

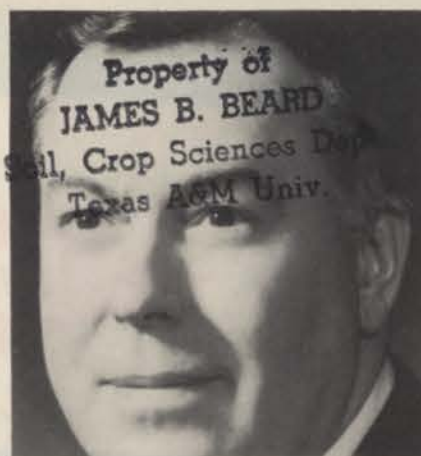
## Maintenance Symposium is next month in Philly

The Landscape Maintenance Symposium sponsored annually by the Associated Landscape Contractors of America (ALCA) will be held Nov. 8-10 at the Cherry Hill Inn in Philadelphia.

Program chairman is Irv Dickson, of ChemLawn Corp.'s Commercial Maintenance Division, Atlanta, Ga.

The three-day technical meeting will feature a wide range of topics on landscape maintenance operations, with a format in which each presentation session is followed immediately by a roundtable workshop on the same subject, to allow for maximum interaction between attending contractors and the experts who make the formal

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Wheel Horse's Robert Hawkins, new Outdoor Power Equipment Institute president

## Hawkins is OPEI president

Robert F. Hawkins, vice chairman and treasurer of Wheel Horse Products, South Bend, Ind., was elected president of the Outdoor Power Equipment Institute (OPEI) at the group's recent annual meeting at Sea Island, Georgia.

Elected vice president was Warner C. Frazier, president of Simplicity Mfg. Co., Port Washington, Wis., an Allis-

to page 29

HBJ A Harcourt Brace Jovanovich Publication

\$2.00

Volume 5, Number 10

OCTOBER 1981

# LAWN CARE INDUSTRY

Serving lawn maintenance and chemical lawn care professionals

### ASSOCIATIONS

## Adikes' Russell is ASTA head

Robert A. Russell, vice president of J & L Adikes, Inc., Jamaica, N.Y., has been elected president of the American Seed Trade Association (ASTA).

The 99-year-old ASTA repre-



Russell

to page 37

### GULF'S LEWIS TO KEYNOTE

## PLCAA is packing for Louisville show

More than 1,000 lawn care businessmen and 125 exhibit booths are expected for the Second Annual Professional Lawn Care Association of America Conference and Trade Show to be held Nov. 18-20 at the Commonwealth Convention Center in Louisville.

For last-minute information

about attending or exhibiting, contact: Jane Stecker, PLCAA, Suite 1717, 435 N. Michigan Ave., Chicago, IL 60611, 312-644-0828.

Theme of the show is "Managing Your Resources . . . Money, People, Products and Time." This year's program is more balanced between business and technical

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PLCAA keynoter Ralph Lewis

### FRONT AND BACK LAWNS

## Campaign requiring signs after lawn treatments picks up steam in Detroit

A Detroit man — with the help of an article in a local newspaper —

has started a campaign that would require lawn care companies who apply pesticides to put up signs on each lawn after each application.

The man — Peter Cluthe of Bloomfield Township — is not interested in banning pesticide applications to lawns, but simply wants laws passed that would require posting of a sign in the front and back lawns to warn children and others of the use of pesticides.

Cluthe has contacted the Environmental Protection Agency

(EPA) about the matter. Also, he and his neighbors have written an official request to local authorities to pass an ordinance which would require applicators to post treated properties.

### Compliance costly

Township officials also contacted all lawn service companies in his area, but none have complied, saying it would be time-consuming and costly, and not necessary anyway.

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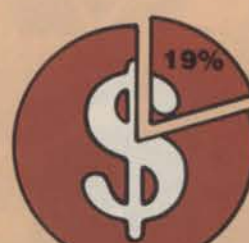
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BEARD  
COLLECTION

After subtracting all of your costs from your 1980 receipts, what percentage of gross receipts was pre-tax profit?



AVERAGE

MODE  
(most common answer)MEDIAN  
(middle number in respondent's answers)

Source: 1981 LCI Survey





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# UPFRONT



## PLCAA show next month

As you read this issue, you have about a month left to register for the **Professional Lawn Care Association of America Conference and Trade Show** which will be held **Nov. 18-20** at the Commonwealth Convention Center in Louisville.

Last year was the first year the PLCAA held a show, and it was a resounding success. There were 70 booths and 700 registrants. This year, more than 125 booths have been signed up already, and more

than 1,000 lawn care business owners are expected to attend.

If you need more information about the show, or want to pre-register, here is the person and address and telephone number to contact: **Jane Stecker, PLCAA, Suite 1717, 435 N. Michigan Ave., Chicago, IL 60611, 312-644-0828.**

LAWN CARE INDUSTRY's staff will be there working out of a double booth. This includes myself, assistant editor Paul McCloskey, national sales manager Jim

Brooks, marketing representative Bob Mierow, and Harcourt Brace Jovanovich Publications Inc. group vice president Tom Greney. We've got a lot of talking to do.

**Business help:** LAWN CARE INDUSTRY is in its fifth year of publication, and the issue you are holding in your hands is our 49th. This means that in the past four-plus years, we have sent you about 1,500 pages of our magazine, including stories pegged to help you run your business better, case histories of successful lawn care businessmen, the latest statistics from our research department and advertising from lawn care industry suppliers. Make no mistake about it, we are the oldest and largest magazine that serves the lawn care industry.

In addition to LAWN CARE INDUSTRY, there are numerous publications and meetings held every year that can also help you in your lawn care business. Bob Riley, president of Grass Roots in Hempstead, N.Y. is a person that is working very hard to put together information in printed and meeting form to help you in your business.

He told us recently that so many lawn care businessmen "stumble along making less than what they could make at a job, given their superior work habits and ambition. We are trying to help him with a little direction, and doing things that they have no time to do in their daily press to get the work done.

"We believe we have found our niche in this industry. We help individual businessmen make more money, and make money where they have never made it before. We discover a product or a new service, learn how to market it successfully through our lawn care business, develop the advertising and sales pieces, then present it at all of our workshops.

"In a sense, I also act as sales manager encouraging individuals to greater activity, sales and profits. Those who have listened and acted have made thousands of extra dollars.

"Our Garden Tips newsletter is a successful piece because lawn care customers like getting it and reading it. In our experience, everyone in our industry who values their customers and who looks to increase their gross sales, would do well to use a monthly customer newsletter. We do it for them, because they barely have enough time now to do all the things that need doing to run their businesses.

"Our workshops and other meetings present a plan of action to profitably use all the information that is constantly available. A workshop presents them with the ideas and the information of what to sell, how to sell, along with suggested pricing — a game plan to maximize their profits."

To get more information about Riley's Garden Tips newsletter, or about his workshops and seminars, contact him at: Robert Riley, Grass Roots, 380 S. Franklin St., Hempstead, NY 11550, 516-483-0888.

**ALCA's Shaw out:** John Shaw, executive director of the Associated Landscape Contractors of America, has submitted his resignation effective the first of this month, and the executive committee has accepted it, according to ALCA president Allen Keesen. Shaw cited "personal reasons," and a search committee is now working on evaluating possible replacements.

**Supplier success story:** It wasn't too long ago that lawn care businessmen had to rely almost solely on agricultural distributors for their lawn care supply needs. There were always a lot of built-in problems here because most ag salesmen were not that up on the lawn care businessman's needs. In the 1970's many turf distributors began to realize the potential of the lawn care business, and began to carry products and hire turf salesmen. Companies like Lakeshore Equipment and Supply, Reinders, Cory Orchard Supply and Miller Chemical & Fertilizer come immediately to mind, but there are many, many more. And now there is another success story, Balcom Special Products Group, based in Greely, Colo.

Dewight Mellecker, national sales manager, said recently: "During the early part of 1974, Balcom Chemicals, Union Carbide Corp. and the U.S. Forest Service combined their efforts to combat the mountain pine beetle that was killing thousands of Ponderosa pine trees along the front range of the Rocky Mountains.

"I was hired in early 1976 to market this product and also to market related products to dealers and commercial applicators. We sold \$250,000 worth of special products our first year, but we felt that our greatest achievement was the fact that we proved we could service the specialty markets with the same professionalism as we did our ag customers.

"Last year we sold more than \$2.5 million worth of specialty products as the culmination of a process that began in 1978 when we began to acquire the labels we felt were necessary to service the tree and turf industries nationwide. We have added two salesmen — Bill Dirks and Cary Hall — and have 80 percent of the major-use items our customers need under one label, Clean Crop. We have also pursued two new labeled Clean Crop herbicides especially for the lawn care industry. Both labels have since been sold on a limited basis. However, they will be introduced nationwide at the PLCAA Convention and Trade Show next month in Louisville." Welcome to the lawn care industry, Balcom.

*Bob Earley*

## LAWN CARE INDUSTRY

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107	114	121	128	135	142	149	156	163	170	177	184	191	198	205	212	219	226	233	240

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- 40 ☐ Nursery or garden center/lawn service company
- 50 ☐ Pest control/lawn service company
- 60 ☐ Irrigation contractor/lawn service company

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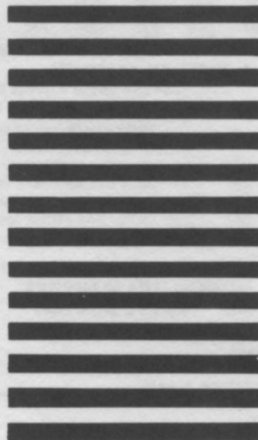
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## MEETING DATES

**Southwest Turfgrass Association Conference**, Rio Eancho (New Mexico) Golf & Country Club, Oct. 15-16, Contact: A. A. Baltensperger, Box 3Q, Las Cruces, N.M. 88003.

**Planning and Budgeting Seminar**, sponsored by Associated Landscape Contractors of America, Oct. 23-24, Executive Inn, Seattle. Contact: ALCA, 1750 Old Meadow Rd., McLean, VA 22102, 703-821-8611.

**Green Industry Seminar and Trade Show**, Nov. 4-5, Michigan State Fairgrounds, Detroit, Mich. Contact: Mr. Gregory Patcham, Michigan State University, Cooperative Extension Service, North Office Bldg., Pontiac, Mich. 48053, (313) 858-0887.

**Atlantic Seedsmen's Association Convention**, Biltmore Plaza, Providence, R.I., November 4, 5, 6. Contact: Margaret Herbst, Executive Secretary, ASA, 230 Park Avenue, New York, N.Y. 10017.

**Landscape Maintenance Symposium**, sponsored by the Associated Landscape Contractors of America, Cherry Hill Inn, Philadelphia, Nov. 8-10. Contact: ALCA, 1750 Old Meadow Rd., McLean, VA 22102, 703-821-8611.

**New York Turfgrass Conference and Trade Show**, Empire State Plaza, Albany, N.Y., Nov. 16-19. Contact: Ann Reilly, 210 Cartwright Blvd., Massapequa Park, NY 11762, 516-541-6902.

**Professional Lawn Care Association of America Conference and Trade Show**, Commonwealth Convention Center, Louisville, Ky., Nov. 18-20. Contact: Jane Stecker, PLCAA, Suite 1717, 435 N. Michigan Ave., Chicago, IL 60611, 312-644-0828.

**Dollar Management Seminar**, sponsored by Associated Landscape Contractors of America, Ramada O'Hare Inn, Chicago, Nov. 20-21. Contact: ALCA, 1750 Old Meadow Rd., McLean, VA 22102, 703-821-8611.

**Ohio Turfgrass Conference and Show**, Columbus Hyatt House, Dec. 1-3. Contact: Dr. John Street, 1827 Neil Ave., Columbus, OH 43210, 614-422-2592.

**Texas Turfgrass Conference**, College Station, Texas, Dec. 7-9. Contact: Dr. Richard L. Duble, 349 Soil & Crop Science Center, Texas A & M University, College Station, TX 77843, 713-845-4826.

**New Jersey Turfgrass Expo '81**, Dec. 7-10, Hyatt House, Cherry Hill, N.J. Contact: Ralph Engel, Research Professor of Turfgrass Management, Rutgers University, Box 231, New Brunswick, N.J. 08903, (201) 932-9771.

**Management Information Systems Seminar**, sponsored by Associated Landscape Contractors of America, Columbia Inn, Columbia, Md., Dec. 9-10. Contact: ALCA, 1750 Old Meadow Rd., McLean, VA 22102, 703-821-8611.

**Twenty-second Annual Illinois Turfgrass Conference & Tradeshow**, Dec. 15-17, Prairie Capital Convention Center, Springfield, Ill. Contact: Dr. Thomas Fermanian, 1707 Orchard St., Urbana, Ill. 61801, (217) 333-7847.

**Maryland Turfgrass '82**, Baltimore Convention Center, Jan. 4-6, 1982. Contact Dr. Thomas Turner, Dept. of Agronomy, University of Maryland, College Park, Md. 20742. (301) 454-3716.

**20th Annual North Carolina Turfgrass Conference**, Jan. 12-14, Eoyal Villa Inn, Raleigh, N.C. Contact: Dr. L. T. Lucas, program chairman, Plant Pathology Dept., North Carolina State University, Raleigh, N.C. 27650.

**Nebraska Turfgrass Foundation Conference & Trade Show**, Holiday Inn Convention Center, Omaha, January 19-21. Contact: Paul Bergman, 2428 W. 11th St., Hastings, NE 68901, (402) 463-5055.

## TOOLS, TIPS, TECHNIQUES

### Cash 'n carry?

How effective is money as an employee motivator? Well, it's not the biggest, nor the brightest lure, according to Michael Hiller, vice president of marketing for the Perf-A-Lawn Corp., New Carlisle, Oh.

There are some far more basic catalysts at work. Among these Hiller lists achievement, recognition, challenge, responsibility, and advancement. In this chain of desires, money and status follow in order of importance. Also at work are some active "satisfiers," or basic working requirements: good administration, competent supervision, good working conditions, and a respectful business relationship. Without these an employee will quickly make himself scarce.

For some statistical back-up, Hiller cites that the steel workers of America's record of increasing their wages over 1000 percent in the last 20 years has been followed by a corresponding three percent slump in productivity. In other words, cash can act as a sedative in the long run — the fatted calf is no longer frisky.

"The definition of motivation I'm most comfortable with," writes Hiller, "is 'the ability to install enthusiasm and the desire for accomplishment in one's self and in others.'" Enthusiasm is the key here, and the ability to install it not necessarily tied to purse-strings.

**Associated Landscape Contractors of America Annual Meeting and Trade Exhibit**, Hilton Riviera Hotel, Palm Springs, Calif., Jan. 24-29. Contact: ALCA, 1750 Old Meadow Rd., McLean, VA 22102, 703-821-8611.

**The New York Turf and Landscape Association Annual Turf and Landscape Conference**, Jan. 27, 1982, Tappan Zee Inn, New York Thruway, Exit 11. Contact: Frank Claps, 136 Laurel Avenue, Larchmont, N.Y. 10538 (914) 834-6846.

**Golf Course Superintendent's Association of America International Turfgrass Conference & Show**, Rivergate Exhibition Center, New Orleans, La. Jan. 31-Feb. 5. Contact: GCSAA, 1617 St. Andrews Dr., Lawrence, Ks. 66044. (913) 841-2240.

**Pennsylvania Turfgrass Conference & Trade Show**, March 1-4, 1982, Hershey Lodge and Convention Center, West Chocolate Ave. & University Dr. Contact: Christine E. King, Executive Secretary Treasurer, Pennsylvania Turfgrass Council, 412 Blanchard St., Bellefont, Pa. 16823.

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- OCT. 19** SPRING VALLEY, NY  
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- OCT. 20** PHILADELPHIA, PA  
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- What is Profit
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Ramada Inn
- NOV. 9** BALTIMORE, MD  
Jessup Holiday Inn
- NOV. 10** RICHMOND, VA  
Ramada Inn

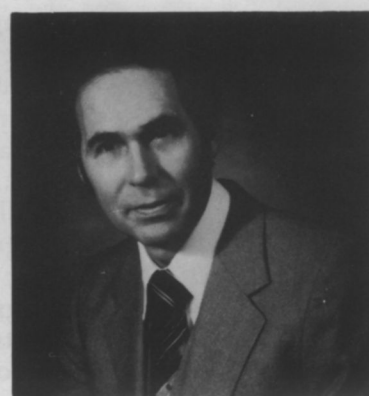
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- Operating Lawn Care Equipment for Maximum Efficiency
- The 2, 4-D Situation
- Handling and Disposal of Pesticides
- Turfgrass Herbicide Update
- Toxic Waste
- Turfgrass Pathology Update
- Insects and Insecticide Update
- Employee Health Programs
- Ornamental Programs in the Lawn Care Industry



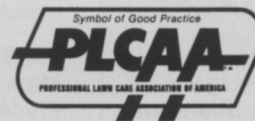
- Hands-on display of products from leading industry suppliers.
- Over 120 booths reserved . . . nearly 100% increase from last year.
- Ideas exchanged with over 1,000 of your fellow lawn care professionals from all over the country.

Plan now to attend. It's to your advantage to be in Louisville at the 2nd Annual Convention and Trade Show of the Professional Lawn Care Association of America . . . See you in Bluegrass Country!

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**435 N. Michigan Avenue**  
**Suite 1717**  
**Chicago, IL 60611**  
**312/644-0828**

I want to attend this important conference. Please send me information on:

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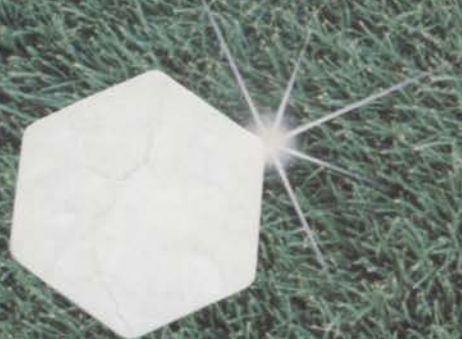


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**Turn to  
turf protection  
you can  
believe in.**



Don't trust your turf  
to anything less.



Improve  
your turf's  
health and  
beauty with  
the longer-  
lasting  
fungicide.



Because you take pride in the appearance of the turf under your management, it will be easy for you to become a **BAYLETON BELIEVER.**

**New BAYLETON** fungicide has been proven-in-use; it's highly recommended by university experts.

Unique two-way action both cures and prevents most fungus diseases—gives the turf care professional a valuable weapon to battle costly—and unsightly—fungus diseases.

**Knocks out more diseases:** BAYLETON offers the broadest dis-

ease spectrum control of any leading turf fungicide.

**Eliminates resistance worries:** BAYLETON is new . . . so there's no resistance buildup.

**Cost-efficient:** BAYLETON's long residual activity means fewer applications.

**Faster-acting:** Systemic control moves quickly and evenly





Place your fall order of  
BAYLETON Fungicide . . .  
and this limited-edition  
BAYLETON BELIEVER  
sweater can be yours.

through turf grass for uniform disease control.

**Now's the time to get after snow mold.** And nothing controls it like BAYLETON . . . just as it also gives you fast-acting, long-lasting control of other tough diseases—dollar spot . . . brown patch . . . fusarium blight . . . red thread . . . striped smut and certain rusts.

**It's easy to become a**

**believer:** Order 4 cases of BAYLETON fungicide. And we'll send you a smart-looking, limited-edition Grand Slam sweater by Munsingwear . . . no extra charge.

But your most valuable "premium" will be the way BAYLETON protects and preserves the health and beauty of your turf.

Turn to the next page for more information about getting your

sweater with your fall order of BAYLETON fungicide.

Mobay Chemical Corporation  
Agricultural Chemicals Division  
Specialty Products Group  
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**Don't trust your turf  
to anything less.**



Limited-time  
introductory offer.  
This custom  
sweater  
can be yours...



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**Fungicide.**

Your fall BAYLETON order with your turf chemicals supplier for 4 or more cases will earn you this U.S.-made, Grand Slam sweater by Munsingwear. To qualify for your BAYLETON BELIEVER sweater, you must order by December 15, 1981. Your sweater will be sent following Mobay's receipt of verification of your BAYLETON delivery acceptance. Please allow three weeks for sweater delivery.

☐ *Please send me the name of your Supplier for my area.*

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Attn: BAYLETON BELIEVER Program

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Title \_\_\_\_\_

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## How to handle the wage and hour investigation

Most wage and hour investigations occur because a dissatisfied employee files a complaint with the Wage and Hour Division of the Department of Labor. Occasionally, the Wage and Hour Division will conduct a "spot check" of a particular industry or particular employee.

Rarely do these spot checks affect smaller employers, such as those in the lawn care industry. However, we have noticed an increase in the number of complaints filed by employees which have resulted in wage and hour investigations of lawn care employers.

A complaint filed by an employee usually occurs when a decision has been made that affects that individual adversely, and he seeks to "get even" with the lawn care employer by causing the employer to suffer through the time and expense of a wage and hour investigation.

### Vindictive objectives

If the lawn care employer is found to have violated the wage and hour laws, then the employee may actually benefit from the investigation. In any case, filing a complaint does not cost the employee anything, and it does satisfy those vindictive objectives.

We are aware of an increase in wage and hour investigations of lawn care employers. Though it is too early to tell whether or not this increase may lead to an industry-wide investigation, there are certain rules which lawn care employers should follow when the Department of Labor, Wage and Hour Division, either phones the employer or knocks on his door.

First, the lawn care employer should ask the Department of Labor representatives for specific information about the nature of the investigation. Does the investigation focus on an improper exemption, which would identify those employees who may be involved, or does the investigation focus on general overtime violations affecting the work force? In either situation, once the lawn care employer knows the scope of the problem, he then can prepare his response.

### Delay investigation

Second, the lawn care employer should request a delay in the wage and hour investigation until he consults with legal counsel. At that point, the lawn care employer should meet with his attorney to review the employer's wage and hour records, payment system, bookkeeping records, and determine what the response will be to the wage and hour investigation.

If the lawn care employer permits an investigation or answers questions before meeting with his attorney, he may provide information which is devastating to his case. In fact, the Department of Labor will be surprised if they investigate an employer who does not refer the investigator to his legal counsel.

Third, the lawn care employer or his attorney should find out from the Department of Labor which employees the Department of Labor wants to interview. The lawn care employer should meet with those employees before the Department of Labor representatives meet with them. The employees should be told what the investigation is about, what questions may be asked, and what the lawn care employer's position is on the matter.

The approach briefly explained in these few paragraphs will enhance the lawn care employer's and his legal counsel's abilities to respond to the wage and hour investigation effectively. Remember that the Department of

Labor is not on the side of the lawn care employer.

Though cooperation to a certain extent is important in the overall effort to persuade the Department of Labor that no violations exist, cooperations by a lawn care employer without the knowledge of the legal implications of his cooperation, such as by handing

employee from another. Employment applications and interviews can provide a wealth of information about individuals if employers ask the right questions, notice certain trends, and approach the decision with the same care as when they hired their first employee.

For example, it is important to

**Remember that the Department of Labor is not on the side of the lawn care employer. Though important, cooperation with the Department without knowing the legal implications may damage the lawn care employer's case.**

over materials without his attorney examining them or speaking to the Department of Labor before his attorney does, may damage the lawn care employer's case.

It is not unusual that an important decision such as who to hire is not made with enough information that would distinguish one

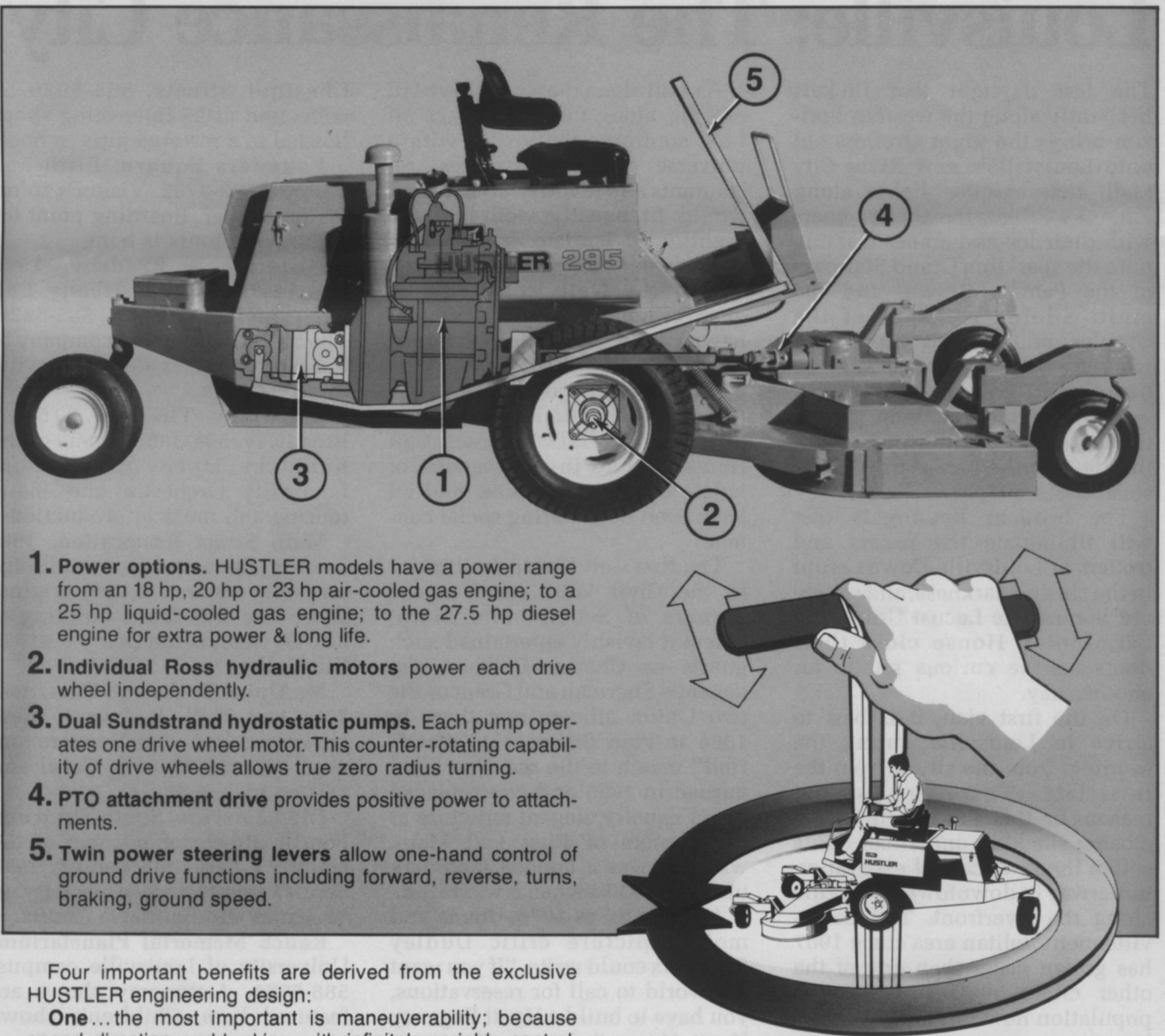
find out what applicants have done between jobs or between school and a job. If an applicant has done nothing for that time, is he likely to be as motivated as an individual who persistently sought other employment or attended technical courses?

If an employee has moved regu-

to page 19

# EXCEL HUSTLER

**Infinite maneuverability, simplicity & long life!**



- 1. Power options.** HUSTLER models have a power range from an 18 hp, 20 hp or 23 hp air-cooled gas engine; to a 25 hp liquid-cooled gas engine; to the 27.5 hp diesel engine for extra power & long life.
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Four important benefits are derived from the exclusive HUSTLER engineering design:

**One...** the most important is maneuverability; because speed, direction and braking, with infinitely variable control, can be directed through each drive wheel.

**Two...** ease of operation is provided because one hand controls forward, reverse, turns, braking and ground speed. There's no footwork required.

**Three...** expensive, high maintenance items like gears, chains, steering linkage, clutches, pulleys and drive sprockets are eliminated.

**Four...** dual-hydrostatic pumps operate at one-half the PSI as single pump units, so pump life in HUSTLER units is many times longer.

Basically, anything you can do with a push mower, you can do with a HUSTLER... Infinite maneuverability controlled with the palm of your hand.

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# INSIDE THE INDUSTRY



## Louisville: The Renaissance City

The last daylight that flickers hesitantly along the western horizon brings the night strollers out onto Louisville's new River City Mall, the marquee lights along Jefferson Street, the theatre-goers with their ice-and-amber tinkling onto the sparkling Grand Staircase of the Pamela Brown, and the multi-colored elegance of the couples and parties along the wharf, readying themselves for dining, drinking, dancing and generalized merrymaking aboard the Belle of the Louisville, one of the last authentic sternwheeler steamboats in America.

The brilliant floodlights that will illuminate the pacers and trotters at Louisville Downs erupt in the closing darkness, and stately old homes like Locust Grove and Farmington House close their doors on the curious public for another day.

On the first visit, it is best to arrive in Louisville during the evening, from the air, or from the interstate. There are logical reasons for this. For one thing, the closing shadows and street lights soften the raw scars of excavation underway in downtown Louisville along the riverfront. The Louisville metropolitan area since 1967 has grown faster than any of the other cities in the top 20, its population now nudging one million.

The volume of manufacturing dollar value recently surpassed that of Atlanta, sifting over the three billion dollar mark. Spurred by its selection as a major national and international convention center hosting more than 338,000 delegates — that is more than twice the number hosted by Miami, for example — more than \$300 million in private and public funds have been committed to new construction and redevelopment of downtown Louisville since 1970, over \$200 million being earmarked for one 10-block segment in the rich old riverfront area.

A stroll along the River City Mall area, or along the main drags off I-65, confronts the visitor with a universe of clubs, lounges, restaurants and reviews, all of which would fit equally well into the nightlife of Toronto or San Francisco as in Louisville.

And the Galt House, headquarters hotel for the Professional Lawn Care Association of America Conference and Trade Show, is the 25-storied high point of the skyline. With its double revolving dining rooms and 712 rooms, Galt House in third in a succession of hotels of the same name, and all have been outstanding social centers.

The first Galt House, built prior to the Civil War, stood at the corners of Second and Main, where it lavishly entertained such guests as Charles Dickens and generals Sherman and Grant as the two Union officers met there in 1864 to Plan Sherman's "War is Hell" march to the sea. The hotel burned in 1885 and was replaced by an equally elegant structure at the corners of First and Main, where it was a famous landmark until the 1920's when it was razed.

As recently as 1973, drama and motion picture critic Dudley Saunders could write, "If you want the world to call for reservations, you have to build a Hyatt Regency Hyatt House." Apparently stung by the criticism, Louisville not only built one in the center of town, but they threw in a mammoth parking garage and the \$22 million Commonwealth Convention Center to boot, all connected by overhead walkways. This center will house PLCAA's trade show.

Louisville attractions include:

**Bakery Square**, 1234 E. Washington, 584-7945. Many of the finest shops in the area are located here.

**The Cloister**, Shelby and

Chestnut Streets, 585-5929. A collection of 25 interesting shops housed in a restored girls' school.

**Founders Square**, Fifth and Walnut, 582-3732. Visitor's information center. Boarding point for sightseeing tours is here.

**Hillerich & Bradsby**, 1525 Charlestown-New Albany Ed., Jeffersonville, Indiana, 585-5226. The oldest bat-making company in the world, makes the "Louisville Slugger" here.

**Macauley Theatre**, 315 W. Broadway, 594-3369. Home of the Kentucky Opera Association, Louisville Orchestra and many touring and musical productions.

**Main Street Restoration**. 19th century stone and iron buildings are being restored to their original state. The iron-faced building at 621 W. Main is the Derby Festival Gift Gallery.

**McAlpine Locks and Dam**, near 26th and N.W. Parkway. These navigation locks handle more tonnage than the Panama Canal and make a nice visit.

**Old Louisville**, South Third and Fourth Streets offer some of the country's best 19th century residential architecture, especially on St. James and Belgravia Courts.

**Rauch Memorial Planetarium**, University of Louisville campus, 588-6664. Astronomy shows are featured here. Children's shows too.

**River City Mall**, on Fourth Street between Broadway and Market. This five-block shopping mall features the Louisville Racing Clock in which five historic Louisville figures race daily at noon.

**Riverfront Plaza and Belvedere**, Fifth Street and Main, 587-3681. Fountains highlight the downtown area. One-story stained-glass window on the west of the Plaza shows history of Louisville.

**Zachary Taylor Monument and National Cemetery**, 4701 Brownsboro Rd., 893-3852. A mausoleum marks the grave of the 12th U.S. president.

## Where to dine at PLCAA show

Once upon a time, visitors to the Louisville area looking for a good place to eat were often humored with directions to Chicago or New York. Today, first-time visitors to Louisville who come prepared merely to survive on a diet of barbecue and "burgoo" are in for a pleasant surprise. Quite a spell has passed since many Kentuckians mistook "cuisine" for a drug-store eyewash.

This area of the country may very well be the homeland of "middle America" but the result in blending many culinary influences is a wide range of interesting restaurants that are anything but nondescript. A restaurant reviewer who once stated that there was only one place to eat in town to get a good steak had to admit that now "he could eat a good meal every night of the month and never repeat a restaurant." Yes, Louisville has certainly grown up.

The result is a collection of cuisines practiced by some of the best people in the business (and the barbecue ain't bad either).

**The Atrium at Hasenour's**, Barret & Oak, 456-6789. Flaming dishes prepared tableside are but a part of a total ambience that is subtly chic, decidedly gourmet and definitely elegant.

**Benihana**, 1510 Lake Shore Court, Plainview, 426-2432. Japanese chefmanship at its very best as knife-welding whizzes put sizz into skillfully slicing steak, chicken, shrimp or lobster together with mushrooms, zucchini, onions and bean sprouts.

**By the Park**, 425 W. Ormsby Ave., 636-0589. The room seems to fit the name of the place — latticed ceilings and beautiful white ceiling fans that come on every few minutes. And the food is excellent.

**Beef and Burgundy Room**, Howard Johnson's, Shelbyville Road, 896-8871. As the name implies, the Beef and Burgundy Room is a great place to get good beef, whether you fancy prime rib or ground chuck with the pricing of all meals moderate.

**Casa Grisanti**, 1000 E. Liberty, 584-4377. Casa Grisanti enjoys the distinction of being the only Louisville restaurant to be awarded a 4-star Mobil Travel Guide rating, as well as the Travel/Holiday Award.

**The Cup and Stirrup**, Stouffers Louisville Inn, 120 W. Broadway, 582-2241. Offering dinner only, this restaurant located on the 12th floor of Stouffers, has a rustic atmosphere accented by a barnwood type decor.

**Derbyshire**, Executive West, Freedom Way at the Fairgrounds, 367-2251. Gourmet dining at its finest in Derbytown tradition.

**Empire Room**, Executive Inn, Watterson Expressway at the Fairgrounds, 367-6161. Specializing in filet mignon and prime rib.

**Fifteenth Colony**, Breckinridge Inn, Breckinridge Lane and Watterson Expressway, 465-5050. Warm colors predominate as





The grandest lady of them all ... the Belle of Louisville.

beautiful woods and brass appointments reflect the subdued lighting of this restaurant decor reminiscent of Old Americana.

**The Fifth Quarter Steak House**, 1241 Durrett Lane, 361-2363. Choice prime rib, lobster tails and the best beef you can buy.

**The Fig Tree**, 234 W. Broadway, 583-1522. The hanging plants, unique mirrors and classical music all blend quietly to properly accent the different cuisine.

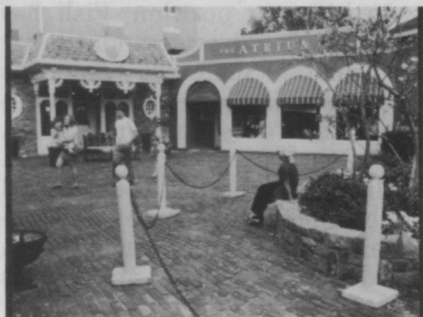
**The Flagship**, Galt House, 140 N. Fourth, 589-5200. The breathtaking view of the Ohio River and downtown Louisville is matched only by the superb cuisine.

**The Fountain Room**, Galt House, 140 N. Fourth, 599-5200. Continental and American cuisine.

**Hasenours**, 1028 Barret St., 451-5210. Veal picata, fresh seafood, sauerbraten, rack of lamb, prime rib, king crab legs and choice aged steaks accent the menu.

**Kingston Room**, Admiral Benbow Inn, 3315 Bardstown Rd., 452-1501. Good food and service, at very moderate prices, make the dining room here a tempting spot, especially for family outings.

**Kunz's the Dutchman**, 526 River City Mall, 584-1158. Cozy, private-club elegance, known for Dutchman-cut steaks.



An old bakery makes sweet boutiques at Bakery Square.

**La Cuisiniere**, 1285 Bardstown Rd., 456-6815. Decorated in a manner reminiscent of the small cafes of Paris.

**Lambs**, Hyatt Regency, 320 W. Jefferson St., 587-3434. Fresh vegetable and salad preparations highlight a variety of entrees ranging from veal Oscar to pompano en Papillotes in a relaxed atmosphere.

**Max & Erma's**, The Mall on Shelbyville Rd., 897-0209. Offering the finest in casual dining and enough entertainment so you don't have to leave until it's time to go home. Table-to-table telephones and game room will keep you occupied.

**Melrose Inn & Motel**, Highway 42 & Prospect, 228-1136. Home-style cooking at its finest.

**Mamma Grisanti**, 3938 Dupont Circle, 893-0141. Each room — The Kitchen, The Library, the Bedroom or The Parlor Room — is splashed with the warm designs of a country Italian home making Mamma's pleasant and comfortable while you enjoy light pasta, fresh seafood and pastries right out of the oven.

**The Savoy**, 727 W. Main St., 583-3341. Tastefully combined elements of Art Deco and Art Moderne create a contemporary



Plaza Belvedere ... river view, people place.

and intimate atmosphere that is reminiscent of the Twenties' sleek opulence.

**The Spire**, Hyatt Regency, 320 W. Jefferson St., 587-3434. You can get a breathtaking view of Louisville in this revolving lounge and restaurant. Meals include roast prime rib served with fresh vegetables, potato ramekin souffle, horseradish dressing and veloute of au jus.

**The Sternwheeler**, Ramada Inn, Bluegrass Park & Convention Center, I-64 at Hurstbourne Lane, 491-4830. One of Louisville's top supper clubs.

**Stouffers Top of the Tower**, 101 S. Fifth, First National Tower, 585-2233. Elegant dining and the most outstanding view of Louisville highlight a visit to the Top of the Tower. The menu features Continental cuisine.

**Trellis Cafe**, Hyatt Regency, 320 W. Jefferson St., 587-3434. Here is where you can enjoy casual dining in a quite delightful setting. Abounding with trees and flowers, this restaurant serves breakfast, lunch and dinner.

**Tudor Room Executive Inn**, Watterson Expressway at the Fairgrounds, 367-6161.

## Louisville nightlife for PLCAA

**The Boozeseller**, Executive West, Freedom Way at Fairgrounds, 367-2251. The best place to unwind with an after-dinner beverage and entertainment.

**The Captain's Quarters**, 6222 Guthrie Beach Rd., 228-1651. Live entertainment for dancing.

**Charley's Restaurant**, 530 W. Main St., 585-5300. An antique backbar from Philadelphia plus the bar from the old Brown Hotel work very well to convert this 19th century warehouse into an eclectic atmosphere that is casual and appealing.

**D. Marie Lounge**, Galt House, 140 N. Fourth, 589-5200. The lounge is 25 floors above downtown. Live entertainment, cocktails and hors d'oeuvres.

**Distillery Lounge**, Admiral Benbow Inn, 3351 Bardstown Rd., 452-1501. Entertainment nightly for dancing and listening.

**Downstairs Disco**, Breckinridge Inn, Breckinridge Lane and Watterson Expressway, 456-5050. Cocktail hour with two-for-one specials from 5 to 8.

**English Tavern**, Galt House, 140 N. Fourth, 589-5220. After dining, join the light-hearted at this relaxing lounge.

**Hearth Lounge**, Breckinridge Inn, Breckinridge Lane and Watterson Expressway, 456-5050. Live entertainment until 2 a.m.

**Balcony Lounge**, Hyatt Regency, 320 W. Jefferson St., 587-3434. Enjoy the view of this spectacular lobby, relax and listen to live entertainment.

**Lobby Lounge**, Hyatt Regency, 320 W. Jefferson St., 587-3434. With a spectacular view of the open atrium, relax here in the lobby lounge and enjoy an unusual creation from the bar.

**Kunz's Peachtree Lounge**, 526 River City Mall, 584-1158. Featuring a complete cocktail and wine selection.

**Max & Erma's**, The Mall, 5000 Shelbyville Rd., 897-0209. Table-to-table telephones and a game room will keep you occupied when you're not imbibing super spirits or feasting.

**The Pub**, Executive Inn, Watterson Expressway at the Fairgrounds, 367-6161. Entertainment nightly.

**The Red Garter Saloon**, Executive Inn, Watterson Expressway at Fairgrounds, 367-6161. Open until 1 a.m. for dancing.

**The Sternwheeler**, Ramada Inn, Bluegrass Park & Convention Center, I-64 at Hurstbourne Lane, 491-4830. Las Vegas style entertainment.

**Stouffer's Top of the Tower**, 101 S. First, First National Tower, 585-2233. Live entertainment nightly with a view.

### PLCAA PREVIEW from page 1

sessions. There will also be ample time for exhibit visitation to view the latest developments in products, equipment and service.

Headquarters hotel will be the Galt House overlooking the scenic Ohio River and just two blocks from the convention center. A special feature will be an Early Bird Reception Tuesday evening, Nov. 17.

Keynote speaker is Ralph Lewis, vice president of Gulf Oil Corp., who will speak on "Energy Yesterday, Today and Tomorrow." Topics on the Wednesday program include Ornamental Programs in the Lawn Care Industry, Toxic Waste, Operating Lawn Care Equipment for Maximum Efficiency, and Advertising.

Topics on the Thursday morning program include Office Management, Profit and Loss Analysis, Accounting and Personnel Management, Liquid and Dry Lawn Care Programs, Insects and Insecticide Update, Pathology Update and Employee Health Programs.

Topics on Friday's program include The 2,4-D Situation, Handling and Disposal of Pesticides, and Management Stress. There will be more than 16 hours of exhibit visitation time.

At press time, exhibitors included:

American Pelletizing Corp.  
International Seeds Inc.  
Lakeshore Equipment & Supply Co.  
Westheffer Co. Inc.  
Estech General Chemicals Corp.  
The Andersons  
O. M. Scott & Sons Co.  
W. A. Cleary Chemical Corp.

Wilcox All-Pro Tools & Supply  
International Spike Inc.  
Mallinckrodt Inc.  
USS Agri-Chemicals  
George W. Hill & Co. Inc.  
CLC Labs  
Stauffer Chemical Co.  
Allied Corp.  
Northrup King Co.  
Olanthe Mfg. Inc.  
Turf-Seed Inc.  
Dow Chemical U.S.A.  
Monsanto Agricultural Products Co.  
Lofts Seed Inc.  
American Lawn Applicator  
Echo Inc.  
LAWN CARE INDUSTRY  
Torco Equipment Co.  
BFC Chemicals Inc.  
Mobay Chemical Corp.  
Smithco Inc.  
Heimerdinger Mfg & Dist. Co.  
FMC Corp.  
Snowco Co.  
Plant Food Chemical Co.  
Bunton Co.  
Palm Industries  
TUCO, Div. of Upjohn Co.  
PBI/Gordon Corp.  
Hahn Inc.  
Professional Turf Specialties  
Hawkeye Chemical Co.  
Rockland Chemical Co. Inc.  
Balcom Chemicals Inc.  
Diamond Shamrock Corp.  
Patterson Green-Up Co.  
Encap Products Co.  
Perf-A-Lawn Corp.  
Cushman-Ryan/OMC Lincoln  
Rhône-Poulenc Inc.  
Lebanon Chemical Co.  
F. E. Myers Co.  
International Harvester, Truck Group  
Howard Johnson's Enterprises  
Container Mfg. Inc.  
Brinly-Hardy Co.  
Knox Fertilizer & Chemical Co. Inc.  
Du Pont Co.  
Crown Chemicals



## NEWSMAKERS

Steve P. Springer has been promoted to product manager for the Turf Division of the **Rain Bird Sprinkler Mfg. Corp.**, according to Ed Shoemaker, director of marketing.



Springer



Markus

In his new assignment, Springer will be involved in the development of and coordination of new irrigation products for the com-

pany's turf market. Prior to his promotion, he served as the new product development coordinator. Springer joined Rain Bird as district manager for the company's southwestern U.S. sales territory.

R. H. Markus has been named Controller, Turf Division, for **Jacobsen Division of Textron Inc.**, according to John R. Dwyer, Jr. president.

Markus will be responsible for all financial activities of the Racine, Wisconsin-based manufacturer of grounds maintenance equipment. Previously, he was accounting manager, Turf Division, for Jacobsen.

The Agricultural Chemicals Division of **Diamond Shamrock Corp.** announced that George L. Fish has been named as divisional operations manager.

In his new position, Fish has overall supervisory responsibility for Diamond Shamrock's domestic **Agricultural Chemicals** plants in Houston, Texas and Tuscaloosa, Alabama. He replaced Fred A. Hallemann who has been named as business manager of Agricultural Chemical and Animal Health products for Diamond Shamrock's Americas Pacific Division.



Fish



Key

Jesse C. Key has been named vice president, Operations, for **Jacobsen Division of Textron Inc.**, according to John R. Dwyer, Jr. president.

Key will be responsible for mature product engineering, materials, manufacturing, quality assurance and services.

James D. Blanchard is owner and Joseph D. Elias is manager of **Blanchard Tree & Lawn**, Toledo, Ohio. The company offers granular chemical lawn applications and tree care.

Richard Ritenour is owner of **Custom Lawn Care**, Butler, Pa. The company offers both liquid and granular chemical application and mowing/maintenance services.

Gil Chappel is owner, Jeanne Chappel is co-owner and Charles Reisinger is service manager of **Lawn Pro**, Prairie Village, Kans. The Company offers granular chemical lawn application and seeding services.

Terry Hughes is president and Randy Hughes is vice-president of **The Whole Bloomin' Yard, Inc.**, Birmingham, Ala. The company offers granular chemical lawn care and mowing/maintenance services.

Al Cook is owner of **The Bluegrass Boys Lawn Care**, Toledo, Oh. The company offers fertilizing, weed and insect control.

Mel Shuman is president and Paul Takarski is branch manager of **Accu-Spray**, Sterling Heights, Mich. The company offers liquid chemical lawn care application, mowing/maintenance and landscaping services.

**Stull Company**, Coraopolis, Pa., announced the appointments of Thomas J. (Woody) Lesnett as marketing manager and Edward J. Washburn as sales manager.



Lesnett



Washburn

Stull Company is distributor of power equipment to the lawn care market. The company's primary sales territory for Ariens tractors, tillers, and snowthrowers, Lawn-Boy power mowers, Poulan chain saws and WeedEater string trimmers is Western Pennsylvania and West Virginia as well as the Del-Mar-Va peninsula, New Jersey, New York and all of New England.

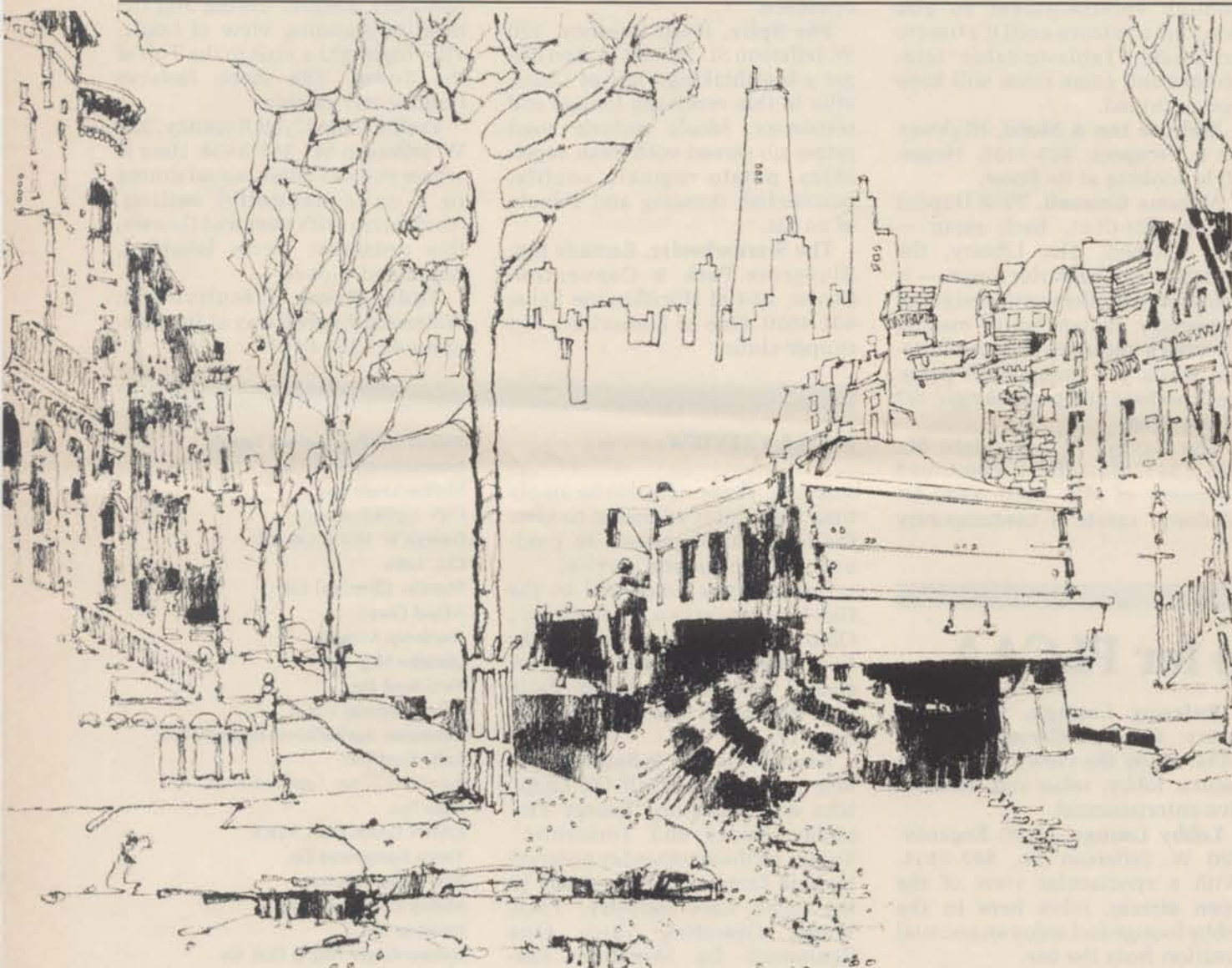
Allan D. Beveridge is manager and Karl D. Grupp is general manager of **Amling Green Lawn Spray Service**, Division of Amling's Flowerland, Hinsdale, Ill. The company offers liquid chemical lawn care services.

Walter J. Wilkie is president of **Barefoot Grass Lawn Service**, Pontiac, Mich. Gene Muenchausen is marketing manager and Al Brant is area manager.

Richard E. Worl Jr. is owner of **Concepts in Green, Inc.**, St. Louis, Mo.

Don Keller is president, Josh Keller is vice president and Dick Hornaday is an associate of **Keller's Turf and Shrub Care**, Independence, Mo. The company offers both liquid and granular chemical lawn care and mowing/maintenance services.

A. Bruce Oliver is general manager of **Greenskeeper Lawn Co.**,



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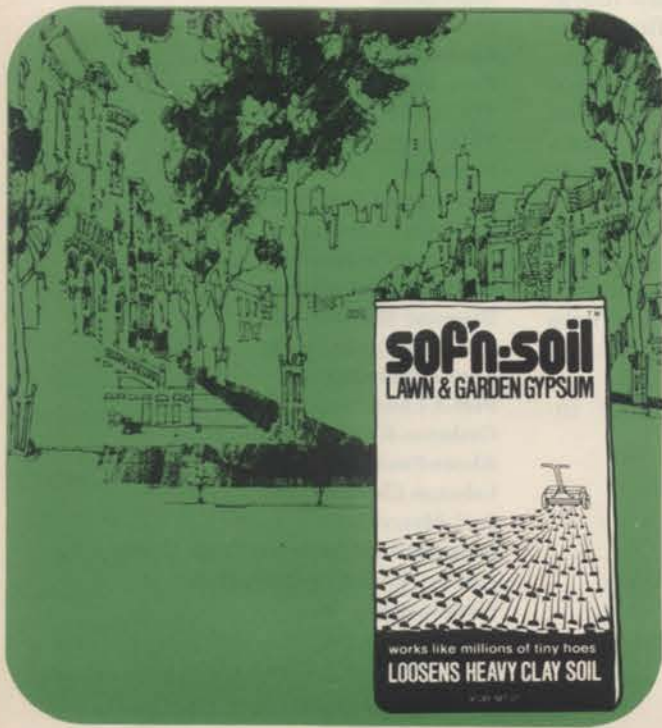
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David J. Sylvester has been honored by **The Upjohn Company** for outstanding achievement in sales for 1980. He is one of 31 sales representatives recently named to the company's Agricultural Division Sales Academy.

Sylvester, an agricultural chemicals sales representative for TUCO, Division of The Upjohn Company, joined the company in 1975. His sales territory encompasses the New England states, New York and northern New Jersey. He is an alumnus of Middlesex Community College at Middletown, Conn., and holds an A.S. degree in turf management from the University of Massachusetts.

Joseph M. Porter has been elected president of the **Outdoor Power Equipment Distributors Association**. Porter, president of **Porter Brothers, Inc.** of Shelby, N.C., assumes the position formerly held by Joseph H. Brady, Jr. of Birmingham, Alabama.

OPEDA, a recently-formed national organization of independent outdoor power equipment distributors, is dedicated to the growth and progress of independent distributors. Porter was one of the founders of the organization and has been actively involved in its development.

Kenneth G. Hodas has been appointed vice president, and Scott Foerstner as treasurer and controller announced Ernie Hodas, president, **Century Rain Aid**, distributor of underground sprinkler supplies and agricultural irrigation equipment.

Norman Rothwell, N.M. **Rothwell Seeds**, Lindsay, Ontario, was re-elected incoming President of the **Lawn Institute** at its annual meeting, held in Atlanta in conjunction with the **American Seed Trade Association National Convention**. Mr. Rothwell was the first Canadian to hold the president's office, and his administration has been so well thought-of that he was asked to serve a second term.

Assisting Mr. Rothwell will be Robert Peterson, **E. F. Burlingame & Sons**, Forest Grove, Oregon, serving as vice president; and Robert Russell, **J. & L. Adikes, Inc.**, Jamaica, N.Y., secretary-treasurer.

Steve Chapin has been named controller for **Lakeshore Equipment & Supply Co.** Now responsible for accounting and computer systems and all internal controls in the company, Chapin has previously served for two years as Lakeshore Equipment's office manager. He has been with Lakeshore Equipment & Supply Co. for three and one-half years, beginning work in the payable department.

New leadership for the **American Sod Producers Association** was announced at the ASPA Summer Convention & Field Days held in Hershey, Pa. on July 15-17. Elected officers for the 1981-82 year include President Stephen T. Cockerham, **Rancho Verde Turf Farms**, Perris, Ca.; Vice-President Ralph W. White, **Southern Turf Nurseries, Inc.**, Tifton, Ga.; Secretary Michelle Williams, **Meredith Sod Farms, Inc.**, Salt Lake City, Ut.; and Treasurer Walt Pemrick, **Warrens Turf Nursery**, Palos Park, Ill. Immediate Past President is Raymond A. Johnson, **Shamrock Turf Nurseries, Inc.**, Hanna, Ind.

Newly elected to the Board of Trustees are William D. Morgan, Jr., **Winding Brook Turf Farm, Inc.**, Wethersfield, Conn.; William L. Campbell, **Fairlawn Sod Nursery**, Lyden, Ontario; and Ike Thomas, **Thomas Brothers Grass Co.**, Grandbury, Tx.

Carry-over Board of Trustees members include Glenn Markham, **Green Hills Sod Farm**, Berthoud, Co., and E. John Hope, **Manderley Turf Farms Ltd.**, North Cower, Ontario.

Retiring Board of Trustees members are James W. Huggett, **Long Island Farm, Inc.**, Marshall, Wis.; Theodore Mund, **Alboa Company**, Needville, Texas; and Ray Weekley, **Prince William Turf Growers**, Fairfax, Virginia.

Romano A. Schescke has left **Allergon, Inc.**, Carthage, Mo. to join **Stewart Sanitary** as sales manager. She holds a B.S. in Agriculture from University of Missouri-Columbia and holds a Missouri pesticide applicator's license.

LEHR from page 15

larly from one job to the other, then it is unlikely that his pattern will change if he works for a lawn care employer. Thus, why should a lawn care employer think that the individual will change his habits simply because he works for the lawn care employer?

Questions about attendance and relationships with supervisors are essential. If an employee had attendance problems at prior jobs, why should a lawn care employer think that he will suddenly become punctual? If an applicant says that he had problems with supervisors, did not like his supervisors, or did not get along with his supervisors, that should clearly tell a lawn care employer that this employee had difficulty accepting supervision and probably will not accept supervision from the lawn care employer or his supervisors.

Finally, employers frequently say that they would rather hire a less competent individual than no one because they need the help now, or they would rather retain a less competent employee because they have no one to replace them.

In such situations the general rule of "addition by subtraction" should be followed. That is, a lawn care employer is stronger without incompetent people and waiting until he can replace them, instead of carrying them along until someone else whom he prefers applies for the job. The lawn care employer will be surprised that he can find a replacement far superior to the individual whom he is reluctant to hire or is going to hire simply because he needs someone immediately.

Richard Lehr is an attorney with the Birmingham law firm of Sirote, Permutt, Friend, Friedman, Held & Apolinsky and a frequent contributor to Lawn Care Industry.



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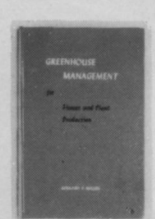
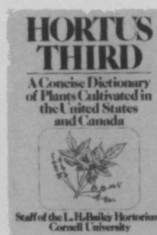
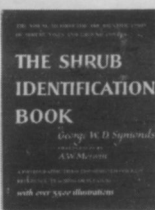
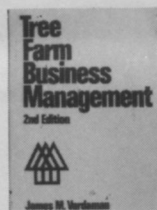
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## Two applications at lower rates can control Southeast crabgrass

Results from recent tests indicate that the pre-emergence herbicide bensulide applied in split applications at lower-than-recommended rates can control crabgrass effectively in Georgia and the Southeast.

Tests over two years by B. J. Johnson of the Georgia Agricultural Experiment Station indicated that rates could be reduced by up to one-half of what is now recommended. For most lawn care operations, he said, the second treatment would not be a problem since fertilizer treatments are usually made at a time corresponding with his tests.

"Since bensulide effectively controlled crabgrass at reduced rates in our studies, this not only reduced the cost of the chemical, but less pesticides were applied to the turf and surrounding environment," he reported.

### Long residual

Bensulide, which is manufactured by Stauffer Chemical Co., Westport, Conn., and marketed by a number of companies, has been one of a few pre-emergence herbicides to control crabgrass consistently in turfgrasses said.

It has performed equally well at treatment rates of 10 pounds per acre, 12 pounds per acre, 12½ pounds per acre or 15 pounds per acre, Johnson said. In most instances, when the chemical is applied in the fall for winter weed control, crabgrass is effectively controlled during the following summer without any additional treatment. This indicates that the herbicide has long residual activity, he said.

### Lowest acceptable rates

Reports that were mainly from northeastern United States sources led to the conjecture that even lower rates would be effective in controlling crabgrass in Georgia and the Southeast. Because of this, Johnson initiated the experiment with bensulide to determine lowest rates needed for acceptable crabgrass control.

Johnson stressed that this was a report on the current status of research involving use of a chemical that requires registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The report does not contain recommendations for the use of the chemical nor does it imply that the uses discussed have been registered. All uses of this chemical must be registered by the appropriate state and federal agencies before they can be recommended, he said.

Treatments were applied to common bermudagrass at one site and to common Kentucky bluegrass at another site in both 1979 and 1980. Single treatments of five pounds per acre, 7½ pounds per acre and 10 pounds per acre were compared with split treatments which did not total more than the above single rates.

Initial treatments were applied about March 6 on the bermudagrass site and March 19 at the

bluegrass site. The second series of treatments were applied April 30 at the bermudagrass site and May 14 at the bluegrass site.

### Reduce chemical needs

At all rates, bensulide effectively controlled crabgrass on the bermudagrass. The control was similar whether the chemical was applied as a single or split application at the various rates. However, the results were different on the bluegrass turf.

The single five-pound and 7½-pound rates resulted in significantly less crabgrass control than the 10-pound rate.

These results indicate that bensulide applied in split applica-

According to Herb Day, of Stauffer's Specialties Agricultural Chemical Division, a label has been submitted for split applications of bensulide at rates of no less than 7½ pounds per acre, depending on weed infestations.

"For example," says Day, "a lawn care businessman could come in with an early application in March or April for crabgrass control, make a second application in mid-May to early June for goosegrass, and even apply a third treatment in August or September for *Poa annua*."

tions at low rates — three pounds per acre in March plus two pounds per acre two months later — will control crabgrass effectively in Georgia. These rates would reduce chemical needs by one-half when compared with the present recommended rate of 10 pounds per acre applied as a single March treatment. For most lawn care operations, Johnson said, the second treatment would not be a problem since fertilizer treatments are usually made at this time.



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## Lawn Medic of the Triad: Getting down to business

Ask some people what a transition zone is and they might point you to the nearest tavern. Not P. J. Lenihan. He knows you're talking about turfgrass problems. He happens to work one of the most critical zones in the country.

Lenihan is president of Lawn Medic of the Triad (Winston-Salem, Greensboro & Highpoint), North Carolina, a chemical lawn care company with over 700 accounts. "You could spend all your time just doing renovations around here," he said. "And then you could have all the work you ever wanted."

The area is swept by heat in the summer. Autumn and winter are very cool. The soil is thick with red clay. The result is that standard warm and cool season grasses undergo long periods of dormancy.

### New tall fescues

To fight the problem, Lawn Medic is advocating the use of some of the new tall fescues that are coming into their own this season. The grass is hardier, more heat-tolerant, and generally gives off a high green color. "We've seeded with it this season and hope to see good results," said Lenihan.

Lawn Medic of the Triad offers a

four treatment program for the full year with a recommended liming treatment in the summer. In the spring they apply broadleaf weed control, fertilization, and pre-emergent crabgrass, goosegrass and foxtail controls.

Their late spring applications include another fertilization, a broadleaf weed control, and sod webworm and chinchbug controls. That ties up the first half of the year.

The summer is free for Lenihan except for the liming that's one of the strongly recommended options Lawn Medic provides. The soil is so acidic because of the red clay that it has become one of the regular features of North Carolina lawn care businesses.

When the season resumes again in the fall, Lawn Medic offers another fertilization, and broadleaf weed controls for dandelion, wild onion, ivy, and platanus. The year is rounded out with a late fall or winter application of slow-release nitrogen, another broadleaf weed control and special nutrient formulas for shady and sandy soils.

Lawn Medic also offers power aeration services, dethatching, seeding and killout services as part of their extras. And because bermudagrass is being slowly replaced with some of the tall fes-

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Lenihan (left) and former county extension agent Lonnie Pell hold an informal meeting to diagnose turfgrass damage on the site of a Lawn Medic account. Because of the many trees in this area, Lenihan keeps a constant lookout for red thread, rust, and other shade-related diseases.

## MONEYWISE

### Year end Sub S alert

If yours is a Subchapter S corporation, operating losses presumably create an ordinary deduction, and you can set the loss against your salary and other personal income. However, the write-off is limited to amounts actually invested in the business plus stockholder loans.

Consequently, prior to the Sub S's year-end, consider lending the corporation the difference between the pretax loss and the investment base. Loans by stockholders to finance operating losses are considered in the investment base for taking losses against personal income. For example, you could lend the company \$25,000 to finance the operating loss. If lent the day before the end of the year, you would be able to take an additional \$25,000 offset against personal income. Note: When the borrowed capital is repaid, the \$25,000 must be reported as income.

In any event, before making such loans to your business, see your accountant or attorney. Transactions can be structured to optimize favorable tax treatment.

The above information was supplied by *The Business Owner* magazine. For those of you who wish to receive it, write *The Business Owner*, 383 S. Broadway, Hicksville, New York 11801.

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cues, he has a full program of renovation services offered.

He became interested in the lawn care business while a junior at the University of Virginia studying for a liberal arts degree. During that year he joined two professors, who, as a business venture, started the National Turf Service in nearby Alexandria, Virginia.

After classes, Lenihan would take their combine and service lawns with traditional granular materials. Making just \$125 a week back then, he worked long hours, and eventually took over full time in the summers. As a result he is very familiar with the hazards of starting a business from scratch. "The first year or two you're not going to get rich," he said. "And you might even stand to lose a good amount."

#### First corporate dealer

But he liked the work, and, after taking his degree, decided he'd like to work for a national franchise, where, he said, "I could finally learn something about the business." A short time later, he got together with the Lawn Medic association and became their first corporate dealership. In 1974 Lawn Medic had done some market research in the Triad, decided it was ripe for development, and Lenihan packed his bags. He hasn't moved since.

One of the innovations that came out of the partnership between Lenihan and the Lawn Medic people was a special kind of combine that was developed for handling the rough clay in the North Carolina soil. "I came up with the need," said Lenihan, "and Don Burton, being an engineer, designed what we came to call 'the renovator'."

The renovator is pretty much a standard combine with the exception of a set of fixed knives on a horizontal bar that's capable of penetrating the hard-baked soil. "It's a little bit like adobe around here," he said. "So we started the combine method because we weren't getting the scarification we needed."

#### Meeting the competition

Along with his partners, Doug Squires, who handles the Greensboro accounts, Lenihan is quite satisfied with the relationship he's had as a Lawn Medic dealership. The key, he says, is good communications. "We get current advice from Lawn Medic. They have their own in-house print shop, for instance, and if it's urgent, they can send us bulletins and brochures immediately."

Lenihan is also active in trying to start up a local chapter of the Professional Grounds Management Society, where interested lawn care professionals can meet to discuss the problems of turf care in their area. Although it's just a fledgling group at the moment, he hopes it will become a regular meeting place. "I welcome competition," he said. "And it would be beneficial to everybody to meet on even terms to discuss our local problems."

An instrument in aiding that local communication in the Triad is their cooperative extension



"You could spend all your time just doing renovations around here," says Lenihan. "And then you could have all the work you ever wanted." And he has just that: a business suited to his own needs.

agency, which regularly provides quick tests on problem areas and lends responsibility to the business. And in a transition zone, extension help is vital.

But if that weren't enough of a problem, shaded areas in the Triad are. There are so many shade trees in the area that it becomes difficult to keep turf healthy if it's in shade more than 50 percent of the time.

#### Renovation overload

Lenihan has so many calls for renovation work in the area that he offers a "New Lawn Plan" which includes a 75 percent guarantee on successful establishment. "It's six weeks of work and we follow it up with three fall treatments to get the turf healthy," he said. Three extra laborers provide help for the summer renovations.

As far as marketing his service is concerned, Lenihan uses mainly direct mailings. Recently Frances Lenihan, office manager, sent out about 30,000 mailers throughout

the area, the most they've ever targeted. The figure represents about 25 percent of the desirable single family dwellings in the Winston-Salem area. Lenihan considers this the best method of advertisement because it's the least expensive and it bullets the entire market area specifically.

When Lenihan thinks about the future of his Lawn Medic business in the Triad, he looks to more than just his company's receipts. "I want to reduce the hours I work, but be able to develop a quality service that's tailored to the needs of the area."

And his ambition is tailored more to his family than to his bankroll, for, he says, "I like the work and want to continue it for my family. I'm not interested in becoming a millionaire, just steady growth that is controlled."

— Paul McCloskey

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## Gaseous nitrogen losses from turf: Ammonia volatilization

By William Torello, Graduate Research Assistant  
Dr. David Wehner, Assistant Professor  
Horticulture Department, University of Illinois

The efficient use of synthetic nitrogen fertilizers is becoming more important in view of current cost increases in the fossil fuels needed to synthesize these products. The cost increases have generally resulted in a more positive attitude towards adjusting fertilizer programs to fit soil and environmental conditions inherent to a particular location.

Knowledge of plant and soil characteristics in terms of how they affect the fate of applied nitrogen is essential before any fertilizer program can be used effectively. Past research devoted

to studying nitrogen transformations in soil has proven to be extremely useful, especially in determining the extent and conditions under which gaseous forms of nitrogen may be lost from soils.

### Up to 68% loss

In contrast, there has been very little research devoted to assessing the extent of gaseous nitrogen losses from turf after fertilizer application.

The volatilization of ammonia ( $\text{NH}_3$ ) from soils is a major pathway or process contributing to

gaseous nitrogen loss. Researchers in Texas<sup>1</sup> have shown that up to 68 percent of the total nitrogen applied to bermudagrass turf can be lost by  $\text{NH}_3$  volatilization depending upon the type of nitrogen fertilizer applied. Ammonium nitrate applications resulted in losses of 16 to 18 percent of the applied nitrogen as ammonia ( $\text{NH}_3$ -N) while losses from ammonium sulfate and ammonium phosphate applications ranged between 50 and 68 percent  $\text{NH}_3$ -N.

These losses of applied nitrogen are quite substantial and are attributed mainly to the calcareous nature of the soil. Calcareous soils have an alkaline pH which is a prerequisite for the process of  $\text{NH}_3$  volatilization. Without alkaline pH in the soil, no  $\text{NH}_3$  volatilization can occur. However, the reaction that a particular fertilizer has upon the soil may allow  $\text{NH}_3$  volatilization to occur even though the soil has an acidic pH.

For example, when urea

granules hydrolyze or dissolve in the soil, a temporary alkaline environment is created around the dissolving granule. This alkaline "microenvironment" is favorable for  $\text{NH}_3$  volatilization but it is only temporary. Research performed in Illinois<sup>2</sup> on bluegrass turf having a soil pH of 6.6 showed that  $\text{NH}_3$ -N losses after urea applications could exceed five percent of the applied nitrogen on thatch-free turf and 30 percent where thatch existed.

These laboratory tests indicated that  $\text{NH}_3$  volatilization could occur to a significant extent under acidic soil conditions. However, the experimental technique used in these studies most likely contributed to overestimation of  $\text{NH}_3$ -N losses.

### Microecosystem developed

A "turf microecosystem" was developed at the University of Illinois to monitor the fate of chemicals applied to turf. Modifications of this unique system made possible the measurements of  $\text{NH}_3$ -N losses from turf while closely simulating the natural turf environment. The effects of nitrogen carrier, mode of urea application, rate of urea application, and thatch on  $\text{NH}_3$  volatilization were evaluated in these systems. The turf samples used in the studies had a soil pH of 6.6.

Only ammonium ( $\text{NH}_4$ ) type fertilizers or those fertilizers which break-down to yield ammonium have the potential to stimulate  $\text{NH}_3$  volatilization. Therefore, ammonium nitrate, isobutylidene diurea (IBDU), ureaformaldehyde (UF), sulfur coated urea (SCU), urea, liquid applied urea, Formolene, and FLUF were tested. Rates of N application in preliminary tests were extremely high (six pounds N/1000 feet<sup>2</sup>) to make gross comparisons and to compare results with earlier work (Nelson et al.,<sup>2</sup> 1980). At this high rate of application, ammonium nitrate, IBDU, UF, and SCU resulted in less than one percent of the applied nitrogen being lost through  $\text{NH}_3$  volatilization. Prilled urea application, however, resulted in 10 percent of the applied N being lost via this process.

### Granular application results

The results obtained with prilled or granular urea applications were not surprising in view of the fact that only urea granules hydrolyzed to form a temporary alkaline soil microenvironment conducive to  $\text{NH}_3$  volatilization. However, when prilled urea was applied at a normal rate of application (one pound N/1000 ft<sup>2</sup>) only 1.2 to 1.6 percent of the total N applied was lost through volatilization.

This is almost an eight-fold decrease in  $\text{NH}_3$  volatilization due to rate of application. Volk<sup>3</sup> and Simpson et al.<sup>4</sup> have also shown this rate effect using urea, however, their data indicated  $\text{NH}_3$ -N losses to be between 15 and 45 percent of the total N applied over 1 to 3 pounds N/1000 ft<sup>2</sup> application rates.

These large losses of urea nitrogen due to  $\text{NH}_3$  volatilization reported by these workers are in direct contrast to data obtained by Kissel et al.<sup>5</sup> (1977). Kissel applied

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urea to bermudagrass turf grown on a calcareous soil having an alkaline pH. Under these conditions, the potential for  $\text{NH}_3$  volatilization is optimal but only three to seven percent of the applied urea-N was lost through volatilization.

#### Liquid fertilization research

Since liquid fertilization of turf is commonly used in the lawn care industry, urea solutions, Formolene and FLUF were evaluated for nitrogen loss through  $\text{NH}_3$  volatilization. Spray-applying urea solutions at a one pound N/1000  $\text{ft}^2$  rate resulted in three to five percent of the total urea-N being lost to the atmosphere through  $\text{NH}_3$  volatilization.

FLUF and Formolene applied at the one pound N/1000  $\text{ft}^2$  rate had losses of 3.2 and 4.5 percent of the total N applied, respectively. Only part of the total N in FLUF and Formolene is free urea yet  $\text{NH}_3$  volatilization results were comparable to the one pound N/1000  $\text{ft}^2$  spray applications of urea. This suggests the potential for three to five percent N losses via  $\text{NH}_3$  volatilization even when using low rates of urea.

#### "Above soil" mechanism

The results of the experiments with liquid fertilizer applications were surprising in view of the fact that spray-applied urea solutions uniformly coat the turf and, as such, would not produce the alkaline soil microenvironment associated with dissolving urea granules. Furthermore, a large percentage of the spray-applied urea would remain for a longer time above the soil surface in water films coating turfgrass tissue and thatch. Therefore, it was proposed that an "above soil" mechanism for  $\text{NH}_3$  volatilization exists in addition to the classical soil reactions.

To prove if an "above soil" mechanism existed, urea was applied at a one pound N/1000  $\text{ft}^2$  rate to sod having a 1.5 inch thatch layer without the underlying soil.

Again,  $\text{NH}_3$ -N losses ranged between 1.2 to 4.5 percent of the total N applied. These results are not only strong evidence in favor of an "above soil" mechanism for  $\text{NH}_3$  volatilization, they are also in sharp contrast to the 30-40 percent  $\text{NH}_3$ -N losses from thatchy turf reported by Nelson et al.<sup>2</sup> Thus, it was also concluded that thatch had no significant effect upon  $\text{NH}_3$  volatilization.

The "above soil" mechanism for  $\text{NH}_3$  volatilization from urea can be explained by the presence of the enzyme urease (an enzyme which breaks down urea) upon turfgrass tissue and thatch. Further experimentation showed that urease activity levels on turfgrass tissue and in thatch were 25 to 30 times higher than in soil.

Two important conclusions can be drawn from the ammonia volatilization research performed at the University of Illinois.

- Ammonia volatilization from

turf having an acidic soil pH can occur after urea applications but only to a limited extent.

- An "above soil" mechanism for  $\text{NH}_3$  volatilization in turf exists.

The discovery of an "above soil" mechanism for  $\text{NH}_3$  volatilization is considered the most important finding. This mechanism allows  $\text{NH}_3$  volatilization from turf to occur after urea application without regard to what the properties of the underlying soils are. This is particularly apparent after liquid urea applications. Although  $\text{NH}_3$  volatilization is enhanced in turf having alkaline soils, other environmental or cultural factors may influence  $\text{NH}_3$  volatilization from turf having an acid soil pH.

#### Denitrification losses

While the results of our experiments have shown that  $\text{NH}_3$ -N losses are not extensive from turf

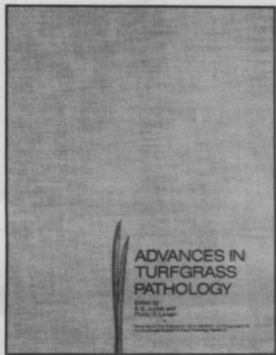
having acidic soil pH levels, gaseous losses of nitrogen are not limited to the process of  $\text{NH}_3$  volatilization. There has not been any research reported, to date, on characterizing N losses from turf through the process of denitrification. Under the right soil conditions denitrification can also be a major avenue for gaseous nitrogen loss. As such, more extensive research is needed to fully understand all the processes of nitrogen loss from turf under varied soil and environmental conditions.

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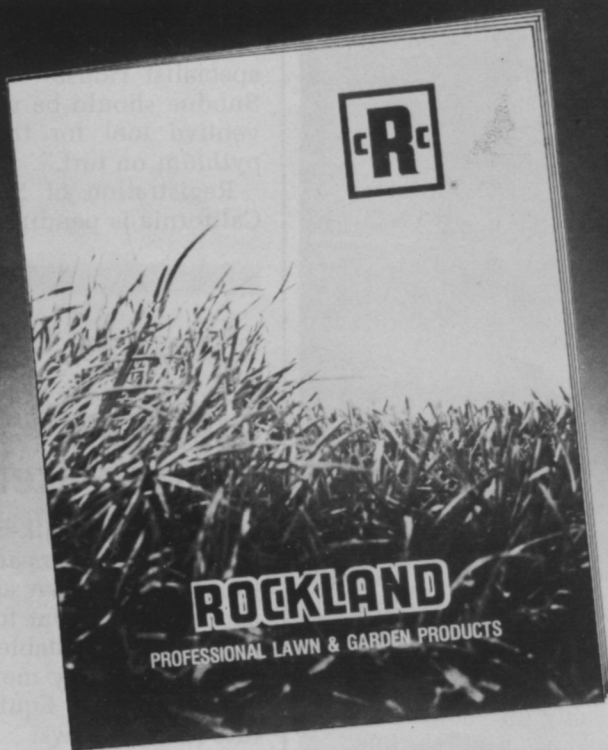
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## Long-lasting pythium fungicide is registered

Subdue 2E, a new fungicide for the lawn care industry that offers up to three weeks control of pythium blight per application, has been labeled by the Environmental Protection Agency (EPA).

The fungicide, manufactured by Ciba-Geigy Corp., gives up to 99 percent control, according to Ed Mengel, product manager. It will control pythium blight in established turf when applied as a preventive treatment at a rate of one to two ounces in three to five gallons of water per 1,000 square feet.

In newly seeded areas, Subdue will control pythium damping off

and pythium blight at one to two ounces in five to 10 gallons of water per 1,000 square feet. On newly seeded areas, Subdue should be watered in immediately with 1/4- to 1/2-inch of irrigation.

### Up to 21-day control

"Length of control is important to lawn care businessmen, particularly with ever-increasing costs of fuel and labor," Mengel said. "Subdue gives complete control for 10 to 21 days on established turf and for seven to 14 days on newly seeded areas."

Pythium is a disease problem of

turfgrass particularly in the north-eastern and north central states.

According to Dr. Doug Houseworth, a Ciba-Geigy fungicide specialist, Subdue has been tested in the U.S. for pythium control in turf for five years. "University cooperators and our own researchers have shown that Subdue is very effective as a preventive treatment. We have also seen curative activity with Subdue," he told LAWN CARE INDUSTRY. "However, with any fungicide as specific as Subdue, resistance is a possibility. Therefore, lawn care businessmen are urged to use Subdue at labeled rates in a preventive pythium control program along with other fungicides to control other turf diseases."

In contrast to other pythium fungicides, which must be used on a two- or three-day schedule, Subdue will control pythium blight up to 21 days on established turf with one treatment.

"Subdue works by being taken up by the roots and absorbed in the tissue. Any pythium organism that attacks the grass is killed," Dr. Houseworth said. "Because of these properties, Subdue is truly unique when compared to other pythium fungicides."

### Preventive applications

Tests of Subdue by Dr. Houston B. Couch, professor of plant pathology at Virginia Polytechnic Institute, Blacksburg, showed control of pythium blight for up to 30 days under extreme disease pressure.

Subdue was used at the one-ounce rate and gave 100 percent control of the pythium blight under severe conditions," Dr. Couch said. "It's one of the best materials I have ever tested."

For most effective control, Dr. Couch says lawn care businessmen should use Subdue in a preventive application at labeled rates. "Because of Subdue's narrow range of activity, I think we could start seeing resistance if it is misused."

Five years of tests at Pennsylvania State University showed definite advantages for Subdue under conditions of high disease pressure, according to Dr. Patricia Sanders, research associate in plant pathology.

### Worst possible conditions

Studies on seedling ryegrass by Ciba-Geigy's research department at Vero Beach, Fla., subjected the turf to extreme disease pressure, artificially induced. During the 10-day test, the ryegrass was irrigated every hour to test the fungicide's performance under the worst possible conditions.

According to Dr. Tom Young, who performed the tests, the percent of turf infected 10 days after application was 95 percent on the untreated plot, 45 percent on the plot treated with one ounce of Subdue on a 14-day schedule and 33 percent on the plot treated with two ounces of Subdue, also on a 14-day schedule.

Ciba-Geigy is continuing to test Subdue to determine how it can best fit into turf disease control programs, says fungicide specialist Houseworth. "We feel Subdue should be used as a preventive tool for the control of pythium on turf."

Registration of Subdue 2E in California is pending.

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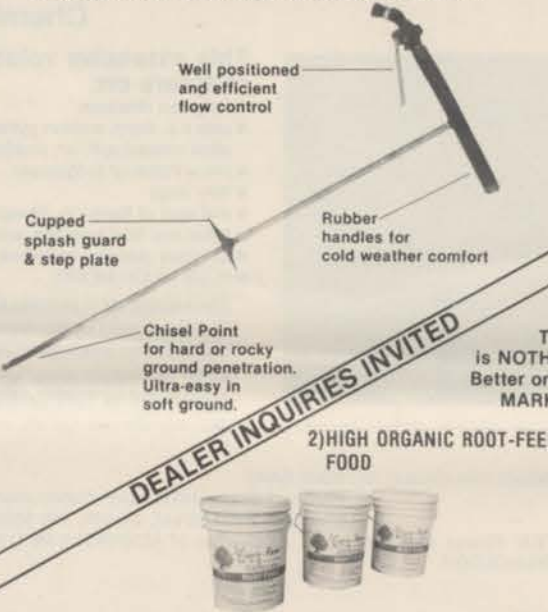
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### OPEI SURVEY

## Shipments down, mower execs say

Shipments of walk-behind mowers, riding mowers and lawn tractors will be down an average of about four percent for the rest of this year and stable in 1982, a recent survey by members of the Outdoor Power Equipment Institute (OPEI) shows.

The survey showed that 5.43 million walk-behind mowers will be shipped in 1981, down five percent from the 5.7 million units shipped last year. The survey predicted that 5.41 million units would be shipped next year.



# All premium perennial ryegrasses aren't alike. Here's the Regal difference.

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# REGAL



## Henry Adikes, seedsman, dies

Henry K. Adikes, chairman of the board and grandson of the founder of J & L Adikes, Jamaica, N.Y. died July 22. He was in his 65th year in the seed industry.

A spokesman for the company told LAWN CARE INDUSTRY:

"Henry loved to recall the 60 or so horses which were used to deliver seeds, fertilizers and food supplies from three locations to farms all over Long Island in the early days.

"He saw the firm go through two depressions and a number of recessions and left behind him a firm marketing one of the most complete lines of turf products in the country."

The firm has been credited with the development marketing of

NK-100, which became the first truly proprietary lawn seed and was the forerunner of literally hundreds of proprietaries presently being marketed or developed. The company also holds the patent rights to Adelphi Kentucky bluegrass, developed by Rutgers University.

### OBITUARY

## Ampel's Vite dies

Robert G. Vite, director of marketing for American Pelletizing Corp., Des Moines, Iowa, died in late July as the result of a coronary.

"Mr. Vite's passing is a great loss to the industry as well as to all those who knew and loved him," Marvin H. Zellibor, president of American Pelletizing Corp., said.

Vite was well-known in the industry, and a fixture at the numerous turf conferences held



Robert G. Vite

around the country each year. He is survived by his wife Alma, four sons and one daughter.

### COMPANIES

## BFC Chemicals is new FBC name

FBC Chemicals, Inc. has announced a name change of the company to BFC Chemicals, Inc.

According to Henry F. Pierce, president of BFC Chemicals, Inc., the change was prompted by a name conflict with another U.S. company.

BFC Chemicals, Inc. is a new company formed in January with corporate headquarters in Wilmington, Del. BFC Chemicals, Inc. manufactures and markets agricultural chemicals, specialty chemicals, industrial chemicals and animal health products in the U.S. that were formerly marketed by Fisons, Inc., Bedford, Mass. and the Boots Hercules Agrochemicals Co., Wilmington.

### COMPANIES

## Jacklin acquires Jenks-White Seed

The Jacklin Seed Co., Post Falls, Idaho, a division of Vaughan-Jacklin Corp., has announced the acquisition of certain assets of the Jenks-White Seed Co.

Jenks-White reported more than \$6 million in seed sales last year. It was the second sizable asset acquisition in two months for Jacklin. It recently acquired the operating facilities of the Gold Coast Seed Co.

Jacklin said its new facility in Tangent, Ore. will be operated as the Jenks-White division of Jacklin. Jim Jenks and Howard Jenks have been hired by Jacklin, and along with Dick Bailey of Jacklin's Salem, Ore. office will form the management staff of the new division.

Jacklin's Salem office was closed July 1. The North Coast Seed Co. and other related companies of Jenks-White Seed Co. are not involved in the purchase.

### FERTILIZERS

## USS Agri-Chemicals plans Texas expansion

A 10-acre site six miles north of Waxahachie, Texas has been selected as the new Dallas-Fort Worth home of USS Vertagreen premium lawn fertilizers.

According to an announcement made by S. C. Evans, general sales manager based in Atlanta, a modern production, packaging and distribution facility is already under construction and will be completed in time for the 1982 season.

The plant complex will be comprised of a large bulk fertilizer storage and formulation building, a separate facility for bagging and in-transit warehousing and an administration-reception area.

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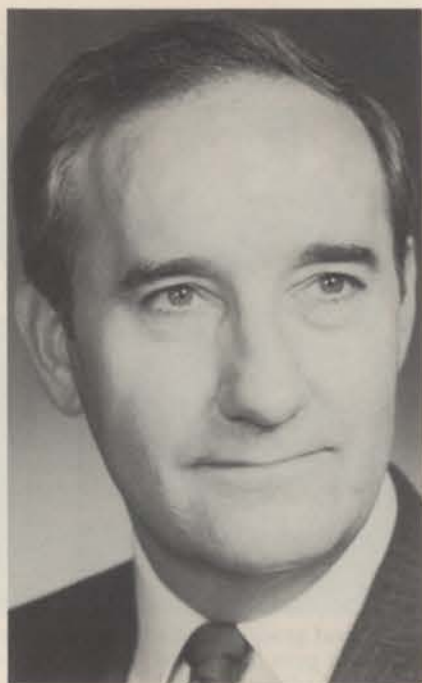
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Chalmers Co. William I. Brown, president of AMF Lawn & Garden Division, will serve as secretary/treasurer of the association.

Others serving on OPEI's board of directors for the 1982 fiscal year are: Glenn Alexander, president of Atlas Tool & Mfg. Co.; Richard Blohm, chairman and chief executive officer of Gilson Brothers Co., Plymouth, Wis.; Stanley Byers, president of Bunton Co., Louisville, Ky. (ex-officio); Jairo Estrada, president-operations division, Garden Way Mfg. Co.

Also: Harry Grumish, president of Roper Lawn Products; William Hannon, president of The Murray Ohio Mfg. Co.; Mark Rostvold, director-consumer products marketing, Deere & Co., Moline, Ill.; Robert Reid, manager-outdoor power equipment products, Lawn-Boy (Outboard Marine Corp.), Galesburg, Ill.; and Dane Scag, president of Ransomes, Inc., Johnson Creek, Wis.



Warner C. Frazier, president of Simplicity Mfg. Co., who is the new OPEI vice president.

presentations.

The theme for the meeting is "Finding the Answers," which will be picked up and carried through all of the sessions. Topics to be covered in the sessions will include:

- Marketing and Market Potential
- Budgeting and Forecasting
- Successful Selling Methods
- Equipment Costing

Dickson stressed that the Symposium has been structured to allow attending lawn care mowing/maintenance businessmen to participate as much as possible, posing specific questions to the speakers and also exchanging techniques with other maintenance businessmen.

For further information, contact: ALCA, 1750 Old Meadow Rd., McLean, VA 22102, 703-821-8611.



Irv Dickson is program chairman of ALCA's annual Landscape Maintenance Symposium to be held next month in Philadelphia. He is with ChemLawn Corp.'s Commercial Maintenance Division, Atlanta.

#### \$85 MILLION COMPLEX

### Du Pont expands ag/hort research

Du Pont Co. will take another major step forward in support of its established life sciences business by constructing an \$85 million research complex near its Wilmington, Del. headquarters, it was announced recently by E. G. Jefferson, company chairman.

Construction will begin immediately on the complex, which will support the company's growing businesses in agricultural/horticultural chemicals, pharmaceuticals and medical diagnostics and instruments.

The new complex will eventually accommodate an additional 700 scientists.

#### COMPANIES

### Mobil ag assets to Rhone-Poulenc

Rhone-Poulenc, Inc., Monmouth Junction, N.J. has announced the acquisition of the crop chemical assets of Mobil Chemical Co., subsidiary of Mobil Oil Corp.

Gaetano Pirrone, chairman of the board of Rhone-Poulenc, told LAWN CARE INDUSTRY:

"The acquisition is another step toward reaching our long-range goal of becoming a major factor in the markets we have identified as our strengths, one of which is agriculture. Agriculture now represents almost 30 percent of Rhone-Poulenc Group's world sales."

Major products in the existing line of proprietary agrochemicals for Rhone-Poulenc include Asulox, Bronate, Buctril, Chipco 26019 and Zolone. Chipco 26019 is used by lawn care businessmen across the country for disease control on turfgrasses.

The agricultural chemicals acquired from Mobil include Folex, Modown, Mocap and other products in various stages of development.

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## TRENDS

## Hazardous waste disposal market up 42% in 1980's

With initial phases of the Resource Conservation and Recovery Act (RCRA) now in place (see "New Chemical Waste Laws in Effect," *LAWN CARE INDUSTRY*, January, page 1) the hazardous waste disposal market is expected to expand by 42 percent during the 1980's.

Total volume will increase 20 percent in the 1980-85 period from 60 million tons to 72 million tons, and then grow another 18 percent by 1990 to 85 million tons, concludes a recent study by Frost & Sullivan, Inc., New York. With that, revenues are projected to escalate at a 16 percent annual rate in constant 1980 dollars.

"Implementation of RCRA will accelerate growth in the first part of the 1980's," the marketing research firm said in its recently released 409-page report. "A slight deceleration of growth may occur in 1984 and 1985 as hazardous waste facilities approach or fulfill compliance. The market will begin

to accelerate again when the abandoned hazardous waste site program is in full swing, but this growth will probably not have the magnitude of the initial impact of RCRA."

Among various waste disposal methods, revenues of unlined surface impoundments and unsecured land disposal are expected to drop over the decade, 5.5 percent and 23 percent, respectively. Other modes are projected to record increases: incineration (16 percent), secured landfill (19 percent), deep well injection (18 percent), treatment (24 percent), recovery (24 percent) and burial (eight percent).

Ironically, waste management firms may not be able to keep up with the volume of wastes, Frost & Sullivan said. An unfortunate result of this lack of capacity may be the increased use of expedient, short-term disposal techniques.

Waste Management, Inc., presently leads the field, with 1980 hazardous waste revenues of \$100 million, followed by Rollins Environmental Services at \$40 million.

For additional information, contact: Customer Service, Frost & Sullivan, Inc., 106 Fulton St., New York, NY 10038, 212-233-1080, and ask for report 883.

## SEED

## New Lofts name

Peter Loft, chairman, and Jon D. Loft, president of Lofts Pedigreed Seed, Inc., Bound Brook, N.J., have announced that the new company name is Lofts Seed Inc.

Founded by Selmer Loft in 1923, Lofts began as a family-operated business. In those days, because "pedigreed" seed was a rarity, the word was included in the company's name to highlight the lineage of its varieties.

Today the word "pedigreed" is no longer essential for educational purposes. The turf industry is well aware of the calibre and purity of Lofts seed, and is sophisticated enough to expect such quality, the company told *LAWN CARE IN-*

## DUSTRY.

Its name also reflects Lofts' dynamic evolution to a major domestic and international enterprise, the company said. In addition to its New Jersey headquarters, Lofts has five subsidiaries in as many states.

From research of new varieties, through seed production, blending, packaging and delivery, every phase of marketing is accomplished within facilities owned by Lofts.

Lofts has become a multi-million dollar operation, with exclusive rights to many varieties certified under a Plant Patent or Plant Variety Protection. One variety alone, Baron, is the world's largest selling proprietary Kentucky bluegrass, the company said.



Turf and grounds maintenance students from colleges throughout the U.S. and Canada gain first-hand experience during field day exercises at the recent 14th annual College Student Turf Seminar sponsored by Jacobsen Div. of Textron, Inc. at company headquarters in Racine, Wis. The 48 students were selected by their professors on the basis of academic achievement. Ned Brinkman (bending over), general sales manager, explains operational controls on a piece of Jacobson rolling stock.

## COST CUTTINGS

### Do-it-yourself diesel conversion kit

Lawn care businessmen who own medium-duty trucks can now convert their past model vehicles to Detroit Diesel power and realize dramatic fuel savings. At the same time, they may replace their manual transmission with an Allison Automatic AT 545 for a complete new powertrain.

Hicklin Power Company, a Detroit Diesel Allison distributor based in Des Moines, Iowa, has developed a "Pincher Package." It allows owners of gasoline-powered GMC, Chevrolet and Ford medium-duty trucks to update their vehicles with state-of-the-art, fuel-saving driveline components. Included in the package is the new Detroit Diesel 8.2 liter Fuel Pincher engine and Allison AT 545 automatic transmission.

The kits are being offered with either the 165-horsepower naturally aspirated or 205-hp turbo-charged version of the Fuel Pincher diesel alone or in combination with the Allison automatic transmission. All the necessary components are included in the package, and the engine and transmission carry the same 50,000-mile or 24-month warranty provided with new trucks.

Vern Hicklin, president, says the packages are available to participating dealers and Detroit Allison distributors as well as through the three Hicklin locations in Des Moines, Omaha, and Rock Island, Ill.

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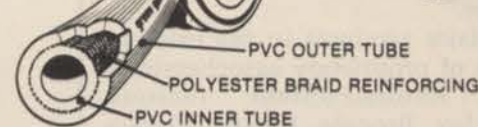
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- ECONOMICAL

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### FOUR POWER PLUS

#### EFFECTIVE:

Four Power Plus provides excellent control on a wide range of broadleaf weeds, including hard-to-kill species without repeated applications.

#### EFFICIENT:

You can apply Four Power Plus from early Spring to early Winter even when temperatures drop below 50°.

#### ECONOMICAL:

You can save up to 31% over costs of other broadleaf herbicides when using ¾ oz. per 1,000 sq. ft. applications. Contains 8 to 1 ratio of 2, 4-D to Banvel. Eliminates tank-mix risk and reduces container disposal cost.

Four Power Plus and Dursban 4-E are two of the most effective, efficient and economical products available to commercial lawn applicators, golf course superintendents and lawn maintenance personnel.

### DURSBAN\* 4-E

#### EFFECTIVE:

Dursban 4-E Insecticide controls sod webworms, chinch bugs, billbugs, ants, grubs and a host of other insects.

#### EFFICIENT:

Dursban 4-E gives you longer residual control than liquid—up to 8 weeks effectiveness.

#### ECONOMICAL:

You can save many ways using liquid Dursban 4-E. Save time, money, and energy with fewer applications of this high performance, long lasting, multiple use insecticide.

As a service to our customers Clean Crop representatives will pass along the latest information available regarding EPA rulings, government regulations and other pertinent data.

Read and follow all label instructions.

### PLUS MANY OTHERS

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Betasan 4E	Malathion 55EC
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Diazinon AG500	Amitrol II
Diazinon 5G	Weedone Super
Diazinon 14G	BK32
Four Power (4# Amine)	Cythion ULV
Four Power DP	Malathion ULV
Weedone DP	Tree & Ornamental
Betasan 12.5G and 7G	Insect Spray
	(Contains Sevinol)

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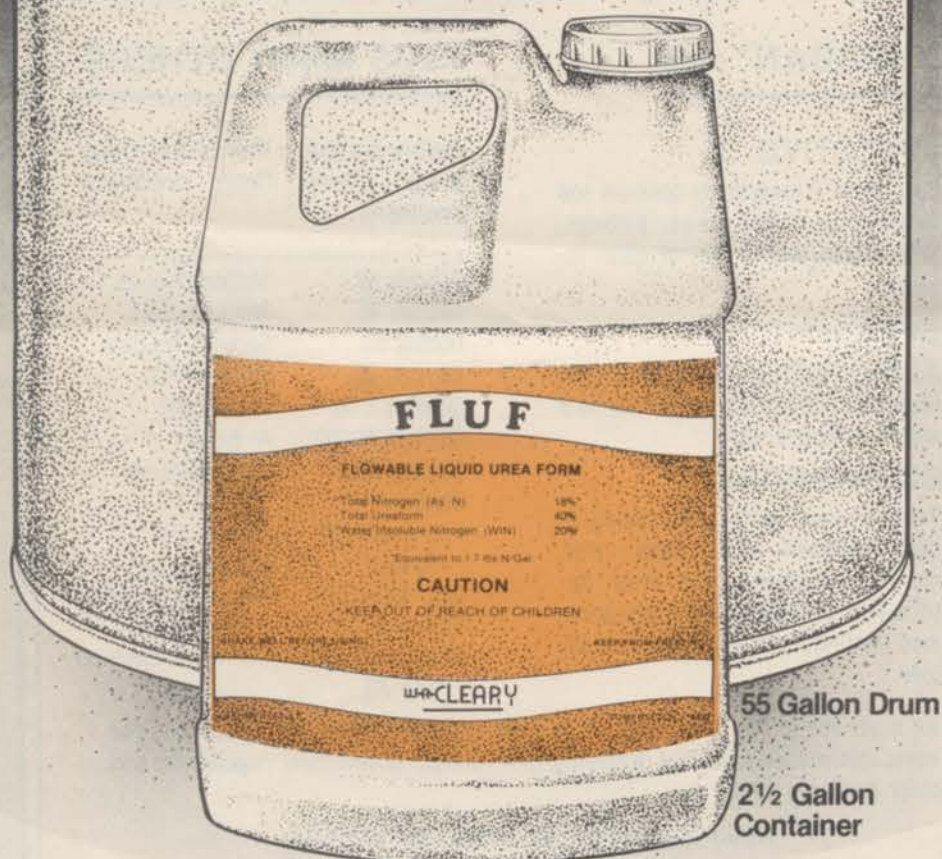
## MARKETING IDEA FILE

### Ad agencies on retainer

If your lawn care company is represented by an advertising agency, you might want to keep advertising costs under control by putting your agency on a retainer. At least that's how Joseph R. Mancuso, author of the *Small Business Survival Guide* (Prentice-Hall Inc., Englewood Cliffs, N.J., \$9.95) sees it.

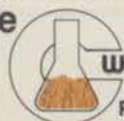
Mancuso warns that the traditional method of paying 15 percent of media costs tends to encourage agencies to step up media buys — whether or not the extra exposure is worth the expense. Instead, he suggests a monthly retainer of 10 percent more than the amount a commissioned agency would receive on an annual forecast basis. You'll pay more, but this method assures that every penny of your advertising budget goes to the best possible avenue.

## introducing Fluf®



## a true liquid suspension slow release nitrogen fertilizer.

FLUF is a very stable flowable urea form suspension formulation that provides a continuously uniform and moderately slow release of nitrogen — which means predictable performance and results. FLUF provides for an excellent summer time feeding program. When used in accordance with the label directions, it is non-burning and non-leaching. The clean, odorless and free flowing liquid FLUF provides for optimal ease in handling and application; utilizing any conventional spray method. FLUF is tank mix compatible with most fungicides and other fertilizer products.



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### FUNGICIDES

## New label allows Daconil, Tersan mix

Lawn care businessmen can now tank-mix Tersan 1991 and Daconil 2787 turf fungicides to broaden their preventive control of *Helminthosporium* leaf spot, dollar spot and brown patch.

Tersan is marketed by Du Pont Co., Wilmington, Del., and Daconil is marketed by Diamond Shamrock Corp., Cleveland.

Tom Evans, turf products specialist for Du Pont, said that the new registration was recently approved. Another new tank mix includes Tersan 1991 with Tersan LSR for control of the same disease problems.

"Wet, rainy days experienced in many areas of the nation this spring made conditions ideal for fungal activity on lawns, Evans told LAWN CARE INDUSTRY. "Lawn specialists are focusing greater attention on tank mixes like these — especially when effective help is needed against fungi strains more tolerant to individual fungicides."

Prolonged wet, overcast weather continues to encourage prolonged leaf spotting of *Helminthosporium* species, Evans said. He explained symptoms of *Helminthosporium* leaf spot, dollar spot and brown patch:

*Helminthosporium* leaf spot — Infected lawns first appear as purplish-red spots, or dull white or straw-colored spots with brown edges. "In warm to hot weather, the leaf blighting phase generally decreases and a reddish brown to black crown root rot becomes more severe. Feeder roots on diseased plants are few, shallow or even lacking," Evans said.

Dollar spot attacks virtually all turfgrasses, especially those that are irrigated. Dollar spot is usually most acute on short-cut turfgrass. Spots appear as round, somewhat sunken areas from an inch to 2½ inches in diameter — about the size of a silver dollar. On longer-cut turfgrass, infection centers are often as large as four to eight

inches in diameter.

Most commonly grown turfgrasses are susceptible to brown patch, Evans said. On closely mowed turf, this disease normally appears first as roughly circular areas of light brown grass. They will vary from a few inches to two or three feet in diameter. The edges normally take on a grayish-black color, commonly called a "smoke" ring. On higher-cut turf, diseased patches are light brown, two to 50 feet in diameter and nearly circular in shape.

Evans said under the new registration if all three diseases are problems, one ounce of Tersan 1991 should be applied with three to six ounces of Daconil 2787 flowable (or two to four ounces of Daconil 2787 — 75 percent wettable powder) per 1,000 square feet. He said it is necessary to make the initial applications when conditions favor disease development, and to repeat the treatment on seven-to-10-day intervals as needed.

In the second tank mix now available for the same disease control, one ounce of Tersan 1991 plus three to four ounces of Tersan LSR in three to five gallons of water should be applied to each 1,000 square feet of turfgrass area to be treated. Where disease conditions are highly favorable, shorter seven-day intervals are recommended between applications.

### COMPANIES

#### Estech shortens name

Estech, Inc. has been selected as the new corporate name for the fertilizer business of Esmark, Inc., according to Edward B. Vrablik, Estech president.

The company, formerly Estech General Chemicals Corp., manufactures and markets ParEx and IBDU fertilizers for turf use.

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By Dr. William Daniel and  
Dr. Ray Freeborg

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This essential reference book covers:

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- nutrition
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- uses of turf
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## PRODUCTS

### Undergrowth falls with new flail mower

The Rover Flail Mower from Rover Mowers is designed for professional use in the lawn care industry and cuts rough undergrowth under the toughest conditions safely. The Rover Flail is a self-propelled, walk-behind unit, equipped with an 11 horsepower engine, five-speed transmission, and disc brakes. Ideal for institu-



tional and municipal use, parks, and large turf areas.

Weighing only 396 pounds, the Rover Flail is equipped with a Briggs & Stratton four stroke, single cylinder, vertical shaft engine, operates at a maximum angle of 15 degrees, and will cut at a width of 29 and three-quarters inches. The 80 flails are made of hardened tempered steel, sharpened on both edges.

Circle No. 140 on Reader Inquiry Card

### Discharge system collects from rear

A new trail mounted pick up system has been introduced by the Gilson Brothers Company for its 38 inch rear discharge lawn tractors. Booster fans built into the tractor's mower speed slippings into the collector. And because of its compactness, with no protruding side chutes, this tractor/collector combination makes trimming, maneuvering and storing a lot easier.

The Gilson model 62534 Collector carries loads of up to five full



bushels. It offers fast, easy unloading without lifting. Operators simply pull out two sliding bottom discharge doors to release collected clippings.

Circle No. 141 on Reader Inquiry Card

### Lawn care computer

Continental Software, Inc. has announced the availability of its Lawn Care Business System (LCBS) for the Apple II computers. It is now possible for a lawn care firm to automate most office procedures for less than \$9,000. The Apple II version is based on the IBM 5120 design.

The Lawn Care Business System was designed and developed by lawn care professionals and was adapted to the Apple computer to take advantage of that unit's low cost. Purchase prices on equipment start at \$4,200. The LCBS programs start at \$4,500.

Some of the functions provided by the LCBS are invoicing, route management, accounts receivable, accounts payable, general ledger, production analysis, sales and customer activity analysis and word processing.

Circle No. 142 on Reader Inquiry Card

### New chain saw is a high climber

The new Professional Model High Limb Chain Saw, CS-48, from Green Mountain Products, is capable of reaching and cutting those impossible to reach large size tree limbs. Whether you use it for seasonal pruning or to gather firewood from high places, simply swing safety weight (supplied



with saw) up and over the limb.

The chain blade, having cutters that face and cut in opposite direction, automatically positions itself and even under-cuts the tree bark to prevent peeling. The new Pro Model comes equipped with a four foot Bimatic blade and hand straps for extra comfort and sells for \$38.95; as compared with the older model CS-18 which has a two foot blade and sells for \$21.95.

Circle No. 143 on Reader Inquiry Card



### SAFE - EFFECTIVE NO DRIFT HERBICIDE APPLICATOR

Roller flattens leaves to deposit chemicals over greater leaf surface for better kill with no drift onto shrubs. For info write to:

**VANDERMOLLEN CORP.**

119 Dorsa Ave. — Livingston, N.J. 07039

Circle No. 130 on Reader Inquiry Card

### Power plastics used in the string trimmer

The Fibers and Plastics Company of Allied Chemical Corporation has announced that it has developed a wide range of different Nylon 6 formulations, including filled and reinforced compounds, specifically to meet the critical



demands of power tool users.

A special leaf blower attachment

for Homelite's new ST100 and ST200 string trimmer is made from a new 35 percent mineral-reinforced CAPRON formulation. This material is the only mineral-reinforced CAPRON formulation available in a complete range of colors.

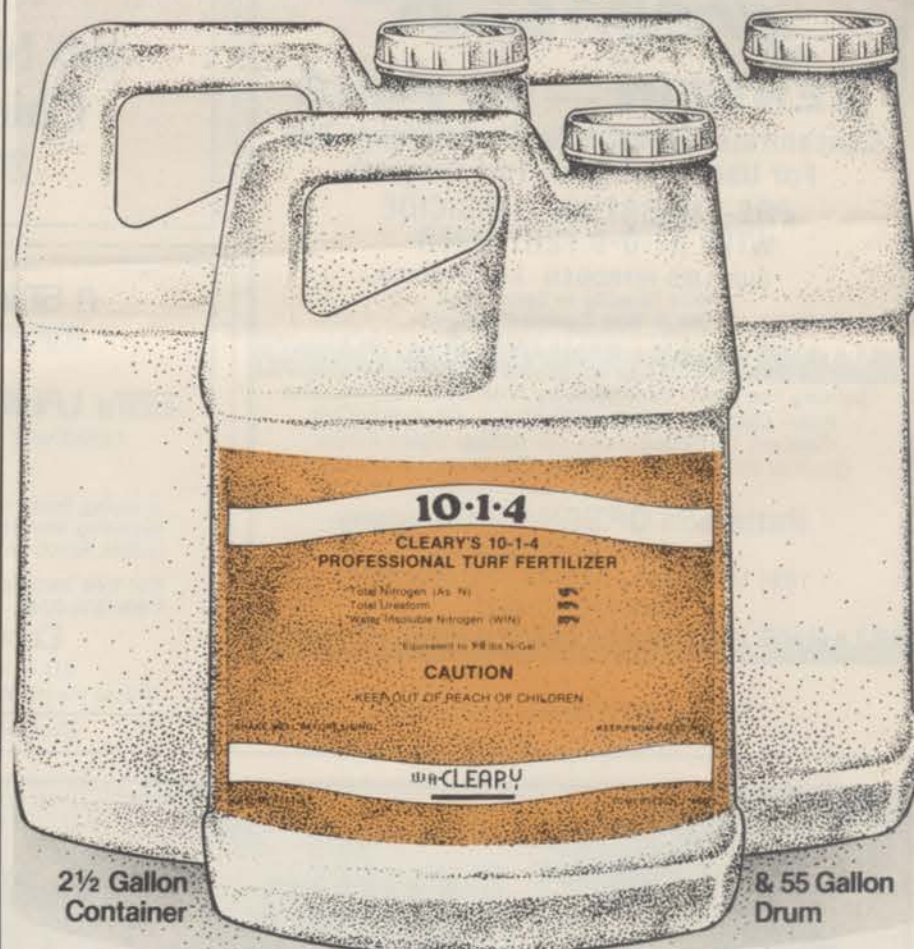
Circle No. 144 on Reader Inquiry Card

### EPA grants implants amended label for use

ACECAP Systemic Insecticide Implants have been granted an amended label for use of ornamental trees by the Federal Environmental Protection Agency, according to the manufacturer, Creative Sales, Inc., Fremont, Nebraska.

The basis of the amended label includes a substantially higher concentration of active ingredient, an expanded number of insect

## the systems concept...



### in fertilizer. for your specific turf care needs.

10-1-4 utilizes FLUF to provide the slow release nitrogen necessary for good turf growth and, in addition, contains a balanced ration of phosphorous and nitrogen. Now the knowledgeable turfgrass manager can create his own fertilizer system by using 10-1-4 with other fertilizer products. 10-1-4 is tank mix compatible with all of the Cleary fertilizers as well as many other fertilizer products providing an infinite number of fertilizer mix combinations.



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Circle No. 107 on Reader Inquiry Card



pests and host trees, and an extension of treatment sites.

According to Warren D. Wolfe, president of Creative Sales, Inc., the utilization of 97 percent Acephate facilitates the use of much smaller cartridge implant. The tiny 3/8 inch diameter tree implants, containing the encapsulated ORTHENE concentrate, are designed to be implanted directly into the tree's vascular system without need for measuring, mixing or spraying of chemicals.

Circle No. 145 on Reader Inquiry Card

## Change pickup to dumper in minutes

A portable, electro-hydraulic body that mounts in pickup truck beds using existing frame body mounts is available from Philmont Steel Products for use in the lawn care industry. The system allows the pickup user to dump up to two

cubic yards of material.

Removable or re-insertable in just minutes, the unit is made of 14 gauge steel, has a four-way tailgate and lifts to a 45 degree angle to facilitate fast, clean dumping. Important Dump-It advantages are: reduction in loading and unloading time; maneuverability in traf-



fic and at narrow or low overhead sites; reduction in capital expenditure by eliminating high traditional dump truck costs; energy savings due to pickup mileage versus notoriously low dump truck mileage and investment

protection since Dump-It absorbs damage, thus increasing pickup's trade-in value.

Circle No. 146 on Reader Inquiry Card

## Fittings catalog serves as well chart

A unique new catalog, published by Lasco Industries, illustrates at a glance this manufacturer's complete line of PVC fittings used in turf irrigation. The catalog opens to a three-page spread filled with large photos of representative Schedule 40 and Schedule 80 fittings.

It can serve as a wall chart for quick reference. Brief copy across the top of the page provides size ranges, specifications and approval data, as well as additional technical publications available. Also listed is Lasco's nationwide network of regional warehouses.

The full-color photos show the wide range of tees, ells, crosses, unions, adapters, bushings, cou-

plings, caps, plugs and flanges for both threaded and solvent welded connections. These are available in standard sizes from 1/2 inch through eight inches. Pipe nipples, also shown are available up to 24 inches in length and in sizes to four inches.

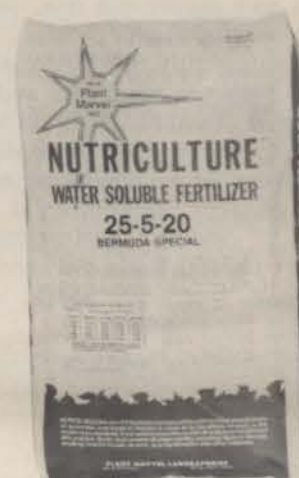
One page is devoted to the firm's unique lines of Schedule 80 slip reducing tees and Lasco-O-Tite fittings. Lasco's complete size range of heavy-duty reducing tees eliminates the cost of bushings and extra installation labor.

Circle No. 147 on Reader Inquiry Card

## Formula for total bermudagrass feeding

Plant Marvel Laboratories, Inc., has introduced Bermuda Special, a Nutriculture formula designed specifically for Bermuda grasses.

Plant Marvel's Bermuda Special (25-5-20), when used weekly, is formulated to replace the 5.5 pounds of potash that Bermuda grasses remove annually from each 1000 square feet of soil. With each application a quarter pound



of nitrogen is added to the soil along with other vital minor elements, and there need be no fear of burning. Bermuda Special also contains an effective blue dye for tracer purposes.

Bermuda Special is shipped in 25 pound poly-bags as a highly concentrated powder. Being 100 percent water soluble it has been designed for injectors, power sprayers, proportioners and can be used in conjunction with your regular spray program. This Nutriculture formula is compatible with fungicides, herbicides, and insecticides.

Circle No. 148 on Reader Inquiry Card

## New soil activator brings life to turf

Nitron Formula A-35 is a successful new soil activator from Agri-Zyme Inc. which gives the lawn care businessman the answer to mellowing hard-pan and clay type soils. Nitron's unique enzyme formula revitalizes and improves the soil's ecology by unbinding locked-up nutrients in the soil.

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# READER SERVICE INFORMATION CARD 10-81 2

For more information on products or services mentioned in this issue, circle the corresponding numbers below, fill in appropriate information and mail today.

101	108	115	122	129	136	143	150	157	164	171	178	185	192	199	206	213	220	227	234
102	109	116	123	130	137	144	151	158	165	172	179	186	193	200	207	214	221	228	235
103	110	117	124	131	138	145	152	159	166	173	180	187	194	201	208	215	222	229	236
104	111	118	125	132	139	146	153	160	167	174	181	188	195	202	209	216	223	230	237
105	112	119	126	133	140	147	154	161	168	175	182	189	196	203	210	217	224	231	238
106	113	120	127	134	141	148	155	162	169	176	183	190	197	204	211	218	225	232	239
107	114	121	128	135	142	149	156	163	170	177	184	191	198	205	212	219	226	233	240

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### A. CONTRACTOR OR SERVICES:

☐ Lawn care service business involved primarily with fertilization, weed, and insect control.

#### Please specify method of application:

10 ☐ Liquid 11 ☐ Dry 12 ☐ Both

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 30 ☐ Landscape contractor/lawn service company  
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 50 ☐ Pest control/lawn service company  
 60 ☐ Irrigation contractor/lawn service company

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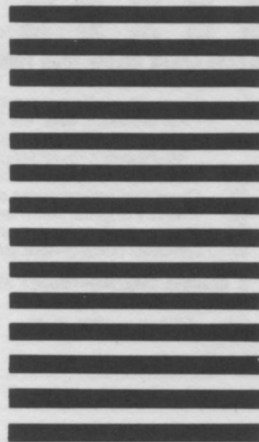
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**GET  
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A recent article in *The Oakland Press*, written by reporter Diana Dillaber, began this way:

"Peter Cluthe, a Bloomfield Township resident, has spent a frustrating year trying to get something done to ensure his children and others in his subdivision are not harmed by the chemicals used to create beautifully landscaped lawns.

EPA officials contacted

"What he's learned is that the insecticide chemicals, Dursban and Diazinon, and the herbicides 2,4-D, Banvel D, MCPP and Dacthal, most commonly used by lawn care companies, can be harmful, especially to young children if they play on the grass while the chemicals are still wet."

The article continued: "While the EPA recommends that children and pets be kept off the grass after these chemicals are used, the agency does not require any method of seeing that the recommendation is followed."

Cluthe was quoted as saying: "We're not after stopping the spraying. All we want is a sign in the back and front of the lawn that will tell my wife and four kids it has been sprayed so they won't go on the grass."

Neighbors could warn other neighbors that their lawn has been sprayed, Cluthe said, but many times the chemical spraying truck does the job while the homeowner is away, leaving only a doorknob sign to be found later — probably after the grass is dry.

Cluthe has contacted EPA officials, who say children should be kept off newly sprayed lawns.

Acute poisoning rare

In a letter to Cluthe, Peter M. McGrath of EPA's Hazard Evaluation Division wrote: "The herbicides you mention can cause severe skin irritation and the insecticides could conceivably cause acute poisoning. Such incidents are probably rare, however, if they occur at all, because the disagreeable chemical odor would normally discourage both children and pets from rolling in the grass in such a way that they would get a dose sufficient to cause poisoning."

Cluthe presented the problem to his neighbors in the Fox Hills Community Association. Members there were concerned enough to write an official request to Bloomfield Township Supervisor Homer Case to pass an ordinance which requires applicators to post treated properties. Case, in turn, wrote a letter to all lawn servicing companies which serve the area, requesting they post treated properties. He asked for immediate cooperation, the article said, and added he would notify EPA officials if applicators did not fulfill the obligation.

The manager of the lawn care companies in the area, who preferred not to have his company named in this article, told the newspaper that applicators from his company always notify the homeowner to keep children and pets off the lawn by putting an invoice with directions on the doorknob.

"If we see children on the lawn,"

**"Until the government mandates we post signs, we will continue to spray with limits and notify our customers."**

he told the newspaper, "we tell them to leave before we spray. If they won't we tell their parents. If there is a dog on the lawn when we come to spray, we won't spray. We'll leave a note asking that the dog be taken inside."

He said his company is very careful to apply the recommended dose of the chemicals and that most of the time the lawn takes only an hour to dry. It would be time-consuming and costly, he said, to put up signs and then come back and get them for every lawn sprayed. He was quoted as saying: "Until the government mandates we post signs, we will continue to spray within limits and notify our customers."

In the article, Robert Kirkpatrick, supervisor of the Michigan Department of Agriculture's Pesticide Agricultural Products Registration, said although he empathized with parents who wanted the signs put up, that there was little danger as long as the lawn care companies were using the required mixture of chemicals. If signs were required, Kirkpatrick said, "it would be almost non-controllable, unless someone followed every applicator around."

The best plan, he told the newspaper, would be for neighbors to get together and make the posting a stipulation in their agreement with the companies. "That would be much simpler and would save

taxpayer's money," he said. "They can tell the company 'we won't hire you unless you do it.'"

Cluthe told the newspaper that if nothing changes, he may try to find a legislator who will take up the battle for him.

RUSSELL from page 1

sents more than 800 firms who develop, grow and market seed for lawns, food, flowers, trees and shrubs.

Russell is active in the New York State Turfgrass Association and also acts as secretary-treasurer of the Lawn Institute, a post which he has held for 12 years. He also served as the president of the Atlantic Seedman's Association, working extensively on lawn seed legislative matters, and has authored several articles on marketing, labeling and other aspects of the seed industry.

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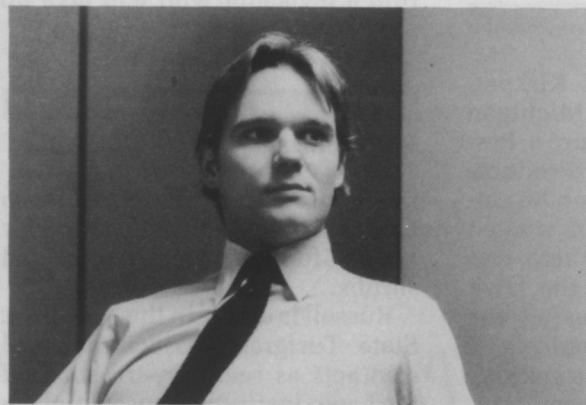


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## MEMOS



## A fly in the ointment

The Mediterranean fruit fly drama that has aroused fears of economic disaster and environmental destruction in California is in a sense only one battle — and one that leaves the lawn care industry heavily implicated — in a wider legal and political war over the use of

pesticides on a nationwide basis.

The war pits the chemical companies that sell pesticides and those that use them to kill weeds and insects against environmentalists who want stricter controls on the sale and use of pesticides.

The Environmental Protection Agency has said that malathion, the insecticide being used to eradicate the Medfly, is a low-risk chemical pesticide. Dr. Jack D. Early, president of the National Agricultural Chemical Association, has said that certain pesticides have become whipping boys in the hands of some environmentalists. Speaking of DDT, banned for agricultural use in the U.S., he said, "Personally, I don't think anything went wrong with it. The ban was a socio-political decision, not a scientific one."

Because of the lack of certainty concerning the long-term effects of many pesticides, environmentalists and state regulatory agencies may succeed in curbing the use of pesticides that cause cancer in laboratory animals and

tighten the controls on others.

What is certain, however, is that the California fruit crop — and the lawn care industry — cannot survive without reliance on some pesticides. Integrated Pest Management and other non-chemical alternatives can supplement, but never replace, the use of some of these indispensable chemicals. The current extent of Medfly damage in California bears this out.

Governor Brown could have made all this clear from the start. Instead, in the interest of political expediency, he chose to duck the responsibility in favor of balancing the economic and health dangers to the community. And since the health dangers were never very real, he has succeeded in tipping the scales toward a very real economic fiasco.

*Paul She. Chokey*

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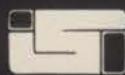
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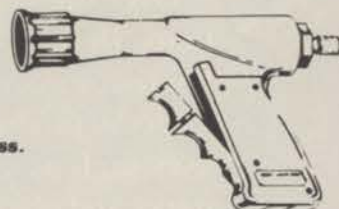
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