professional Business Group of the O.M. Scott & Sons Company. Working out of Marysville, Ohio, Lybarger will build Scotts' business relationships with the large national lawn service companies.

Other new assignments at the lawn products company include:

 Dave Kuhlman, tech rep for the West Central and Upper Plains states.

 Dave Winter, Mid-Atlantic states and also portions of Ohio, Pennsylvania, West Virginia and Virginia.

• Chris Skibba, the West

 Jeff Cain will assume the Midwest territory formerly served by Wayne Horman. LCI

#### Trial-and-error pricing can damage profit potential

BY PHILIP D. CHRISTIAN III

ricing of lawn care services has evolved over the past 20 years without a defined basis or formula. Our pricing works, but when we need to change price, the only method is trial and error which won't allow us to build three and five-year plans. We don't know how to tie pricing to profit.

Some of the first industry leaders used two-stage pricing: a stop charge for each property and a production price per 1,000 square feet of treated area. This recognized the two stages of cost: the cost of getting there and the cost of production. For example, a customer with a 7,000-square-foot property is charged a \$22.50 stop charge plus \$2.50 per 1,000 square feet (\$17.50)—\$40 total.

But, the industry moved away from two-stage pricing and adopted price sheets with bracketed areas. In some cases the brackets are 1,000 square feet or more. This has encouraged inaccurate measuring and guessing the size of lawns.

Is there a mathematical basis for lawn care pricing? If so, what are the elements and how do they relate to each other and to profitability? My examples are based on the application of liquid material although the system works just as well for dry applications.

The first issue is dealing with material cost in the formula. An over-emphasis on material has clouded the pricing issue for years. The best way to remove the cloud is to take material from the

formula.

Material is easy, costs are proportional to the area to which the material is applied. The cost per acre is the same and not related to the size of the property. We have simplified material costs at \$1.00 per 1,000 square feet, or \$43.56 per acre.

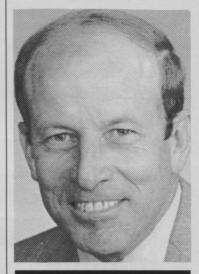
Income, or revenue required for some unit of time is the next element of pricing. Rather than set a trial-and-error price and test for revenue adequacy, let's set the revenue requirement first and back

into the price per stop.

Most of us think in revenue-per-day-per-route including material. If we could subtract the value of the material, we would have the revenue required to pay all other expenses including overhead and profit. That is the magic number and the beginning of the process.

Time is the last and most elusive item in pricing. It's trite to say time never stands still, but it's true. We've chosen an eight hour day as our production standard recognizing that more or less time is required depending on season and circumstance.

Let's now build a pricing model to demonstrate the relationship of the elements. Change the model to fit your situation; use it as a basis for



Our pricing must be related to time and not the size of the property— Philip Christian

pricing properties of various sizes and activities other than lawn care.

Our model is based on an average-size lawn of 7,000 square feet. The model route is a full day of treating 7,000 square-foot yards.

Line 1 is the actual incomeper-day in dollars for the model route of 7,000 squarefoot properties. Line 1 is not a key number from a management point of view because it varies depending on the size and mix of the properties treated. Line 1 is equal to line 3 plus line 2.

Line 2 is the amount of material used in one day of producing 7,000-square-foot lawns. It's based on a material cost of \$1.00 per 1,000 square foot

feet.

Line 3 is the most important number in the model. It's subject to the approval of upper management before it's set. The number must be adequate to cover all expenses of operating the route plus the recovery of overhead and profit in accordance with the



Knowledge, research and how to apply them effectively and intelligently are what will keep the lawn care industry dynamic and growing. That's why LAWN CARE INDUSTRY magazine, the first to publish in the lawn care field, has made a \$50,000 commitment to the PLCAA Education and Research Fund.

No other industry publication has deemed education and research important enough to make this kind of commitment. But then, no other magazine was founded exclusively for the lawn care operator. The other publications have their interests. We have ours...you.

LAWN CARE INDUSTRY...first in the industry and in placing the needs of the industry first.





चंगसंबर्ग

7500 Old Oak Boulevard, Cleveland, OH 44130 (216) 826-2855

\$873.00

\$153.00

\$720.00

480 min

15 min

7 min

22 min

21.8 ea

\$33.00

\$7.00

\$40.00

\$1.50/min

company's goals and projections. \$720.00 represents the revenue left over after material costs are deducted from the daily income. It's a magic number because it's directly proportional to time. It represents the result of 480 minutes of work. Even though we break down time into travel and production, the revenue-per-minute does not vary based on the activity. You must accumulate money at the rate of \$1.50 per minute so you will have \$720.00 at the end of the day.

Line 4 in the average time in minutes available to work per day. 8 hours x 60 minutes.

Line 5 is the cost per minute. It is calculated by dividing Line 3, revenue-per-day less material costs, by 480 min-

Line 6 represents the average travel time of 15 minutes per stop.

Line 7 is the average production time based on a production of 1,000 square feet per minute. Line 7 totals 1 minute x 7,000 square foot average lawn, which equals 7 minutes.

Line 8 is the total time per stop or the sum of lines 6, travel time, and Line 7, production time. This totals 22 minutes.

Line 9 is the total stops per day. It is calculated by dividing 480 minutes by the total stop time of 22 minutes. This equals 21.8 each. Don't despair if the stops per day do not match your history. Remember, we have not included non-revenue stops for sales and service, and are calculating stops on an eight-hour day, not a nine or ten-hour day.

Line 10 is the cost per stop without material. It is calculated by multiplying 22 minutes, the average stop time, by \$1.50 per minute. That equals \$33.00.

Line 11 is material costs per



#### **Bunton dies**

LOUISVILLE, KY-Herbert F. Bunton, chairman emeritus of Bunton Company died March 20 at the age of 82. Until his retirement, he was chairman of Bunton Company and the former president of Bunton Seed Company, and an active civic booster.

stop. It is calculated by multiplying 7,000 square feet x \$1.00 per 1,000 square feet. This equals \$7.00.

Line 12 is the price for an average 7,000 square foot property per stop.

Stop now and build your own model for your averagesize property using real numbers. Even when all the relationships don't match, the price could still be correct. Some of the assumptions we have taken for granted throughout the years are simply untrue. Our reliance on Line 1, for example, has caused confusion because the total income per-day-per-route is a number of questionable value.

It varies widely depending on the amount of material used and the size of the properties

You may be uncomfortable with the assumption of treating a full day of 7,000 squarefoot properties. I admit this is unrealistic, but don't forget that treating a mixture of properties all the way from mini's to 20,000 and 30,000 square-foot properties makes the model unworkable.

Are you surprised the model points out that our pricing should be related to time, not the size of the property?

Next month in this column, I will compare our pricing model to industry pricing on

#### **PRICING MODEL FOR 7,000** SQUARE FEET

- 1. Income per route per day. Add lines 2 & 3 2. Material costs at \$1.00/1000 square feet
- 3. Revenue/day to cover all costs, except material
- 4. Time available/day: 8 hrs X 60 mins/hr
- 5. Cost/minute: \$720 divided by 480 mins 6. Average travel time
- 7. Average production time @ 1000 sq ft/min
- 8. Total time per stop: 15 min + 7 min
- 9. Stops per day: 480 min/ 22 min
- 10. Cost per stop without material: 22 min X \$1.50
- 11. Material Cost/stop: 7,000 sq ft X \$1/1000 sq ft
- 12. Price for average 7,000 sq ft property per stop

properties of various sizes. I will also develop a model for activities other than lawn LCI

Philip D. Christian III, Alpharetta, GA, is a consultant with All-Green Management Associates, Columbus, Ohio.



Better than anyone, you know the value of having the right tool for the jobequipment that is always up and running strong, never down and draining profits.

Pure quality from start to finish. That's why rugged Echo power equipment is proven and preferred by the toughest

customers around—those that earn a living with the right tool.

See your ECHO dealer today. He's proud to stand behind every ECHO product. You'll find him in the yellow pages. Or call (708) 540-8400.



ECHO INCORPORATED, 400 Oakwood Road, Lake Zurich, IL 60047 (708) 540-8400.

#### **CLCA** issues paper to help water crisis

SACRAMENTO, CA-The science of irrigation will be taking a giant leap forward in California. That's right, the science.

And it'll be taking the leap in response to the seemingly

annual water shortage in much of the state.

The California Landscape Contractors Association (CLCA) released an issue paper on the subject in mid-April. "Far more water can be saved by improved irrigation management than by other water-conserving landscape practices," said the paper. Among its suggestions for improved irrigation are water audits, separate irrigation of plantings with different water needs, and implementation of new technologies.

The paper also calls for more educational programs on landscape irrigation, emphasis on the use of reclaimed water for landscaping, and incentives to reduce landscape water use, including rebates for improving irrigation systems and penalties for "water abusers."

Although the paper notes that plant lists can be used to identify the water needs of many plants for the purpose of grouping them together in watering zones, it cautions that these lists should be used as guidelines, never as requirements. "Flexibility is essential," it says, "since many plants vary in availability and adaptability to climate zones.'

The CLCA paper opposes water ordinances aimed at landscaping, except in cases of "severe" water emergency. "Individuals must retain the right to decide for themselves how to

conserve water," it says.

CLCA released the paper to help homeowners and public officials deal with the state's current water crisis. "We're the experts when it comes to landscape water use," said CLCA Executive Director Sharon McGuire, "and we feel obligated to share our knowledge and expertise."

She said only five percent of the water used in California goes toward landscaping, but it's still an area where more con-

servation is possible.

Copies of the paper are available free from CLCA, 2226 K Street, Sacramento, CA 95816. (916) 448-2522.

#### \$160 million is R&D budget for DowElanco

ORLANDO, FL-DowElanco expects about \$11/2 billion in sales its first year, said William H. Culpepper, commercial director of DowElanco Specialty Products.

Of that amount, \$160 million (about 12 percent) is being reinvested in research, he said at a press conference at the Golf Course Superintendents Association of America (GCSAA) Conference here in February. DowElanco is a joint venture of the Dow Ag Products Group and the plant science unit of Eli Lilly and Company.

"We're in the business to stay," he said. "The merger of the two companies make DowElanco the largest U.S.based company in the business and we are the largest company in the United States in this business," said Culpep-

"We're really going to be a customer-focused organization and, that's what we think



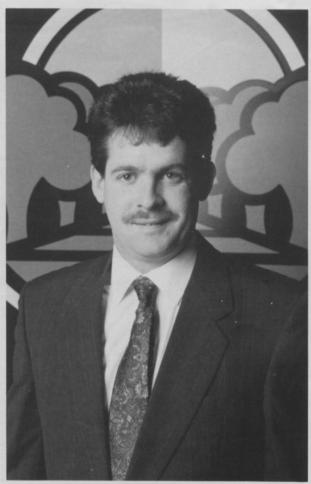
"We're really going to be a customer-focused organization"— William Culpepper.

we have to do to be successful as we move into the future. We need to create sales and marketing and research groups which specifically address the business we're in. We'll have a turf and ornamental sales and marketing organization supported by a research organization."

Fielding questions from the media, Culpepper said DowElanco will continue to support its products in the environmental arena. "We feel very good about the science," he said. "As good stewards of our products, we're going to do everything we can to make them as environmentally acceptable as we can. This includes formulation changes, packaging changes, and obviously any new molecules."

New products? Culpepper said DowElanco is "looking at gaps in the market that have unfilled needs."

### It's a Way of Life at Tyler.



Mr. Bob Dore, President, Green Scene Lawn Care.

FERTILIZER

"The quality of Tyler's materials and service is the best in the industry".

"I started with Tyler in 1984 and the quality of their products and service has never varied," says Mr. Bob Dore, President of Green Scene Lawn Care of Carol Stream, Illinois.

"Knowing that we always have a good product, benefits our company and reflects on our reputation with our customers. Because we are only as good as the products we have.'

"When I need it, the product is always here and the orders are always correct as placed. Tyler is always competitive with their pricing, but I will spend a little more for the assurance of a quality product."

The Tyler Sales Staff is committed to serving you with the best technical support available. We also have university support available to help us solve your individual turf problems.

Tyler offers Greensward® Custom Formulated Fertilizers in liquid or dry, large or small quantities, in bag or bulk.

Ask us about our grass seed and chemical control products for your turfgrass program.

If you want the very best in technical support, quality products and service, write or call us today.

**Quality Products for Quality Turf** Enterprises, Inc.

> P.O. Box 365 • Route 53 South • Elwood, Illinois • 60421 Telephone: (815) 423-5551 • FAX: (815) 423-6331

> > **TOLL FREE 1-800-421-4740** (IN MILWAUKEE (414) 535-0466)

> > > Copyright 1990 Tyler Enterprises Inc.

Circle No. 124 on Reader Inquiry Card

#### ASLA appoints Pete Kirsch

WASHINGTON, DC—The American Society of Landscape Architects (ASLA) named Pete Kirsch as its new director of marketing. Kirsch formerly worked for a public relations and advertising agency. He's a graduate of Marquette University.

#### New manager

Greg Freyermuth joined Sunbelt Seeds, an affiliate of Lofts Seed Inc., as Florida sales manager. He will work out of DeBary, FL, and will also coordinate the new sales arrangement between Sunbelt Seeds and the Par Ex division of Vigoro Industries. Freyermuth, a graduate of the University of Kentucky, was formerly with Wheeler Fertilizer.

#### **Pick Moffitt**

GREENSBORO, NC—Scott Moffitt is the new product manager for insecticides (Triumph®) with Ciba-Geigy Turf and Ornamental Products. Moffitt came over from the company's animal health group. He's a graduate of the University of Kentucky and holds an M.B.A. from the University of Indianapolis. He replaces Joe Prochaska who was promoted to director of new products for C-G's Ag Division.

#### Rain Bird news

GLENDORA, CA—Recent Rain Bird appointments:

 Ron Wolfarth, Industrial Marketing Manager for the Turf Division. He's a graduate of Cal Poly Pomona and joined the company in 1985.

• Randy D. Malkin, Area Specifications Manager for California. He has 20 years experience in the landscaping business.

 Michael Bautista, Senior Designer for Lyntone Engineering, Inc., engineering consultants to Rain Bird.

 George V. Elliot, Manager of Accounting for Rain Bird Corporate Services, Inc. LCI

#### Nice honor

CHICAGO, IL—Earl R. Sorensen, executive vice president, H.D. Hudson Manufacturing Company, Chicago, received an Honorary Doctor of Business Administration degree from Adrian College, Adrian, MI. The presentation took place in Chicago.

Dr. Stanley Caine, college president, cited Sorensen for serving as a trustee of the school since 1974 and as vice chairman of the board since 1984. Adrian College is a private, liberal arts school. LCI

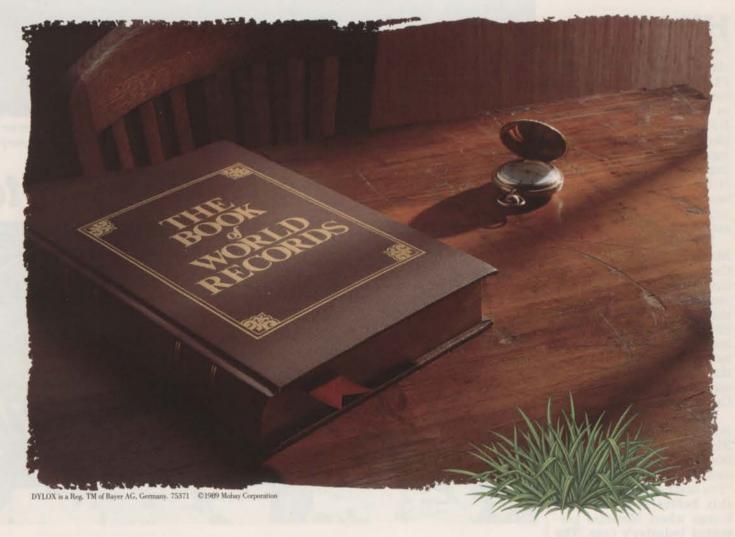


#### Winners

Dave Nelson, left, won the Lawnman Competition at the 2nd Annual National Lawn Equipment Expo at St. Petersburg, FL. The Expo, sponsored by the American Landscape Maintenance Association, attracted about 2,000 attendees and 125 exhibitors. About 50 people competed in the Lawnman games. ALMA says next year's Expowill return to the Bayfront Convention Center in St. Petersburg.



#### For Getting Rid of Grubs in Record Time, There's Nothing Faster Than Dylox.



DYLOX\* insecticide stops grubs in their tracks. Fast, Usually in less than 48 hours. And for the record, nothing on the market works better or faster.





**Mobay Corporation** 



Cooper Evans, special assistant to the President, told LCOs pesticide legislation will be based on scientific data.

#### HILL

from page

the demands it made on the PLCAA staff, most of which remained through the hearing in the Hart Senate Office Building (just around the block from the Capitol Building). That hardly lessened the impact of the "Day on the Hill" activities which had been painstakingly preplanned, in large part by Monsanto's James Altemus.

But back to LCO Ed McGuire whose meeting with Congressman Stubbs may not have been typical but it was certainly unusual. At least that's what Stubbs' aid Steve Blomgren told McGuire as he hustled McGuire down one hallway and up the next, and through the tunnel connecting congressional offices with the Capitol Building.

Finally arriving at a packed congressional hearing room, Blomgren motioned Stubbs from the floor ("This is highly unusual," said Blomgren. "I've never done anything like this before.") and into a lounge where McGuire presented industry's case. The Congressman listened politely. In all, LCOs contacted at least 25 legislators their administrative assistants.

On another front PLCAA President Richard Steinau and several other industry leaders spent more than an hour discussing lawn care issues with Anne Lindsay, EPA director of pesticide registration. And Cooper Evans, Special Assistant to the President for Agriculture and Food Issues, invited Steinau to participate on the President's Advisory Panel for Minor Use Pesticides.

"It was a tremendous experience for all of those who participated," said Steinau. "All of the lawn care professionals I've spoken to since have asked how it went and I'm sure next year many more LCOs



PLCAA's director of education, Dr. Barry Troutman (standing) reports to association members on the senate subcommittee hearing on lawn care products. Troutman appeared on several national television reports, presenting industry's story.

#### "Day on the Hill" in photographs



#### **Opening thanks**

PLCAA President Rick Steinau thanks everyone for attending the PLCAA/Monsanto Day-on-the-Hill program at the event's opening luncheon. Over 50 lawn care professionals and another 20 PLCAA staff, press, and friends of the industry attended the two-day event.

Dr. Dave Duncan, director of the Monsanto Greens Business Group (left) and Dr. Paul Schuda, deputy director of the environmental fates division of the EPA, discuss registration of new lawn care pesticides.

will want to participate.

"We were able to cultivate some very good contacts in Washington, just from this our first visit."

Other highlights of the program included a dinner program featuring speaking engagements by two key members of the House Ag Committee: Charles Stenholm (D-TX) and Pat Roberts (R-KS), and a U.S. Chamber of Commerce breakfast where Congressman Steve Bartlett (R-TX) briefed LCOs about key legislation.

LC

#### **WINDOW**

from page 13

on your pre-emergence herbicide program if it's being put on early or late. As pre-emergence applications approach being late it's a good idea to consider tank mixing a postemergence herbicide with your pre-emergent. Virginia Techstudies have shown that 2 lb. AI/A disodium methane arsonate plus 2 lb. AI/A pendimethalin or 0.18 lb AI/A fenoxaprop-ethyl (Acclaim) plus 1.5 lb. AI/A pendimethalin provide excellent crabgrass control where some crabgrass has already germinated.

Preliminary data on dithiopyr (Dimension) indicates that it provides reasonably good pre- and early post-emergence crabgrass control.

With late pre-emergence applications, having the homeowner immediately water in the material will speed distribution and activation of the material. If you're applying pre-emergence materials early, it may be advisable to increase the rate to be sure you have an adequate toxic concentration when it's needed.

With broadleaf herbicides the window can be expanded by using spreader-stickers to improve absorption efficiency. If the materials are going down late, the weeds are more mature and higher rates may be necessary. In dry periods, getting the homeowner to water the day before the application will increase the metabolic activity of the weeds and improve control. Preliminary data on isoxaben (Gallery) suggests it will have a role to play in expanding the window by providing pre-emergence broadleaf weed control of several common weeds.

Late or early aerification can lead to additional weed germination. So where this is a possibility, one may need to provide an additional herbicide application or increase the rate of the planned application. With late spring or early fall aerifications, in periods when leaf growth is minimal and heat is excessive, getting the homeowner to irrigate will enhance healing. Early aerification increases heat absorption on the surface of the lawn and possibly speeds up crabgrass germination, necessitating earlier application of the pre-emergence herbicide.

In situations where aerification is forced to times outside the period of maximum effect, it's important to use pre-emergence herbicides with a strong residual, such as bensulide, pendimethalin and oxadiazon.

Expanding the windows of maximum opportunity in lawn care can increase profits by increasing the number of lawns that can be treated by each technician.

#### Triazone adds products to line

MEMPHIS, TN—Triazone has added N-Sure, Formolene Plus, urea, and urea solution to its line of lawn care products. The expanded offerings resulted when six major fertilizer producers—Arcadian Corporation, Columbia Nitrogen, Triazone Corporation, Hawkeye Chemical Company, Nitrex, and the fertilizer assets of Olin Corporation—joined under the name Arcadian Corporation.

Triazone operates as a division of Arcadian and its president is Jerry Higdon, formerly of Hawkeye Chemical. LCI



#### **Good sport**

Frank Wilmot, owner of Summit Turf Farm, Poolesville, MD, gave something back to his industry-\$5,000. Wilmot won a door prize drawing worth \$5,000 of grass seed (contributed by Turf-Seed, Inc., Hubbard, OR) during the Midwinter Conference of the American Sod Producers Association (ASPA). Almost immediately he presented ASPA with his own check for \$5,000 to help fund that group's expanded environmental activities. ASPA President Randy Tischer accepted Wilmot's contribution.

#### On Some Lawns, Grubs Just Aren't a Problem.



OFTANOL™ controls grubs before they have a chance to do their damage.

Providing continuous protection that lasts. Nothing works better. It's your best bet for grub control.

Mobay Corporation

**OFTANOL** 



Circle No. 112 on Reader Inquiry Card



Special vinyl is used to cut string trimming People Devices' new vinyl building bib™ landscape trimming

will reduce the time you'll be running your string trimmer. The building bib is made from BFGoodrich Geon® 83794 flexible vinyl extrusion compound. The building bib is available in white, brown, gray, black and green. It can be used around houses, under fences, around shrub beds, rock gardens etc. Circle No. 150 on service card.

Super Wolf absorbs 15 times its weight

Wolfco offers its Super Wolf absorbent sock which absorbs up to 15 times its weight in emulsion-type waste.



Whether you have oil leaks around the base of your machines or have a spill. Circle No. 151 on service card.



#### Power thatchers help eliminate hard work

EasyRake Inc. says its Easy-Rake power thatchers are available in several sizes to accommodate various needs. Self-propelled models are available in 18-inch and 24inch raking widths, and pulltype models, for use with lawn and garden tractors, have a 38inch raking width. EasyRake's thatchers use spring tines that enter the ground to a depth of 1/4 inch, combing the grass without tearing or damaging the growing grass. Circle No. 152 on service card.

#### **Product protects hands** from outdoor elements

Stoko® Gard is an odorless. silicone-free creme which forms an invisible shield on the skin and protects the skin against outdoor plants, grasses and foliage. It's effective for up to 8 hours, says Stockhausen,

Circle No. 153 on service card.

#### Fast and inexpensive test for pesticides

EnzyTec, Inc., offers a fast and inexpensive test for detecting the presence or absence of the insecticides registered for use in the United States; namely carbamate, thiophosphate and organophosphate insecticides. The product is a simple, compact "testing ticket" whichwithin three minutes-can detect the presence of these pesticides in a range of 1-10 parts per million or parts per billion if so desired. The "ticket" detects pesticides in air, water, soil or on surfaces depending on the technique

Circle No. 154 on service card.



#### **Excel Hustler models** feature Ford engines

Regular grooming of large acreage turf requires a highpower, reliable mower. From the engine to the attachments. the Excel Hustler 400 and 440 out-front mowers are built to tackle large grounds maintenance jobs.

Since 1985, Excel has been using the liquid-cooled, fourcylinder Ford gasoline engine. The Hustler 400 sports a 45hp engine while the 440 has 54 hp. Both engines are factory set at 3000 rpms for peak performance and long life.

With the optional dual Range Wing™ attachments, either mower can cover over 12 feet of turf in a single pass. LCI Circle No. 155 on service card.

### You can't grow wrong with Shaw's.



#### **DowElanco**

#### **Shaw's Turf Food Insect** Control with DURSBAN

We have over 40 years of experience supplying the highest quality turf products to our satisfied customers. Our Shaw's Turf Food Insect Control. containing Dursban, can be uniformly applied to any home lawns and other ornamental and recreational turf grass areas. This Shaw's product controls insects while feeding your lawn and turf areas.

Shaw's offers fertilizers from the top of the line to economical general use--plus custom grades that are prepared to exact customer specifications.

Shaw's product "excellence" is maintained and guaranteed by strict quality control throughout the blending, packaging and shipping processes.

#### KNOX FERTILIZER COMPANY

P.O. BOX 248, KNOX, INDIANA 46534





ates on any standard 12-volt

Circle No. 156 on service card.

truck battery.

Unload your truck and save your back

E-Z Dumper is the original hydraulically operated dump unit for pickup trucks, allowing you to unload your truck bed in under 30 seconds. The E-Z Dumper can hold and unload up to 4,000 lbs. or two cubic yards of material depending on the weight-carrying capacity of your truck. Doit-yourself installation of the unit is easy, says the company, which even includes the hydraulic fluid. The unit oper-



Pennington says Finelawn 5GL ready

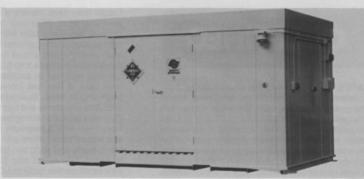
Pennington Seed describes Finelawn 5GL an improved variety turf-type tall fescue that has ranked highly in national turf tests. Increased drought and frost tolerance, low growing characteristics and excellent shade performance make Finelawn 5GL a winning choice for turf managers.

Pennington also announces Triad, a mixture of top-rated turf-type tall fescue. Triad, the company says, creates a dense, fine-textured turf that grows well in varied sunlight and growing conditions. LCI Circle No. 157 on service card.



#### "Natural" product doesn't burn lawns

Naturall lawn fertilizer (8-1-3) is a blend of organic ingredients, a high grade of animal matter that has been carefully processed and sterilized. The product is non-burning and therefore doesn't need to be watered in. The phosphate is from soft rock phosphate while animal by-products are a source of phosphorus. The potash and sulfur are from potassium sulfate which is recommended by many organic certification groups as an acceptable material. Circle No. 158 on service card.



#### Store flammables in this structure

Safety Storage Inc.'s fire-rated Model FR-30 Storage Building is prefabricated and relocatable and can be used to store hazardous liquids and other flammable materials. It has 2-hour fire-rated walls,

roof and ceiling and 1½-hour rated doors. The walls are made of 18-gauge sheet steel with double-thick gypsum boards separated by steel studs. All materials are corrosion protected and interior surfaces are coated. LCI Circle No. 159 on service card.

### LET LAWN CARE INDUSTRY MAKE YOU AN AUTHOR!

LAWN CARE INDUSTRY IS LOOKING FOR INFORMATIVE, WELL-WRITTEN BOOKS, MANUALS AND PAPERS ON TOPICS RELATED TO THE LAWN CARE INDUSTRY. TOPICS THAT ADDRESS SUCH COMMONLY ASKED QUESTIONS AS:

- ✓ HOW DO I MAKE MY BUSINESS GROW?
- **✓ WHAT'S THE KEY TO INCREASED SALES?**
- **✓** HOW MUCH MONEY SHOULD I INVEST IN ADVERTISING?
- ✓ HOW DO I KEEP MY CUSTOMERS COMING BACK?
- **✓** HOW DO I HIRE GOOD EMPLOYEES?

HERE'S A WAY TO FINALLY GET YOUR WORK PUBLISHED!

SEND YOUR MANUSCRIPT AND AN OUTLINE OF ITS CONTENTS (TYPEWRITTEN, PLEASE) TO THE ADDRESS BELOW AND OUR EDITORS WILL REVIEW IT.

IF WE THINK IT WOULD BE OF INTEREST TO OTHERS IN THE FIELD, WE'LL DISCUSS PUBLICATION DETAILS WITH YOU.

TOGETHER, YOU AND LAWN CARE INDUSTRY MAGAZINE CAN IMPROVE THE SUPPLY OF QUALITY INFORMATION AVAILABLE TO OUR INDUSTRY.

SEND TO:

LAWN CARE INDUSTRY
BUSINESS INFORMATION SERVICES
7500 OLD OAK BLVD.
CLEVELAND, OHIO 44130

#### **CLASSIFIED**

RATES: \$1.00 per word (minimum charge, \$35). Boldface words or words in all capital letters charged at \$1.25 per word. Boxed or display ads charged at 1X \$85; 3X \$80; 6X \$75; 9X \$70; 12X \$65 per column inch (one inch minimum). (Frequencies based on a calender year). Agency commission allowed only when camera ready art is provided by agency. For ads using blind box numbers add \$15 to total cost of ad. Send ad copy with payment to: DAWN NILSEN, LAWN CARE INDUSTRY, 1 E. First St., Duluth, MN 55802. (218) 723-9505. Fax Number (218) 723-9615.

#### FOR SALE

SPRAY RIG: 1987 NAVISTAR 1654. Allison Automatic Transmission. Heavy Duty Chassis. Dual Fuel Tanks. Low Mileage. 1,300 gal. 2-Compartment S.S. Tank with Dry Storage. Twin Hannay Reels with Hose, Flow Meter, 150 gal. Poly Pony Tank with Reel and many other extras. \$25,000. LaFlamme Services, Inc., P.O. Box 6377, Bridgeport, CT 06606. Tele: (203)333-1912. 5/90 Liquid lawn care company located in Colorado servicing small cities east of Denver, 1 1/2 hrs. drive to beautiful Rocky Mtns. 700+ active lawn care accounts being offered along with computer, lawn care program and all mailing lists. This is an established business with \$150,000+ gross sales per year and has an excellent reputation in total lawn care. It has had increased sales since its beginning in 1984. Business is priced to sell at \$125,000 with terms and has no existing liabilities. Business is located on highway frontage two miles from town with 3 bedroom home, shop building and leased trailer office on 1 acre. Part of equipment, home and shop can be priced with existing business. Owner will stay for smooth transition interested parties reply to LCI Box 221. 5/90

SPRAY TRUCK: 1988, 1600 International, 1200 gallon (800/400) two hydracell pumps 25 gpm, 2 reels, diesel with PTO, 13,000 miles. Under 500 miles on new tires, showroom floor condition. Take over lease \$697/mo. or \$25,000 cash 1-404-447-6037. 5/90

BEAN SPRAYER: 1,000 gallon tank, 25 gpn Bean Royal, Kohler engine, Hannay hose reel, with locking chemical storage box. \$3,500 or best offer. 516-737-9836

National Arborist Association

174 Route 101 • Bedford, NH/03102 • (603) 472-2255

#### **DON'T PANIC GO ORGANIC**

#### LIQUID PRODUCTS for: A rich green lawn healthy shrubs and trees

- ✓ PLANT EXTRACTS made from Ag. crops
- ✓ BIO-ACTIVATOR liquid earthworms
- ✓ COMPLETE SUPPORT SERVICES

Our products are non-toxic, non-poisonous and will not harm your children or pets. Safe to use next to ponds, lakes and streams. Safe for new seeding too. because our products are salt and acid free.

"I'm not harming a living thing."

Call 800-798-1069

#### Organic \_awn Care

"we're nature friendly"

USED CHIPPERS, BUCKET TRUCKS, BOOM TRUCKS: Stump grinders, stake bodies, tree trucks and dumps. New Morbark and Woodchuck Chippers. Rayco stump grinders at discount prices. We also buy trucks and equipment. Op-dyke, Inc., Hatfield, PA (Phil. area) 215-721-4444.

FOR SALE: TORO TURF PRO 84, 7 blades, 709 hrs., well maintained, has had estate use only, sharpened, tuned, ready to cut, (exceptional condition), \$7850. Call (617)334-4805. Lynnfield, MA.

igh, heavy duty and long lasting land-g and refuse barrels.

1977 Ford F-600 Spray Truck, 60,000 miles. 1200 Gal. Stainless Tank, Mechanical Agitation, Beam 20-20 Pump, Twin Hannay Hose Reels, P.T.O. or 12 H.P. Kohler. No Rust. Excellent. \$8,000. Contact Bob at (502)782-2730.

#### Seaweed products for healthy roots and vigorous growth

Seaweed Extract Foliar Fertilizer A natural storehouse of micronutrients and other substances promoting plant growth.

Kelp Meal Soil Conditioner A natural source of organic matter and essential plant nutrients.



**Acadian Seaplants Limited** 202 Brownlow Avenue Tower D, Suite 304 Dartmouth, Nova Scotia Canada B3B 1T5 Tel: (902) 468-2840 Fax: (902) 468-3474

We are unbeatable for price, quality and service.

Volume Purchases Only. **Attention Distributors and** Manufacturers: Custom processing and packaging available.

HANNAY HOSE REELS: New in the box. E1526's and E1530's - \$359. We will ship and pay freight anywhere in the U.S.A. and Canada. Immediate delivery. Other size reels and parts available at fabulous savings! Call 313-543-2200, in Michigan. Outside Michigan - 1-800-843-LAWN.

WANNER D-10 HYDRACELL PUMPS: Completely reconditioned, tested and Guaranteed \$290.00 each. Quantity discounts available. Call Industrial Services Company (614)965-4112.

#### SOFTWARE

COMPUTERIZED PRICING for the lawn care industry. Generate your own unique price sheets for mowing, aeration, fertilizing or any other product in seconds. Versatile, flexible, and inexpensive at \$149.00. A must for any size lawn care company. Requires IBM Compatible, 640K, Call 316-721-2540, CMP Computers, P.O. Box 4419, Wichita, Kansas 67204.

#### WANTED

Nationally expanding corporation seeks lawn and/ or pest control companies of all sizes. Strictest confidentiality will be maintained. If interested, please respond to LCI Box 222.

Wanted to Buy - Lawn care companies of all sizes anywhere in U.S. wanted to purchase by national corporation. If interested, please respond to LCI Box 197. Strict confidentiality maintained.

#### WANTED TO ACQUIRE

Lawn care companies of all sizes in U.S. and Canada being sought by national corporation. Complete buy out or stay and grow with us. If interested, please call me directly:

Don Karnes Senior Vice-President TRU GREEN CORPORATION (404) 442-8700

> STRICT CONFIDENTIALITY MAINTAINED



#### WANTED

#### **BUSINESS TO PURCHASE**

If you have an indoor pest or lawn/tree & shrub care business and are interested in selling, I would like to talk with you. Our company has businesses coast to coast and is agressively looking to expand. Please contact me personally at:

#### ALL GREEN CORPORATION

Edward J. Barant Chairman of the Board (404) 992-6100

- Confidentiality Maintained -

#### HELP WANTED

LANDSCAPE DIVISION MANAGER: well established, rapidly growing company seeks individual to take over for retiring manager. Individual must be able to run both a maintenance and a planting division simultaneously. Requires exceptional organizational/management skills as well as complete command of plant materials and maintenance techniques. For consideration contact David Gorter, 855 Skokie Highway, Lake Bluff, IL 60044. 708-615-0800. 5/90

#### **BRANCH/SALES MANAGERS**

LOCATIONS IN THE NORTH CENTRAL, NORTHEAST,

SOUTHEAST, WEST.
USE YOUR OUTSTANDING LEADERSHIP ABILITY AND PEOPLE-HANDLING SKILLS TO ESTABLISH A CAREER WITH A REAL FUTURE AS THE RECOGNIZED LEADER IN LAWN CARE SERVICES TO BOTH RESIDENTIAL AND COMMERCIAL ACCOUNTS. WE ARE EXPANDING OUR MARKET PENETRATION AND NEED TALENTED SELF-MOTIVATED BRANCH AND SALES MANAGERS WHO CAN TAKE US TO THE TOP

YOU WILL RECEIVE

- · COMPETITIVE SALARY
- COMPLETE TRAINING
   CAR ALLOWANCE/COMPANY VEHICLE
- FANTASTIC BONUS POTENTIAL • COMPREHENSIVE BENEFITS

- PROFIT AND LOSS RESPONSIBILITY EXPERIENCE
- SALES OR SALES MANAGEMENT EXPERIENCE SUPERVISORY EXPERIENCE

START YOUR FUTURE TODAY BY SENDING YOUR RESUME IN COMPLETE CONFIDENCE TO:

ORKIN LAWN CARE PAT GUY 2170 PIEDMONT ROAD NE ATLANTA, GA 30324

'Consider all of your employment options in the irrigation and landscape industries. Call Florapersonnel, the international employee search firm for the ornamental horticulture industry. Completely confidential. Employer pays fee. Florapersonnel, Inc., P.O. Box 1732, 1450 S. Woodland Blvd., Suite 201, DeLand, FL 32721-1732. (904)738-5151. Jeff Brower, Joe Dalton, David Shaw, CPC, Bob Zahra, CPC."

> LET CLASSIFIEDS WORK FOR YOU!

#### SERVICES

Writer with 14 years turf industry experience will prepare promotional letters, direct mail, sales brochures, advertisements for your business. Excellent qualifications. Respond to SML, P.O. Box 452, North Ridgeville, OH 44039 or call (216)327-2665.

#### **MISCELLANEOUS**

#### LANDSCAPE TRAINING VIDEOS

Intermediate mower maintenance field and shop repair; efficient/profitable mowing techniques; professional shrub trimming, plant installation, basic landscape plan drawing, etc. ENGLISH AND SPANISH. Write for free brochure.

C.D. Anderson Landscape Videos 515 Ogden Avenue Downers Grove, IL 60515 1-800-937-0399

#### **BUSINESS OPPORTUNITIES**

CURBMATE-THE MONEY MACHINE, Patented. electrically driven and self-propelled machine produces beautiful continuous concrete landscape edging. Simplifies the installation of concrete borders between lawns and flower beds, along driveways and sidewalks, etc. Applications for residential and commercial settings, golf courses, etc. Turn \$5,000-\$10,000 equipment purchase into \$50,000-\$100,000 potential annual income.

HOW TO EARN AT LEAST \$60 PER HOUR MOW-ING GRASS...AND STILL BE THE LOW BIDDER! 195 pages, by contractor with 15 yrs. experience, \$29.95 postpaid. GOMC, 10490 Bluegrass Pkwy., Louisville, KY 40299. VISA/MC. (502)499-9031.

CONNECTICUT AND NORTHEAST: Selling or buying a green industry business? I'm a specialist in your field with over ten years experience and can locate buyers and sellers. Phil Nilsson (203)621-6199.

#### **AD INDEX**

NO. A	DVERTISER PAGE
101	American Cyanamid 25 The Andersons
102	(Regional)8 BASF Corp13
104	Ciba Geigy Corp11
105	Ciba Geigy Corp 11
106	Cushman, Inc 41
106	Drawing Board 8
107	Echo Inc 17
108	Knox Fertilizer 24
109	Lebanon Chemical 27
110	Lesco, Inc 28
111	Maruyama US Inc 6
112	Mobay Corp 23

113	Mobay Corp 21
Control of the Control	Mobay Corp
114	Mobay Corp7
115	Mobay Corp 14-15
116	Nor-am Chemical5
117	Organic Lawn Care . 26
118	PBI/Gordon Corp 2-3
123	Service Master Ind 27
121	Toro Co 4
122	Triazone12
	Tyler Enterprises
124	

This index provided as an additional service. The publisher assumes no liability for ommission or error.

Use our Classified Blind Box Service for Confidential Results!

#### LAWN CARE INDUSTRY

- The Latest News
- Business Management Information
- Practical, How-To Solutions

#### **Advertisers Rely On** LAWN CARE INDUSTRY for:

- Blanket Coverage: Over 13,500 recipients\*
- Targeted Reach: 85.3% of LCI's circulation is classified as Executive Management, Owners/Operators, and Management\*
- Popularity: Over 99% of LCI's circulation is by personal direct request from the recipient\*

#### LAWN CARE INDUSTRY... the only magazine that has it all!

To reserve space, call Group Vice President Bob Earley at (216) 826-2856 or contact your LCI representative today.

#### LAWN CARE INDUSTRY \*\*\*

7500 Old Oak Boulevard, Cleveland, Ohio 44130 • (216) 826-2856

### You've Paid Your Dues. Now Pay

A ServiceMaster LawnCare Franchise lets you be your own boss and get the payback you deserve. As the industry leader, we offer all the training and support you need. So you're on your own, but with a lot of company behind you. If you're overdue for a promotion, call toll-free at 1-800-228-2814.

Partners in the ServiceMaster Quality Service Network -

ServiceMASTER. TERMINIX. merry maids.

AMERICAN HOME SHIELD

#### **ON-THE-SPOT** COVERAGE.

### Lebanon **Turf Fungicide**

If you're looking for economical control of dollar spot and other turf diseases, use Lebanon Turf Fungicide with Bayleton 1G. Bayleton provides preventative and curative control of dollar spot, anthracnose, powdery mildew, red thread, rusts, brown patch, fusarium blight and snow molds. Formulated on a granular cob base for easy spreading, Bayleton works systemically to fight and control disease. And the long-lasting residual action of Bayleton makes it one of the most effective products on the market. From the source for premium quality turf productsyour local Lebanon distributor.



A division of Lebanon Chemical Corporation

800-233-0628

BAYLETON\* is a Registered Trademark of Bayer AG, Germany for triadimeton.

Circle No. 109 on Reader Inquiry Card

# Meet your new source of extra-service income.



One application lasts two to three months and costs about half as much as putting down new material. And LESCO Nu-Mulch is an easy-to-use liquid that is applied with a backpack or handheld sprayer. No bags, no bulk.

Non-toxic to plants, LESCO Nu-Mulch is an inert, water-soluble formulation that easily washes off most



LESCO, Inc., 20005 Lake Road, Rocky River, OH 44116 (216) 333-9250

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