

New bluegrass cultivar released for production

Merit Kentucky Bluegrass has been released to International Seeds Inc., Halsey, Ore. for production and marketing on a world-wide basis according to company president, J.L. Carnes.

I.S.I. products manager Harry Stalford said that Merit produces a uniform, dark green, dense turf of high quality that in tests has performed equal to or better than some of the well-known varieties. Merit was also recently approved for inclusion on the OECD approved cultivar list.

The seed is licensed for sale in Canada as Regent Kentucky Bluegrass and has been tested in a variety of Canadian locations since 1972.

POWER EQUIPMENT

Rise in housing starts will boost sales in 1982

While shipments of walk-behind power mowers, lawn tractors/riding mowers, garden tractors, rotary tillers and other selected lawn and garden equipment are expected to decline in the 1980 and 1981 model years, a strong rebound is projected for the 1982-84 period.

This projection is contained in a recent 10-year outlook prepared by Chase Econometrics, Inc. for subscribing members of the Outdoor Power Equipment Institute.

The said rebound reflects the belief of most economists that the post-World War II baby boom children are approaching the nest-building stage and will be purchasing new homes from 1981-84, according to the study. However, while housing starts will improve modestly, high mortgage rates will effectively price many families out of the housing market.

In the short term, Chase predicts a 10 percent inflation rate during 1981, a significant portion of which will be in higher food prices resulting from the heat wave suffered by many areas of the Southwest, earlier this year.

Long-term projections show a

Professional Lawn Care Association of America Conference and Trade Show set for Nov. 12-14 in Louisville, Ky.

Final plans are being completed by lawn care businessman, exhibitors and staff for the first Professional Lawn Care Association of America Conference and Trade Show to be held Nov. 12-14 at the Commonwealth Convention Center in Louisville, Kentucky.

For information about attending, contact: Jane Stecker, PLCAA, Suite 1717, 435 N. Michigan Ave., Chicago, IL 60611. Or call (312)644-0828. There will also be registration at the door on all three days of the conference and show.

Exhibits manned by manufac-

turers and suppliers to the lawn care industry—with information and displays of their equipment and products — will open 8 a.m. on Wednesday, Nov. 12. Exhibits will be open for two-and-a-half days at specified times.

Speakers and topics for the three-day conference include: "One Stop, Two Sales," a seminar on selling related and unrelated services in addition to the basic lawn care program, led by Richard L. White, president of Village Green Ltd., Chicago, and Robert F. Parmley, president of Tempo 21, Inc., Wheeling, Ill.

"Is Your Business Plan Set for

1981? Here's How To Do It," a seminar on budgeting, financing the plan, monitoring cash flow, by Steve Derrick, president of Latick, Inc., Normal, Ill.

"Moving Toward the Computer," a seminar on selecting computers, vendor responsibilities, reasons for failure, management information, case history costs, work sheet exercise, by Dennis McNichol, president of Computer Applications Technology, Inc., Bethesda, Md.

"Your New Employee, Will He Represent You Well? What He Really Needs To Know," a seminar on basic training alternatives for proper field representation by the applicator, by Gordon L. Ober, vice president of Davey Lawnscape, Kent, Ohio.

"Direct Mail is the Only Way To Go," a seminar on direct mail how-to's, including cost per inquiry versus alternative media, by J. Martin Erbaugh, president of Lawnmark, Inc., Peninsula, Ohio.

"Controlled Release Nitrogen Sources for the Lawn Care Industry," a seminar on the comparison of agronomic characteristics of various controlled release nitrogen sources available to liquid and dry ap-

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continued period of slow growth in GNP through the 1980's as the economy approaches full employment in 1990. Consumer prices are expected to rise at a 6.5 percent average rate throughout the decade, while consumer expenditures as a percent of GNP will decrease slightly.

Those desiring information on subscribing to the Chase Econometric Forecasting Program should contact: Norman F. Sharp, OPEI, 1901 L Street N.W., Suite 700, Washington, D.C. 20036, 202-296-3484.

PULSE REPORTS

LCI survey charts second quarter buying

Almost 64 percent of respondents to a recent survey conducted by LAWN INDUSTRY said they spent an average of \$4,039 apiece on dry-applied turf fertilizer during the second quarter of this year — the months of April, May and June.

Almost 22 percent of the respondents said they purchased an average of \$6,628 worth of liquid-applied turf fertilizer during the same period.

Results for this second quarter Pulse Report are based upon figures submitted anonymously by 147 respondents. This represents a 35 percent response to questionnaires mailed to readers of LAWN CARE INDUSTRY market research manager Clarence Arnold.

The results in the dry-applied fertilizer category would project Second quarter buying

PRODUCT	% SAMPLE PURCHASING	AVERAGE PURCHASE	PROJECTION TO LCI READERSHIP
Dry-applied fertilizer	63.9%	\$4,039	\$25 million
Liquid-applied fertilizer	21.8	6,628	14 million
Pre-emergence herbicide	55.1	2,849	15 million
Post-emergence herbicide	49.0	3,051	14 million
Fungicide	43.5	658	2.8 million
Insecticide	49.7	2,744	13 million
Seed	55.8	2,056	11 million
Soil amendments	34.0	3,386	11 million

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QUICK STARTS

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lawn care industry, set of a continuing series of management problems they face every day. Topics for this



784844 XI COLLEGE STATION TX AM UNIV DEPT OF CROP & SOIL SCI DR JAMES BEARD PROF EDIT-478- DECEMBER 27 1980

Better disease, insect control for ornamentals

Better control of disease and damaging insects may be had with the aid of three newly-registered formulations available from Mallinckrodt, Inc., St. Louis, Mo.

Zyban®, one of two new fungicides recently introduced by the company, combines a contact fungicide, zinc and manganese complex of ethylenebis dithiocarbamate, and a systemic fungicide, thiophanatemethyl, for control of a broad range of diseases. Zyban is recommended for control of petal blight on azaleas and rhododendrons; anthracnose on dogwoods and pansy, cedar-apple rust on ornamental crabapple, volutella blight on pachysandra, and other diseases such as leaf spot, rust and powdery mildew that plague ornamentals.

Another new fungicide is Truban®5G, a new granular form of the widely-used soil drench fungicide. The five percent granular material, which has been found to be effective in ap-

plication on a host of foliage plants, should be applied at a ratio of 10 ounces of Truban5G for each cubic yard of soil, according to the manufacturer's instructions. The new product features virtual dust-free application.

Dymet® is the first insecticide formulation to be introduced by Mallinckrodt for control of insects on ornamental plants. The insecticide is labeled for control of such insects as aphids, caterpillars, mealy bugs, mites, rose chafers, leaf hoppers, thrips, armyworms, webworms, leaf skeletonizers, sawflies, lacebugs, whiteflies, cankerworms, bagworms, moths, dipterous leaf-miners and beetles on a broad range of ornamental plant materials.

Applications at the rate of 2-3 quarts per 100 gallons of water should begin at the first appearance of the insects and be repeated at intervals of seven to 14 days as needed.

For further information on any of these new formulations contact: Jacob Jost, business manager, Ornamental Products, at 314-895-5034, or write Mallinckrodt, Inc., P.O. Box 5439, St. Louis, MO 63147.

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MEMOS

Small business compensation: Could the Internal Revenue Service (IRS) decide that a given salary for a small business president is too high — and force the executive to take a pay cut? Could a bank limit a small business president's compensation package as a condition for granting a loan — and could it make the condition stick, even if sales and profit margins justify an increase?

The answer to both these questions is "yes", unless the president in question can point to comparative data on compensation practices for small business presidents which in the IRS case, for example, justifies the high salary level or, in the bank situation, supports a salary increase.

Up until recently such data was simply not available. Now for the first time, a 135-page report published by Growth Resources, Inc., a Peabody-Mass. management consulting firm, surveys executive compensation levels and practices in manufacturing, technology and service companies in the \$250,000 to \$20 million in sales range.

Included in the report is comparative information on salaries, bonuses, total compensation, company cars, medical payments, club memberships, deferred income and ownership levels. For the first time in any executive compensation study, officer salaries are pegged to company profitability.

There is also data on: How small companies design management jobs; executive positions customary in various types of smaller businesses; executive stock options; and how the IRS determines what is or is not reasonable compensation.

The report is designed to assist presidents in daily management practices and in making critical decisions about their compensation packages and those of key subordinate officers. It is particularly useful as support data to bring a board of directors or financial institution, says Richard J. Bronstein, president of Growth Resources.

The report is available from: Growth Resources, 1 Newbury St., Peabody, MA 01960.

Nine-digit zips: Mail marketers are not sure bigger means better when it comes to expanding the familiar Zip code to nine digits from five next year.

Tinkering with Mr. Zip has, some observers suggest, put mailers right back where they were in 1963 when the Zip system was first rolled out: Suspicious and wary.

"I just think it's another boondoggle," J.A. Epstein told Advertising Age recently. He is president of Mailmen, Inc., Hauppauge, N.Y., and chairman of a major mailer association, the Association of Third Class Mail Users.

But the potentials for pinpointing targets — one side of a city block may qualify for a nine-digit Zip number — have generated optimists as well. Michael McSweeney, senior vice president of Metromail, a major mailing list house based in Lombard, Ill., said: "In years to come, both for the Postal Service and for marketers, the nine-digit Zip code has to be a tremendous boon."

Whatever doubts mailers have, the Postal Service sees the nine-digit Zip code — created by adding four digits to existing Zip numbers — as a logical next step in automation.

The nation's 36,000 Zip codes will each have 10,000 new sub-units. That is a total of 19 million nine-digit codes, one for every six households and businesses in the country.

Population grows in South and West: The South and West accounted for 86 percent of the U.S. population growth in the past decade, according to U.S. Census Department figures. Further census figures indicate that these two regions will account for 77 percent of the U.S. population growth in the next decade.

States reporting the highest rate of growth include Florida (27.1 percent), Arizona (27 percent), Colorado (20.8 percent), Nevada (20.8 percent), Alaska (19.2 percent), Utah (18.9 percent) Idaho (18.8 percent), New Mexico (17.4 percent), Texas (16.3 percent), and Wyoming (16.2 percent).

July housing starts up: The federal Commerce Department said starts of new, private housing rose 4.8 percent in July after a sharp 33.3 percent rebound in June. But at a seasonally adjusted rate of 1,266,000 units, the level of starts for July was still 28.2 percent below a year earlier. The department said permits for new housing construction rose 15 percent in July, an indication that the two-month-old recovery will continue for at least another month. But several housing experts said rising mortgage rates, which already exceed 13 percent in some areas, could make it one of the shortest recoveries on record.



DERBY

Turf-type Perennial Ryegrass

Was the Grass Good Enough for the Super Bowl and Rose Bowl

Derby is the turf-type Perennial Ryegrass that does all things well. That's why it was chosen to form the turf at Super Bowl XIII and Super Bowl IX as well as the 1980 Rose Bowl game.

Derby was a logical choice because it was tough enough to take a pounding and yet remain handsome enough for the piercing eyes of the television cameras.

Yet Derby is also the perennial ryegrass that thrives when cut consistently to 3/16th inch on golf putting greens or at either 1 inch or 1 1/2 inches for general turf use, such as home lawns, parks and playgrounds.

A disease-resistant variety, Derby will germinate in a week or less under ideal conditions. It responds rapidly to fertilization and mixes well with other fine-bladed grasses.

Derby is also the top choice for the overseeding of dormant Bermuda grass in the Southern U.S.

Here's what you can expect from Derby Perennial Ryegrass

- Germinates in a week or less under ideal conditions
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- Thrives when cut to 1 inch, 1 1/2 inches or 3/16th for specialized uses
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- Responds rapidly to fertilization
- Never, never needs pampering
- Mixes nicely with other turf-type grasses
- Is a disease-resistant variety

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readership projection of \$13 million.

In the tree insecticide category, 45.6 percent of the respondents said they purchased an average of \$1,452 worth of product, for a readership projection of \$6.4 million.

In the turf seed category, 55.8 percent of the respondents said they purchased an average of \$2,056 worth of product, for a readership projection of \$11 million.

In the sod category, 44.2 percent of the respondents said they purchased an average of \$2,873 worth of product, for a readership projection of \$12 million.

In the tree fertilizer category, 34.7 percent of the respondents said they purchased an average of \$654 worth of product, for a readership projection of \$2.2 million.

In the tree category, 44.9 percent of the readers said they purchased an average of \$9,591

worth of product, for a readership projection of \$42 million.

In the ornamentals category, 48.3 percent of the respondents said they purchased an average of \$13,883 worth of product, for a readership projection of \$65 million.

In the soil amendments category, 34 percent of the respondents said they purchased an average of \$3,386 worth of product, for a readership projection of \$11 million.

In the less-than-10-h.p. tractor category, 4.76 percent of the readers said they purchased an average of \$3,671 worth of product, for a readership projection of \$1.7 million.

In the 10-to-20-h.p. tractor category, 8.16 percent of the readers said they purchased an average of \$4,257 worth of product, for a readership projection of \$3.4 million.

In the 21-to-30-h.p. tractor category, 4.76 percent of the readers said they purchased an average

of \$3,727 worth of product, for a readership projection of \$1.7 million.

In the 31-to-50-h.p. tractor category, 4.76 percent of the readers said they purchased an average of \$10,476 worth of product, for a readership projection of \$4.8 million.

In the larger-than-50-h.p. tractor category, 2.72 percent of the respondents said they purchased an average of \$20,744 worth of product, for a readership projection of \$5.5 million.

In the rotary self-propelled mower category, 27.9 percent of the respondents said they purchased an average of \$1,962 worth of product, for a readership projection of \$5.3 million.

In the reel self-propelled mower category, 3.4 percent of the respondents said they purchased an average of \$9,199 worth of product, for a readership projection of \$3 million.

In the rotary tractor-drawn mower category, 2.04 percent of

the respondents said they purchased an average of \$6,428 worth of product, for a readership projection of \$1.2 million.

In the reel tractor-drawn mower category, 2.04 percent of the respondents said they purchased an average of \$508 worth of product, for a readership projection of \$100,000.

In the flail tractor-drawn mower category, 1.36 percent of the respondents said they purchased an average of \$776 worth of product, for a readership projection of \$100,000.

In the irrigation pump category, 10.2 percent of the respondents said they purchased an average of \$1,151 worth of product, for a readership projection of \$1.1 million.

In the irrigation sprinkler category, 23.8 percent of the respondents said they purchased an average of \$2,007 worth of product, for a readership projection of \$4.6 million.

In the irrigation pipe category, 17.7 percent of the respondents said they purchased an average of \$1,317 worth of product, for a readership projection of \$2.3 million.

In the irrigation controls category, 10.9 percent of the respondents said they purchased an average of \$1,197 worth of product, for a readership projection of \$1.3 million.

REFERENCES

Tech guides outline EPA waste regulations

J. J. Keller & Associates Inc., International Technical Publishers, has announced the release of two new hazardous waste management guides to provide companies with all the information they need to comply with the EPA's "Resource, Conservation and Recovery Act," which deals with the proper handling and disposal of hazardous wastes.

The *Hazardous Waste Management Guide* gives companies a total overview of their responsibility in the proper handling of hazardous wastes. In a simple, easy-to-use format, it gives them a complete management compliance program for identifying, monitoring, treating and disposing of hazardous wastes as defined by the RCRA and administered by the EPA. Special sections list all related EPA regulations, state regulations and single-source reference materials.

The *Hazardous Waste Services Directory* provides vital information on firms involved with hazardous waste disposal problems. Included in this essential directory are listings for haulers of hazardous wastes, processors, disposal sites, laboratory facilities and consulting services. All information is listed alphabetically by state, city and name of firm.

The 600-page directory is available at a cost of \$49.00 each. Cost for the 800-page waste management guide is \$69.00 per copy. Optional supplementation is available for both manuals.

For further information contact: J.J. Keller & Assoc. Inc., 145 W. Wisconsin Avenue, Neenah, WI 54956, 1-800-558-5011.

When Dave Portz renovated 14 fairways with Roundup®, the members played the same day he sprayed.



Dave Portz
Grounds Superintendent
Brookside Country Club
Mecungie, Pa.

Cleaning up a weedy fairway doesn't have to be a slow, messy job for you—or a hardship for your golfers.

Roundup® herbicide helps make renovation fast and efficient—as Grounds Superintendent Dave Portz discovered last year.

"If we had chosen to plow the course under, we would've had to close it," Dave says. Instead, he applied Roundup on 14 weedy fairways, and reopened the course the same day. While Roundup worked, the members played over the dying turf, with no problems.

The members—and Dave—liked that. They were glad, too, that Roundup won't wash, leach or volatilize to injure desirable plants along the fairway. Dave simply took precautions against spray drift.

This year, reach for Roundup to control many tough weeds. It can make turf renovation fast and efficient for you—and leave a lot more playing time for your golfers.

For literature, call 1-800-621-5800, or in Illinois, 1-800-972-5858.



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LAWN CARE INDUSTRY

Just fill in card...all items must be completed before inquiries can be processed.
Check one box in each category

- 1** Check one that best describes your business:
Lawn care service business involved primarily with fertilization, weed and insect control:
- 10 Liquid 11 Dry 12 Both
 - 13 Priming/mowing/maintenance service
 - 14 Landscape Contractor/Lawn Service Co.
 - 15 Pest Control/Lawn Service Co.
 - 16 Nursery or Garden Center/Lawn Service Co.
 - 17 Private or Public estate
 - 18 School, College, University, Hospital
 - 19 Industrial Park or similar facility
 - 20 Governmental buildings or military facility
 - 24 Cemetery or memorial gardens
 - 25 Dealer or Distributor
 - 26 Other _____
- 2** Check one which best describes your buying responsibility:
- 21 Purchase
 - 22 Specify or recommend purchase
- 3** If your business sells its services to homeowners, commercial or industrial accounts please answer the following:
- 3A/ Estimated gross annual receipts from lawn service operations in current year:**
- 31 Up to \$50,000
 - 32 \$50,000 to \$150,000
 - 33 \$150,000 to \$500,000
 - 34 \$500,000 to \$750,000
 - 35 \$750,000 to \$1,000,000
 - 36 Other _____
- 3B/ Approximate # accounts serving in current calendar year:**
- 37 Up to 100
 - 38 100 to 500
 - 39 500 to 2,500
 - 40 2,500 to 5,000
 - 41 5,000 to 10,000
 - 42 Other _____
- 4** If you are a grounds care manager (not selling lawn care services) estimate the following:
- 51 # acres you're responsible for _____ acres
 - 52 Annual expenditures for: _____
 - 53 Fertilizers \$ _____
 - 54 Equipment \$ _____
 - 55 Irrigation \$ _____
 - 56 Plant Materials \$ _____

91	First Initial	Middle Initial	Last Name
92	Your Title		
93	Company Name		
94	Mail To:		
95	City	State	Zip Code
96	Phone: Area Code	No.:	
97	Signature:	Date	

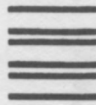
Address shown is:
 Business
 Home
 No

- 5** For more information about products displayed in this issue, print the reader service card for the spaces provided below and check out 'A', 'B', 'C', or 'D' for specific information needed:
- 61 Need Catalog literature
 - 62 Need more price info
 - 63 Interest in Purchasing
 - 64 Have specific problem - have salesman call.

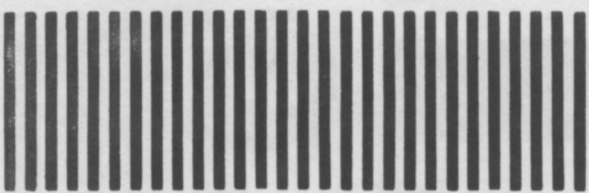
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435 N. Michigan Ave.
Chicago, Illinois 60611
312-644-0828

PLCAA from page 1

plicators, by Dr. Charles H. Darrah III, senior research agronomist, ChamLawn Corp., Columbus, Ohio.

"How To Pay Your Applicator," a seminar on company strategies to satisfy federal Wage and Hour requirements, by attorney Richard Lehr, Birmingham, Ala.

"Issues You Can't Avoid in the '80's," a seminar on legal liabilities, pesticide problems, collections, labor, government regulations, and safety, by Jerry Faulring, president of Hydro Lawn, Inc., Gaithersburg, Md.

"Pesticide Usage in the '80's," a seminar on challenges and problems facing the lawn care industry, by Dr. Roger C. Funk, Davey Tree Expert Co. and Davey Lawnscapes, Kent, Ohio.

"Expansion: Ways, When, Where," a seminar on market analysis, timing and means of branching, splitting, acquisitions, hybrids, by Doug Baker, executive vice president, Leisure Lawn, Inc., Dayton, Ohio.

"Advertising Media: Take

Your Pick," a seminar on how-to's, costs and experience on television, radio, newspaper, direct mail, outdoor and other forms of lawn care advertising, by Bob Earley, editor of LAWN CARE INDUSTRY.

At press time, exhibitors included: Mobay Chemical Corp., Kansas City, Kansas; International Spike, Inc., Lexington, Ky.; American Pelletizing Corp., Des Moines, Iowa; The Andersons, Maumee, Ohio; International Seeds, Inc., Halsey, Ore.; USS Agrichemicals, Atlanta, Ga.; Lofts-Kellogg Seed, Inc., Milwaukee; Encap Products Co., Mount Prospect, Ill.; FMC Corp., Agricultural Machinery Div., Jonesboro, Ark.

Also: Torco Equipment Co., Louisville; Rhone-Poulenc, Inc., Monmouth Junction, N.J.; Ashland Chemical Co., Columbus, Ohio; Echo, Inc., Northbrook, Ill.; Diamond Shamrock Corp., Cleveland, Ohio; Monsanto Agricultural Products Co., St. Louis; Du Pont Co., Wilmington, Del.; O.M. Scott & Sons, Marysville, Ohio; Boots-

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MEDIA

PLCAA stresses need for fall lawn program

As part of its continuing campaign to promote the necessary and vital services provided to the consumer by professional lawn care companies, the Professional Lawn Care Association of America recently distributed an informative press release to select suburban newspapers across the country, as well as consumer magazines and wire services.

The release, which attempts to promote the industry by stressing the importance of a fall maintenance program for home lawns and the role of the professional lawn care company in this type of program, starts off by making the following pitch:

Mark this down on your calendar: Fall is the best time to

prepare for a beautiful lawn next summer, according to the Professional Lawn Care Association of America.

The release then goes on to explain some of the most important reasons for consumers to begin such a fall treatment and maintenance program for their lawns.

- September is the best month to reseed an existing lawn or start a new one with cool season grasses, since fall will allow several months of ideal plant development weather before the stresses of summer, as opposed to spring planting which permits only a month or two of good growing conditions before hot, dry weather arrives.

- The lawn's root system is the key to success, and lawn care professionals are able to maximize root development by applying approximately two thirds of a lawn's annual nutritional requirements during fall and win-

ter months, and only one third the rest of the year.

- Research in the last 10 years has demonstrated clearly that root system development occurs readily in the winter. For these root systems to develop correctly, adequate amounts of nitrogen, phosphorous and potassium must be present in the soil, with December and January being the ideal months to fertilize.

- Fall is an excellent time for weed control, especially for the broadleaf weeds, which grow most actively during October and November. Applying herbicides during these two months will therefore provide the most effective control of broadleaf weeds.

The closing paragraphs are an effective call to action, again stressing the importance of subscribing to a professional lawn care service, and including a "hot line" number where interested consumers can get in touch

with a local member of the PLCAA.

To sum it up, quality lawns need considerable attending during the time when many people think a lawn is dormant. Fall is the time for action. Many who want a beautiful lawn next year, without the work and anxiety that go with "do-it-yourself" lawn treatments, call in a professional lawn care firm. Their people are trained to do a professional job. No one has all the answers, but a professional lawn care firm concentrates time and effort in learning the most up-to-date techniques of developing a beautiful lawn—and then applying those techniques. Its personnel continually update their technical knowledge by attending educational seminars and workshops. Members of the Professional Lawn Care Association of America subscribe standards of business practice.

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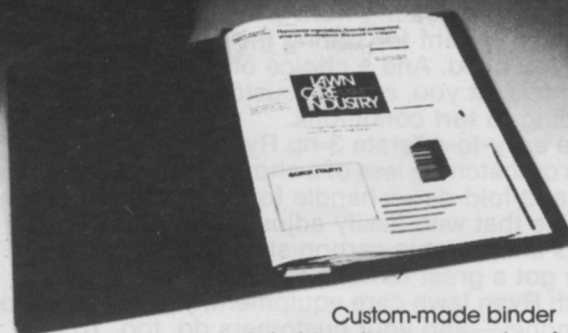
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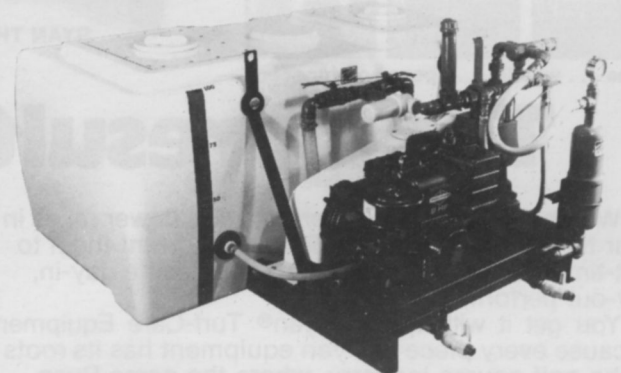
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PLCAA from page 5

Hercules Agrochemical Co., Wilmington, Del.; Estech General Chemicals Corp., Winter Haven, Fla.; CLC Labs, Inc., Columbus, Ohio.

Also: Lakeshore Equipment & Supply Co., Elyria, Ohio; Northrup-King Co., Minneapolis; Stauffer Chemical Co., Westport, Conn.; Lebanon Chemical Corp., Danville, Ill.; W.A. Cleary Chemical Corp., Somerset, N.J.; Heimerdinger, Inc.; TUCO Div. of Upjohn Co., Kalamazoo, Mich.; Dow Chemical Co., Midland, Mich.; Professional Turf Specialties, Inc., Normal, Ill.; LAWN CARE INDUSTRY magazine; and National Fertilizer Solutions Association. This is a partial list that was available at press time, more companies are still being processed for attendance.

Registration was \$30 for members until Sept. 15 and \$35 each after Sept. 15. For non PLCAA members, registration was \$45

before Sept. 15, and \$50 each after Sept. 15.

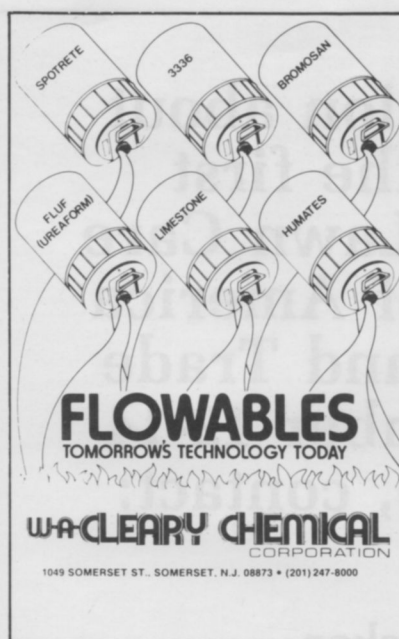
Following is a preview of what some exhibitors at the PLCAA Convention and Trade Show will be exhibiting in their booths Nov. 12-14.

PLCAA PREVIEW

W.A. Cleary to offer complete lawn line

W.A. Cleary Chemical Corp. has been in the pesticide business for ornamental turf mainly for golf courses since 1946. It has a complete line of fungicides, insecticides and specialty chemicals to take care of all the needs of the lawn care businessman.

The latest development of Cleary is a revolutionary process (patent pending) for the production of Flowable Liquid Urea-Form, called FLUF. It is a



microcrystalline dispersion of soluble and water insoluble slow release reacted urea.

This product and the company's complete line will be exhibited at the Professional Lawn Care Association of America

Conference and Trade Show Nov. 12-14 in Louisville.

Cleary has developed a unique flowable technology which now permits them to produce stable flowable fungicides such as systemic 3336-F, Spotrete-F and Bromosan-F. It has enlarged its technology to include such specialties as Sulfur-F, Limestone-F and Turfgro (flowable humates).

The Limestone-F should be of particular interest to the lawn care industry because it is a smooth submicron dispersion of dolomitic limestone (six pounds per gallon) which when sprayed on a lawn gives instant pH adjustment.

The flowables are convenient and safe to use, the company said. They are more effective and more economical than wettable powders.

Many other interesting products fill out the line of the company. Trugreen for example is a solution of chelated iron, magnesium, potash and trace elements, everything necessary to promote chlorophyll production.

There is also an acidulator-chelating agent to be used in localities where the water source is alkaline. There is an efficient silicon defoamer available, and a 100 percent active wetting agent, as well as a powerful latex sticker which is non-phytotoxic to prevent transpiration or to hold fungicides and herbicides on the grass blade despite pending rain.

Finally, there will be a valuable piece of literature available at the Cleary booth which details the art of tank mixing chemicals without incurring phytotoxicity and still get more effective broad spectrum control of pests.

"Stop in and talk to our experts and learn about some new concepts which will enable you to perform more efficiently in your lawn care business," company president Barbara Cleary said.

PLCAA PREVIEW

Du Pont to premier lawn care movie

Lawn care professionals visiting the Du Pont exhibit at the Professional Lawn Care Association of America Conference and Trade Show Nov. 12-14 in Louisville will have the opportunity to talk about lawn diseases and their control with Tersan fungicides.

Attendees will also see the premier showing of an educational movie on residential lawn care. Since diseases and their control are a relatively weak link in an otherwise strong chain of service and performance by lawn care companies,



Du Pont believes the new film will be a useful training and business building aid for the 1981 lawn care season.

Beautified lawns. Satisfied customers.



Thins . . . weeds . . . opens soil for seeds.

That's results from Ryan.

Whether you use your aerators and power rakes in your turf maintenance business, or you rent them to first-time users, you're looking for the same day-in, day-out performance.

You get it with quality Ryan® Turf-Care Equipment. Because every piece of Ryan equipment has its roots in the golf course industry, where the name Ryan has stood for quality since 1948. And we build the same precision and accuracy into our lawn aerators and power rakes.

The self-propelled Lawnaire® III, for example, makes it easy to aerate like a pro. Just fill the ballast drum with water to add up to 50 pounds of weight, and get up to 2½" of penetration. The 19-inch width of the Lawnaire III Aerator helps you make quick work of big lawns, with 30 spoon tines penetrating the turf every 7 inches. Transporting the Lawnaire III is quick and easy, too, with the optional Tote Trailer.

The gutsy 7-hp Ryan Ren-O-Thin® IV and economical 5-hp Ren-O-Thin III Power Rakes handle those big dethatching jobs with a wide 18" swath.

Both feature a floating front axle and micro-screw height adjustment for setting the proper dethatching depth you need. And a choice of three optional blade reels let you, or your customers, dethatch according to turf conditions.

The easy-to-operate 3-hp Ryan Thin-N-Thatch™ makes dethatching less of a chore. It has a 15" cutting width and fold-down handle for easy transportation. Combine that with easily adjustable cutting heights and durable carbon steel flail blades and you've got a great rental machine.

With Ryan lawn care equipment, you get more for your money—and your customers do, too. To discover how easy it is to get professional results with Ryan, contact your local Ryan dealer.

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PLCAA PREVIEW

N-K offers variety of turf seed mixes

Northrup King Co., Minneapolis, will have information about a variety of its turf seed mixes available to the lawn care businessman at its booth at the Professional Lawn Care Association of America Conference and Trade Show Nov. 12-14 in Louisville.

Among the Northrup King products are: General Turf Mix — economical for large general use areas where a utility turf is acceptable; Premier Turf Mix — for areas requiring superior results produced by elite grasses. Lawn care businessman installing new lawns, residential and commercial developments, will benefit from this disease-resistant mixture.

Also, Swift & Sure — designed for seeding and overseeding turf areas that require the vitality of grasses with improved disease resistance. Fast establishment and fine texture are highlighted.

Shady Turf — for problem areas with low light intensity, utilizing best shade tolerant varieties.

Landscape Pro Mix — designed with the professional landscaper in mind, for adaptability and quality under a wide range of conditions. For initial establishment of turf areas where management and environmental conditions are variable.

Overseeder II — high performance improved strains of Kentucky bluegrass and fine-leaved perennial ryegrasses combine to make this mixture a favorite for upgrading sparse turf areas. Exceptional establishment vigor and superior disease resistance.

Medalist North — two leading fine-leaved perennial ryegrasses produce quick, quality results for seeding in problem areas where fast establishment is particularly critical. The addition of elite bluegrasses makes this a particularly good mixture for high-traffic areas where long-term quality is desired. A very clean mowing, disease-tolerant mixture.

PLCAA PREVIEW

Lyons to exhibit turf test kit

The Lyons Turf Test Kit will be exhibited at the Professional Lawn Care Association of America Conference and Trade Show Nov. 12-14 in Louisville.

Bill Lyons said: "As a businessman, you cannot rely on guesses to sell your services. With our turf test kit you can demonstrate the spot to the customer. It instills confidence in your service.

"A lawn care businessman is sometimes in a guessing game much like a fisherman who is

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guessing which lure to use. True, it is an educated guess based on past experiences, becoming more accurate with repetition. But, what about those tough ones when the right answer does not come easily? What about daily records to look back on? Remember last June 28 when the weather was perfect? The sun was brilliant, and soil and surface temperatures soared, causing root failure and a loss of turf early in the lawn care season.

"With the help of many leading turf specialists we have edited a Turf Manager's Daily Score Card. It is simple, yet very complete. It takes only minutes to pencil in the data. 200 of these are furnished, loose-leaf in a good binder.

"Arriving on the job ahead of the crew, the turf manager begins filling out the daily turf and weather report. First, check off the five phases of weather forecast for the day. Next, fill in the three phases of the previous



day's and night's weather. High and low temperatures, and high and low humidities. These might just be right for leaf spot if cool and wet, on some grasses, or red thread on others. If the night's temperature and humidity added up total more than 150, look out for pythium.

"Was the rainfall for the past week less than one inch? If so, advise those customers who have available irrigation water to turn it on and soak to one inch or more. For goodwill, how about furnishing the customer with a rain gauge like the one in the test kit?

"Was there a lot of dew this

morning? Did the plant throw off a lot of nitrates? The Nitrate Dew Test is quite simple. Show your customers how to recycle that nitrated dew if they have a sprinkler system. Just five minutes will send the nitrate back to the roots to be recycled.

"Is the soil too wet to absorb liquid fertilizer? The moisture meter in the kit will tell the percentage of saturation from the surface to eight inches.

"Were you ever called to a customer's lawn because his turf turned brown? To tell him he failed to water adequately is to accuse him of being negligent. Say nothing. Show them with the moisture meter, letting the person read it himself. This is a good way to do it without insulting the person."

The kit also offers equipment to report soil temperatures, a turf disease manual, soil equipment, ways to test clippings for N-P-K analysis, equipment to test thatch and pH and more.



**No mixing,
no burning,
no hassle.**

Introducing FOLIAN®, the easy-to-use liquid fertilizer that's safe and effective on any kind of turf.

FOLIAN is a complete fertilizer. Its special formulation of N-P-K, sulfur and iron gets nutrients directly into grass tissue. And FOLIAN will not cause tip burn when used as directed.

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with fewer wasted man-hours.

A clear solution of the highest quality, FOLIAN won't settle out in your tanks. It's compatible with most pesticides, too.

Greens lawns fast

Because of its patented formulation and foliar activity, FOLIAN greens up turf quickly — faster than dry fertilizers or suspensions. And at the recommended rates, FOLIAN supplies enough residual fertilizer in the soil to keep grass green and healthy for many weeks.

Good for your business

Your customers will love the results

FOLIAN gives. And you'll appreciate FOLIAN's convenience.

Best of all, FOLIAN makes your lawn care service more valuable. It means repeat business from satisfied customers and greater confidence in you.

Give FOLIAN a try and discover how it can mean more green for both of you.

To find out more about how to get started using FOLIAN, call toll-free 800-228-2178 Omaha, Neb., 800-446-1841/800-446-1845 Hopewell, Va. or write Allied Chemical Corporation, Dept. AG, Box 2120, Houston, TX 77001.

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PLCAA PREVIEW

TUCO to exhibit insecticides, fungicides

TUCO Div. of the Upjohn Co., Kalamazoo, Mich. will be exhibiting its line of insecticides and fungicides at the Professional Lawn Care Association of America Conference and Trade Show Nov. 12-14 in Louisville.

Proxol 80 SP, an insecticide for lawns, has received label approval for reduced rates in the control of cutworms, sod webworms and armyworms. The new low application rate is 1-1/2 ounces of Proxol per 1,000 square feet.



This reduced rate of applying Proxol offers the flexibility of adjusting dosage to insect population pressures. Proxol can be used at higher rates for control of white grubs, as well as cutworms, sod webworms and armyworms.

Acti-dione Thiram, RZ and TGF fungicides will also be exhibited.

PLCAA PREVIEW

Dow's Dursban label now includes billbugs

Dursban insecticides are now labeled for billbug control, according to Larry Speer, product sales manager in Dow Chemical U.S.A.'s Agricultural Products Department.

"This new labeling reflects our overall efforts to keep Dursban the lawn care professional's choice for turf care," Speer said. The addition of billbug to the labels Dursban 2E and 4E insecticides expands the number of insects controlled in turf to 15.

Dow, based in Midland, Mich., will be exhibiting at the Professional Lawn Care Association of America Conference and Trade Show Nov. 12-14 in Louisville.

Along with the control of another insect comes the an-



nouncement that Dursban insecticides can be used for perimeter treatments in programs designed to ward off invading insects.

"Add to this the fact that you use only three-quarters of an ounce of Dursban 4E per 1,000



square feet of surface treatment, and you have one of the most versatile, effective and economical insecticides on the market," he said.

Marketed in two forms as Dursban 2E and 4E (twice the strength of 2E), these insecticides have been favorites among lawn

care businessmen. Speer attributed this to their long residual control, cost effectiveness (about 50 cents per 1,000 square feet), and labeled broad-spectrum activity.

PLCAA PREVIEW

International Spike's tree fertilizer

Don't let fall go by without fertilizing your customer's trees, say many arborists. Trees have long been the neglected item in lawn care, says International Spike, Inc., Lexington, Ky., who will be exhibiting its Jobe's Tree and Shrub Spikes in its booth at the Professional Lawn Care Association of America Conference and Trade Show Nov. 12-14 in Louisville.

Recent emphasis on air purification provided by trees

plus their additional usefulness as noise and sight pollution barriers, have brought trees recognition for their value. Trees should be fertilized to grow strong and stay healthy, and fall is one of the times recommended.

Cold, dry winter winds steal the life blood from trees and evergreens, say many authorities, because they remove moisture that cannot be replaced from frozen soil. When you fertilize your customer's trees in fall, plant food is absorbed by the while the tree or shrub is dormant and stored in the plant. This helps prevent winter kill. Be sure to water your customer's trees and shrubs regularly all fall — or stress that your customers do so — but especially be sure they are watered thoroughly before the ground freezes. This water, plus the tree food, gives the tree a reservoir to use for

How to choose the right iron.



earlier spring growth.

A practical way to fertilize is with Jobe's Tree and Shrub Spikes, the company said. It is a single spike of fertilizer that looks similar to a railroad spike. Five of them driven into the ground around a 20-foot tree are enough for a complete season. All you do is pound them into the ground and rainwater does the rest.

Jobe's Spikes help develop the root system this fall, giving trees as well as shrubs the stamina to survive winds, rain, sleet, freeze and thaws of winter. They also give the tree an earlier start next spring because a reservoir of plant food is provided.

Give your trees the treatment they deserve. A feeding this fall will help see them through the rough winter months ahead. Jobe's Spikes make it fast and easy.

PLCAA PREVIEW

Full lawn line to be exhibited at Lakeshore booth

The first Professional Lawn Care Association of America Conference and Trade Show Nov. 12-14 in Louisville will give lawn applicators the opportunity to get the facts about a new product line from Lakeshore Equipment & Supply Co., Elyria, Ohio, home of LESCO products.

Salesman at the Lakeshore booth will be explaining the benefits and uses of LESCO sulfur-coated fertilizers with LESCOSAN. Beginning this winter, Lakeshore will make this time and money saving combination available so that lawn care companies may make controlled-release fertilizer and pre-emergence crabgrass and *Poa an-*



nua applications in one step. Applicators can also see the new LESCO Power Spreader at the show.

Lawn applicators at the PLCAA convention may also stop at the Lakeshore booth for more information about LESCO Sulfur-Coated Urea 37-0-0 and LESCO sulfur-coated fertilizers in various formulations including 24-8-15, 28-3-9 and 18-5-9.

Information on LESCO chemicals including herbicides

like Lescosan, Lescopar, LESCO A-4D, LESCO Dicamba 2,4-D and insecticides including liquid and granular diazinon and Dursban will also be available at the show.

Salesmen at the booth will have samples of various lawn care accessories to show to customers. LESCO Products carries a complete line of accessories for the lawn applicator including the patented ChemLawn gun, Syn Flex and Flow Dynamics hose, soil testers, Cyclone spreaders, LESCO poly sprayers, irrigation equipment, soil samplers, rain gear, coveralls and safety equipment.

Applicators are encouraged to inquire about Lakeshore's dating and early order programs.

PLCAA PREVIEW

Nitroform: Long-feeding, high-analysis nitrogen.

The type of nitrogen you use and how it will affect turf growth are the first considerations in using any fertilizer.

Nitroform from Boots Hercules Agrochemical Co., Wilmington, Del. is a high-analysis, organic, ureaform nitrogen (38-0-0) that is utilized by soil microorganisms. It will be exhibited in the Boots booth at the Professional Lawn Care Association of America Conference and Show Nov. 12-14 in Louisville.

Microorganisms in the soil continuously convert the ureaform to available nitrogen throughout the growing season, balancing the feeding between roots and top growth.

Nitroform is the standard of quality by which all other nitrogens are measured, the company said. Field tests with fine turf prove that when Nitroform is used as the nitrogen source in the seedbed and/or the fertilization program; a residual is established in the soil for sustained nourishment.

Use Nitroform Blue Chip for dry application. Use Nitroform Powder Blue for liquid application. Both feed plants naturally, as they need it.

PLCAA PREVIEW

Versatile Roundup for difficult weed problems

Since the introduction of Roundup herbicide in 1976, more and more farmers have turned to this versatile systemic herbicide for effective control of their most persistent labeled annual and perennial weeds.

However, a good part of this unique product's dramatic sales growth has nothing to do with farming at all — nearly one of every five gallons of Roundup is, in fact, sold for non-crop use. And lawn care and mowing/maintenance professionals have been among the quickest to find a place for the product in their weed control arsenal.

Roundup will be exhibited in the Monsanto booth at the Professional Lawn Care Association of America Conference and Trade Show Nov. 12-14 in Louisville. The company is based in St.

Choosing the right golf club is a serious matter. You need one that's just right for the shot you have to make. You should take into account the distance, wind, lie, and obstacles.

At Kubota, we feel that you should devote the same careful attention to choosing a tractor.

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And you wouldn't want to get the wrong tractor for the jobs you have to do.

Whether you take care of a golf course, an estate, a campus, a park, or do roadside maintenance, you want a tractor that's versatile. Can it handle a mid-mount mower? A gang mower? Can it move dirt? Dig a hole? Kubotas can do all these things. Every Kubota has rear PTO and a 3-point hitch that can accommodate a wide variety of implements. You don't want a tractor so specialized it can do only one job.

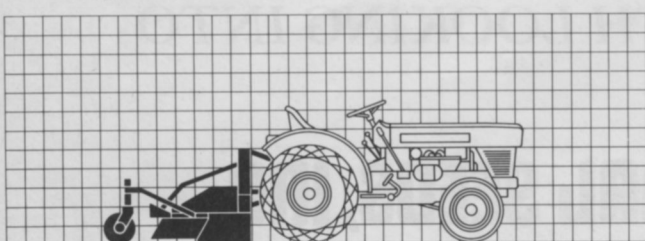
Another thing you don't want is a tractor that's too big or too small.

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Merit was also lauded for its excellent spring color in tests at several locations.

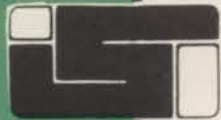
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- NE-57 TESTS IN 1972 — Overall, Merit's rating was superior to that of Pennstar, Fylking, Geronimo, Nugget, Park and Glade.
- Five-year New Jersey trial — Merit out-ranked Baron, Nugget, Kenblue, Park, Delft, Windsor and Geronimo.
- New York trial — Merit ranked above Baron, Kenblue and Park.
- Three-year Ohio trial (two locations) — Location # 1, Merit rated above Nugget, Fylking and Kenblue. Location # 2, Merit's ratings superior to Baron, Nugget, Kenblue and Fylking.
- Four-year Missouri trial — in season-long turf-quality ratings, Merit highest in a field which included Baron, Bristol, Fylking, Nugget, and Bonnieblue.

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Louis.

"Roundup is making life easier for a lot of professionals who are using the product properly to control many unwanted plants without harming surrounding vegetation," says Don Brown, product manager for Monsanto. "Thanks to its ability to translocate through the treated weed, moving from foliage to the root network, lawn care and landscape professionals can clear an area of most undesirable vegetation and prevent regrowth from roots with a single treatment of Roundup."

Brown also suggests that Roundup's lack of residual soil activity makes it ideal for use in sensitive areas.

"Roundup won't wash or leach into the root zone of surrounding plants to damage desirable vegetation," he points out. "There's no chemical carryover residue to



Richard Conrad of Conrad's Lawn Maintenance in Bloomfield, N.J. has reduced the cost of lawn renovations by 40 percent with Roundup.

limit landscaping opportunities.

"The cost savings which can be achieved with Roundup are also significant," Brown said, "since it can replace many different herbicides and make frequent repeat treatments unnecessary. The ability to provide long-term control of both emerged vegetation and underground roots makes Roundup especially economical since minimal time and labor are required for maximum effectiveness."

Conrad's Lawn Maintenance, Bloomfield, N.J., uses Roundup extensively as the first step in its total renovation procedure. Owner Richard Conrad claims the product has reduced the cost of lawn renovation by 40 percent.



"We used to strip and cart away all the grass," he said. "Now we just have to carry away five or six bushels of dead debris," he said. "This also enables us to simply vacuum the lawn."

Conrad has become so skilled in the use of Roundup he can now spot-renoate an area as small as eight inches in diameter without effecting any other part of the lawn.

"Before we started using Roundup, we had to dig a few inches to get at the roots, and even then we usually couldn't get them all," he said. "Now I'll apply Roundup rather than using a machine whenever I can."

Power rakes designed specifically for the lawn care businessman

As homeowners become more interested in having attractive, healthy lawns, they also become better-educated. For many homeowners, this process reaches the point where the customer knows what he wants and needs and therefore shops many different services until he finds one that will do the job.

Until now many services have been able to produce satisfactory results by carefully mowing and spraying. But some are now finding that in order to keep a customer from season to season, they really have to dig in and do the job right.

This can often involve power raking or aerating, or both. These two steps are often overlooked by homeowners, and all too often avoided by lawn care businessmen. However, many in the

industry say the interest in these projects is actually increasing, as determined by the increased demand for the machines at rental stores.

Equipment for the power raking or aerating tasks has been on the market for several years. Ryan, for example, markets two different sizes of power rakes which are designed specifically for the lawn care businessman.

Both the Ren-O-Thin III and



Singlehanded, you can whip fuel and labor costs with EXCEL HUSTLER pure motion at your fingertips.



To groundskeeping pros, EXCEL HUSTLER means Mower—and More—every season.

Two hydrostatic pumps transmit direct to drive wheels instantly in response to fingertip touch on twin hand levers. Dual pumps work only half as hard, last many seasons longer for added value and less downtime. But there's More: *Instant pure motion* moves the big mowers easily around trees, park benches, markers, and other mowing headaches. EXCEL HUSTLER owners mow More acres per hour, More grass per gallon, More years per mower!

The Mower delivers a super cut on fine turf or rough. Choose air-cooled 275 or 285; liquid cooled

295. Standard or heavy duty 72" rotary, 54" rotary, or 60" flail.

More turf and grounds attachments: Cultivator, Catcher/Compactor, Edger, Dozer Blade, Rotary Broom, amazingly efficient Snow Thrower. Add ROPS; enclose cab for winter comfort; Tilt-Deck Trailer for transporting.

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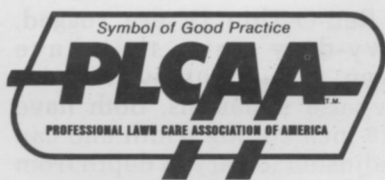


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- This will be the **first** major exhibit of the season.
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A positive approach for preventing union problems

Employees who seek to form or join a union may give their employer the business equivalent of a heart attack. Just as a heart attack or other serious problem may determine how an individual will function physically in the future, a successful unionization effort will have the analogous impact on the future functioning of a business.

Unions are in the business of interposing themselves in the management decision-making process as it affects wages, hours, benefits and general conditions of employment. Like many other businesses, a union needs continuing sources of capital to pay its officers, attorneys, accountants and other advisers, besides financing incessant efforts to organize employees in different locations. Though a union's capital may grow from investments, its financial foundation is built by collecting monthly dues from employees who have voted to join its membership list.

Unions are seeking new sources for strengthening their financial base. Traditionally, non-union "white collar" businesses and new industries have been tempting to union organizers. As members of a relatively new, prospering industry, lawn care businesses have begun to face unionization efforts.

Furthermore, ninety percent of the union elections held involve employers with fifty or less employees, which is the typical range for lawn care employers. Thus, a lawn care business may easily fit into a union's plans for organizing employees. This article focuses on the early warning signals of union activities and the programs which the lawn care employer can implement immediately to help prevent union problems from developing.

The National Labor Relations Act specifies employees' right to organize or choose a collective bargaining representative and procedures for protesting violations of those rights. According to Section 7 of the Act, employees "shall have the right to self-organization, to form, join or assist labor organizations, to bargain collectively through representatives of their own choosing...and shall also have the right to refrain from any or all of such activities," except in states which permit terms in a collective bargaining agreement requiring all employees to join the union. Employers and unions are prohibited from interfering with an employee's Section 7 rights. However, that prohibition does

not prevent the employer from vigorously and aggressively campaigning against a unionization attempt.

Early Signals of Union Activity

An employer frequently notices an effort to organize his employees when he sees an individual passing out written materials at or near the work place. The individual may be a union organizer, a new employee, a former employee or a long-term employee.

If the lawn care employer has "no solicitation, no distribution" rules prohibiting any outsider or outside organization from distributing materials on his property, he should then ask any stranger passing out leaflets to stand off company property. If the individual is an employee, his solicitation is limited to non-work areas during nonworking hours, including lunch breaks and coffee breaks.

If the no solicitation, no distribution rules have been posted and solicitation is begun by an employee or a stranger, the next step is to get a copy of whatever materials are being distributed. This will identify the particular union, which enables the employer to request information from the Department of Labor and labor news services concerning that union's constitution, rules, assets, salaries, history of work stoppages and criminal convictions of union officers and union employees.

The employer is also informed of union activity when he receives notification from the National Labor Relations Board (NLRB) that his employees have filed a petition for a representation election. This notification is a step beyond the initial union campaign of solicitation and passing out materials. If an employer is unaware of union activity before being notified by the NLRB, it usually means that his employees are already deeply involved in union activity. Therefore, it is a bad sign for the employer to first learn of union organizational efforts when notified by the NLRB.

Alternatively, an employer may be notified of union activity through either a letter demanding that he negotiate with the union, or the presentation by union supporters of dual purpose authorization cards signed by his employees. These cards state that the employees have authorized the union to serve as their bargaining representative. The cards also demonstrate to the NLRB that enough

employees are interested in the union to warrant an election.

Under no circumstances should an employer or any supervisor begin to negotiate with the union or handle and examine these authorization cards. If the authorization cards are signed by a majority of the employees, reviewing them may lead to recognizing the union voluntarily. The employer has the right to a secret ballot election, and he should not jeopardize that right by reviewing the authorization cards or negotiating in response to a written demand.

Once the individual representative and union are identified, the lawn care employer should seek the assistance of counsel for responding to this activity, NLRB proceedings and initiation of a campaign. When some employers see the first step of distributing handbills or receive a letter demanding recognition, they overreact by either disciplining the employees involved or by making threatening statements. It is imperative that the lawn care employer remain calm, quiet and consistent until he has spoken to his counsel.

Though the union has had a head start and may initially have substantial support from the employees, the issue is not decided until after the employer runs a positive, aggressive campaign. The initial gap closes considerably and the majority of times results in an employer victory.

NLRB Procedure

If the employer does not recognize the union voluntarily, the NLRB will begin to investigate jurisdictional prerequisites to holding an election. The NLRB will also determine the appropriate "unit" for the representation election. A unit consists of employees who share a community of interest according to responsibilities, location, work hours, supervision and other factors. For example, in certain situations maintenance employees may be a separate unit from production employees or drivers.

An employer should seek the unit which is practical in the business sense. Then, strategic decisions for expanding or contracting the unit to establish a unit of pro-employer workers should be considered. If a lawn care employer's clerical workers claim to be an appropriate unit, he would decide whether it is practical for that unit to include other employees and whether

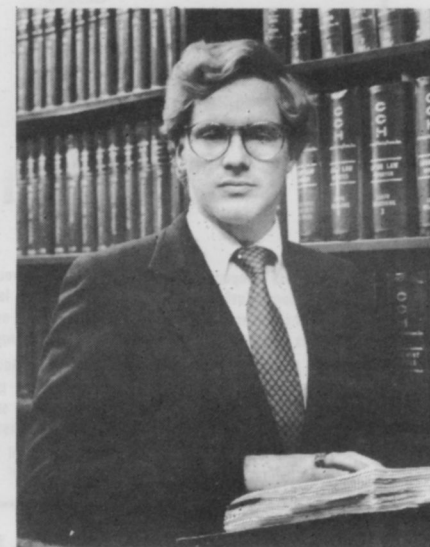
such an expanded unit would add votes for defeating the union.

From these procedural and jurisdictional requirements, the parties commence campaigning, usually for thirty to forty-five days. If the union receives a majority of the votes, it is certified as the collective bargaining representative. At that point, if there are no objections pertaining to the election and no further legal proceedings, the employer may have to begin a collective bargaining relationship with the union.

In certain respects, unions have unfair advantages over employers. For example, unions have had a head start in their organizational campaign. However, unions are notorious front runners. They need to have only thirty percent of the authorization cards signed before requesting an NLRB election (though as a practical matter, they wait until they have at least fifty percent).

Initial union advantages frequently dissipate after the employer begins campaigning. In recent years, unions have lost more elections than they have won. Employees are not fully aware of the implications of selecting a union representative until the employer presents his side of the case, which includes explaining union dues requirements, emphasizing that collective bargaining does not mean an employer must reach an agreement with the union, explaining the reality of strikes and discussing the union constitution, structure, and disciplinary procedures, including the union's right to fine union members.

These efforts to defeat un-



Attorney Richard I. Lehr has written several articles for *LAWN CARE INDUSTRY*, dealing with various labor relations topics that concern lawn care businessmen.

ionization by discrediting the union are an important part of electioneering. However, the lawn care employer should consider initiating preventive policies to keep unions out before reaching the stage where a particular union needs to be discredited.

A successful union prevention program is based on positive, pro-company communication with employees. This prevention program does not focus on unions. Instead, the program emphasizes the positive aspects of working for the lawn care employer.

The Positive Approach

Implementing the following elements of a pro-company approach will contribute to either keeping a union out or defeating a union if it tries to organize lawn care employees:

- Employees should know that the lawn care employer is sincerely committed to making a union unnecessary. This commitment emphasizes working together as a company to prosper, initiate programs and resolve disputes. Communicating the lack of necessity for union efforts gives the lawn care employer an earlier start in developing company loyalty among his employees. Some employers fear that this open discussion about unions will suggest unionization to employees; in fact, that has not been true.

- Salaries and benefits are im-

A successful union prevention program is based on positive, pro-company communication with employees. This program emphasizes the positive aspects of working for the lawn care employer.

portant issues, particularly if employees are not paid a wage similar to those in other chemical application industries, such as pest or termite control. Equally significant is favoritism in compensation, which gnaws at employee morale. Salary differences should be based on the objective factors of merit, productivity or seniority, but not favoritism. Employees compare pay stubs; a union will promise a pay system which eliminates favoritism and replaces it with an objective scale.

- Employees most frequently seek a collective bargaining representative because they feel that the employer has neglected them personally. The employer has not been available to hear grievances or complaints and appears not to care about employees as individuals. Therefore, employees need an individual or individuals whom they can speak with about grievances and complaints.

The procedure does not have to be formal; it does not require written grievances or an arbitration system. The employees sim-

ply need to feel that the individual hearing their complaints is fair, impartial and will promptly respond to their request, such as within 24 hours.

- A positive employee-supervisor relationship is essential to making a union unnecessary. Just as our impressions of a department store are based on the interactions we have had with individual salespeople, employees' attitudes about the lawn care employer will depend on how they have been treated by their supervisors. If supervisors are not fair, candid and attentive to employee needs, then employees will not be company supporters when asked to vote in a union election.

Successful union campaigns depend on the ability of the supervisor to have one-on-one contact with each employee about the lack of need for a union. If the supervisor is not respected or trusted by the employees, then the lawn care employer lacks a major tool for persuading employees to vote against the union.

- Employees today generally project poor morale and a low feeling of self-worth. Many employees feel that they are replaceable, repairable and unimportant as individuals. To begin reversing this negative mindset, lawn care employers should let employees know about their essential contributions to the overall success of the lawn care business.

If employees know that their efforts make a difference and their hard work is appreciated,

they will be more loyal to the lawn care employer. Compare that with an environment where the employee feels that the employer is indifferent about him. In that situation, the employer cannot rationally expect an employee to be loyal to the company if a union organizational effort begins.

- If an employee does something extraordinary, recognize that with a small bonus. The combination of the recognition, money and attention expressed to an employee in that situation is worth more dollars in the future by either inspiring greater employee productivity or by reinforcing that employee's company loyalty. If a bonus is awarded, the supervisor should make the presentation. Too often, supervisors are perceived as carriers of bad news, such as discipline or layoffs. A supervisor who gives a bonus will contribute to good relations with those employees.

Conclusion

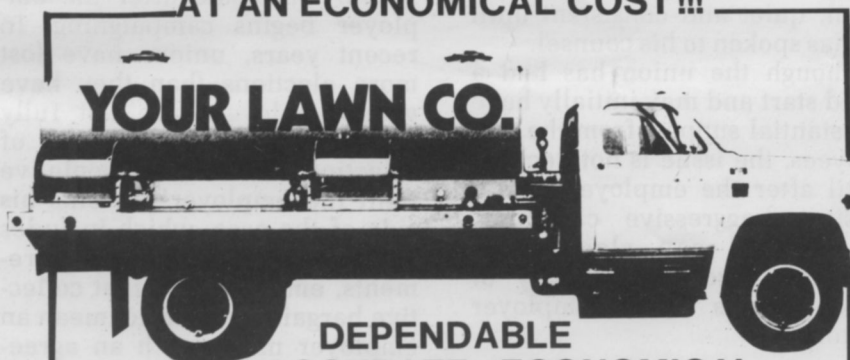
The lawn care employer's campaign to prevent unionization should be a constant, pro-company effort. Preventive measures will increase the employee's loyalty toward their lawn care employer and will reduce the possibility of union troubles.

Lawn care employers who feel healthy by the absence of union problems should not ignore the steps which would prevent future union problems from arising. It is imprudent to wait for a major medical problem before individuals attempt to improve their physical condition. Likewise, it is imprudent for lawn care employers, in a new and prospering industry, to wait for a union problem to develop before initiating those programs which will appeal to employees and make a union unnecessary.

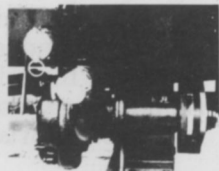
—Richard I. Lehr

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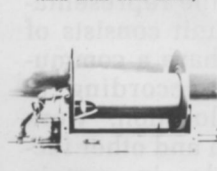
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COST CUTTINGS

Unreasonable executive compensation

Continual pressure by the federal Internal Revenue Service indicates a closely held corporation such as a lawn care business can deduct what it pays to its executive owners in salary and bonuses as long as it is reasonable.

The same holds true for what the company pays a spouse or other relatives who work in the company. But a low rate of compensation for one family member cannot be used to justify a more than reasonable payment to another as was proved in the case of a trucking company where a husband and wife owned the majority of stock.

The husband performed the duties of general manager, sales manager and traffic manager and was paid \$77,000 in compensation, \$65,000 of which was in bonus. His wife acted as bookkeeper and other various office functions and received \$4,000 in compensation. The government claimed that \$48,000 was a reasonable compensation for the husband. In court the couple argued that they worked as a team and what the husband received should be treated as compensation for both.

The Fifth Circuit Court of Appeals ruled against, saying that compensation received by the husband was payment for services rendered solely by him and he could not take his wife's salary into account. This case points out that if relatives work in the company they should be paid what they are worth, it was reported in *Small Business Report*. To receive this report, write: 497 Lighthouse Ave., Monterey, CA 93940.

NEWSMAKERS

James R. Wilson is president of **Chemical Lawn Spraying**, Huntsville, Ala. Darrell Lingerfelt is sales manager and Pat Campbell is secretary-treasurer. The company offers chemical lawn care and tree service.

Irwin Hodel is president of **Spring-Green Lawn Care**, Peoria, Ill. The franchise company offers liquid chemical lawn care. The home office of the franchise is Plainfield, Ill.

William K. Wampler is president of **Perf-A-Lawn of Michiana**, LaPorte, Ind. His associates are Don Parker and Joe Kaczmarek. The company offers liquid chemical lawn care.

Russel J. Frith, vice president of marketing for **Lawn Doctor, Inc.**, Matawan, N.J. has been appointed to the corporation's board of directors, it was announced recently by Tony Giordano, company president. The company also announced that Mary Lou Salamone has been promoted to manager of marketing coordination.

Mark Foree has been named advertising and promotion manager for **Excel Industries, Inc.**, Hesston, Kans. He replaces David Welfelt, who has been promoted to product manager for the Hustler line of turf and grounds equipment. Foree has been managing the company's sales in southern Kansas and Oklahoma. He will be responsible for all aspects of the corporation's media advertising, sales aids, trade show participation, etc. Foree will also take charge of sales training and the firm's newsletters.

Welfelt joined Excel in October 1978 and was named to the advertising position early last year. As product manager he is liaison between sales/marketing and product engineering — channeling feedback from the field to production, and relaying engineering developments back to marketing. He will supervise the product service department, field testing and technical manuals.

Thomas Bruns, president of **Jacobsen Div. of Textron, Inc.**, Racine, Wis., announced recently that **Mid East Power Equipment Co.**, Lexington, Ky., has been named Jacobsen's "Distributor of the Year."

Dr. Robert M. Barry, operations manager for **R.W. Collins, Inc.**, a Florida-based company with chemical lawn care and household pest control divisions, has announced the following personnel assignments: Larry Meyer, a recent **University of South Florida** graduate, and Dr. John Mangold, a recent **University of Florida** graduate, have joined the company as turf specialists in the St. Petersburg branch. Craig Thornally, a recent graduate of the **University of Georgia**, has joined the company as turf specialist in the Indiana Harbour Beach (Fla.) branch.

Tru Green Corp., East Lansing, Mich., has announced the promotion of Emmett Hannon to branch manager of its Cleveland West operation. Prior to this appointment, he had served the

company in various capacities in the Novi, Mich. branch. The company has also announced the promotion of Keith Krueger to branch manager of its Milwaukee operation. Prior to this appointment, he had served the company in various capacities in the Flint, Mich. and Minneapolis markets.

Jack Bruns, former golf course superintendent at Youngstown Country Club, has been hired as product development manager for irrigation at **Lakeshore Equipment & Supply Co.**, Elyria, Ohio. A 1966 horticulture graduate of **Iowa State University**, he specialized in turfgrass management and arboriculture.

Robert Henshaw has joined the management staff of the **B. Hayman Co.**, Santa Fe Springs,

Calif., as vice president and general manager. According to company president C.R. McMicken, Henshaw will directly supervise the sales, service and parts departments, and will act as his principle executive assistant in the management of the company.

Robert A. Moore, president of **Aquatrols Corp. of America**, Pennsauken, N.J. announces that Jerry Curtice of **Hort Services, Inc.**, a Manufacturers representative for Aquatrols on the West Coast, is now representing the company in Texas, Missouri, Louisiana, Oklahoma and Arkansas as well.

Dr. Garry Seitz has left **ChemLawn Corp.**, in Boynton Beach, Fla. and started his own lawn care company, **Green Pastures**, in Atlanta.

James A. Mau is president of **Lawn Pride, Inc.**, Hudson, Ohio. Scott Mau is vice president and associates are David Robbins

and Thomas Jagusch. The company offers both liquid and granular chemical lawn care.

Kenneth L. Crane is owner of **Spray-A-Lawn**, Saginaw, Mich. The company offers liquid chemical lawn care, and is part of a franchise operation based in Cincinnati, Ohio.

Richard M. Duddy and Jeanne M. Duddy are co-owners of **Lawn King of Roanoke**, Va. The company offers both liquid and granular chemical lawn care, and is part of a franchise based in Fairfield, N.J.

Ray Morse is owner of **Lawn Medic of Huntington, Inc.**, Huntington, W. Va. The company offers both liquid and chemical lawn care, and is part of a franchise company based in Bergen, N.Y.

James J. Rossis is owner/manager of **Top's Lawn Care**, Naperville, Ill. The company offers both liquid and granular chemical lawn care.

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The GREENER Kentucky Bluegrass

Proper pesticide application for effective greenbug control

by Dr. Harry Niemczyk, OARDC, Wooster, Ohio

The greenbug, *Schizaphis graminum* (Rondani), is not a new pest. It has been responsible for injury to a number of grassy plants, including barley, oats, wheat and sorghum, since it was first discovered in the U.S. in 1882. Significant damage occurs annually in Texas and Oklahoma and occasionally as far north as Minnesota.

Perennial bluegrass is known to be a host of this aphid, but prior to 1970 the aphid rarely caused damage to turfgrasses. The reports of damage to Kentucky bluegrass in Illinois (WTT, October 1978) and recent occurrences in Indiana (Indianapolis), Missouri (St. Louis),

and Kansas (Kansas City), indicate a new association with turfgrasses. This association suggests that a new biotype has evolved which prefers perennial bluegrass over other host plants.

Life history unknown. Despite the fact that the life history as a pest of grain plants is well known, its association with turfgrass has never been studied. A key question is, "How do infestations originate on home lawns?" One theory is that the annual spring influx of aphids from Texas or Oklahoma on southerly winds is the source. While it is known that greenbugs are carried north on such winds and probably do establish on home



Clockwise from top left: Photos show turf damage caused by greenbugs. While infestations frequently occur in shaded areas under trees, open areas are also affected, often severely enough to require resodding or reseeding. Bottom left photo shows how greenbugs use their piercing-sucking mouthparts (stylets) to penetrate the leaf surface and seek out the sap of the phloem.

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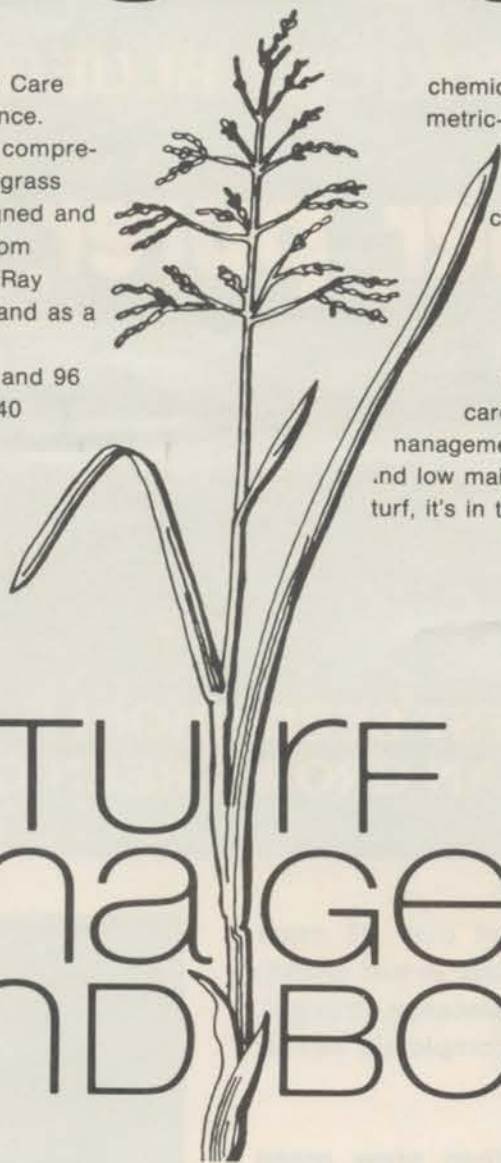
The book contains 150 illustrations and 96 color photographs. Data includes 240 tables and forms. Included are specifications for rootzones, employment, calculations for

chemical applications, and extensive metric-imperial conversion. Business

and technical aspects of turfgrass management are covered in this 424-page book.

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lawns, it seems at least highly unlikely that such migrants could reinfest the same Ohio home lawns year after year while others nearby are not infested.

A more plausible explanation is that some of the aphid population overwinters, probably in the egg stage. This theory is supported by two facts: (1) up to eight egg-laying females per square foot were collected from infested lawns in Columbus, Dayton, Cincinnati and Toledo, during October-December 1979; (2) greenbug nymphs (young aphids) were collected from some of these lawns April 1, 1980, long before migrants from the south are due. Our ability to deal with this pest now and in the future requires that its life cycle on turfgrass be known.

Damage. The greenbug damages grasses in several ways. With piercing-sucking mouth parts it pierces the grass blade and sucks out the sap of the phloem. This feeding by large numbers of aphids (4,000 per square foot is quite common) seriously weakens plants. In addition, the greenbug secretes a salivary substance which it injects into the plant as it feeds. This substance (phytotoxin) causes the tissue to die, giving damaged plants a burnt-orange color. There is a strong possibility that the phytotoxin is translocated within the plant and may weaken the root system.

Occurrence in Ohio. Greenbug damage to Kentucky bluegrass in Ohio was first reported by lawn care firms on a few home lawns in Dayton, Ohio in 1973. Infestations were seen in shaded areas under trees but were also noted in open locations. Infested bluegrass turned a characteristic yellow to burnt-orange color. If left uncontrolled, grass in infested areas was killed.

Since 1973, the incidence of infestation and damage from this aphid has increased steadily until it is presently considered a major pest of home lawns in Dayton, Cincinnati, Columbus and certain areas of Toledo. Infestations now commonly occur in boulevards and turf islands of parking lots, with and without shaded areas. These areas and many home lawns become reinfested annually. Some have been

TOOLS, TIPS & TECHNIQUES

Tree spray coverage

How much spray does it take to cover a certain size tree?

The question sounds simple enough but researchers at the Davey Tree Expert Co. Technical Center in Kent, Ohio could not find the answer in any reference books. Therefore, a field test was designed using 30 small, medium and large trees ranging from 11 to 65 feet tall, a 14-16 size disc and 450 pounds pressure. Applications were made from three sides to provide excellent coverage and sprayed to the point of runoff.

As reported in the *Davey Bulletin*, by measuring the soil area under the tree's canopy, the researchers found that it required an average of 25 gallons for each 1,000 square feet within the dripline. The Davey researchers feel this is important because it permits an estimate of the volume of chemical required to spray one tree or all the trees on a property, thus helping determine a price formula that could be used by anyone to price a spray job for a client.

Clockwise from top left: Close examination usually reveals 50 or more aphids on a single blade of grass. Continued feeding by thousands of aphids per square foot eventually causes leaf tissue to die. Other photos show egg, larvae and adult stages of the lady beetle (coccinellid). Active predators on the aphids, they are often found in greenbug-infested lawns.

infested as many as four years in succession.

Insecticide resistance. Initially, a single liquid application of chlorpyrifos (Dursban[®]) or diazinon apparently gave acceptable control. However, in 1978, lawn care firms reported a resurgence of greenbug populations two to three weeks after applying chlorpyrifos or malathion at 1 pound AI/Acre. Three and sometimes four applications were made to suppress the population and minimize damage. Despite these efforts, many home lawns were damaged so severely that replacement by resodding or reseeding was necessary.

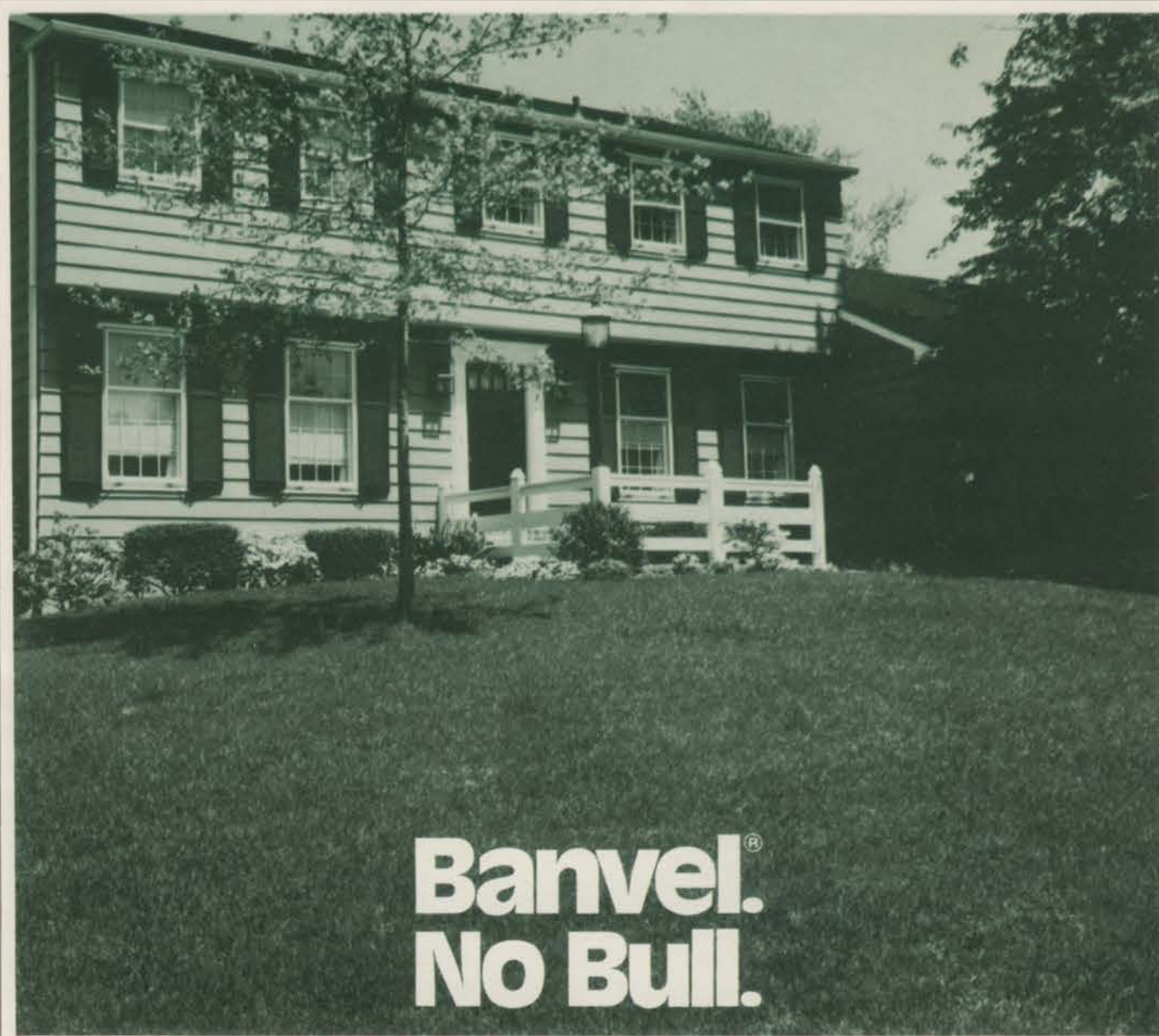
The resurgence of populations after repeated applications of chlorpyrifos, diazinon or malathion strongly indicated resistance to these organophosphate (OP) insecticides has developed. Therefore, with this assumption a "crash" program was initiated from July to November 1979 to test alternative insecticides. Funds provided by a few lawn care firms to help cover wages and travel expenses got the program started.

Tests on home lawns. Home lawns in Columbus and Dayton which had received liquid applications of either chlorpyrifos or diazinon during June or July, but were still heavily infested with greenbug, were used as test sites for two carefully selected test insecticides; acephate (Orthene[®]), a different OP, and pirimicarb (Pirimor[®]), a carbamate. Orthene[®] is a systemic insecticide of known effectiveness against other species of aphids. Pirimor[®], a translaminar material (moves across the leaf but does not move through the plant) is known to kill aphids only, leaving other insects unaffected.

Working in a cooperative research effort, applications in Columbus and Worthington were made from a Chemlawn Corp. service truck at a volume of 4 gallons per 1,000 square feet. In Dayton, similar applications were made with Leisure Lawn Corp. equipment at one gallon per 1,000 square feet. All treatments were made by an experienced operator.

Test results. In all cases,

to page 19



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MEETING DATES

Symposium on Turfgrass Insects, Sheraton-Columbus Hotel, Columbus, Ohio, Oct. 14-15. Contact: Dr. B.G. Joyner, Plant Diagnostic Labs, ChemLawn Corp., 6969 Worthington-Galena Road, Suite L, Worthington, OH 43085, 614-885-9588.

Southwest Turfgrass Association Conference, New Mexico State University, Las Cruces, N.M., October 16-17. Contact: Arden A. Baltensperger, secretary/treasurer, Southwest Turfgrass Association, New Mexico State University, P.O. Box 3-Q, Las Cruces, NM 88003.

Florida Turfgrass 28th Annual Conference & Show, University of Florida, Alachua County Fairgrounds and Hilton Hotel, Gainesville, Fla., Oct. 19-22. Contact: FT-GA Executive Office, 1520 Edgewater Drive, Suite E, Orlando, FL 32804, 305-425-1581.

Second National Irrigation Symposium, Nebraska Center for Continuing Education, University of Nebraska, Lincoln, Neb., October 20-23. Contact: Dr. Dale Heermann or Dr. Del Fangmeier, Department of Soils, Water and Engineering, University of Arizona, Tucson, AZ 85721, 602-626-1412.

Green Industry Seminar & Trade Show, Turf and Ornamental Programs, Michigan State Fair Grounds, Detroit, Mich., Oct. 21-22. Contact: Gregory Patcham, Michigan State University, Cooperative Extension Service, North Office Building, 1200 N. Telegraph, Pontiac, MI 48053, 313-858-0887.

Franchise Management Workshop, Continental Plaza, Chicago, Ill., October 22-23. Contact: International Franchise Association, 1025 Connecticut Ave., N.W., Suite 1005, Washington, D.C. 20036, 202-659-0790.

Atlantic Seedmen's Association Convention, with the meeting of the Lawn Seed Division of the American Seed Trade Association, Mills House Hotel, Charleston, S. C., Oct. 29-31. Contact: Margaret Herbst, executive secretary, Atlantic Seedmen's Association, 230 Park Avenue, New York, NY 10017.

68th Annual Grounds Management Conference & Trade Show, sponsored by the Professional Grounds Management Society, Plaza Hilton Inn, Kansas City, Mo., Nov. 2-6. Contact: PGMS, 7 Church Lane, Pikesville, MD 21208, 301-653-2742.

Design/Build Symposium, Hyatt Regency Hotel, Atlanta, Ga., Nov. 4-7. Contact: Associated Landscape Contractors of America, 1750 Old Meadow Road, McLean, VA 22102, 703-821-8611.

Franchise Management Workshop, Old Towne Holiday Inn, Alexandria, Va., Nov. 5-6. Contact: International Franchise Association, 1025 Connecticut Ave., N.W., Suite 1005, Washington, D.C. 20036, 202-659-0790.

Missouri Lawn and Turf Conference, University of Missouri, Columbia, Mo., November 5-7. Contact: Dr. John H. Dunn, professor of horticulture, 1-43 Agriculture Building, Columbia, MO 65211, 314-882-7838.

Southern Turfgrass Conference, Birmingham Hyatt House, Birmingham, Ala., November 9-12. Contact: Dr. Euel Coats, executive secretary, Southern Turfgrass Association, Drawer CP, Mississippi State State, MS 39762, 601-325-3138.

National Institute on Park and Grounds Management 10th Annual Educational Conference, Sheraton Twin Towers, Orlando, Fla., Nov. 9-13. Contact: National Institute, Box 1936, Appleton, WI 54913, 414-733-2301.

VPI & SU Golf Course Budgets Minicourse, Dulles Airport, Washington, D.C., Nov. 10-12. Contact: John R. Hall, extension specialist, VPI & SU, 426 Smyth Hall, Blacksburg, VA 24061, 703-961-5797.

National Lawn Care Business Conference, Sheraton Twin Towers, Orlando, Fla., November 10-13. Contact: Erik Madisen, Jr., Box 1936, Appleton, WI 54913, 414-733-2301.

New York State Turfgrass Association Conference & Trade Show, Rochester War Memorial and Genesee Plaza Holiday Inn, Rochester, N.Y., Nov. 11-13. Contact: Ann Reilly, executive secretary, NYSTA, 210 Cartwright Blvd., Massapequa Park, NY 11762, 516-541-9034 or 6902.

First Professional Lawn Care Association of America Convention, "Lawn Care Business Management in the 1980's," Commonwealth Convention Center, Louisville, Ky., Nov. 12-14. Contact: Glenn Bostrom, PLCAA, Suite 1717, 435 N. Michigan Ave., Chicago, IL 60611, 312-644-0828.

VPI & SU Turfgrass Insect Minicourse, Dulles Airport, Washington, D.C., Nov. 12-14. Contact: John R. Hall, extension specialist, VPI & SU, 426 Smyth Hall, Blacksburg, VA 24061, 703-961-5797.

VPI & SU Landscape Management Minicourse, Turfgrass Research Center, Blacksburg, Va., Nov. 17-19. Contact: John R. Hall, extension specialist, VPI & SU, 426 Smyth Hall, Blacksburg, VA 24061, 703-961-5797.

VPI & SU Turfgrass Herbicide Minicourse, Turfgrass Research Center, Blacksburg, Va., Nov. 19-21. Contact: John R. Hall, extension specialist, VPI & SU, 426 Smyth Hall, Blacksburg, VA 24061, 703-961-5797.

Maintenance Symposium, Washington Plaza, Seattle, Wash., Dec. 1-3. Contact: John Shaw, executive director, Associated Landscape Contractors of America, 1750 Old Meadow Road, McLean, VA 22101, 703-821-8611.

Ohio Turfgrass Conference and Show, Ohio Center, Columbus, Ohio, Dec. 2-4. Contact: John R. Street, Cooperative Extension Service, Ohio State University, 1827 Neil Ave., Columbus, OH 43210.

New Jersey Turfgrass Expo '80, Cherry Hill Hyatt House, Cherry Hill, N.J., Dec. 8-11. Contact: Dr. Henry W. Indyk, general chairman, Soils & Crops Department, P.O. Box 231, Cook College, New Brunswick, NJ 08903, 201-932-9453.

VPI & SU Turfgrass Short Course, Turfgrass Research Center, Blacksburg, Va., Dec. 8-12. Contact: John R. Hall, extension specialist, VPI & SU, 426 Smyth Hall, Blacksburg, VA 24061, 703-961-5797.

VPI & SU Turfgrass Small Engine Repair Minicourse, Turfgrass Research Center, Blacksburg, Va., Dec. 15-17. Contact: John R. Hall, extension specialist, VPI & SU, 426 Smyth Hall, Blacksburg, VA 24061, 703-961-5797.

21st Illinois Turfgrass Conference and Regional Show, Prairie Capital Convention Center, Springfield, Ill., Dec. 16-18. Contact: Illinois Turfgrass Foundation, P.O. Box 501, Urbana, IL 61801.

Southeastern Pennsylvania Turf School & Trade Show, Westover Country Club, Jeffersonville, Pa., Jan. 13-14. Contact: Dr. William H. White, Philadelphia County Cooperative Extension Service, SE Corner Broad & Grange Streets, Philadelphia, PA 19141, 215-424-0650.

27th Rocky Mountain Regional Turfgrass Conference, Lory Student Center, Colorado State University, Ft. Collins, Colo., Jan. 15-16, 1981. Contact: Jack D. Butler, Dept. of Horticulture, Colorado State University, Ft. Collins, CO 80523, 303-491-7070.

Virginia Turfgrass Conference & Trade Show, John Marshall Hotel, Richmond, Va., Jan. 20-22, 1981. Contact: John R. Hall, III, extension specialist, VPI & SU, 426 Smyth Hall, Blacksburg, VA 24061, 703-961-5797.

Western Pennsylvania Turf & Grounds Maintenance School & Trade Show, Howard Johnson Motor Lodge, Monroeville, Pa., Jan. 20-22, 1981. Contact: Philip L. Sellers, Allegheny County Cooperative Extension Service, 311 Jones Law Building Annex, 311 Ross Street, Pittsburgh, PA 15219, 412-355-4275, or George Morgan, Wildwood Golf Club, 2195 Sample Road, Allison Park, PA 15101, 412-487-1234.

Turf and Landscape Conference, sponsored by the New York Turf & Landscape Association and the Long Island Gardeners Association, in conjunction with the Hudson Valley and Long Island Cooperative Extension Service, Tappan Zee Inn, Mountain View Ave., Nyack, N.Y., Jan. 28, 1981. Contact: Frank Claps, 136 Laurel Ave., Larchmont, NY 10538, 914-834-6846.

ALCA Annual Meeting & Trade Exhibit, Hyatt Regency, New Orleans, La., Feb. 8-13, 1981. Contact: John Shaw, executive director, Associated Landscape Contractors of America, 1750 Old Meadow Road, McLean, VA 22101, 703-893-8611.

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Timing of Application:
(Continued from left panel)
For control of CRABGRASS, recommended rate (see "Rate and Summer Control") with application, the application emergence (see "Directions for Control of Annual Emergence") before the
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Orthene 75 Tree & Ornamental Insecticide at 1 pound AI/Acre and Pirimor 50W at 0.5 and 0.25 pound AI/Acre gave excellent control for as long as 68 days after application. The thoroughness with which the initial treatment removed the aphids rather than what might at first appear to be long residual activity, is believed to be the primary reason for the long control obtained. Apparently, once thoroughly removed, winged migrants from other areas did not cause reinfestation. A word of caution, however, the tendency for reinfestation by migrants could increase in years when rain is scarce from July through September.

Using the data gained from these tests as the basis, a petition for 24(c) Special Local Needs

The lawn care industry's ability to deal with this pest in the long run must be based on knowing its seasonal life history, which is yet unknown.

labeling, to use these products in Ohio only was approved in 1979. This labeling must be in the user's possession at the time of application. Data from these tests is also presently being used to support similar labeling in other states where the greenbug has caused damage.

Application. The greenbug has already demonstrated the capability of developing resistance to OP insecticides, therefore, it would be wise to alternate between Orthene® (an OP) and Pirimor® (a carbamate) when treatment is necessary. This action should forestall the aphids developing resistance to Orthene® for at least a few years.

The future. At first thought it would seem that the greenbug problem is solved, making further research unnecessary. But is it? Is the aphid, in fact, resistant to diazinon and chlorpyrifos, or is it an application or distribution problem? Laboratory research done now could answer this question, plus provide insights into the possibility of the aphid developing cross-resistance to Pirimor and Orthene.

How do greenbug infestations originate? Does the aphid overwinter? What is the aphid's life cycle on home lawns? Answers to these questions could provide information to improve the timing of insecticide applications. A crash program in 1979 led to the labeling of two insecticides that provided an immediate answer to the aphid problem. However, the lawn care industry's ability to deal with this pest on a long run must be based on knowing its seasonal life history, which is yet unknown. With the support of the lawn care industry, these and other important questions relative to this new and damaging pest can be answered.

PUBLICATIONS

PGMS releases new membership directory

The Professional Grounds Management Society announces the publication of its 1980 Membership Directory. A new feature in this year's directory is a section listing members by state.

Each PGMS member will receive one copy of the directory. It will also be available to non-members for \$15 through the PGMS National Headquarters, 7 Church Lane, Pikesville, MD 21208.

COMPANIES

Lesco named marketing agent for Penncross

The LESCO Products Division of Lakeshore Equipment & Supply Co., Elyria, Ohio, has been named marketing agent for Penncross and Penn Eagle bentgrasses for the state of Florida, and for CBS Blend ryegrass east of the Rockies.

Lakeshore also sells a full line of turf products including sulfur-coated fertilizers, chemicals, grass seeds and golf course accessories.

For more details contact: Lakeshore Equipment & Supply Co., 300 S. Abbe Rd., Elyria, OH 44035, 216-323-7544

MONEYWISE**Controlling accounts receivable is key to surviving in recession**

Staying on top of accounts receivable is the most important step a lawn care businessman can take to stay liquid and thus minimize problems caused by recession, advises Selwin E. Price, partner in Alexander Grant & Co., Chicago-based international certified public accounting firm.

"The key to surviving in a recession is preserving cash," he told LAWN CARE INDUSTRY. "Although a company can and should take every step possible, such as controlling inventories, cutting overhead, deferring cash payments and maximizing tax advantages, collecting on accounts receivable is the most important of all of these steps. Companies should monitor accounts receivable regularly."

The longer you wait on accounts receivable, the less you stand to collect, he says. Statistics show that for every dollar that is 30 days past due, only 97 cents is collected; 90 days past due, 90 cents; 120 days, 80 cents; six months, 67 cents; one year, 45 cents; two years, 23 cents; and three years, 12 cents.

Price gives these tips for speeding up billings and keeping accounts receivable under control:

- Process your high-dollar invoices first, so you'll stand to collect the largest amounts of money at the earliest possible moment. Then go on to your smaller accounts.
- If you are working on a long-term project, ask for a deposit or progress billing as you go along so you'll have a continuing stream of money coming in instead of waiting for a lump-sum payment.
- If you are not paid within your payment terms, send a letter, note or Mailgram to the laggard customer. If this does not produce results, telephone them. Prices said that nothing coerces like the human voice.
- Consider charging interest on past-due accounts. You can make this part of your original terms. In the case of already consummated deals that are past due, you may be able to get the customer to agree to paying interest. Price advises asking for interest of two points over the current prime rate.

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Chem Green, a division of Gloria Landscaping



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PRODUCTS



Rootzone control

The rootzone of the lawn — that is where the action is. And now there is a way for the lawn care businessman to have more control of that rootzone built into his lawn care program.

Aquatrols Corp. of America manufactures Aqua-GRO "L" and Aqua-GRO "L", soil wetting agents, to insure more efficient, uniform and therefore, more effective use of whatever water is applied to a lawn. Aqua-GRO

moves into the rootzone and stays there, ready to uniformly disperse the next dose of water from sprinkler or sky, as well as the lawn care program that has been surface-applied. And Aqua-GRO keeps working until it is completely broken down by the microorganisms in the soil — an average of three months.

According to the company, a more effective and consistent response from the same lawn care program is delivered more effectively to the rootzone. Aqua-GRO, as a part of the lawn care program is an economic way for the lawn care businessman to have that control below the surface, where the action is.

Write 800 on reader service card

MTD rotary mowers

Drawing on more than four decades of experience in engi-

neering and manufacturing, MTD Products Inc. has designed two new rotary mowers specifically for use in commercial turf care markets.



Called the Lawnflite Professionals, these mowers are built to take long, hard use and keep on going without time-wasting, costly breakdowns. Each is powered by a big, 4 h.p. Tecum-

seh XL engine with solid-state ignition and double-capacity air cleaner. Special heavy duty parts common to both mowers include long-life sealed bearings, reinforcing lower handle supports, rugged throttle mechanism, large capacity (1.2 gallon) gastank, easy-rolling eight-inch steel wheels, and thick-wall tires with self-cleaning tread.

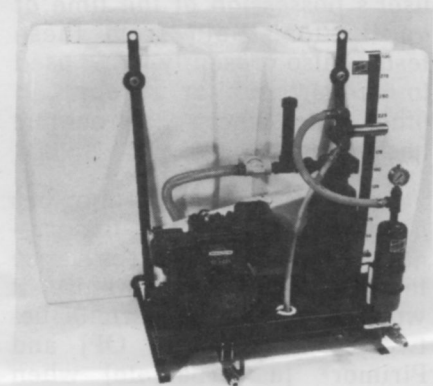
Professional Model 618, a side-discharge 20-inch mower, has the combination of strength and light weight that only a cast aluminum deck can offer.

Professional Model 638 combines a 22-inch cut with all the advantages of rear-discharge mowing. It provides balance, easy maneuverability and close-trim mowing — on both sides of the mower — next to trees, shrubs, flower beds, buildings and other obstacles. Powerful vacuum action lifts the grass blades and collects clippings to provide a clean cut and a clean lawn in one pass.

Write 801 on reader service card

Tuflex spray tank in new space-saving size

Tuflex, the only manufacturer to specialize in fiberglass spray tanks specifically for the lawn care industry is introducing the PC 300, a new larger version of its popular PC 200 gallon tank. By



adding 12 inches to the height of the old model, the new tank has an additional 100 gallon capacity while taking up the same space.

Write 915 on reader service card



Customized spray units

Strong Enterprises, Inc. will custom design lawn care spray units offering the option of virtually every type pump, reel and metering system available on the market today.

The units, which range from 15-gallon to 1400-gallon carrying capacity, feature high-quality fiberglass tanks and are designed to mount on flat beds, low profile custom bodies or directly to the truck frame. All bodies are designed to detach from the truck frame so they can be re-installed on a new cab and chassis with a minimal amount of effort.

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Mark your calendar now!

December 2-4, 1980
Ohio Center, Columbus
(Exhibit floor opens at 9:00 a.m., educational sessions start at 1:30 p.m.)
Headquarters hotel:
Hyatt Regency Columbus

December

■ Over 70 exhibitors of turf equipment, materials, and services

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All professional turf managers welcome. Register upon arrival (no pre-registration necessary).

The Ohio Turfgrass Foundation
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Ohio 43210
(Tel: 614/422-2592)

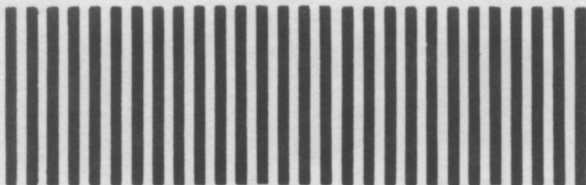
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CLASSIFIED

CLASSIFIED CLOSING DATES:
November issue closes October 13
December issue closes November 6

When answering ads where box number only is given, please address as follows: Box number, % LAWN CARE INDUSTRY, Dorothy Lowe, Box 6951, Cleveland, Ohio 44101.
Rates: 35¢ a word for line ads. Box numbers add \$1 for mailing. All classified ads must be accompanied by cash or money order covering full payment.
Mail ad copy to Dorothy Lowe, LAWN CARE INDUSTRY, Box 6951, Cleveland, Ohio 44101.

FOR SALE

FOR SALE: Lawn maintenance business. Working partner or buyer wanted for \$100,000 gross mowing operation. \$10,000 minimum investment. Box 30, Lawn Care, Box 6951, Cleveland, Ohio 44101.

LAWN SPRAYING BUSINESS. Established Ohio liquid lawn care business for sale. 5000 accounts. Six figure selling price. Owner could assist buyer. Box 29, Lawn Care, Box 6951, Cleveland, Ohio 44101.

CLEVELAND AA OPPORTUNITY — Landscape and lawn care business for sale. Turn key operation available with or without property and buildings. Sales exceeding one million annually. Terms available. Box 28, Lawn Care, Box 6951, Cleveland, Ohio 44101.

ESTABLISHED LANDSCAPING BUSINESS — All equipment, satisfied clientele, high potential, excellent reputation. Owner going into research, must sell. Jim Drake, 914 Maple, Zanesville, Ohio 43701. 614 454-1684.

USED EQUIPMENT

SPRAY RIGS — MUST SELL. Brand new, never used 100 hi pressure sprayers, ready for truck mounting, each includes 3½ H.P. engine, hydrocell piston pump, Hannay electric hose reel with clutch and lock for 250 foot hose, 300 gallon rectangular chem resist X-Link tank and all connectors and regulators to fit vans, pickups, flat beds and trailers, pumps up 10 GPM adjustable to 800 PSI, ideal for lawn and tree spraying, weed and pest control, pressure washing, etc. Either price \$5,425 each will sacrifice for \$2,985 each each FOB Chicago, valve, meters, guns, hoses, root feeder and other accessories also available. Call Mr. France 312 455-8601 or write Security Products, P.O. Box 59225, Chicago, Illinois 60659.

2-1979 C-60 1½ ton Chevy trucks. 2 compartment tanks-900 and 300 gallon. 2 pumps and electric hose reels. 350 V-8, 5 speed, P.T.O. Excellent condition. Call 513 845-0517.

FOR SALE: 1975 Ford F-600, excellent condition, approximately 46,000 miles. 1977 Ford F-600, approximately 42,000 miles. 1977 Ford F-600, approximately 35,000 miles. All three have 1,250 gallon tanks, complete with hose and hose reel, have been maintained regularly. Call collect 309 454-2468.

HUSTLER SNOW THROWER: Cab, weights, thrower, used only 8 hours. Will deliver. \$3,000.00. Phone 201 526-8898.

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HELP WANTED

ADVERTISING SALES POSITION AVAILABLE — Pest Control magazine is seeking an aggressive individual with experience in and commitment to the pest control industry, midwest territory. Motivation, creativity and marketing ability a must. Space sales experience desirable but not required. Salary plus commission, all expenses and a good benefit program. Reply to: Cheryl C. Lyons, The Harvest Publishing Co., 757 3rd Ave., New York, NY 10017. An equal opportunity employer.

SALES REPRESENTATIVE to service the professional lawn care industry in New Jersey, New York, eastern Pennsylvania. Sell granular and liquid pesticides and fertilizers. Respond to Rockland Chemical Company, Box 809, West Caldwell, New Jersey 07006.

CAREER OPPORTUNITY: Midwest multi-store company needs managers. \$16,000 minimum first year, bonus program, sales commissions, excellent benefits. You must: be willing to relocate, have management experience, be turf knowledgeable. Mail resume to Box 26, Lawn Care Industry, Box 6951, Cleveland, Ohio 44101.

EXPANDING MIDWEST CHEMICAL lawn care company desires branch manager. Excellent salary, bonuses and benefits. Chemical lawn care experience necessary with excellent past employment history. Send resume to Box 27, Lawn Care Industry, Box 6951, Cleveland, Ohio 44101.

ATLANTA, GEORGIA based company seeks qualified individual to work in our lawn spraying operations. Excellent opportunity, salary open. Send resume to: Box 25, Lawn Care, Box 6951, Cleveland, Ohio 44101.

WANTED TO BUY

WANTED TO PURCHASE, granular lawn care companies in Midwest and South serving primarily residential accounts, present management may stay, principals only, confidential replies to Box 18, Lawn Care, Box 6951, Cleveland, Ohio 44101.

ACQUISITIONS WANTED: Lawn service company seeking growth

MARKETING IDEA FILE

Customer-proof disease identification

John M. Kenney, general manager of Turf Doctor, Framingham, Mass., passes on tip for disease identification that can keep the customer happy. He wrote:

"Because of the depth of Dr. Vargas' turf disease article you ran earlier this year (April and May issues) and because of the quality of the photo reproduction in your magazine, we decided to have the articles reproduced, laminated and bound into sets for each of our employees (with extras for future employees).

"The four-color, two-sided photocopies, the laminating and the binding of these 500 pages at a cost of \$5 per page seemed like such a good idea, that I thought I would drop you a note to tell you how well these work for us in case you wanted to encourage your other readers to really use your magazine the way it can be most helpful.

"These bound books really give our people the ability to show their expertise right in front of our customers by opening them up and making positive identifications of the diseases by using the top-notch photos from your magazine. The only minor problem we have, which I am sure will be worked out soon, is that our technicians are having some minor difficulty in effecting adequate control from our presently used fungicides. A lot of times they just don't seem to arrest the progress of the target organisms."

through acquisition. Seeking firms servicing between 400 and 1,500 customers. Team up with experience. Key people retained. Smooth transition. Flexible. Write Box 19, Lawn Care, Box 6951, Cleveland, Ohio 44101.

MISCELLANEOUS

KELWAY SOIL* pH TESTER, used by professionals everywhere. Direct reading, longlasting, portable, lightweight, no power source. Model HB-2 reads moisture too. Available through local distributors or contact Kel Instruments Co., Inc., Dept. L, P.O. Box 1869, Clifton, N.J. 07015. 201 471-3954.

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GREEN PRO EXECUTIVE ACADEMY A: Turf and soil, sales, management for profits weekend of December 19-22, 1980, 4 days. Textbooks, 27 classroom hours, top instructors. First class resort accommodations, Tamiment, Pennsylvania. Meals, entertainment included, \$475.00. Call 516 483-0100 for reservations (limited) and information. A practical education and guide for those who want to be successful turf-care professionals in today's booming market.

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OREGON FINE FESCUE COMMISSION

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Write 150 on reader service card



We can hardly wait to meet you in person. The "we" is myself and assistant editors Dan Moreland and Kathy Milgate. The "you" is simply, our readers. Many of you have been in business for quite a few years, although most of the early growth in the lawn care industry occurred during the mid- and late-'70's. We put out our first issue in July of 1977, July 25 to be exact. The Professional Lawn Care Association of America officially began

June 14, 1979 in Fort Mitchell, Kentucky, although unofficial history of the Association will show that it really began in the corridors between sessions at state turf conferences where lawn care businessmen got together and talked to each other about "getting our own association that meets our own specific needs."

The culmination of a whole lot of work by a whole lot of people will come November 12-14 in Louisville, Kentucky at the Commonwealth Center when the PLCAA holds its first Conference and Trade Show.

The major suppliers to the lawn care industry will be there exhibiting what they have to offer. And we here that there are going to be a few new products available to the industry soon, perhaps even by show-time. You'll get first crack at them by attending, because it is the first major exhibit of the season.

As we have said before, and as is reported elsewhere in this issue, the conference program is designed specifically

for the professional lawn care businessman, with topics ranging from business planning, to computer usage, to challenges facing pesticide application.

And don't forget that attendees can meet lawn care businessmen from all over the country, to exchange ideas, informally talk "shop", and yes, maybe even hoist a soda pop or two.

If by now you don't know who to contact to find out information about attending, here it is again: Jane Stecker, PLCAA, Suite 1717, 435 N. Michigan Ave., Chicago, IL 60611, or call 312-644-0828.

Dan, Kathy and I wouldn't miss it for the world. See you there.

Bob Early

TURF MAINTENANCE

Success of treatments reflects mowing habits

Most lawn care businessmen would agree that any lawn care program, no matter how comprehensive and thorough, is only as good as the customer who maintains that lawn. It is instrumental, therefore, that the lawn care businessman educate the homeowner as to the proper care and maintenance procedures

necessary to get the best results from any fertilization or pesticide application provided by the lawn care company. Proper mowing is an integral part of the homeowner's maintenance program.

Mowing, disposal of grass clippings and fertilization are all functions of growth rate of the lawn, says Dr. William E. Knoop, area turfgrass specialist with the Texas Agricultural Extension Service, Dallas, Texas. While fertilization is used to promote

growth, mowing controls growth. The relationship between fertilization and mowing is fairly direct—the higher the rate of fertilizer, the higher the rate of growth.

While lawns need a certain growth rate to maintain density and to repair damage from wear and injury from insects and disease, Knoop says, an excessively high growth rate only increases mowing requirements and the amount of grass clippings produced.

Each turfgrass used in the home lawn has an ideal height-of-cut. The recommended cutting heights for some lawn grasses are listed in the table. These suggested heights-of-cut were developed from research results and from professional experience with lawn maintenance. Lawns cut at these heights usually perform better than lawns cut higher or lower under average maintenance conditions.

Lawns may be mowed lower than the suggested mowing heights, but greater energy inputs in the form of higher fertilizer rates, higher water requirements, greater mowing frequency and increased insect and disease controls are necessary, Knoop says. Lawns cut at heights

higher than suggested tend to develop thatch more readily.

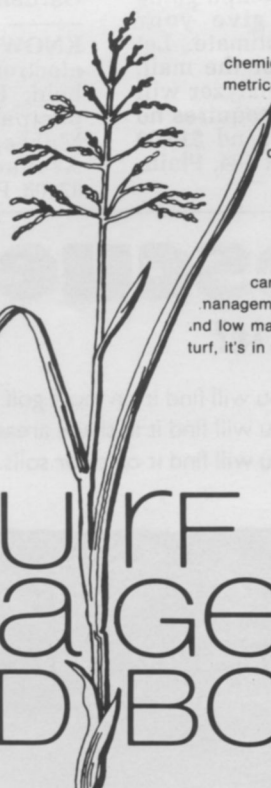
Lawn areas that receive high use and lawns that are moderately shaded should be mowed at the greater height recommended.

Frequency of mowing lawns is very important also, Knoop says. The lawn's density, or the number of leaves per unit of area, is a function of mowing frequency. The "rule of thumb" is that no more than one-third of the leaf tissue should be removed at each mowing. Thus, a St. Augustine lawn maintained at two inches should be mowed when the grass reaches three inches in height. If this criteria is followed and the lawn hasn't been over-fertilized, clippings do not need to be removed from the lawn.

Mulching mowers cut grass clippings into smaller fragments which work into the turf. Thus, lawns appear neater after mowing and grass clippings decompose more rapidly. Criteria suggested for mowing frequency, to remove only one-third of leaf tissue at each mowing, should be still be followed even if a mulching mower is used. Mulching is no remedy for poor mowing practices.

Finally, An Aid For Teaching Turfgrass

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