

Certified applicators could top 30,000

About 18,600 persons have been certified as commercial applicators in ornamental and turf pest control, but the number could exceed 30,000 after each state completes its testing programs.

Officials from each of the 50 states told LAWN CARE INDUSTRY that another 9,000 persons would probably be certified before the end of 1977 to meet U.S. Environmental Protection Agency regulations governing pesticide use. A final estimate cannot be made since California has just started giving exams and officials say they don't know how many persons are expected to take the ornamental and turf test.

These figures probably give government and industry officials one of the first indications on the amount and location of lawn care specialists operating in the United States. The numbers, however, are somewhat

distorted since it is uncertain how many employees of lawn care firm's took the exam. And since many states lumped the ornamental and turf categories into the same exam and still others did not distinguish between private businesses and government employees in their record-keeping, it is difficult to ascertain the number of applicators who actually work in lawn care.

Eleven states (if California is included) have nearly 1,000 persons or more who are certified in

ornamental and turf pest control. New York has the most of any state, about 2,600, and senior pesticide inspector Raymond Malkiewicz said this is only half of the amount who want to take the exam.

Texas has certified 1,760 commercial applicators, Georgia has 1,175, and Florida has 1,107. There are about 1,000 each in Minnesota, Pennsylvania, and Wisconsin, say state officials. Pesticide spokesmen in New Jer-

to page 32

Promo mail standards go into effect April 15

Some mailers in the lawn care industry may be in for a rude awakening next year when the U.S. Postal Service refuses envelopes and cards not meeting its new minimum-size standards.

While the Postal Service announced more than a year ago that new dimensional standards for letter-size mail would become effective April 15, 1978, managers in some lawn care companies are continuing to order postcards and envelopes that are less than 3½ inches high or five inches long. After this date they will no longer be mailable.

Oversize envelopes and cards will present a different problem. While pieces measuring more than 6½ inches high or 11½ inches long can still be mailed, they will be subject to a surcharge in addition to regular postage.

The amount of the surcharge, which has not yet been determined, will apply only to first-class mail weighing one ounce or less and to single-piece third-class weighing two ounces or less.

Because the typical first-class flat (9 by 12 inch envelope) usually weighs more than one ounce, lawn care businessmen will find that few of their flat mailings will be affected by the surcharge.

In addition to the minimum and maximum sizes, another factor to consider is that of "aspect ratio." Because it is more economical for the Postal Service to handle mailing pieces of the con-

to page 32

REGULATION

Government to limit DBCP lawn pesticide

Three federal agencies have taken cooperative steps to protect pesticide applicators and the general public from sterility and possibly cancer from the soil fumigant pesticide DBCP, or dibromochloropropane.

At a joint news conference in Washington in early September, the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA) an-

to page 2

LAWN CARE INDUSTRY

Serving lawn maintenance and chemical lawn care professionals.

SEPTEMBER/OCTOBER 1977 • VOL. 1, NO. 2 • A Harvest Publication

THE ECONOMY

Housing market on major upswing; 7.2 million new homes by 1981

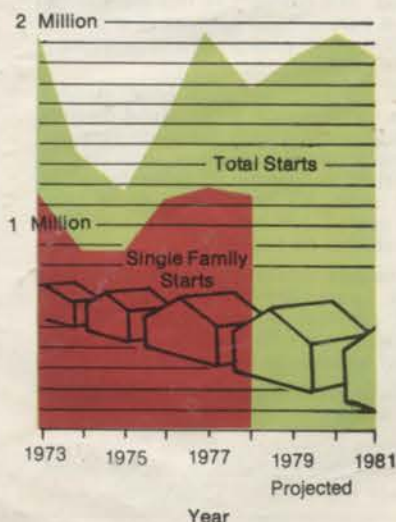
Lawn care companies in the U.S. will have an additional 1.8 million new residential property owners to solicit for business each year for the next four years, according to housing start projections from the National Association of Home Builders (NAHB) in Washington, D.C.

Translated into dollars, this represents a potential \$720 million of business that will be out there for the taking by 1981.

Not since the recession in 1975 has the housing market been on such an upswing. The F. W. Dodge Division of McGraw Hill recently reported in the *Wall Street Journal* that monthly residential building contracts increased over 1976 by 32 percent in July and 40 percent in August. A study, published this summer by the Joint Center for Urban Studies of Harvard and Massachusetts Institute of Technology,

to page 33

HOUSING START STATISTICS FROM NAHB



QUICK STARTS

Alternate spray tank agitation system proposed	page 4
Cantu, McLaughlin to top Toro posts	page 8
New minimum wage by first of year?	page 8
Monsanto wins research award	page 8
Management, leadership: How do you measure up?	page 13
Insurance needs you may have missed	page 20
COST CUTTINGS	6
MEETING DATES	10
NEWSMAKERS	12
MARKETING IDEA FILE	20
MONEYWISE	22
MEMOS	25
TOOLS, TIPS & TECHNIQUES	26
PRODUCTS	27

For a complete market study of the lawn care industry in Chicago, see MARKETPLACE, page 14. This is part of a continuing series of in-depth looks at regions of the country where the lawn care business thrives. The study includes a profile of the city, potential lawn care customers, lawn care companies that operate there and how they go about getting and keeping customers.

OBITUARIES

Dick Duke, 48, dies; founder of Chem-Lawn

Richard Lee (Dick) Duke, founder and board chairman of Chem-Lawn, the world's largest lawn care firm, died August 23 at Hilton Head Hospital in Hilton Head, S.C., two days after suffering a heart attack at his home on the resort island.

Duke, 48, moved to Hilton Head earlier this year, nine years after opening the first Chem-Lawn operation. His concept of applying liquid nutrients to lawns at specific intervals drastically altered a business that had previously relied on local nurserymen, many who were uninformed about lawn maintenance and equipment.

He was born on Nov. 12, 1928, into a family which operated a business from its peach and apple orchards in southern Ohio. He studied accounting at Miami University in Oxford, Ohio, and served in the U.S. Navy before returning to work with his father, Paul. The two men tin-

to page 33

Ohio watching firm for possible fraud

A lawn care firm which operates in central Ohio is being watched by the Ohio Department of Agriculture for possible fraud, according to Oren Spilker, a specialist in charge of the department's pesticide regulations.

Spilker, who would not name the company, said he has received about a "half a dozen" complaints from residents. They claim the firm's officials underestimated the size of their lawn, thereby cutting down on the amount of liquid spray needed to plant it and charging less than other businesses.

He said his department has checked out two of the complaints. The firm did give a low estimate on one lawn, but the other was "borderline," Spilker said.

The department does not yet believe it has enough evidence to prosecute the alleged fraud by the company, but it is "keeping an eye on it," Spilker said. "There's enough to say something is going on. We may do more checking, especially if we get more complaints."

PUBLISHERS VIEWPOINT

As publisher, I am gratified by the tremendous acceptance of the first issue of **LAWN CARE INDUSTRY**.

We have received an enthusiastic response from all facets of the industry, including manufacturers, distributors, dealers, universities and, of course, you — the lawn care businessman.

As you know by now, **LAWN CARE INDUSTRY** is the first business magazine published specifically for your industry. It has been our experience here at Harvest that a growing industry such as yours needs the editorial leadership that a monthly magazine can provide.

With this in mind, we will begin publishing monthly beginning with our January issue to better service this industry.

Our job is to provide you with news, products and trends in the lawn care market. But we can't do it alone. Use **LAWN CARE INDUSTRY** as a forum to exchange your ideas and to learn from others in the industry.



Hugh Chronister

CERTIFICATION

Two states will have strict requirements

Applicators who live in states that have not passed laws complying with federal ornamental and turf pest control regulations will have their training and certification programs

run by a regional office of the U.S. Environmental Protection Agency.

Those applicators will have to keep records on how they dispose of pesticides and take exams every two years to renew their certification, according to Andrew Ceraker, senior regional officer in the U.S. Environmental Protection Agency's office of pesticide programs. This disposal requirement will help ensure that residue from containers does not damage property or injure persons, he said.

Ceraker said these regulations, which are stricter than those set by most states and approved by the EPA, will probably apply to applicators in Nebraska and Colorado. He said the regulations were opposed by legislators and private farmers in those states who "don't like doing anything the federal government tells them to do." Nebraska has even challenged an EPA decision disallowing that state's proposed certification plans, and a federal judge was scheduled to hear complaints from state officials at the Cornhusker Hotel in Lincoln in late September.

Although Massachusetts has been haggling over which state agency will implement the federal regulations, Ceraker said he expected compliance soon.

The main disadvantage for applicators in those two states is that exams will not be offered in as many locations if the states were running the programs, simply because the federal government does not have as many field offices and inspectors.

GOVERNMENT LIMITS DBCP

from page 1

nounced: a proposed suspension of the pesticide's application on home lawns, shrubs and golf courses and crop applications; emergency temporary standards to limit worker exposure to DBCP; and the start of a food monitoring program to determine if the general public is consuming unsafe amounts of the pesticide on agricultural crops.

"The agencies are combing their resources and authority to prevent further damage from DBCP to workers, pesticide applicators, growers and the consuming public," Donald W. Reister, acting director of the FDA Bureau of Foods, told **LAWN CARE INDUSTRY**. "The potential health threat is grave. Strong realistic safeguards are called for."

Douglas M. Costle, EPA Administrator, has proposed a conditional suspension which would end treatments on home lawns, shrubs and golf courses unless makers of DBCP pesticides agree to classify their products as "restricted use pesticides."

After October 21 of this year, this would limit their use only to trained applicators wearing protective clothing including a respirator.

Since the mid 1950s, DBCP has been used to kill nematodes that destroy the roots of turf, food crops and other plants.

Over 80 firms around the country produce DBCP or formulate it into finished pesticide products.

LAWN CARE INDUSTRY

Publisher: **HUGH CHRONISTER**

General Manager: **RICHARD J. W. FOSTER**

Executive and editorial offices: 9800 Detroit Ave., Cleveland, Ohio 44102

Editor: **ROBERT EARLEY** Executive Editor: **DAVID SLAYBAUGH**

Associate Editor: **BRUCE SHANK**

Assistant Editors: **RON MORRIS, SCOTT SCREDON**

Graphic Director: **RAYMOND GIBSON**

Research Director: **DAVID HARMAN**

Market Research Manager: **CLARENCE ARNOLD**

Production: **DARRELL GILBERT, PAT KELLEY, ROSE SLUSHER**

MARKETING/SALES

Advertising Director: **STEVE STONE** (212) 421-1350

757 Third Avenue, New York, N.Y. 10017

Circulation & List Rental: **TERRI HUTSENPILLER** (216) 651-5500

Marketing & Merchandising Services: **FRAN FRANZAK** (216) 651-5500

Mid-Atlantic Office: **RAY MOONEY** (216) 651-5500

9800 Detroit Ave., Cleveland, Ohio 44102

Midwest Office: **JOE GUARISE** (312) 236-9425

333 N. Michigan Ave., Chicago, Illinois 60601

Southern Office: **DICK GORE** (404) 252-4311

3186 Frontenac Court, N.E., Atlanta, Ga. 30319

Southwest Office: **JOHN SANDFORD, DICK SEATON** (213) 933-8408

4311 Wilshire Boulevard, Los Angeles, Ca. 90010

Northwest Office: **BOB MIEROW** (415) 982-0110

615 Montgomery, San Francisco, Ca. 94111

Classified: **DOROTHY LOWE** (216) 651-5500

9800 Detroit Ave., Cleveland, Ohio 44102

LAWN CARE INDUSTRY is published every other month by The Harvest Publishing Company, a subsidiary of Harcourt Brace Jovanovich, Inc. at 9800 Detroit Ave., Cleveland, Ohio 44102 (216) 651-5500. Copyright © 1977 by The Harvest Publishing Company, all rights reserved. The contents of this publication may not be reproduced either in whole or in part without consent of copyright owner. Application to mail at controlled circulation postal rates is pending at Cleveland, Ohio 44102.

SUBSCRIPTIONS: to Lawn Care Industry are solicited only from owners, managers, operators, buyers, merchandisers, agronomists, technicians, dealers, distributors and manufacturers of products associated with the lawn care and maintenance business. Position and company connection must be indicated on subscription orders. Publisher reserves the right to approve all subscription requests. Single copy cost \$1.00 for current issue. All back issues \$1.25 each. Foreign \$1.25. Subscription rates: \$6.00 one year, \$10.00 two years, \$12.00 three years. Group and foreign air mail rates available on request.

SUBSCRIBERS: Send change-of-address notices, correspondence regarding subscription service to Fulfillment Manager, Lawn Care Industry, 9800 Detroit Ave., Cleveland, Ohio 44102. Change of Address notices should be sent promptly, provide old as well as new address, attach address label from recent issue. Please allow one month for change of address to become effective.

POSTMASTER: Please send form 3579 to Fulfillment Manager, Lawn Care Industry, 9800 Detroit Ave., Cleveland, Ohio 44102.

The Harvest Publishing Company, a subsidiary of Harcourt Brace Jovanovich, Inc., publishers of **WEEDS TREES & TURF, PEST CONTROL, NPCA Extra, GOLF BUSINESS** and the Scientific Guide to Pest Control Operations.

LEGAL AFFAIRS

Lawn-A-Mat Status on Chapter 11 studied

No definite date has been set for Lawn-A-Mat to come out of Chapter 11, although the situation is being studied by attorneys for the company and attor-

neys for the creditor's committee.

Lawn-A-Mat has approximately 230 dealers holding about 400 franchises.

A company official has attributed the bankruptcy to just plain bad management.

"We had more assets than liabilities but there was a problem with cash flow," he said.

New PROVEL[®] herbicide



Controls weeds and controls costs for economical turf maintenance

PROVEL[®] herbicide is a new formulation of dicamba, +2,4D, proven effective against broadleaf weed pests like dandelions and plantain, plus more than two dozen other tough ones, including chickweed, knotweed, clover and English daisy (see label for complete listing). Cost savings are dramatic: you can provide broadleaf weed control for an average home lawn with less than 16¢ worth PROVEL[®] herbicide per 1,000 sq. ft. per application.

PROVEL[®] herbicide is packaged 6x1 gal. per case, 2x2½ gal. per case and 30 gal. drums.

Before using any pesticide, read the label.

Contact your Velsicol turf distributor or send coupon for product data and specimen label to Velsicol Chemical Corporation, 341 East Ohio Street, Chicago, IL 60611.



NAME _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

© 1977, Velsicol Chemical Corporation

Alternate agitation system proposed

More than 25 top lawn care businessmen from across the country gathered in Omaha, Nebraska in late September to see a demonstration of an alternate spray tank agitation system.

The demonstration was sponsored by Hercules, Inc., Wilmington, Del. and Delavan Manufacturing Co., West Des Moines, Iowa. It centered on an alternate means of suspending Powder Blue ureaform fertilizer utilizing Delavan's Turbo 90 turbine pump.

The basic feature of the system is replacement of mechanical agitator paddles with a sparge-line agitation system.

Keith Weidler, president of ShurLawn Corp., Omaha, discussed the prototype, set up in one of his trucks. Delavan had taken the truck for three weeks during the winter and worked out the alternate system.

The system, as set up on Weidler's truck, has a 10 GPM Bean pump tied directly to the drive shaft through the power take-off. Power is also taken di-



Sherm Conrad (center), a Delavan engineer, answers the many questions asked by lawn care businessmen who attended a recent agitation system demonstration in Omaha. Most were there because they weren't satisfied with their old system.

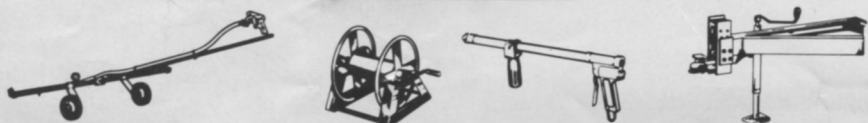
MEET YOUR SPRAYER NEEDS EXACTLY!



TRAILER MOUNTED

SKID MOUNTED

ACCESSORIES



GREENS BOOM

HOSE REEL

G-GUN

SCREW TYPE JACK

ALSO CHOOSE FROM FIBERGLASS TANKS/MECHANICAL AGITATION/PUMPS AND ENGINES/BOOMS/HAND GUNS, ETC. WRITE OR CALL:

Special Products Division
HANSON EQUIPMENT CO.

301 CHARLES ST., SO. BELoit, IL 61080
815-389-2261

Circle 104 on free information card

Reference Books for the Horticulture Industry

● Agricultural Chemicals — Insecticides	● \$12.00
● Agricultural Chemicals — Herbicides	● \$12.00
● Agricultural Chemicals — Misc. Chemicals	● \$12.00
● Agricultural Chemicals — Fungicides	● \$12.00
● Insecticide, Herbicide Fungicide Quick Guide	● \$10.00
● Tree, Turf, and Ornamental Pesticide Guide	● \$10.00
● and many others.	

Write for details or send orders to:

Thomson Publications

P.O. Box 7967-D
Fresno, CA 93727

Circle 103 on free information card

rectly from the PTO for the Turbo 90 pump.

"It's just a simple matter of setting the Turbo 90 up with a 2:1 gear ratio to run at just a little over 1000 rpm," Weidler told LAWN CARE INDUSTRY. "We're running 540 on our main pump and should be running 1080 there."

The basic plumbing is a simple setup. "Just a bunch of scrap iron," he said, "cut and welded and put together with a little adjustment on it."

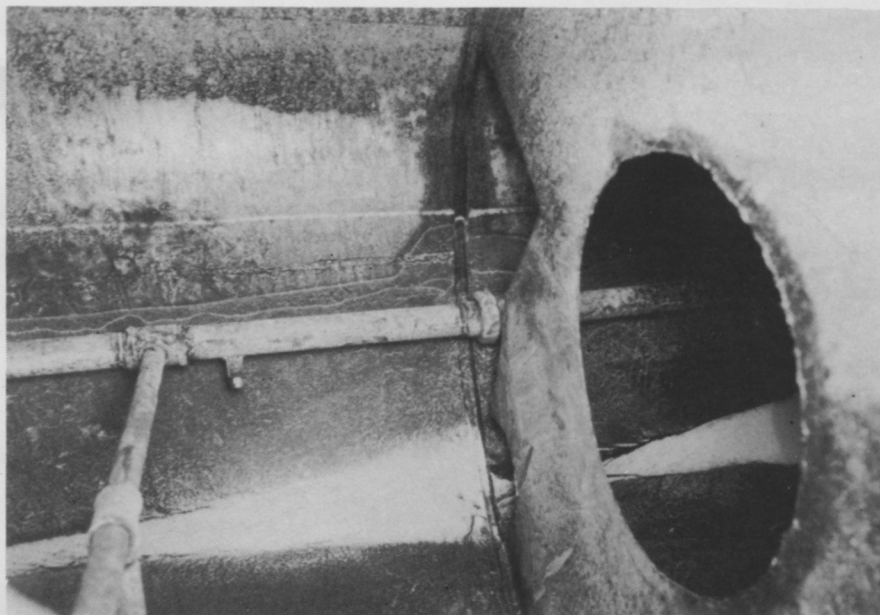
He needed the trucks right

away and in three nights the plumbing was added with the help of a local tank manufacturer. As it stands now, there are a few things that still need to be changed.

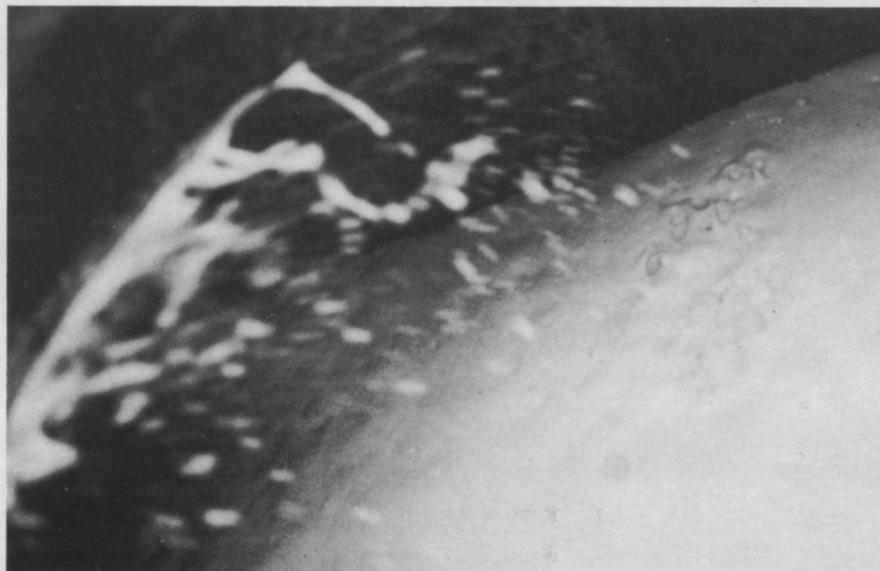
One is a shutoff valve that needs to be added in the intake line. "If something goes wrong with the pump, we have to pump it out before we disassemble the plumbing to get to the pump," he said.

Another, according to Sherm Conrad, engineer with Delavan,

to page 6



(Top) The sparge line, running along the bottom of the tank, has seven nozzles picking up the mixture and bringing it back to the top. The small amount of sediment left after the tank has been emptied seems to point out the advantages of the proposed system. Some changes, such as a coarser filter, will provide even better dispersal, and less sediment, as the mixture is kept constantly agitated. (Bottom) This is how it looks as the sparge line brings the mixture from the bottom and recirculates it. View from opening of tank looking directly to left.



Diamond Shamrock... The name that means business in weed and disease control.

You'll get beautiful results with the Diamond Shamrock Turf Care system . . . four products that provide almost total control of fungus diseases and weeds. For many years, our herbicides and fungicides have been first choice with hundreds of leading turf care specialists. Broad-spectrum . . . effective . . . dependable.

Our Dacthal® herbicide is a prime example. Dacthal was the first preemergence herbicide to gain wide-spread acceptance for turf use. It won label clearance 18 years ago. Today it's the standard ingredient in weed control programs of some of the country's major lawn care firms. Dacthal effectively controls crabgrass, foxtail, creeping speedwell, *Poa annua* and 14 other annual weed pests.

Daconil 2787® is the Diamond Shamrock fungicide that controls nine diseases in over 25 species and varieties of turfgrasses. Introduced in 1966, it quickly found acceptance among golf course superintendents. In recent years, Daconil 2787 has steadily gained in popularity among lawn care specialists because of its broad-spectrum control and outstanding results.

Dacamine® is our postemergence broadleaf herbicide. It effectively controls 76 broadleaf weeds, with no vapors or fumes. We also offer Daconate® 6 post-emergence herbicide to control grassy weeds. Both Dacamine and Daconate have won strong acceptance for special uses in commercial and residential weed control.

If customer satisfaction is important to your lawn care business, think first of Diamond Shamrock. For further information, contact the Diamond Shamrock Agricultural Chemicals Division Sales office nearest you: Three Commerce Park Square, 23200 Chagrin Blvd., Beachwood, OH 44122; 1401 W. Paces Ferry Rd. NW, Atlanta, GA 30327; 5333 Westheimer, Suite 850, Houston, TX 77056; Commerce Plaza Bldg., 2015 Spring Rd., Oakbrook, IL 60521; 617 Veterans Blvd., Redwood City, CA 94063.



Diamond Shamrock
®The resourceful company.

is the addition of a filter arrangement in the intake line. "We started off with the idea that we're not going to worry about picking up nuts, bolts and rocks on the inside and hurting the pump, so we put our filter on the outside of the pump to protect our nozzles."

"This is all going to be changed," Weidler emphasized. "The filter they are using now is too fine. The flow is cut back so much that even though most particles are filtered out, it is not enough."

Another point made by Conrad is that with the Turbo 90 running at 1080 rpm, there should be about 60-65 pounds of deadhead pressure.

"If we had a valve in that output line, all we've got to do is deadhead it and have a gauge tapped on it," he said.

"If it picks up 60-65 pounds of pressure, the pump is in fine shape."

"As it is right now," adds Weidler, "if a piece of paper from a bag or something plugs the intake line, all we're seeing is that we're not getting the flow through the sparger line. With Sherman's system we can find out if the pump is okay or wheth-

er we have a blockage in the intake line."

The inside of the tank contains 1½-inch pipe with seven couplers welded on and seven GPM nozzles on the sparger line that runs along the bottom of the tank. Then there are four "lances" which are ¾" pipe, running off the sparger line in a Y-type setup. The unit sweeps the bottom, picking up the fertilizer and taking it up to the top.



Turbo 90 turbine pump

One of the unique parts about the pump is that there is a passageway in the seal areas. The passageway then goes back to the suction side so that the seal surfaces are constantly being washed. "The pump was designed specifically to run with powders," according to Conrad.

Bob Staib of Hercules said, "We're really not endorsing or promoting the system. It's brand new. At this stage we just wanted to show an alternate system of what we feel is an economical

way to keep our fertilizer in suspension."

Three different tests pointed out the even suspension of fertilizer within the system. Jars filled from the spray gun with the tank full at 1100 gallons, against 750, 500, 250, and within the last 50 gallons showed very little — probably less than five percent — disparity between samplings. Two tests with 220

gallons of fertilizer per 1100 gallon tankfuls and another with 600 gallons of fertilizer per 1100 gallon tankful showed positive indication that this type of system could get the job done.

Delavan Manufacturing has expressed a willingness to talk with anyone interested in converting to this means of agitation. —Ron Morris

COST CUTTINGS

Power blower can be new maintenance tool

Groundskeepers, landscapers and lawn care operators have begun to find new uses for an old maintenance tool — the backpack power blower.

The power blower has been around for some time, but only in the last four or five years have manufacturers realized the machine's potential for cleanup of leaves, clippings, roots, dirt and other debris from home, public and industrial grounds.

The blowers have proven particularly effective in hard-to-get-at places such as low-lying shrubs, trees and near fences and other obstacles.

The power blower is basically a two-cycle, air-cooled engine connected to a fan that is compact enough (knapsack sized) and light enough (about 20 pounds) to be easily carried by one man.

Models vary, but typically can generate an airstream of up to 200 miles per hour with a 3.2 horsepower engine. Throttle adjustments usually can permit everything from a gentle breath of air to an all-out blast to be selected.

Some blowers, like the PB-9 manufactured by Echo Chain Saw, have an adjustable 10-setting solid linkage throttle so that the blower operates at a given velocity until the user changes it.

Other blower manufacturers include: Billy Goat Industries; FMC Corp., Hahn, Inc.; HMC; Jacobsen Manufacturing Co.; F. D. Kees Manufacturing Co.; Reinco/Grass Growers, Inc.; Solo Motors; Stihl American and Vandermolten Corp.



Backpack power blower



Skid-steer loader

Many uses for loaders in lawn maintenance

A labor-saving piece of equipment that has been used for years on the farm and in business and industry is becoming more widely used by the lawn care industry — the skid-steer loader.

Here are a sampling of lawn care chores for a loader:

- Using a hydraulic earth drill, fencing can be erected easily or smaller shrubs planted.
- For smaller trees, a tree transplanting attachment can be utilized.
- All types of grading can be done to enlarge a property or transform it into another use.
- Able to turn within its own radius, the loader can handle and transport decorative stones other materials.

Three principle characteristics should be main guidelines in selecting a skid-steer loader, according to engineers to Sperry New Holland:

- (1) Forward dump reach — Check the reach of the loader. A loader with a boom that reaches forward as it rises will accomplish many more chores.
- (2) Stability — Don't sacrifice stability in favor of a slightly shorter wheel base. A wheel base that is a bit longer will provide smoother and safer operation.
- (3) Quick attachment — A loader with a "quick attach" system for mounting various attachments will save valuable time and be much easier for a variety of operators to handle.



MODEL 361100

F. D. Kees 36" Powermow is built rugged for professional, residential and commercial lawn maintenance use... whether it's on the finest of manicured lawns or in the roughest of fringe-mowing areas.

CHECK THESE VERSATILE PERFORMANCE FEATURES:

- Powerful 11 h.p. Briggs & Stratton synchro-balanced engine w/super low-tone muffler.
- Fingertip clutch, brake and power turning control levers on each handle.
- Sleek deck design and individual drum-type wheel brakes allow positive maneuverability for mowing in close quarter areas.
- Unique V-flanged front deflectors help prevent damage to yard decorations, monuments, etc.
- Baffled frame design provides clean, safe grass discharge.

OPTIONAL ACCESSORIES: Riding sulky and metal grass catcher.

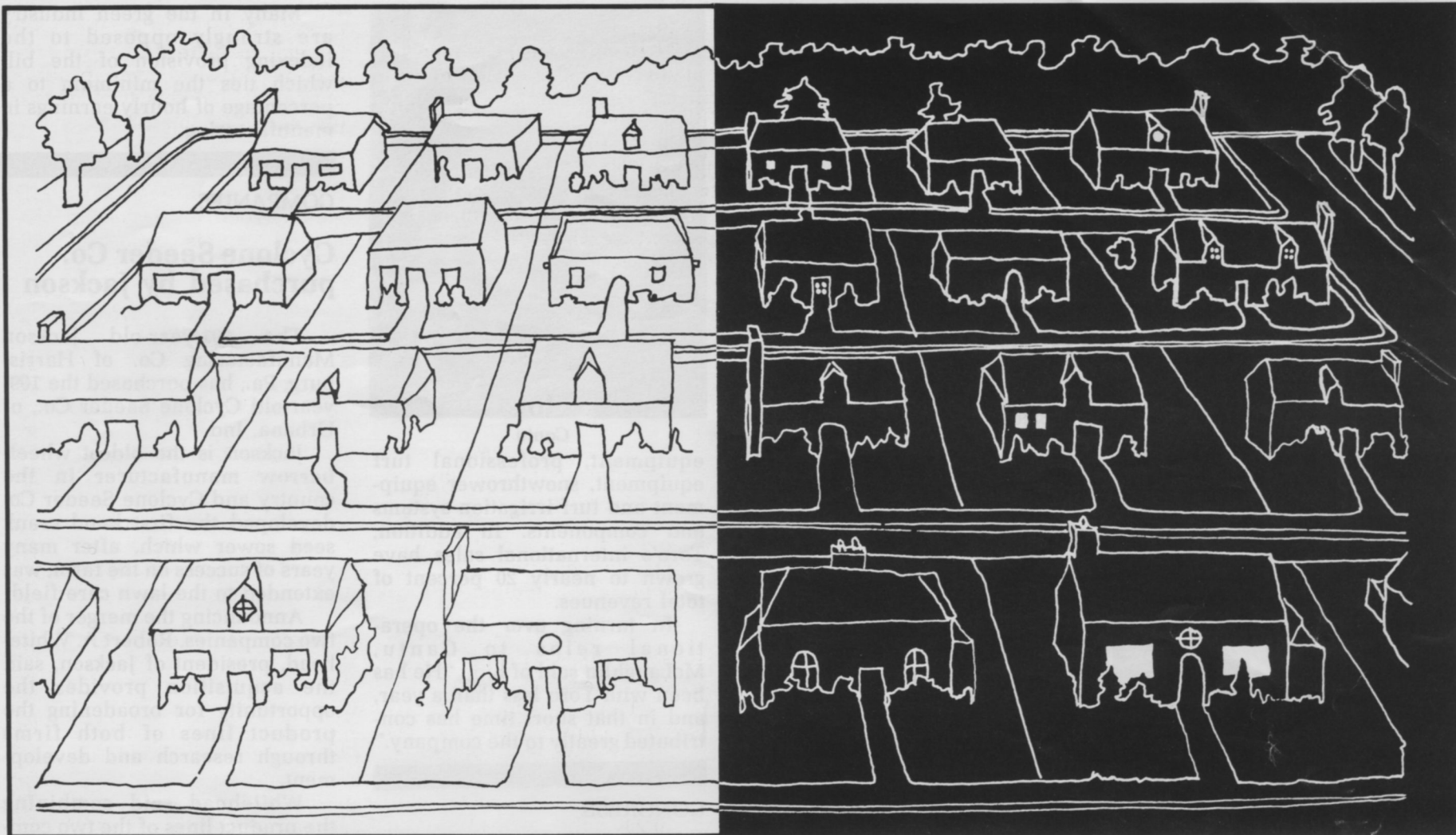
For more information, write P.O. Box 885 or phone (402) 223-2391

Established 1874



F. D. Kees
Manufacturing Co.
Beatrice, Nebraska 68310

Circle 107 on free information card



Nitroform® works 'round the clock to keep lawns greener longer.

While others sleep, you can be providing lawn care service to satisfied customers. The secret is Nitroform® slow-release nitrogen. It works around the clock to give green, healthy lawns.

Keeping grass greener between visits is the best way to hold customers, while attracting new ones. Home owners will readily see that your lawn care service does the job with dependable results . . . at less cost than they can do it themselves.

Nitroform is the best way to apply long-lasting nitrogen . . . whether you have equipment for liquid or dry application. You can use Nitroform as granular BLUE CHIP® or as POWDER BLUE™ sprayable slow-release nitrogen. Nitroform gives uniform coverage, and is compatible with most lawn care materials, including pesticides.

Nitroform is the quality slow-release nitrogen. It's nonleaching. It keeps feeding long after your crew

has moved on to other jobs. Because it's nonburning, even inexperienced labor can apply it.

With Nitroform, benefits are always predictable performance, easy application, dependable results. What else could you want, except possibly more information?

For that, write Nitroform Sales, Organics Department, Hercules Incorporated, Wilmington, Delaware 19899.



HERCULES INCORPORATED

STH77-7

Cantu and McLaughlin named to top Toro posts

The board of directors of Toro Co. have elected David T. McLaughlin chairman and John J. Cantu a director and president of the Minneapolis-based manufacturer of power equipment for lawn and turf care.

McLaughlin, 45, who has held the post of president since May 1970, when he joined Toro, will continue as chief executive of-



McLaughlin

ficer. Cantu, 50, has the additional title of chief operating officer. His election to the board brings its membership to eleven.

The new president last November became Toro's executive vice president — outdoor products, following a 31-year career with O. M. Scott Company, Marysville, Ohio, an ITT subsidiary and a leader in the lawn care industry. Cantu had been a vice president and director at Scott where he created and managed the company's ProTurf Division which grew to represent a quarter of Scott's total business.

McLaughlin's election to chairman of the board fills a post left vacant in June 1976, when David M. Lilly resigned to accept a presidential appointment to the board of governors of the Federal Reserve System.

When McLaughlin first came to Toro, annual sales were \$57.7 million. In his seven years as the head of the company, sales have virtually tripled and Toro has broadened its base in four product areas: consumer lawn



Cantu

equipment, professional turf equipment, snowthrower equipment and turf irrigation systems and components. In addition, Toro's international sales have grown to nearly 20 percent of total revenues.

In turning over the operational reins to Cantu, McLaughlin said of him: "He has been with Toro less than a year, and in that short time has contributed greatly to the company."

CONGRESS

Minimum wage to \$2.65 by first of January?

A federal minimum wage bill that would raise the lower limit to \$2.65 by the first of the year is currently being debated on the floor of the United States House of Representatives.

The bill being debated would also raise the minimum wage to 52 percent of average hourly earnings (not including overtime) in manufacturing by January 1, 1979 and to 53 percent on January 1, 1980.

A similar bill is ready to be reported to the Senate.

HERBICIDES

Research honor to Monsanto's Roundup

The development of Roundup herbicide by Monsanto Co., St. Louis, has been cited as one of the most significant new technical product achievements of this year.

Monsanto, along with other IR-100 award winners, was honored in late September by *Industrial Research* magazine during ceremonies at the Museum of Science and Industry in Chicago.

The competition, now in its 15th year, recognizes innovators and organizations for outstanding scientific and engineering technical developments. The award for Roundup marks the seventh time Monsanto has been named a winner and the first time in the history of IR-100 awards competition that a herbicide development has received this recognition.

On hand to accept the award were Nicholas L. Reding, a Monsanto vice president and manag-

Many in the green industry are strongly opposed to the indexing provision of the bill which ties the minimum to a percentage of hourly earnings in manufacturing.

COMPANIES

Cyclone Seeder Co. purchased by Jackson

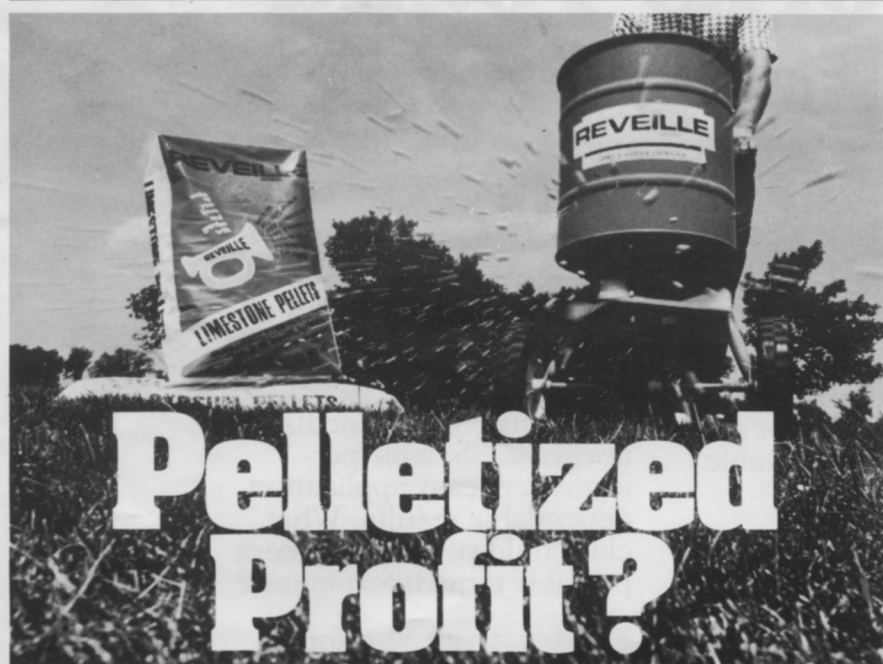
The 101-year-old Jackson Manufacturing Co. of Harrisburg, Pa., has purchased the 109-year-old Cyclone Seeder Co., of Urbana, Ind.

Jackson is the oldest wheelbarrow manufacturer in the country and Cyclone Seeder Co. developed the first hand crank seed sower which, after many years of success on the farm, was extended to the lawn care field.

Announcing the merger of the two companies, Robert A. Whitehead, president of Jackson, said the acquisition provides the opportunity for broadening the product lines of both firms through research and development.

Whitehead said combining the product lines of the two companies and putting them through Jackson's national marketing system will generate efficiencies beneficial to consumers as well as to lawn care operators. He also said the wide experience of both firms will "be critically important" in overall product development in the years ahead.

Jackson manufactures 45 different models of wheelbarrows, hand trucks, and other lawn and garden products and produces more than one-half million units annually. Cyclone produces a full line of seeders and spreaders for farm and lawn care use, as well as ice control applicators.

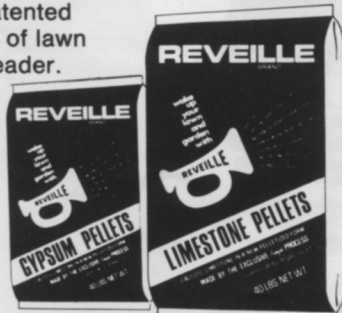


NOW! Big Limestone & Gypsum Profits In A New Easy-To-Spread, Virtually Dust-Free Pellet Form

We call it "pelletized profit" because REVEILLE opens up a whole new market segment for your lawn care business . . . without dusty, uncontrolled spreader application. Take REVEILLE Limestone, for example. Clean, economical, yet highly profitable. Lets you increase customer services and, at the same time, stretch your fertilizer investment. Great for slack periods because REVEILLE can be applied practically year 'round. Fits perfectly into both liquid or dry lawn care operations. Patented pelletizing process makes quick, easy work of lawn and garden applications with any type spreader.

Neutralizes soil acidity, provides essential calcium and releases locked-up nutrients important for maximum turf response. Used by golf courses and turf specialists nationwide.

Also available, REVEILLE Gypsum Pellets, an excellent product for sulfur and calcium-deficient soils. Ideal for loosening up hard, clay soil and for improving moisture retention. Both available in bag or bulk.



REVEILLE

LIMESTONE & GYPSUM PELLETS

Mfg'd by American Pelletizing Corp. • P.O. Box 3628 • Des Moines, Iowa 50322

Circle 120 on free information card

A tree feeding program with Jobe's Spikes is a logical extension of your lawn care service.

Lawn care is expanding fast in every part of the country. As you expand your business, a logical step is to provide tree feeding service with Jobe's® Tree and Shrub Spikes. They're simple, quick to use and require little storage space. Anyone can pound Spikes into the ground, using one Spike per inch of trunk diameter. There is little risk of loss and Jobe's Spikes are easy to sell. They're fast to show response, which customers like. Jobe's make tree service for your customers an easy way to new and profitable business.

Jobe's Spikes are faster than drilling, better than broadcast fertilizer.

Use Jobe's® Tree and Shrub Spikes, and you feed trees in about one fourth the time and half the cost of drilling. A 5" tree takes about 5 minutes labor, plus \$1.50 for 5 Spikes. Compare that to 30 minutes labor to drill holes, plus the time and cost to apply 10 pounds of fertilizer.

Jobe's Spikes are better than broadcast fertilizer because the plant food gets to the tree roots without danger of run-off, burned turf or excessive leaching.



Just pound them in... rainwater does the rest.

Jobe's Spikes are a pre-measured amount of fertilizer formed into easy-to-drive spikes by means of a patented binder. Jobe's Tree and Shrub Spikes are 16-8-8. Evergreen Spikes are 12-6-8. Fruit Tree Spikes are 5-15-15.

A plastic cap makes driving the Spikes easier. Just pound them into moist soil at the drip-line at the rate of 1 per inch of trunk diameter.

With Jobe's there's no bulky auger and generator to carry from job to job... no electric wires to tangle... no equipment to eat into profits with maintenance costs. A hammer is all the equipment you need.



You can offer your customers Jobe's Tree Food Spikes, Evergreen Spikes or Fruit Tree Spikes.

Because Jobe's have a specific analysis for evergreens as well as fruit trees, you can talk to your lawn care customers about a complete tree feeding program—using the Spike tailored just for a specific tree. Customers like "custom-made" products. You can offer them with Jobe's.

Easy, economical, and effective.

University leaching studies have shown that Jobe's Spikes are as effective as fertilizer supplied to trees by conventional drilling methods. The report on the studies states, "The spike will supply nitrogen and potassium to a depth of at least 24 inches. The spike permits the movement of nutrients down through the tree root zone from the surface to the major root areas."

You can save time and make money with Jobe's Spikes.

Order today.

Jobe's Evergreen Spikes 12-6-8 and Fruit Tree Spikes 5-15-15 are now available in bulk. They can be combined for shipping with Tree and Shrub Spikes.

Call your local Jobe's distributor or order direct. \$30 per case (105 Spikes) prepaid, 5 case minimum. 15 or more cases, \$25 per case. 36 or more cases, \$22.50 per case.

Jobe's®
TREE & SHRUB SPIKES

The easy method for professional tree care.
International Spike, Inc., 1081 Dove Run Rd.
Lexington, Kentucky 40502



MEETING DATES

Professional Grounds Management Society Annual Conference, Stouffers Hotel, Greenway Plaza, Houston, Texas, October 30-November 3.

Associated Landscape Contractors of America Maintenance Symposium, Northlake Hilton Inn, Atlanta, Ga., November 3-4.

State of the Art Symposium on Dutch Elm Disease Control, U.S. National Arboretum, Washington, D.C., November 9-10.

Associated Landscape Contractors of America Maintenance Contractors Symposium, Northlake Hilton Inn, Atlanta, Ga., November 3-4.

Irrigation Symposium and Equipment Show, Fresno Convention Center, Fresno, Calif., November 15-20.

Associated Landscape Contractors of America Management Information Systems Executive Management Seminar, Airport Hilton Inn, Denver, Colo., December 1-2.

Ohio Turfgrass Conference and Show, Dayton, Ohio, December 6-8.

Associated Landscape Contractors of America Design/Build Symposium, Sheraton-Dallas Hotel, Dallas, Texas, December 7-8.

TURFGRASS '78, Maryland Turfgrass Council, Sheraton Lanham Inn, Lanham, Md., January 8-12.

Associated Landscape Contractors of America Annual Meeting and Trade Exhibit, Hyatt House, Orlando, Fla., January 30-February 2.

National Arborist Association Annual Meeting, Sarasota Hyatt House, Sarasota, Fla., February 19-23.

at a local Kiwanis, Jaycee or homeowner's association meeting, try out some of these facts on your audience.

Through photosynthesis, plants use carbon dioxide in the air and free pure oxygen. Turf authorities have estimated that the trees, shrubs and grass on a 150-acre area can provide enough oxygen for 10,350 people for one year.

To bring it closer to home, a 50-foot by 50-foot plot of grass under average conditions will provide enough oxygen for a family of four, Janne said.

"Grass and trees are also effective dust traps," says the Texas A&M University specialist. "Dust particles are attracted to the leaf surface through static electricity or are trapped by dense foliage. Rainfall washes the particles into the soil. This claim cannot be made for man's growing architectural achievements expressed in towering skyscrapers and asphalt parking lots. Unfortunately, these tend to speed up movement of vast quantities of water and result in increased erosion of valuable top soil."

Grass also acts as a cooling system. A 2,000 square foot plot releases as much as 120 gallons of water through a method called evapo-transpiration. The releasing of water reduces the heat factor. Grass also cools the environment by absorbing less energy. Only 50 to 60 percent of the incoming solar radiation is absorbed by grass while buildings and pavement absorb up to 90 percent.

The 18th century writer, Jonathan Swift, seemed to understand mankind's role in regard to nature when he wrote: "Whoever could make two blades of grass grow where only one grew before, would deserve better of mankind, and do more essential service to his country than the whole race of politicians put together."

"Man can contribute much to improving the environment," contends Janne. "Maintaining a well-managed landscape is a step in the right direction."

RESEARCH

Home landscaping can help environment

Everyone admires a beautifully landscaped area with attractive shrubs, large shade trees and colorful flowers all tied together with a thick, green carpet of lawn.

However, along with the visual beauty and the aesthetic value of a well-managed landscape, there are other important effects, says Everett Janne, landscape horticulturalist with the Texas Agricultural Extension Service.

As a lawn care operator, the next time you are asked to speak



DERBY TILLER—POWER HOE THATCHES & AERATES LAWNS

Cuts neat borders around shrubs — Tills soil for re-planting patches of old grass — Power churns fertilizers into soil — Weeds flower beds and decorative plantings of shrubs — Weighs 17 lbs., EASY TO USE.



Patch Reseeding



Aerates & Thatches



Weeds Small Spaces

Not in Stores . . . We sell factory direct to save you money. Built for rugged use. Good engineering + simple design = low price. American made, gasoline powered, work tested for 10 years by truck farmers, nurserymen and gardeners.

Derby Tiller-Power Hoe aerates or thatches 20 x 40 ft. section in five minutes or less. Has precise depth control, weeds 1 to 3 inches deep. High speed tines break ground for planting, tills 6 to 8 inches deep, power churns soil into finely granulated loam . . . Tills 9 inches wide.

Powered by rugged 1 hp engine, easy to start . . . fun to run . . . women & children can operate it safely . . . you guide it single handed . . . doesn't tire you out . . . weighs 17 lbs. Makes easy work of hard chores.

Built by Co. with 50 years experience in the manufacture of tough dependable gardening tools.

Service agents in your area, fully guaranteed . . . your money back if not satisfied . . . for full information plus free gardening guide write or call . . .

DERBY TILLER CO., P.O. BOX 21, RUMSON, N.J. 07760

____ Please send brochure.

____ Here's my check for \$177.50, send tiller & gardening guide . . . Derby Co. pays freight.

____ Send \$30.00 we ship balance COD, you pay freight.

NAME _____

STREET _____

CITY _____

STATE _____ ZIP _____

Orders accepted by phone Mon.-Sat. 9 to 5, Call (201) 741-0601.

Circle 122 on free information card

PROFESSIONAL

**Lawn Care People Who Know Insist on
Rockland Granular DIAZINON Chinch Bug
and Grub Killer**

ROCKLAND has a complete line of granular insecticides, herbicides and fungicides for Professional Turf Maintenance.

ROCKLAND Fertilizers contain combinations of IBDU, NITROFORM and new SULFUR COATED UREA. Some available formulations — 25-5-15, 30-2-5 and 20-4-10.

All products are formulated with the highest quality ingredients and carriers.

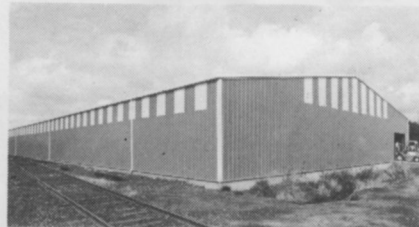
ROCKLAND PROFESSIONAL lawn and garden PRODUCTS CATALOG

Ask your
supplier
or write



ROCKLAND CHEMICAL CO., INC.
PASSAIC AVE., WEST CALDWELL, N.J. 07006

Circle 117 on free information card



COMPANIES

Great Western Seed continues expansion

Great Western Seed Co., Alban, Ore. has completed another phase of its expansion program, recently putting into service a new 20,000 square foot seed warehouse.

The building is adjacent to former seed storage facilities and has a capacity of three million pounds of grass seed.

According to a company spokesman, the new warehouse will be a significant improvement for Great Western Seed and its seed growers. For the company's dealers it means a bigger inventory capability with faster service on seed orders.

"I was very pleased with the entire magazine. Really, I enjoyed it very much. There was quite a bit of information. Keep up the good work."

Nicholas Sacco
Paul Sacco & Sons
Long Branch, New Jersey

"Good luck. Great magazine! Thank you for helping us all better understand the industry!"

Thomas E. Ritchie
Landscaping & Lawn Maintenance
Englishtown, New Jersey

"The most informative lawn care magazine ever!"

Sam DeVito
Cardinal Landscaping
Cleveland, Ohio

"Your articles would be helpful to anyone in the business."

Ray May
Lawn Medic of Erie
Harbor Creek, Pennsylvania

"Your magazine is very informative and will be very helpful to those of us that have not been in the business very long."

Steven C. Fry
Nu-Lawn
South Vienna, Ohio

"Very good start! Continue Marketplace."

LeRoy Gaskin
Lawn Aid
Tipp City, Ohio

"You have the makings of a very informative publication."

David A. Brown, Jr.
Pinebrook Guardian System
Winston-Salem, North Carolina

"Very good first issue. Let's have more."

Michael A. Nawa
A. J. Nawa & Sons
Wyomissing Hills, Pennsylvania

"This publication is very helpful and informative to persons involved in the lawn care industry."

Kurt E. Graeser
Graeser's Landscaping & Nursery
Louisville, Kentucky

"Your magazine is a must as it tells latest developments in lawn care industry."

Jerome Bonicos
Econo Lawn Service
Waldwick, New Jersey

"We really like the entire paper. We needed it. I'm at the point where some nitty gritty expressions and/or financing theory articles could help."

John Leonard Papp
Lawn-Spray Company
Califon, New Jersey

"I think this is great!"

Dan Hollingsworth
Lawn Consultants
Lilburn, Georgia

"The best magazine in the field."

Ward L. Hartzell
Beauti-Care Gardening
Mountlake Terrace, Washington

"Fantastic!"

Larry Kapp
Green Lawn, Inc.
Ft. Wayne, Indiana

"Your publication has a good start. Keep it short and to the point."

Don Teske
Don's Lawn & Garden Care
Beloit, Wisconsin

"The content is excellent. Don't change. Best and most precise and informative paper I've read in 25 years! Excellent! Congratulations."

Clarence Davids, Sr.
Clarence Davids & Sons, Inc.
Blue Island, Illinois

"I think you have a winner! Manufacturers should jump on this magazine. We need special equipment."

Allen A. Dall
Lawnco Inc.
Brooklyn Heights, Ohio

"Your first issue is excellent. Keep up the good work!"

George F. Boairight
Lawn Doctor of Central Virginia
Lynchburg, Virginia

"An excellent publication which will be very helpful in keeping everyone informed and which should do much to bind us as an industry."

Floyd Franklin
Rollins Lawn Care
Atlanta, Georgia

"First edition was great."

E. Meffert
E. Meffert Landscape
Mount Dora, Florida

"Seems like everything was covered pretty well. Keep up the good work."

Thomas G. Brune
Atwood Lawnspray, Inc.
Sterling Heights, Michigan

"I'm really impressed with LAWN CARE INDUSTRY. You all did a fine job. If I can help in any way, please let me know. Agrilawn is a fairly small company, but we've run the same problems getting started as everyone else."

Robert L. Habermehl
Agrilawn Incorporated
Owensboro, Kentucky

"Keep all publications like the first and you've got it."

Ted Kabat
Diamond Shamrock
Nazareth, Pennsylvania

"Excellent publication. Enjoyed reading it very much. Anxious for next issue."

John E. Meadors
Meadors' Lawn & Grounds Maintenance
Danville, Virginia

Thank You Readers!



NEWSMAKERS



From left: PAR EX's Lanier, Rehberg and Stacy.

Swift Agricultural Chemicals Corp., Chicago, has announced re-organization of its **PAR EX Professional Products Division**, based in Winterhaven, Fla. Heading up the division are George C. Lanier, Bob E. Rehberg, Irven B. Stacy and Joseph P. Kealy. In their new positions, Lanier is national manager, Rehberg is national sales manager, Kealy is research and development manager and Stacy is national advertising,

promotions and marketing manager.

Robert Lehner has been named executive vice president of **Safe-T-Lawn, Inc.**, manufacturers of irrigation equipment in Miami.

Donald H. Gately has been named president and chief executive officer of **Weed Eater, Inc.**, Houston, Texas, which was recently purchased by Emerson Electric Co., St. Louis.

Dan Hogan, Jr. has been

named national marketing manager — garden and home, for the Ortho Division of **Chevron Chemical Co.**, San Francisco.

Dr. Peter J. Schultz has been named chief environmental scientist of **J I Case Co.**, Racine, Wis.

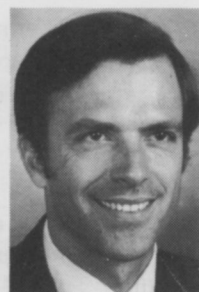
Dan Skahill has been named manager of advertising and promotion for **Moody Sprinkler Co., Inc.**, Costa Mesa, Calif. He will manage the company's in-house advertising agency, EPCO, Inc.

Clifford J. Griffith has been named vice president of engineering of the **Gravely Division** of Clarke-Gravely Corp., Clemmons, N.C.

Monsanto Agricultural Products Co., St. Louis, has named Lloyd J. Boesch, director, products — Lasso and Ramrod herbicides; Bruce S. Buckland, director, products, — Avadex and Machete herbicides, Polaris plant growth regulator and parathion insecticide; and G. David Malsbary, director, products — Roundup herbicide.



Schmid



Lachman

Henry D. Schmid has been named to the newly created position of director of marketing for the **Davey Tree Expert Co.**, Kent, Ohio.

Gary Lachman has been named vice president of marketing for **Rain Bird Sprinkler Mfg. Corp.**

Roger J. Thomas has been named vice president of international sales operations for the Turf Products Division of **Jacobsen Manufacturing Co.**, Racine, Wis. The promotion comes as part of the division's plans to substantially increase the international segment of the turf business. Thomas, who has been primarily responsible for building domestic sales to their current level, will now take charge of developing worldwide sales distribution and coordinating international product planning, service, training, advertising and engineering. He began with Jacobsen in 1947 and is recognized worldwide for his expertise in the turf equipment field. He received his bachelor's degree in economics from Saint Norbert College in De Pere, Wis. and his master's degree from Marquette University, Milwaukee, in business administration. His 30 years of service to Jacobsen began as a field service supervisor and continued with positions as special accounts salesman, sales promotion and advertising manager, supervisor of sales and commercial products, sales manager

for domestic distribution and vice president of turf sales.



Sorrenson



Doubler

Richard K. Sorrenson is regional sales manager for the north central area of the country for the Outdoor Products Division of **Hahn, Inc.**, Evansville, Ind. A long-time member of the lawn care industry, Sorrenson originally came to Hahn from the Eclipse Lawn Mower Co., Prophetstown, Ill. Hahn also has named Del Doubler sales manager of the division.

After over 20 years with **Monroe Tree and Landscape, Inc.**, Rochester, N.Y., Frederick R. Micha has formed his own private tree appraisal and consultation business, under his name. His offices are in Ontario, N.Y.

Richard D. Murray has been named national sales manager, responsible for dealer sales and national accounts, of **Gravely Division** of the Clarke-Gravely Corp., Clemmons, N.C. He previously had been national field sales manager of the **Harley-Davidson Division** of AMF.



Micha



Murray

George M. Gaumer has been named assistant advertising manager of **Davey Tree Expert Co.**, Kent, Ohio. In his new position he will be responsible for the company's national Yellow Page listings and direct mail advertising program. He will also work in developing national and local media advertising and marketing research studies. Prior to joining Davey, he handled media, publicity, Yellow Pages and direct mail advertising campaigns for Karl Kuemmerling Associates, Inc., Columbus, Ohio. He has had extensive experience in the tree and lawn care industry. He holds a bachelor's degree in business administration from Ohio State University. He is a member of the International Society of Arboriculture.

Daniel R. Dawson recently was appointed to the position of western regional sales manager of Melnor Industries, Moonachie, New Jersey.



IF YOU HAVE A HAMMER, THE JOB'S ALREADY HALF DONE!

LESCO Quality Tree Stakes do it all — for you AND your trees! Just pound them into the ground and the 16-10-9 formulation plus TRACE ELEMENTS quickly begin promoting strong and healthy growth.

The efficient, pre-measured, once-a-year formulation can be used in either fall or spring, at your convenience, to provide maximum feeding for trees, evergreens and shrubs, to minimize costs and to free you and your crew for other jobs.

Each 40 pound carton contains enough stakes to feed 35-40 three-inch trees. Just drive 3 stakes per every 2 inches of trunk diameter into the ground at the tree's drip line and let LESCO and Nature do the rest!

Take it from a hammer-head like me. You get more — pound for pound — with LESCO Quality-Controlled Tree Stakes! Write or call us collect at (216) 323-7544 — Jack Welch.

LESCO PRODUCTS

Div. Lakeshore Equipment & Supply Co.
300 S. Abbe Road
Elyria, Ohio 44035

A Family of Fine Products: Lescosan 12.5G — Lescorene — Lescos 4
Lescobar — Lescopar — Lescopex — Lescos Non-Selective Herbicide — Lescos MSMA
Lescos Thiram 75W — Lescosyme — Lakeshore Chinch Bug & Sod Webworm Control

Circle 126 on free information card

Management, leadership: how do you measure up?

In the lawn care business as in any business, competent leaders and managers are a combination of loyalty, hard work and perseverance. They are also people who are efficient and effective in their dealings with others.

And they always are growing and looking for ways to better their company's stature and position. There are several areas into which you can look to see how you measure up as a growing, competent manager and leader. Some of these areas include:

- **Technical competence.** Knowing what you are doing is important, but you must keep adding to your store of knowledge if you are to remain competent. Pesticide application is a complicated and fast-growing area. Anyone wishing to remain competent in this area must keep abreast of all the government rulings and investigations on pesticides used by the lawn care operator. Your technical competence is insured by keeping up with change, rather than behind it.

- **Resourcefulness.** A competent person is one who is resourceful — he's the type you can go to for answers. If he doesn't know about something, you can be sure he knows how to find out. A healthy curiosity keeps the resourceful individual growing — and changing to benefit himself and his organization.

- **Efficiency.** Anyone can get things done eventually. But the competent manager gets things done now. He is organized and makes good use of his time. He deals with one task at a time until it's finished and then goes on to the next.

- **Reliability.** An efficient person is reliable. Reliability is a most important ingredient for anyone who manages. When a reliable person is given a task, you know that it will get done and you can count on it being done correctly and quickly.

- **Working with others.** A skillful manager knows how to work with and through others. He delegates authority to subordinates to strengthen their authority so he can be relieved of some of the workload. Subordinates become extensions of himself — but he remains responsible for their actions.

- **Awareness.** A manager should be all ears and eyes. He should be alert to everything that is happening around him — nationally, in the community, and in the lawn care industry. He should also assimilate the information and be able to see the effects such events have on the organization and to be able to use or discard items as necessary. There is a good deal of "politics" in any organization. Be aware of it, but don't get in-

volved. Have a thorough knowledge of the political structure of your organization and be able to predict what will happen if it changes.

- **Open mindedness.** Always consider what the other person feels. Be able to see the other person's side. Try to avoid value judgments. Determine why something is wrong, not who is wrong. If you disagree with an idea, make it clear that you are disagreeing with ideas rather than attacking the person. Most important, be able to laugh at yourself, to keep your sense of humor.

- **Self-confidence.** Self-confidence is developed through preparation. Get adequate sleep, nourishment and exercise to

keep physically fit and mentally alert. A clear mind is needed to think through problems, analyze, seek alternatives, consider consequences and develop plans.

With introspection and diligent dealings with others, a manager can measure up to quality leadership. As a manager grows, so does the organization. GCSAA Forefront.

EQUIPMENT OUTLET

Dedoes opens outlet in Port Charlotte, FL

Dedoes Industries, Inc., makers of Dedoes turf-aerating equipment, has opened a retail store in Port Charlotte, FL, first outlet store in the country.

Dedoes Lawn Equipment and Service, at 1651 S. Tamiami Trail, Industrial Park Drive, will sell the company's aerators plus

Hahn and Gravelly tractors and mowers to lawn care firms and golf courses. The outlet will also repair lawn equipment, said Mrs. Kathleen Johnston, office manager at the company's manufacturing plant in Walled Lake, MI.

The company will continue selling much of its equipment through distributors.

A grand opening at the new service store will be held October 15.

Cut the high cost of feeding trees with Agriform tablets and our new fertilizer probe.



By using our new Agriform probe and long-lasting Agriform tablets, you can fertilize a 4" diameter tree 2 YEARS for less than \$1.00. That's a great savings when you compare it to the \$2.28 you'd spend to fertilize with "spikes" that would have to be applied twice!

And talk about easy to operate; with our new steel fertilizer probe, you simply punch holes around the drip line of a tree and drop the Agriform tablets right into the root zone. No more messy bags or broken spikes, which just plain makes it more convenient.

Agriform tablets feed for two full years and won't burn your trees or leach away. You have used them at planting time; now feed established trees the same

safe, easy and economical way.

So haven't you paid more to get less long enough? Get a probe and switch to the Agriform Nutrient Delivery System. It gives you more of everything but the price.

AGRIFORM[®]
Nutrient Delivery System
The No Worry, Professional Way.

Buy our fertilizer probe for \$5.99, and we'll give you a \$3.00 coupon for Agriform tablets.

Sierra Chemical Company
1001 Yosemite Drive
Milpitas, California 95035

Please send me _____ probe(s). I have enclosed a check for \$5.99 each. Don't forget the coupon worth \$3.00 toward my purchase of a case of Agriform tablets for each probe I ordered. Offer expires June 1, 1978.

Name _____

Firm or organization name _____

Street _____

City _____ State _____ Zip _____

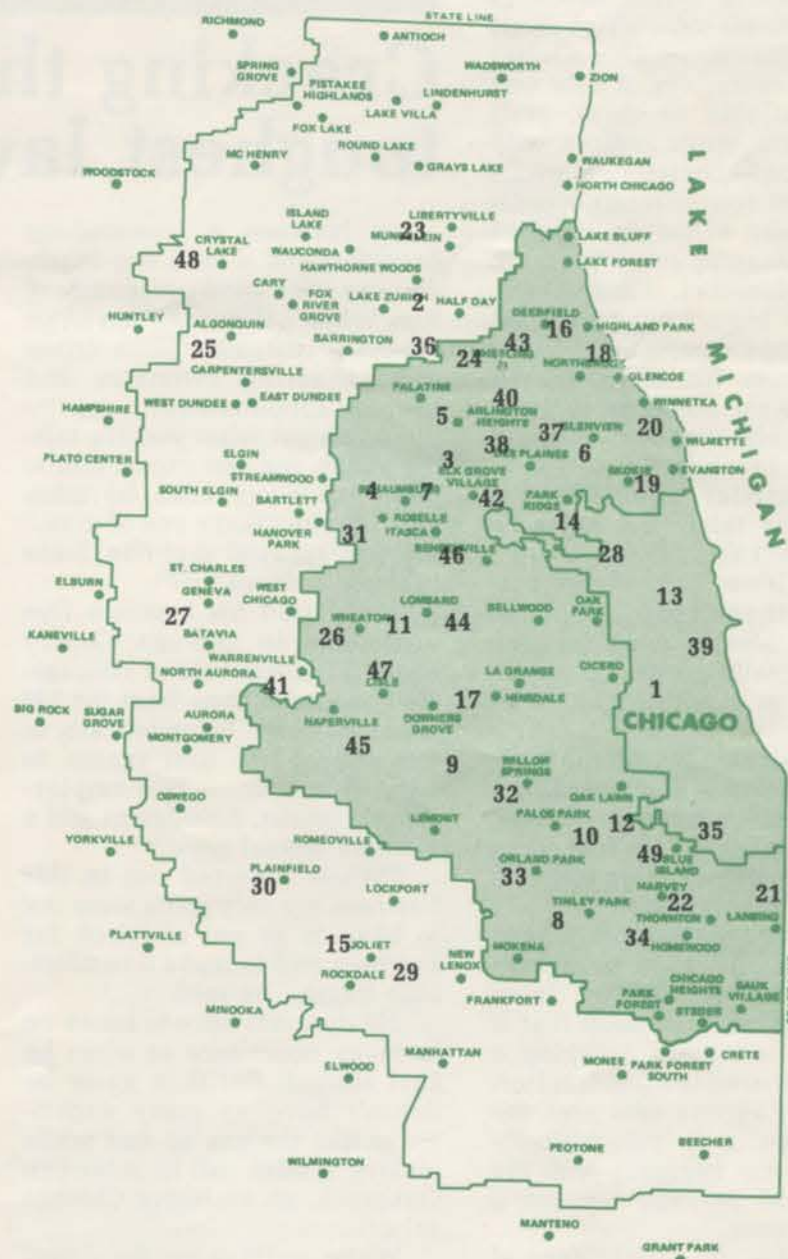
Agriform (T) is used as a trademark by Sierra Chemical Company for its brand of controlled release fertilizers. ©1977 Sierra Chemical Company.

Circle 114 on free information card

✓ *Chicago*

Chicago lawn care companies

1. Aero Lawn Care
879 Jefferson
742-6920
2. Alyea Lawn Maintenance
Box 194
Prairie View 60069
537-2781
3. Barefoot Grass Lawn Service
P.O. Box 442
Arlington Heights 60006
640-6664
mgr: Larry & Suzie Hopper
4. Best Lawns
725 Estes
Schaumburg 60193
529-2777
5. Chem-Lawn Corp.
645 W. University
Arlington Heights
255-6300 mgr: Bob Houschel
6. 1830 Pickwick (P.O. Box 401)
Glenview 60025
729-6311 mgr: Mike Sepke
7. 1103 W. Morse Ave.
Schaumburg
529-4200 mgr: Larry Hunter
8. 7350 Duval Dr.
Tinley Park
532-7400 mgr: Dick Cooper
9. 7530 Madison St.
Willowbrook 60521
920-8585 mgr: Fred Hobbs
10. Evergreen Lawn Care
12843 Cedar Lane
Palos Hts. 60463
448-6247
11. Excelawn
612 E. Western
Lombard 60148
495-4750
12. Fiba Lawn Care
30 Cour D'Alene
Palos Hills 60465
974-4386
13. Forest Glen Lawn Service
4856 W. Catalpa
685-7934
14. Hoff Corp.
7042 Milwaukee
Niles
965-4343
15. Joliet Lawn Service
P.O. Box 247
Joliet 60434
815/726-5742
16. J & J Lawn Spray Service
87 St. Johns
Highland Park 60035
433-5650
17. Keller Heartt Company, Inc.
338 Park
Clarendon Hills 60514
920-1122 (323-1900)
18. Lawn Keepers
680 Roger Williams
Highland Park 60035
432-8660
19. Lawn Doctor N'Brook & N'field
1026 Harvard
Evanston
564-2424
20. Lawn Doctor of The North Shore
350 Oak Circle
Wilmette
564-2424
21. Lawn-A-Mat of South Cook County
14242 S. Marvint
Dolton
849-1188
22. Lawn Medic
15428 Center Ave.
Harvey
339-3722
23. Lawn Medic of Lake County
Butterfield Rd.
Mundelein
362-3331
24. Liqui-Green of Chain-O-Lakes
P.O. Box 37A
Buffalo Grove 60090
541-7020 (Rick Gruber)
25. Liqui-Green of Crystal Lake
312 Meadow Lane
Lake in the Hills 60120
658-8866 (Ron Turbett)
26. Liqui-Green of DuPage
P.O. Box 2
Wheaton 60187
682-1868
27. Liqui-Green of Fox Valley
18 N. Greenwich
Geneva 60134
232-8874
28. Liqui-Green of Glenview
P.O. Box 338
Park Ridge 60068
894-5973
29. Liqui-Green of Joliet
2210 W. Jefferson
Joliet 60435
815/729-9233
30. Liqui-Green of Quad Counties
R.R. 4
Plainfield 60544
815/436-2320
31. Liqui-Green of Schaumburg
R.R. 2, Box 354W
Roselle 60172
894-9365
32. Liqui-Green of Suburbia
P.O. Box 154
Willow Springs 60480
599-8338
33. Liqui-Green of South Suburban
P.O. Box 301
Orland Park 60462
371-4820
34. Liqui-Green of Will County
P.O. Box 217
Hazelcrest 60429
799-3599
35. Liquid Lawn Fertilization
5115 S. Merrimac
Chicago 60638
582-7897
36. McGinty Brothers Inc.
(Long Grove Rd.) RR 2, Box 518
Long Grove
438-5161
37. North Suburban Lawn Inc.
600 E. Rand
Mt. Prospect
259-8880
38. North Suburban Lawn Inc.
2440 E. Oakton
Arlington Heights
437-4949
39. Ruiz Lawn Maintenance Service
1357 W. Ohio
Chicago
421-0757
40. Sears Lawn & Leaf
1098 S. Milwaukee Ave.
Wheeling
459-1400
41. Suburban Lawn Inc.
29036 W. Butterfield
Warrenville
393-1966
42. Tempo 21 Inc.
1311 Howard
Elk Grove Village
439-0500
43. 404 Merchantile Ct.
Wheeling
541-1600
44. Tender Loving Lawn Care
739 S. Lalonde
Lombard
629-3377
45. Tops Lawn Care
5675 S. Cloverdale Ct.
Naperville 60540
357-3030
46. Tru Green
Box 706
Addison 60105
543-7300
47. Village Green Lawn Spraying
348 Brandon
Glen Ellyn 60137
858-1128
48. Turftreet Lawn Service
(Country Gas Co.)
4010 Hwy. 14
Crystal Lake, Ill.
312/639-4364
815/459-0909
49. Clarence Davids, Sr.
Clarence Davids & Sons, Inc.
Blue Island, Illinois





Larry Shipow, president of Sears Lawn & Leaf

Special spray equipment has been added to each of the 15-plus Sears lawn care trucks that allows use of the customer's water for mixing and spraying.

The offices of Sears Lawn & Leaf in suburban Wheeling, Illinois. Orders are taken and processed by computer.



Chicago from page 14

must contend with. In Arlington Heights, for example, the average homeowner lives in a house only two or three years. A lot of Chicago-based companies send junior executives and other personnel in for training in the home office and then out again.

Most companies count on referrals and pass out brochures door-to-door, trying to gain customers. Sears Lawn & Leaf, a new lawn care operation, is allowed space in the brochure the main Sears sales office sends to all its customers. This advises all Sears customers of new services available to them. Hoff Corporation sends notices with its landscape contract renewals stating that it now offers chemical spraying alone or together with landscaping services.

Bob Houschel, Chem-Lawn, says "Our biggest advertisement is our happy customer. He sells the program for us." Most of Chem-Lawn's business is from referrals, although they also put out many brochures.

Bob Parmley, Tempo 21, has done some television advertising. "I don't think it works out," he says. "It's so hard to measure, except that you keep your name out there. Most of our marketing has been with brochure, word-of-mouth and our trucks themselves."

The large truck with the company name on it is almost like a traveling billboard. Sears' name, for example, is 12 feet long across the side of their stepvan, making it highly visible.

Results are naturally also very important with such high visibility. Most Chicago lawn care businessmen reason that if they are out there spraying a well-manicured lawn that is lush and thick, anyone who sees the truck there will automatically associate that company with the results and perhaps become a new customer.

Tom Mudloff, Liqui-Green of Glenview, thinks that service is the big advantage his particular franchise offers. He and his partner, Bruce Saffom, have about 300 customers this year and hope to have about 1,000 in three or four years. "It's limited only by how much time and effort you want to pump into the business," says Tom, "and if you've got the capital to put into adver-

tising, there's no limit to the amount of customers you can get if you provide service. You could put solid gold products on the lawn, but without service you'll never keep them."

There are 11 Liqui-Green franchises in Chicago right now with about 20 trucks and 8,000 customers. Each one has definite boundaries within which to operate. Tom's franchise, for example, covers North Ave. north to Wisconsin, and from the Tri-State Freeway east to Lake Michigan.

Liqui-Green has a dealers

association in the Chicago area that meets about once every two months to discuss common practices and problems. Almost all of the products, as the company name suggests, are liquid. Since the liquid has a 90-day residual,

only three sprayings are needed per year. Tom also uses weed control in spring and fall. To avoid risk of damage and to be flexible to spray for weeds almost anywhere, the applications are done separately. They use a

Cracking the country's toughest lawn care market

In between a ham-and-egg breakfast and a chili dog lunch, you can see a good percentage of Rick White's Village Green Lawn Spraying customers as he drives around giving estimates and keeping appointments.

No matter what you are talking about, you can expect him to point out every lawn he takes care of with "that's one of ours," or "just sprayed that one, looks real good, doesn't it?"

He started his business five years ago in DuPage County about 20 miles west of Chicago. He has seen it grow from the 150 lawns he cared for personally at the end of the first season to what it is now — five employees, six trucks, 2,200 lawns and a \$230,000 annual gross.

"When I started out in this business my only goals were not to have to go out and look for business and to make a comfortable living," he said.

He does not have to knock on as many doors now as when he first started. But then again he doesn't have as many experiences like the one he had while making a sales call in suburban Oakbrook, an exclusive Chicago suburb.

While walking up the driveway, the owner of the home — dressed in a black business suit and carrying a bulging briefcase — was hurrying out the door.

White started to explain the benefits of his lawn care program, but was cut short when the homeowner said he had to catch a flight to Saudi Arabia to close a business deal.

Before White could continue

his sales pitch, the man crossed the street to a vacant lot. As he did that, a helicopter landed in the lot and swooped him off to a waiting private plane at O'Hare International Airport.

White came back later and got the business when the owner of the home was in less of a hurry.

Saudi Arabian oil deals are not the only problem White comes up against. As he drives through development after development, he keeps saying, "is that one sold too?" as he sees realtor signs on many of the lawns he cares for.

"There are as many moving vans as there are my spray trucks in some of these developments," he says as he makes a notation to call on the new homeowner.

But in five short years, the blond, 31-year-old White has made a name for himself in the

Chicago lawn care market, one he calls the most competitive in the country. He backs up his point by saying there are 12 lawn care companies servicing suburban Naperville alone, one of his biggest markets.

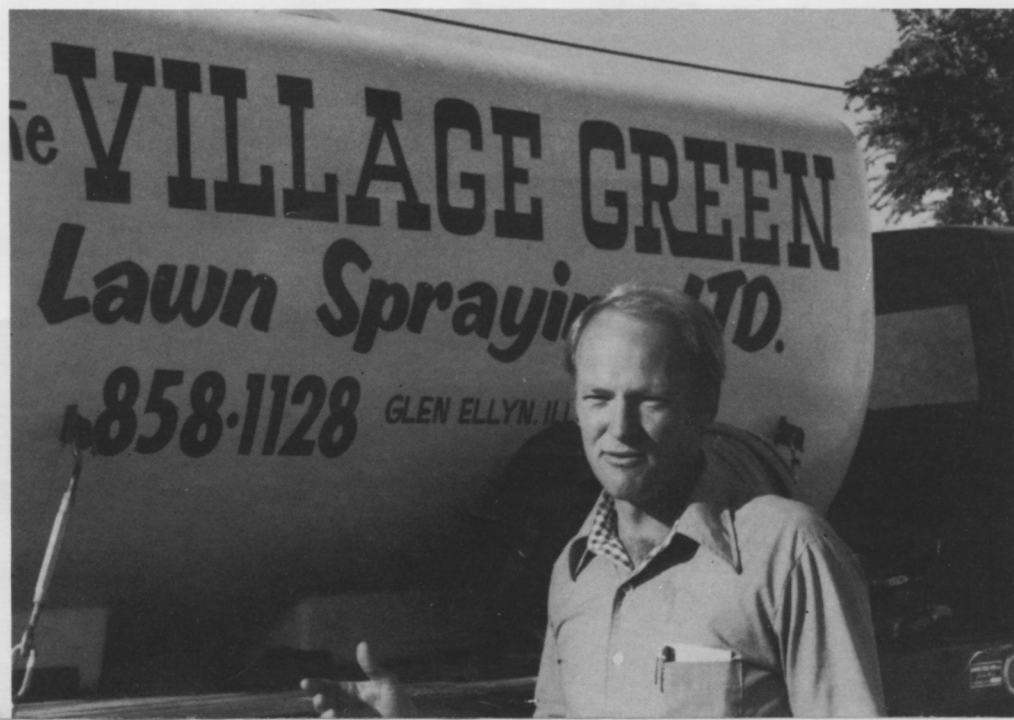
But he is concerned primarily with the poor competition.

"The general image of lawn care companies is bad," he says. "We have companies in this area doing things like recommending a fungicide application for brown grass caused simply by a neighboring dog."

"If this kind of thing keeps up, it will get to the point where some sort of state regulations will have to be passed for lawn care companies, similar to those for tree care companies."

He said many small lawn care companies are jumping into the

Rick White began his Village Green lawn care operation five years ago and has built it into 2,200 customers and a \$230,000 annual gross.



TYPICAL CHICAGO LAWN CARE PRICING

Chem-Lawn

\$20/5000 sq. ft. application
4 application/year

Liqui-Green

\$100-125/6000 sq. ft.
Total 3 applications a year

Tempo 21

\$110/8000 sq. ft. for 4 total
applications
adds \$2.50/1000 sq. ft. application

Sears Lawn & Leaf

\$31.25/10,000 sq. ft. application (\$125/
year) (4 applications)

Barefoot Grass Lawn Service

\$21.88/4000 sq. ft. application

Village Green Lawn Spraying

\$32/10,000 sq. ft. application
4 applications a year

surfactant with the herbicide to control drift.

Parmley of Tempo 21 has his trucks set up to run either liquid or dry. This way, he can take care of any conditions that might come up. The products are blended in the morning for the particular conditions that exist that day.

Barefoot Grass Lawn Service

uses Scott's products exclusively. They offer a program of four basic sprayings per year, which includes fertilizer, weed control, and insecticide. They also have a deluxe program where five applications are available, and applications of fungicide are made in early spring and late fall to help control and reduce diseases as part of the normal program.

Larry and Suzie Hopper run this branch themselves. They are planning to open one, perhaps two, more branches next year. Suzie feels that the deluxe program with standard applications of fungicide is a plus for their organization.

"It's something that's a little bit different that has helped us this year, because most of the other companies don't have it," she said.

She and her husband have about 425 customers and two vans. "With it being the first year, we try to kick down on any overhead costs, mostly because we use all Scott's products and Scott's products cost more than

to page 18

Occupancy characteristics of dwelling units in the Chicago standard metropolitan statistical:

County	All Dwelling Units			Owner Units		Rental Units	
	Number	Vacancy Rate	Household Size	Number	Household Size	Number	Household Size
Cook County	1,854,251	4.8	3.1	853,221	3.5	981,127	2.6
City of Chicago	1,208,327	5.8	2.9	398,830	3.4	794,802	2.7
Suburban Cook	645,924	2.7	3.3	454,391	3.6	186,325	2.2
DuPage County	142,386	4.3	3.6	109,587	3.8	31,432	2.7
Kane County	77,028	3.1	3.3	50,191	3.5	26,083	2.8
Lake County	108,156	4.8	3.4	73,755	3.6	31,896	3.0
McHenry County	34,647	4.5	3.4	25,395	3.4	8,310	3.0
Will County	73,367	3.8	3.4	51,913	3.6	20,512	2.9

Income characteristics of the Chicago standard metropolitan area:

County	Percent of families earning:			
	Less than \$7,000	\$7,000-9,999	\$10,000-14,999	\$15,000 or more
Cook County	21.9	17.1	30.4	30.6
City of Chicago	28.8	19.6	28.3	23.3
Suburban Cook	11.4	13.4	33.4	41.8
DuPage County	8.6	11.4	33.7	46.2
Kane County	15.9	18.2	37.0	28.9
Lake County	16.1	15.0	30.6	38.4
McHenry County	18.7	16.5	34.8	30.0
Will County	15.8	18.8	37.0	28.4

business with no training. "And some of the bigger ones are delivering poor workmanship and undercutting established prices by skimping on materials," he said.

The philosophy of his lawn care business is this: "I determine how I can do the job best and then charge accordingly. Many companies figure out how they can first get the job at whatever price they can, and then adapt their materials accordingly."

White schedules four spray applications a year for most of his customers. His basic rate is \$32 per 10,000 square feet. The first application is applied from about the last week in March to May 15. It usually consists of a tank mix of Dacthal crabgrass preemerge and IBDU slow-release fertilizer along with a soluble fertilizer.

From the end of May until about July 15 he sprays his customers the second time with a tank mix of Trimec herbicide and a lighter fertilizer application of nitrogen to supplement his heavier spring and fall applications.

From the middle of July until about the end of August he comes in with another light

fertilizer application.

He sprays his fourth application in September and October with a tank mix of herbicide and IBDU fertilizer.

He uses this fertilizer in heavy rain periods of spring and fall because the nitrogen will not leach out. Also, the fall application keeps the lawn green until the snow flies and is still available to the lawn for quick spring green-up.

This is the first year he has used slow-release fertilizers and the results have been good, according to White.

Among the benefits he has found is the low salt index and less of a problem with nitrogen loss through leaching. Also, tank mixes take less volume because the water is used simply as a carrier for the fertilizer. Thus, his sprayers can get more lawns out of each tank, a savings in efficiency.

He feels he has to stress quality service in addition to the use of quality materials. His

White estimates many of Village Green's lawn care jobs himself, here stepping off the square footage of a local Ford dealership with calculator in hand.

prices are higher, but he feels he can justify them because of his highly personalized service. This might not seem like a big point, but consider what many of the larger companies do.

There are three segments to a large lawn care company — management and office staff, the salesmen/estimators and the sprayers. Although all three segments communicate, they are working towards different goals at times.

The salesmen are interested primarily in getting as many commissions as possible off as many customers as possible. To do this, a salesman might measure a 9,000 or 10,000 square foot lawn out at 7,000 square feet. The price is obviously lower and may induce the lawn owner to change companies.



When the sprayer gets to the job, he is primarily concerned with getting the lawn sprayed as quickly as possible. Unless there is a big discrepancy in the measured lawn and how much chemical he puts on, it is unlikely he will say anything about it.

The end result is that management has to start cutting use of quality materials and quantities per application to realize a worthwhile profit. The homeowner suffers in the long run.

"Making money in this business has to do with economies of scale, like buying in volume," White says, "but it can work against you too. A big company can sometimes be only a post office box number to some homeowners. Many like to feel they are getting more personal service than that."

He and his salesman leave their business cards after they quote a job or make a call, so when the customer calls back he has a name to ask for.

He also has the history of each lawn he has cared for on file and can refer to it if there are any problems. Other examples of his service are that he speaks at homeowners' association meetings about lawn care for free and another little thing he calls his "competitive edge."

This is simply the line — or edge — he and his sprayers leave at the end of a customer's property when spraying. They take special care to make as straight a spray line as possible to show the difference between a treated lawn and a non-treated lawn.

After a couple weeks when the lawn begins to green up, this marked difference makes the

to page 18

White checks one of his customer's lawns for insect or disease problems.



Chicago from page 17

most others. So we run the office from our house and avoid the big overhead of big offices and warehouses."

Chem-Lawn's basic program is fertilization. It then adds weed and insect control, if necessary.

Hoff Corporation has been in the landscape business for 20 years. It just branched into chemical lawn care this year upon popular customer demand. It services about 100 customers, 90 percent of them home lawns, with one truck. Its lawn program consists of four applications per year. The first is fertilizer plus preemergent crabgrass killer; the second and third are fertilizer, plus broadleaf weed control; and the fourth is fertilizer. It will eventually expand, but right now are looking just to keep one truck busy.

Sears sprays its customers' lawns with custom equipment set up in a step-van. Except for one wire to the truck battery, the equipment unit is independent and easily removed for service.

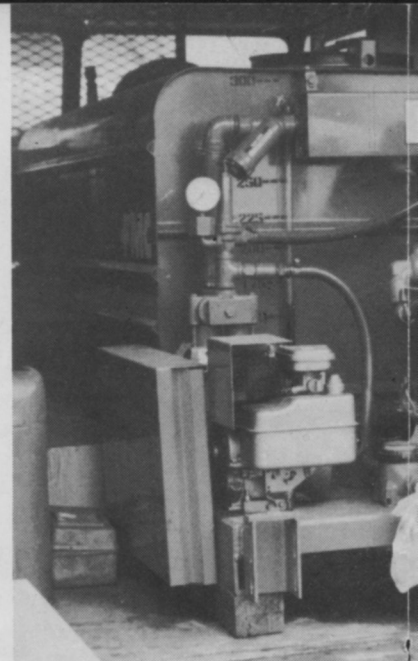


Tempo 21, of Wheeling, Illinois, another of the more successful Chicago-area lawn care companies.

John Cragie, vice president of marketing for Sears Lawn & Leaf.



The spray equipment in the back of one of the step vans used by Sears Lawn & Leaf.



One problem that seems to be a major concern of most companies in the Chicago area is the prevalence of Merion Kentucky bluegrass. Several years ago, Merion was the recommended variety of Kentucky bluegrass. Since then, it has shown an increasing susceptibility to major lawn diseases. Again it is a problem of customer education. Most homeowners have had the advantages of planting their lawns to Merion drilled into them and

Sears' president, Larry Shipow, prefers the low pressure, high volume method of spraying to avoid drift. The concentrate is kept separate and mixed with water just before it enters the

spray gun. "We avoid any waste this way," emphasizes Shipow.

Their program is also four feedings per year, and they will spray insecticide and fungicide, if needed or desired.

Village Green from page 17

customer feel good and often leads to new business.

He handles this extra business with five full-time employees including himself. His three sprayers receive a \$9,000 base salary and also are part of an incentive program that can increase their wages almost \$1,000 annually.

He figures his sprayers can average about \$400 worth of lawns sprayed per day, and the incentives are based on this figure. There is a catch though. If they don't make their quota, they have to pay him. He reasons that this plan keeps his sprayers on their toes.

He also pays his sprayers and

salesman over the winter, the reason for which is simple. Most of his employees have been with him for at least three years, and he feels it is necessary to pay them in this fashion to keep them.

He also feels this longevity is a plus in his favor compared to his competition. To capitalize on this, he is having work shirt patches prepared for next year that has the name of his employee and also the number of years with Village Green.

This year has been the first White has hired a full-time salesman, a 54-year-old employee from a competing lawn care company.

"I was giving less and less service to my customers, because I just did not have the time anymore," he said. "But this guy has the time to be persistent, is on the phone all evening and does good follow-up work on esti-

mates, something I had less time to do."

His expansion speaks well for a person who started in the lawn care business as a helper for Liqui-Green of Peoria, Illinois. He liked the job so much he decided on a horticulture degree at the University of Illinois and worked lawn care in the summers.

Five years ago he decided to break away from the Liqui-Green organization and set upon Chicago as the best place to make a living at it.

He and his wife quit teaching jobs and moved to Glen Ellyn, Illinois, where he still taught for two years while he got the business off to a running start.

And now he is big enough to begin thinking about franchising. What would he look for in a prospective franchisee?

First, he would have to be adequately financed. White estimates a man would need over \$25,000 to buy a pick-up truck with a spray unit and a tank truck for fertilizer spraying, in addition to other start-up costs.

"The beauty of this business is that a one-man operation can

make a living and be very successful and comfortable," he said.

The second thing he will look for is an "extra-stable marriage," and will insist on selling the program to both a franchisee and his wife at the same time. He realizes when a man is in business for himself there is pressure to come home early from work on occasion.

"But in the first year of business, you work almost all the time," he said. "You have to just keep thinking that you can rest when the snow starts to fly."

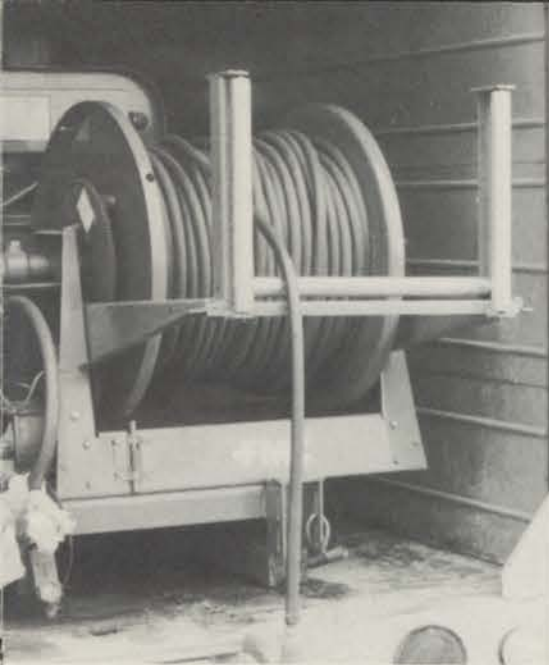
But no matter how big Rick White's Village Green business gets or how many franchises he secures, one gets the feeling it will never get so big that he doesn't have a lot to say about what goes on with every step of the operation.



Customer contact and follow-up is one of the strong points of the Village Green operation.

When he began, White sprayed all of his lawns, now just a small percentage.





continue to ask for it. Therefore, the sod producers continue to produce it to please the consumer.

Another problem that goes along with this is the clay soil around the Chicago area. Much of the sod being produced is grown on muck, harvested and brought into the area, and laid directly over the clay. The roots never have a chance to develop. The effect is like laying a carpet over cement.

Close to quitting time one Wednesday not too long ago, he realized one of his customers needed an insecticide application and that he might not get it done the next day because of a predicted rain.

All of his sprayers were out, so he loaded the spray tank in his pick-up, and drove the 20 miles to do the minimum cost job.

When he got to the job, even an inexperienced observer could pick out the fact that White knows his business from the spray nozzles to the record books.

One could tell this by the way he sectioned out the large, wooded lot into areas as he sprayed so that he would not hit an area twice; by the way he picked up the 300-foot-long hose at key points in its length so it would not drag over shrubs and other property when he was finished; and by the way he rolled the full length of the hose back onto the reel back and forth in rows with ease.

And as he eased back onto the driver's seat of his pick-up he said:

"You know, I think people are really beginning to realize how important this lawn care business really is. Golf courses and other commercial turf areas are fine, but there just aren't as many golf courses as there are home lawns.

"I think you are beginning to see advertising of the large companies reflect this and even university research is now being done to meet the needs of the home lawn applicator.

"I think we are at the point now where the potential is starting to break through and I am really glad to be part of it."

Turf disease is a problem across the country and Chicago is getting its share. *Fusarium* is always a problem to treat, and striped smut is increasing. *Helminthosporium* leaf spot is prevalent, too.

The biggest drawback Chicago lawn care companies see in treating disease is the expense of chemicals and the fact that even though a company may spray two or three times, there is no guarantee the disease will be stopped. Usually the disease has already caused damage before it is noticed, or the damage is the reason it is noticed. The only way the damage can be cured is by physical replacement, either with sod or overseeding.

Many companies will spray fungicides, but more often prefer to tell the customer what he can get and apply the spray himself. Sears will put on two applications of fungicide for about \$125. If that doesn't work, they'll give it a third application free. If that doesn't work, "Then, we've given it our best shot, and that's all we can do," says Larry Shipow, president.

Liqui-Green of Glenview will spray fungicide for \$10-13/1,000 square feet, depending on the amount of chemical needed. Tom Mudloff sees striped smut and *Fusarium* as the most prevalent diseases he sprays.

Insects are also a problem for the Chicago companies. "We're

starting to see insects which two years ago we'd never seen," according to one chemical applicator.

We've had real sod webworm problems in this area this year," adds another, "as chinchbugs are moving in real nicely up here were I was told they never used to be."

The Chicago market, with its seemingly prolific abundance of lawn care companies, is nowhere near saturated. "It'll be at least 20 years before it is," states one company official. The majority of Chicago lawn care companies agree and look toward unlimited growth as they establish themselves firmly throughout the area.

We're making less size (and money) do a lot more work.



Many diesel tractors have capacity they never use. And a size that can get in its own way. Not Yanmar, though.

Each compact Yanmar diesel tractor has enough flat-torque power for all groundkeeping activities, but never more than you can use. Because more than enough is more than you can afford.

Yanmar gives you standard 2-speed PTO, 3-point rear hitch and the ability to precisely accommodate over 100 optional tools and implements. Four-wheel drive is available. You can even transport one in a light truck.

Our diesel engines are specially designed for tractor use. To run with absolute dependability year after year. With minimum maintenance care. And much less overall expense.

Big performance in a small, highly mobile package. From the people who pioneered the world's first compact diesel.



YANMAR DIESEL TRACTOR

YANMAR
DIESEL TRACTOR
YANMAR DIESEL ENGINE CO., LTD.

1-11-1, Marunouchi, Chiyoda-ku, Tokyo, Japan
Cable: YANMAR TOKYO Telex: 0222-2310, 0222-4733

Sole Importer in U.S.: Mitsui & Co. (USA) Inc. 28th Floor, Time-Life Bldg. 303 East Ohio St., Chicago Ill. 60611 Tel. 312-670-3388
Territory & Distributor: Ohio, Pa., N.J., Mar. W. Va. Del/C.A. McDade Co. Inc. Tel. 412-372-5530 Va/Richmond Power Tel. 804-355-7831
N.C., Tenn/East/North State Tractor Co. Inc. Tel. 919-621-0855 S.C., Ga., Fla., Ala/Lovett and Tharpe Co. Tel. 912-272-3500
Mich/Decker & Co. Inc. Tel. 517-321-7231 Ia, Wis., Ill., Mo., Ind/John Fayhee & Sons, Inc. Tel. 309-775-3317 Ark., Miss/North, Tenn/West, Ky/West/Capital Equipment Co. Tel. 501-847-3057 La, Miss/South/S & S Distributing Co. Tel. 504-343-5734 Minn., N. Dak., S. Dak., Mont/East/Sunset Equipment Co. Tel. 612-483-4551 Colo., Wyo., Kan., Neb., Ut/Byco Sales Ltd. Tel. 303-358-8700
Tex., Okla., N. Mex/Becknell Wholesale Co. Tel. 806-747-3201 Wash., Ore., Ark/Sunset North West Tel. 206-455-5640 Calif., Nev., Ariz., Hi, Guam, Ida, Mont/West/Gearmore Inc. Tel. 415-653-2493, 213-442-2131 Conn., Me., Mass., N.H., R.I., Vt/Crandall-Hicks Co. Tel. 617-485-6300 CANADA: Ontario/Acklands Limited, Consumer Products Div. Manitoba/H.C. Paul Limited British Columbia/McLennan, McFeely & Prior, Ltd.

Circle 110 on free information card

MARKETING IDEA FILE

How to improve lawns growing in shade

Growing grass in the shade is a perennial problem for many homeowners. Here are some tips you can give to your customers from University of Delaware extension turf specialist Dr. William H. Mitchell.

Lawn grasses need at least three to four hours of direct sun, or all day filtered sunlight. An exception to this is a location such as the north side of a building where they will thrive in the absence of any direct sun, provided they get direct, unshaded skylight. Cool moist conditions plus the skylight radiation actually result in excellent grass growth.

Inadequate sunlight isn't the only hindrance to good grass growth in shade. Since grass in shade is more succulent and has a more delicate structure, it is more prone to injury from disease, wear, drought and insects. The shade environment is cooler and more humid, which favors disease. At the same time, the soil is likely to be drier because shrubs and tree roots compete with the grass for moisture — and usually win out.

There are a number of things you can do to improve the growth of grass in shade. First, consider pruning or trimming trees and shrubs to let in more light. This will also improve air circulation — another plus in helping to reduce disease. It's best to prune deciduous trees when they're dormant. Do the job gradually, over a period of years, to allow them to make the adjustment without adverse effects. The best time for pruning evergreens is late spring or early summer after new growth is complete.

Another way to deal with the problem is to plant shade tolerant grasses. Creeping red fescue is the best choice because it is not only shade tolerant but it tolerates the dryer soil conditions prevalent under trees. For moist shade, rough bluegrass will do well. If the shade is not too dense, improved perennial ryegrasses such as Manhattan or Pennfine may be blended with the red fescue. Shade tolerant Kentucky bluegrasses such as A-34 and Glade may also be used, but creeping red fescue should make up at least 50 percent of the mixture, says Mitchell.

Once the grass has become established, favor it by cutting it less frequently and one half to an inch higher than the rest of the lawn. This permits development of greater leaf surface to make better use of available light.

In deeply shaded areas that get below 25 percent sunlight, none of the present turfgrasses will survive. In this case the extension specialist recommends solving the problem with a ground cover such as myrtle, English ivy, pachysandra or periwinkle.

INSURANCE

The insurance needs you may have missed

After detailing the kind of complete insurance policy a lawn care specialist should purchase, an agent for a company in southern Ohio described the types of coverage which many companies offer. It contained far less protection than the model policy, and in some instances, didn't provide protection against the hazards of basic jobs performed by applicators.

"The first one I described was a Rolls Royce," the agent said. "What he gets is a Chevy. Admittedly, it's less than what he needs."

The agent's frankness should alert lawn care firms of any size about the potential financial loss they could incur if a customer suffers property damage or bodily injury.

A person working part-time attempting to build his business should realize that many insurance firms require you to pay the first \$500 for any incident of property damage. The insurance companies say they can't afford to pay for the number of nickel-and-dime claims they'd receive without this deductible amount.

There are also pitfalls for the medium and large established firms. If a lawn care businessman receives a surge of customers and agreed to hire another firm temporarily, he may need Independent Contractors or Owners and Contractors Protective coverage. This will protect the lawn care businessman if his subcontractor damages the customer's lawn or applies

chemicals which cause injury.

Lawn care firms, except possibly for one-man, part-time operations, certainly need insurance on their equipment and any buildings. Laws in each state govern the amount of money that must be contributed for workmen's compensation. But there are a number of other types of insurance to consider, especially the liability on your work and products. A number of insurance policies which deal with special situations are also available.

Insurance policies for the lawn care specialist provide Scheduled or Comprehensive General liability. The latter covers any operation or piece of equipment that the businessman uses, but many insurance companies will not provide this type of coverage.

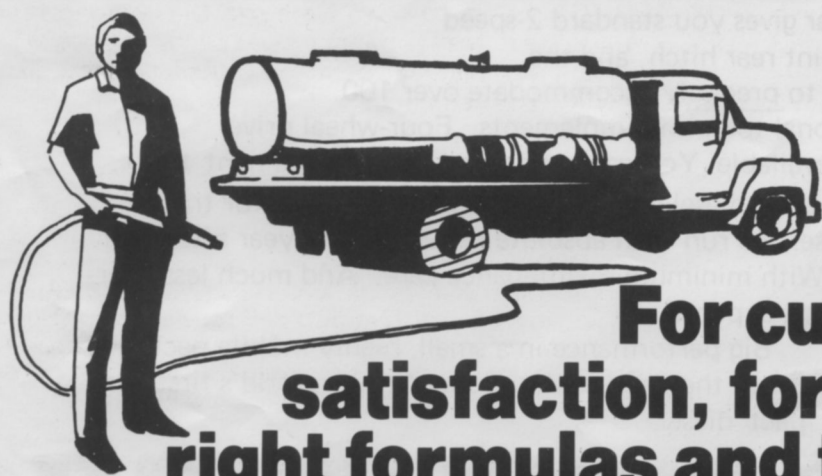
Instead, they will protect you for specific jobs and uses of your equipment. Scheduled liability also requires the lawn care owner to tell the insurance company about any change in his operation, such as the use of a new fungicide during maintenance work. Most companies will not cover losses for damages not spelled out in the policy.

The premium for both types of liability is based on the kinds of jobs and size of the payroll. Since no employer can accurately predict how much he will pay in wages, the policy is audited at the end of each year. If the payroll is less than what was predicted, the lawn care owner receives a refund. Unfortunately, the premium will be adjusted to a higher amount if the payroll surpasses the estimate.

Most policies also contain clauses, known as "exclusions," which list instances where the insurance company won't pay for damages. Almost all insurance firms consider it vital to include the "Care, Custody and Control" clause, meaning they will not pay for damages to a customer's property caused on the job.

The insurance, however, will provide protection if, for instance, a liquid chemical sprayed on a customer's lawn damages a neighbor's property. This is because the lawn care specialist did not have care, custody or control over the neighbor's property.

One agent, however, said this particular part of the policy "might be known as a fine point exclusion." This means some agents don't explain this aspect when the policy is signed, the lawn care businessman may not know about this point until it is too late.



For customer satisfaction, for priced-right formulas and top service, it's Pro-Lawn for your turf food requirements

Go and grow with the source that helps you assure customer satisfaction, Pro-Lawn Products. Whether you prefer standard Pro-Lawn priced-right dry and water soluble formulations or want realistic quotations on your own formulas, under your own label, Pro-Lawn is the one to call.

Consider these four reasons why:

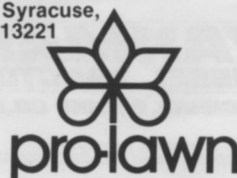
- Major production facilities throughout the Northeast. Pro-Lawn is a part of one

of the nation's leading producers of mixed fertilizers.

- Nationally recognized quality control laboratories.
- Complete line of field-proven formulations available. Also both liquid and ammoniated dry turf foods.
- Customer production and packaging available to your specification.

For complete details and quotations on

your requirements, call or write C. W. Dinsmore, 315-477-6112, Pro-Lawn Products Inc., Box 4908, Syracuse, New York 13221



Circle 112 on free information card

Policies that cover a customer's property often include a clause requiring the lawn care owner to pay up to \$500 each time he causes any damage. The insurance firm pays for any costs more than this deductible amount.

Insurance companies feel this clause protects them from novices who could easily make a mistake. "Mainly, we want them to be careful and conscientious," says an agent.

Like automobile policies, those lawn care owners who do not file a property damage claim after a number of years receive a lower rate than beginners.

Coverage for possible damages caused by products applied to lawns can also be obtained by the businessman. This is usually referred to as Completed Products or Premises-Operations coverage and would provide insurance if chemicals sprayed on a lawn caused damage several months after it was applied.

"It includes products coverage from the time you finish a job and into the future," said William Standen of Standen-Goodman Insurance in Elyria, Ohio. Standen says he has no problem approving this type of coverage since the two small, part-time firms he insures face "very small" hazards. Mark Greene, professor of insurance at the University of Georgia, gives another insight into the chances of obtaining products coverage: "Insurers don't view it as being especially serious for the applier. People who suffer damages usually go after the manufacturer."

There are a number of types of coverage that may apply to different sized firms at different times. One is a type that was referred to earlier, the Independent Contractors or Owners and Contractors Protective coverage for firms who hire a subcontractor to perform a job.

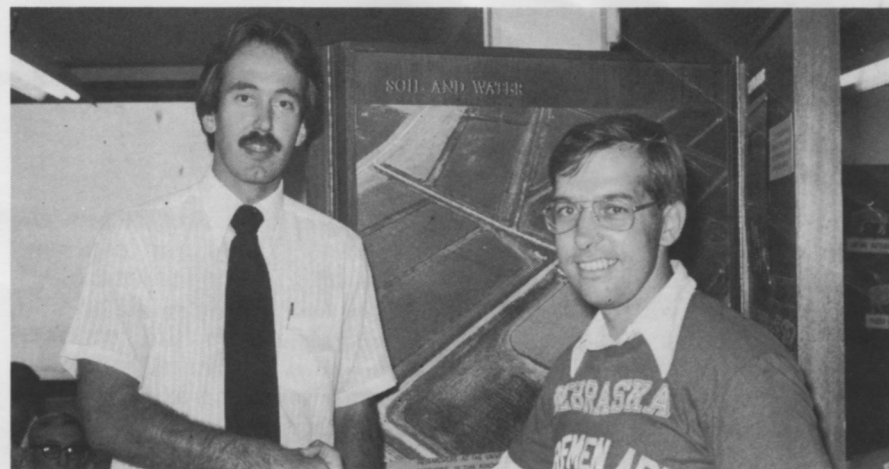
The lawn care operator should make certain his subcontractor has the insurance coverage needed if the latter does cause damage to a customer's property. Many states require a certification of insurance, so you can ask to see it and also ask his insurance company to give you a 10-day notice if they decide to cancel his insurance.

You only need this extra insurance if your subcontractor is not insured. If the subcontractor would damage one of your customer's lawns, this Independent Contractors insurance would relieve you of any liability.

Another special kind of insurance which may become more popular in the future is called Contractual Liability. A lawn care owner may be asked by a materials supplier to assume liability for any defect in the product being bought. There hasn't been much trouble obtaining this insurance so far, primarily because suppliers haven't asked lawn care firms to risk

applying a product that the insurance firms won't cover.

The lawn care owner should give consideration to one more type of insurance coverage. If you have an irascible employee who might run a mower over a customer's petunia bed or even assault someone, you could get socked with a bill or lawsuit. You can purchase personal injury policies which include "self-insured retention" clauses, meaning the lawn care owner still pays 10 percent of any damages. Again, this is the insurance company's method of encouraging the lawn care specialist to maintain control over the efficiency and reliability of his operation. — Scott Scredon



Rich Anda (left), regional agronomist for Chem-Lawn Co., recently presented a \$2,500 check to Dr. Robert C. Shearman, extension turfgrass specialist at the University of Nebraska, Lincoln. The check was presented at the second annual turfgrass field day at Nebraska University's field laboratory near Mead. The money will be used for researching the effects of repeated applications of pesticides on turf.

Cut the cost of expensive horsepower and expensive manpower.



Bolens® HT-20 Tractor.

Jobs too small for big specialized equipment can add up to a punishing expense in manpower. Hauling. Mowing. Tilling. Grading. Loading. Trenching. Backfilling.

The intermediate size Bolens HT-20 Tractor can cut that expense by quickly adapting to over a dozen custom matched attachments including mower, tiller, bucket loader, back hoe, rakes, blades and brooms.

The foot operated hydrostatic transmission goes from forward to reverse without clutching or changing gears. Perfect for close-quarters work. Allows optimum power/speed combinations with hands free to operate hydraulics.

More than just a lawn and garden tractor, the HT-20 is powered by a 19.9 hp twin cylinder Kohler engine. The channeled steel frame, massive rear axle/differential and heavy duty front axle give a full day's work. Day after day.

Get more value from your big horsepower and expensive manpower. With the rugged HT-20. It fits right in-between. To save money on both ends.



Bolens Mulching Mowers.™

They cut the grass and the workload. In one pass. When a Bolens Mulching Mower cuts the grass, it also cuts and recuts the clippings into tiny particles that are blown down into the turf. There, they disappear and quickly decompose. No clippings. No clean-up. No thatch build-up. The fine mulch actually feeds the turf while the crew moves on to other jobs.*

3, 4 and 5 hp models are specially built for commercial and institutional use. Straight-thru steel axles, rugged all-steel deck, tough one-piece handle and positive cutting height adjustment. Bolens Mulching Mowers. Tough, economical answers to your continuing turf maintenance program.

*For a free copy of a University study on nitrogen return, contact FMC Corporation, Port Washington, Wisconsin 53074.

See the complete line of Bolens commercial power equipment at your nearest dealer. For his name and address, call 800-447-4700 toll-free anytime (in Illinois, call 800-322-4400). FMC Corporation, Port Washington, Wis. 53074.

FMC
Consumer
Products

Circle 113 on free information card

Developing an assistant demands work, skill

Although your lawn care business may not be large enough yet, there might come a time when you need to hire an assistant to handle the press of your growing business.

Developing an assistant is one of the most challenging jobs an administrator can have. When the trainee takes over a top-level position he probably will adhere to the good business practices he learned on the job.

Developing an assistant is

hard work, requiring careful attention to details and explanations while yielding an enormous amount of confidence in and responsibility to the trainee. Here are a few items that may help in attempting to develop an assistant:

Give him the facts. Only by being informed about his responsibilities and authorities can an assistant get a clear picture of what he is to do and how he should do it. A job description

should be developed to give a trainee some guidelines. Personally introduce the assistant to those with whom he will be working.

Smooth his path. Request employees who work with your assistant to cooperate with him. Inform everyone of the duties he will be performing — then impress upon him the importance of earning the respect and confidence of these employees.

Share knowledge. You must keep the assistant informed of your plans, your progress and your reasons for making each move. If you expect him to do a good job, you must share your knowledge with your assistant. Warn him of problem areas and see that he learns the ins and outs of working with the people working for you. Neglecting to provide background information keeps the assistant in the dark and prevents him from performing to the best of his ability as well as makes him look bad in the eyes of those with whom he must work.

Add responsibility gradually. Let the assistant get a feel for his job. Then gradually give him additional small doses of responsibility. By working in this fashion he will gradually absorb additional knowledge and pick up

those qualities that make a manager competent.

Hold a loose rein. An assistant who is constantly being checked on gets the feeling he is not trusted and this retards his growth as a manager. Let loose and give your assistant a free rein — let him make decisions and learn by his mistakes. You don't want a trainee to lose his initiative; but keeping him under your finger can snuff out any spark or flame of initiative.

Give him authority. Give your assistant a task and tell him to get the job done and to come to you only if he sees problems or something is out of line. Encourage him to bring one or more suggested solutions to any problems he may bring you. Instead of giving him answers to problems, guide him to making the correct decision.

Remember that you are in control. Delegate responsibility and authority but remember that you are in control. Check regularly on assignments given to your assistant. Avoid checking details; emphasize the overall job. Everyone does a job differently. If your assistant produces results but does it in a different manner than you, don't nag him about his methods. GCSAA Forefront.



Highland Colonial Bent offers a nifty balance of quality & economy

Highland is the "old reliable" of bentgrass . . . the proven performer. The quality of this fine-bladed beauty never varies . . . and the price is always right.

While it does well under a wide variety of conditions, Highland is at its best where the weather is relatively moist with occasional rain or drizzle. It also flourishes downwind from bodies of water or in mountainous regions where low clouds, nightly fogs and mists are a feature.

Not only is Highland's price always very competitive, it has the additional bentgrass advantage of some 6 million seeds per pound. This means the buyer has a seed of high quality which offers far more potential grass plants per pound than most fine varieties. Thus, it's economical two ways.

Write for our free grass seed cost calculator which shows you instantly the true comparative costs of various grass seeds.

Highland Bentgrass Commission

Dept. I • 2111 Front. St. N.E., Suite One • Salem, Oregon 97303

Circle 123 on free information card

MONEYWISE

Use expensive fungicides very wisely

The high cost of fungicides usually prohibits utilizing them to prevent turf disease, but a small amount of each kind should be kept in stock to stop the spread of fungus or sporulation, recommends Dr. Roger Funk, director of research at Davey Lanwscape Service in Kent, Ohio.

"Contact" fungicides, such as Actidione, Daconil 2787 or Tersan LSR, will stop disease on the leaf, stem and thatch. The latter is particularly important since it is the breeding area for fungi, Dr. Funk says.

After it is applied, the contact fungicide will help eliminate disease for about seven days. It does not combat the disease which spreads to new turf. "It must be recognized that it (contact fungicides) stays where it's put," said Dr. Funk. Rain also shortens the amount of time the fungicide will eradicate turf disease.

The second class of fungicides, termed "systemic," overcome some faults of the contact group. They last longer (14-20 days), work to eliminate disease on new growth and are less diluted by environmental conditions.

The systemic fungicides, which include Tersan 1991, Topsin E and Topsin M, can be drenched into the soil to penetrate the turf's root system.

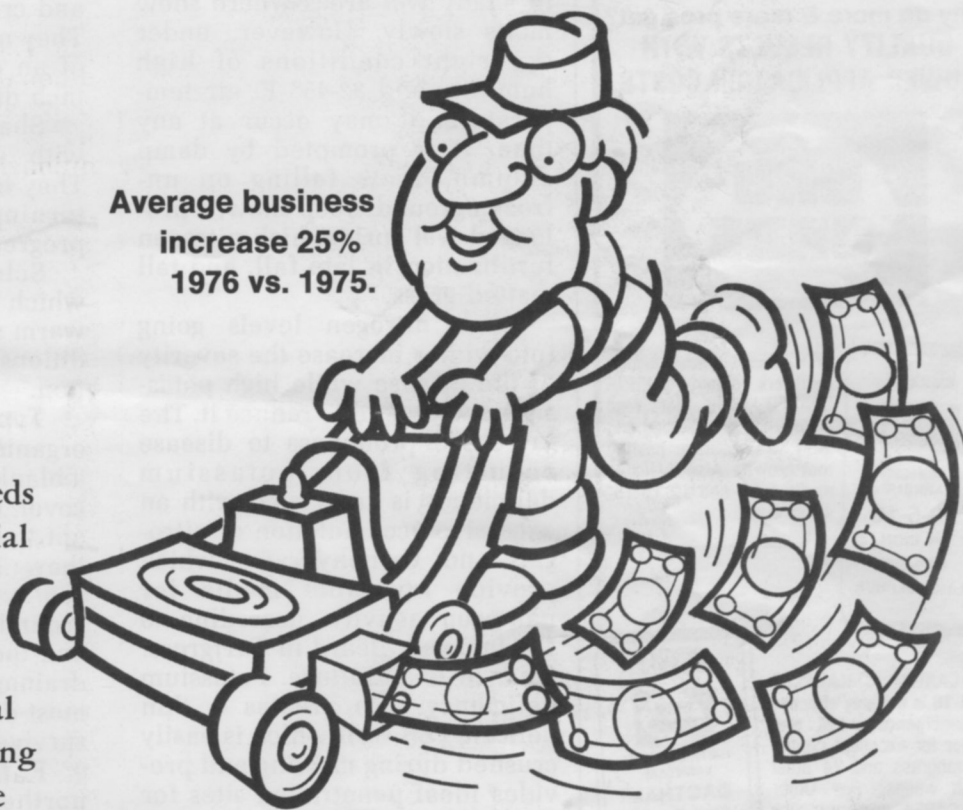
The lawn care specialist who wants to improve his chances to solve a fungus problem will pay more by purchasing a systemic fungicide. A check with three Greater Cleveland lawn and garden centers found that 2-16 bags of systemic brands sold for between \$11-19 more than popular contact fungicides of the same weight.

Dr. Funk also pointed out that certain turf diseases can only be controlled with one kind of fungicide. *Pythium* and all *Helminthosporium* diseases must be stopped with contact solutions, but *Fusarium* and stripe smut need systemic chemicals. Dollar spot and brown patch can be squelched with either fungicide, he said.

The lawn care specialist should also realize that diseases can eventually resist the same fungicide after numerous applications. The contact and systemic compounds should be alternated, Dr. Funk says, if any disease requires more than one application.

Let's get down to grass facts!

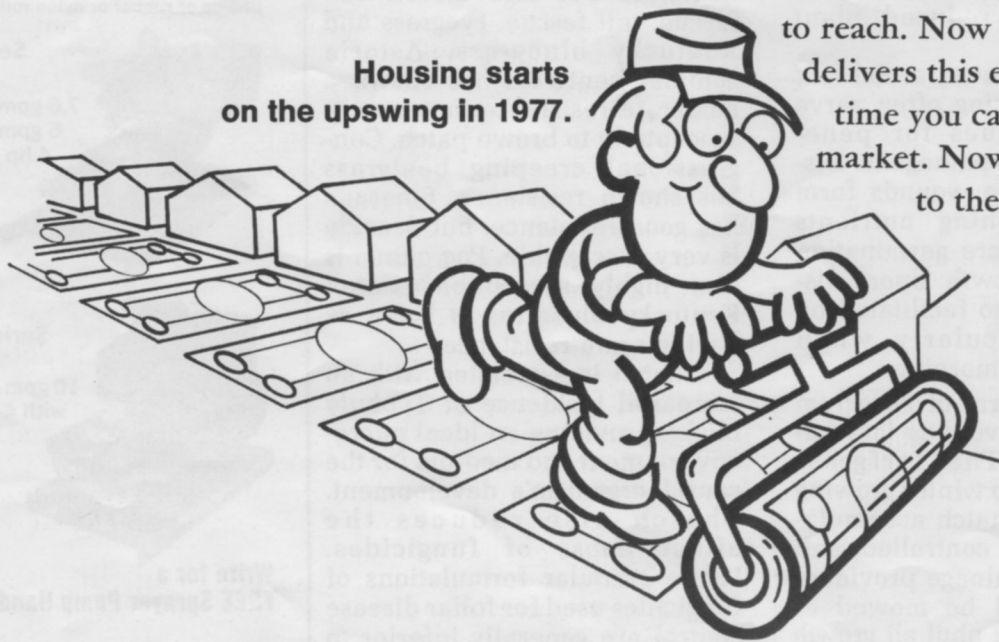
Average business
increase 25%
1976 vs. 1975.



More than 8,000 businesses have emerged — almost over night — to serve the wants and needs of the 45 million home owners in the residential turf and ornamental market. Last year these businesses served over 4 million accounts, produced \$1.25 billion in receipts and a 25% growth. These facts make it clear that chemical lawn care and maintenance services are booming businesses today ... and have just scratched the surface of the huge residential market. If you've been trying to sell this emerging service industry,

we don't have to tell you how difficult it's been to reach. Now at last there is a magazine that delivers this exclusive audience. Now for the first time you can communicate with this growth market. Now you can match your message to the market.

Housing starts
on the upswing in 1977.



**LAWN
CARE
INDUSTRY**

A Harvest business publication.

lawn care...the growingest market.

Now is the time for control of pink and grey snow mold

The moist conditions brought on by fall, melting snow in winter and early spring rains can bring on disease problems for the lawn care specialist — *Fusarium* patch, or pink snow mold, and *Typhula* blight, or grey snow mold.

Fusarium patch occurs during moist fall conditions, under melting snow or during winter or early spring rains. While snow is not actually essential for *Fusarium* patch, melting snow does provide ideal conditions for disease development. Moisture

seems essential for its growth.

When the fungus is active, it appears as a ring of whitish and pink mycelium surrounding an inner ring of greying, dying grass with the center appearing as orangish-yellow spots of dead grass. Mycelium is the vegetative part of a fungus.

Most bentgrasses and some fescues and bluegrasses, *Poa annua* in particular, are affected by *Fusarium* patch. It is a common problem on bermudagrasses.

Fusarium patch, in the field, may be distinguished from *Typhula* blight by the pink color of the mycelial growth and the absence of the brown sclerotia characteristic of the *Typhula* blight pathogen. Sclerotia are hardened fungal bodies.

The disease generally occurs in late fall, winter or early spring in shady wet areas where snow melts slowly. However, under the right conditions of high humidity and 32-45° F. air temperature, it may occur at any time. It is prompted by damp autumn, snow falling on unfrozen ground, deep snow, a prolonged wet spring, high nitrogen fertilization in late fall, and tall matted grass.

High nitrogen levels going into winter increase the severity of the disease while high potassium levels tend to reduce it. The increased proneness to disease resulting from potassium deficiency is associated with an excessive accumulation of nitrogen and carbohydrates which provide favorable media for pathogen activity, according to Dr. James B. Beard in *Turfgrass: Science and Culture*. Potassium deficiency also creates a thin delicate cell wall which is easily crushed during mowing and provides ideal penetration sites for the fungus. Changes in the composition of the cell sap enhance pathogen activity, as does resulting reduced plant vigor.

Wounds produced at the leaf tips during mowing often serve as major avenues for penetration of fungal pathogens. Discharges from the wounds form droplets containing nutrients that enhance spore germination and mycelial growth. Spore dissemination is also facilitated by mowing, particularly when mowed in early morning.

Cultural control of *Fusarium* patch includes avoiding late fall fertilization. The turfgrass should not go into winter growing at a fast rate. Thatch accumulation should be controlled and good surface drainage provided. The turf should be mowed at the proper height until all growth ceases in the fall.

Chemical control consists of a preventative program. Approved chemicals should be applied

before the first heavy snowfall or cold, wet weather and repeated during any midwinter thaw. Some chemicals include benomyl, mercuries, cadmiums, PMA, Daconil and chloroneb. Be sure that the chemical is labeled for control of *Fusarium* patch and that you use it as the label indicates.

Typhula blight, also known as grey snow mold, snow scald or winter scald, occurs under much the same environmental conditions as *Fusarium* patch. It is often found complexed with *Fusarium* in areas where the dark under a snow cover provides conditions for its growth.

In early stages of the disease, straw colored spots a few inches across appear. As it continues, these spots grow together and form large kill areas. A greyish white mycelium may be found around the outer edge of the infections, and as the infection becomes older the straw color changes to greyish white.

The chief diagnostic aid for *Typhula* blight is the presence of sclerotia imbedded in the leaves and crown of infected turfgrass. They may range in size from that of an ordinary pinhead to 3/16-inch diameter.

Shape is egg-shaped to round with a rough regular outline. They first appear as light brown, turning darker as the season progresses.

Sclerotia is the means by which the pathogen survives the warm summer months until conditions prompt their germination.

Typhula *lotana* the causal organism, becomes active under a blanket of snow. The longer the cover remains, the more turf is apt to be found damaged after a thaw. Expansion of the disease can be especially rapid if the ground under the snow is wet and the soil is frozen preventing drainage. *Typhula* produces the most damage at 32-41° F. but can survive temperatures as low as -9° F. It generally occurs in the northern third of the United States.

Typhula is most damaging to bentgrass but also affects red fescue, tall fescue, ryegrass and Kentucky bluegrass. Astoria colonial bentgrass has shown a moderate resistance, but is very susceptible to brown patch. Congregational creeping bentgrass has shown resistance, Smaragd has good resistance, but Seaside is very susceptible. *Poa annua* is also highly susceptible. Baron Kentucky bluegrass is listed as having some resistance.

Thatch is associated with an increased incidence of *Typhula* blight, providing an ideal micro-environment and medium for the causal organism's development. Thatch also reduces the effectiveness of fungicides. While granular formulations of fungicides used for foliar disease control are generally inferior to sprays since coverage of the above ground plant parts is poor, they have been effective on parasites such as *Typhula* *lotana*,

that are active in the thatch layer.

Cultural control of *Typhula* blight is the same as for *Fusarium* patch. Chemicals should be applied before the first heavy snow or cold, drizzly weather and repeated during any midwinter thaw. Some chemicals that have been suggested are cadmium, chloroneb, Dyrene, mercurials and calcium propyl arsenate.

It has been noted by Dr. John Madison in his *Practical Turfgrass Management* that a nitrogen fertilization program should include enough nitrogen to keep dollar spot low as the weather cools off in the fall, but by the time the snow flies nitrogen should be at a low level.

As A Pro... you know!

YOUR CUSTOMERS DEMAND THE FINEST!

Why do more & more pros get? QUALITY RESULTS WITH LOWER APPLICATION COSTS

GRO-CARE

HERITAGE HOUSE

FOR PROFESSIONAL LAWN CARE

30-5-10

1% IRON

4.5% WIN

4.0% SULPHUR

GRO-CARE® special formula fertilizers contain SULPHUR COATED UREA for long lasting nitrogen feeding and IRON to encourage healthy root growth. Also available as 20-5-10 and 12-10-18, 40 lb. bags.

GRO-CARE® DACTHAL PLUS 20-5-10 is a highly effective pre-emergence weed preventer for excellent control of crabgrass and 24 other tough weeds. Other GRO-CARE® pre-emergence weed preventers contain 20-5-10 with BALAN®. 40 lb. bags. (BALAN® is a registered trademark of Elanco Products.)

HERITAGE HOUSE

FOR PROFESSIONAL LAWN CARE

DACTHAL®

Granules with

20-5-10

1% IRON

3% WIN

2.8% SULPHUR

GRO-CARE® DURSABAN® insecticide with 38-0-0 is an effective insect control with a long lasting nitrogen to feed the lawn. 40 lb. bags. (DURSABAN® is a registered trademark of Dow Chemical Corp.)

Ask about liquid DACAMINE® weed killer, DACONATE® AND DACONIL 2787®. (DACAMINE®, DACONATE®, and DACONIL 2787® are registered trademarks of Diamond Shamrock Corporation.)

COMPARE PRICES & TERMS AVAILABLE IN 25 STATES

Get to Know...

GRO-CARE

A division of HERITAGE HOUSE PRODUCTS CORP.
P.O. Box 219, Medina, Ohio 44256

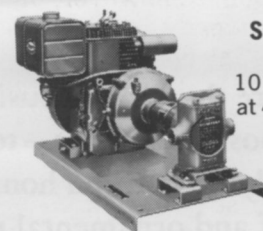
© copyright HERITAGE HOUSE Products Corp. 1977

Circle 125 on free information card
LAWN CARE INDUSTRY

Hyprow sprayer pumps

Choose from a wide range of pump designs and materials to suit your requirements: cast-iron, Ni-Resist and bronze pump housings... even nickel plating on piston pumps.

PISTON PUMPS



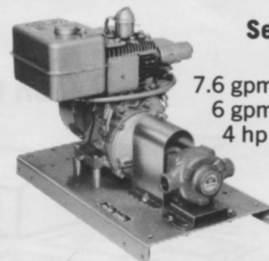
Series 5200 Big Twin
10 gpm output at 400 psi with 6 hp engine



Series 5400 4-Cylinder
25 gpm output at 600 psi

ROLLER PUMPS

Choice of rubber or nylon rollers



Series 6500 5 Rollers
7.6 gpm at 100 psi
6 gpm at 200 psi
4 hp gas engine



Series 7560C 8-Rollers
10 gpm at 200 psi with 4 hp engine

Write for a FREE Sprayer Pump Handbook

Hyprow / 
A division of Lear Siegler, Inc.
347 Fifth Ave NW, St. Paul, Minn. 55112

Circle 127 on free information card

Renovation can cure customer's weak lawn

Across the country, many turf areas have suffered from the harsh environmental conditions experienced this past summer.

The heat and drought have taken their toll on many Kentucky bluegrass and tall fescue lawns. Many of these turf areas have been drastically thinned out.

Helminthosporium has also caused considerable thinning of Kentucky bluegrass and red fescue lawns. Other diseases and insects have caused dead patches or thin, weak turf.

Renovation can be the cure for many of these problems your lawn care customer may be facing, according to Charles H. Darrah, extension turf specialist at the University of Maryland.

The decision to renovate or re-establish is sometimes a difficult one. Re-establishment usually means radical soil tillage, such as plowing, disking or rototilling to prepare a seedbed. Renovation, on the other hand, requires only minimal soil cultivation to prepare a seedbed. Implements used for renovation of turf areas groove or slice the soil and cause minor disruption of the existing vegetation. Therefore if there are many weeds and little desirable turf present, re-establishment will be the best course of action. If, however, the turf is not too weedy and there is 30 to 50 percent or more desirable turf present, renovation may prove to be the most satisfactory means of improving the turf.

There are several factors to consider before renovation that will insure optimum results. If the area to be renovated is weedy, do not apply selective, post emergent broadleaf herbicides, like 2,4-D, silvex or dicamba. Applications of post emergent crabgrass herbicides, such as DSMA, MSMA or AMA, should also be avoided. If any of these herbicides have been applied, it will be necessary to wait four to six weeks before seeding.

The area to be renovated should be soil tested to correct any fertility or pH deficiencies. If time does not permit a soil test, 50 pounds per 1000 square feet of agricultural ground limestone or the equivalent amounts of hydrated or burnt lime should be applied. A fertilizer with a 1:2:1 or 1:2:2 ratio should be applied to provide approximately 2-3 pounds per 1000 square feet of P_2O_5 . The lime and fertilizer can be applied before mechanical cultivation of the soil. Application of the lime and fertilizer before mechanical cultivation help work these materials into the soil. If a test strip across the turf area pulls up considerable thatch (two or more inches), it will be necessary to dethatch the entire area and remove the thatch material before applying lime and fertilizer.

Another important consideration before renovation is the selection of seed. The species of grass seed chosen should be compatible with the desirable species already present. For example, tall fescue should not be seeded into an area that is predominantly Kentucky bluegrass. This usually leads to a clumpy, non-uniform turf. Kentucky bluegrass blends or Kentucky bluegrass-red fescue mixtures of recommended varieties should be used in areas which are predominantly Kentucky bluegrass or red fescue.

Large areas of thin turf are best renovated using mechanical equipment such as dethatchers, power rakes, verticutters, slicers, groovers or overseeders. These implements should be set to slice or groove the soil one-eighth to one-quarter inch deep. The seedbed can be prepared in smaller areas or dead patches by hand raking using a steel toothed rake or a dethatching rake. The objective with either the mechanical or hand methods is to prepare a seedbed where the seed will be in firm contact with the soil. Good seed-to-soil contact is essential for optimum seed germination.

Once the seedbed is prepared, seed should be spread uniformly over the area to be renovated. For best results, the seed should be lightly raked in or one of the mechanical implements passed over the seed in a direction perpendicular to the original grooving. Lightly roll or tamp the area to firm the soil and to achieve better seed-to-soil contact. A topdressing of one pound of nitrogen per 1000 square feet will help get the seed off to a good start. Keep the area moist and you can have your customer on to a denser, more vigorous turf.

MEMOS

Lawn reseeding procedure recommended

If your customers' lawns suffer from thin areas and spots where there is no grass, reseeding by the vertithinning process can be the solution to a more attractive lawn, according to Purdue turf research agronomist Ray Freeborg.

"Small vertical thinning mowers for lawn use have solid blades or spring toothed tines placed vertically on an axis and usually the blades rotate counterclockwise," Freeborg said.

The solid blades are best for overseeding, for these cut through existing vegetation (thatch or dead grass) into the surface soil.

If the amount of dead grass or thatch on the surface is less than 3/4-inch, then the selected seed can be spread and fertilizer applied. You should then work the site with the vertithinner. Set the unit so that it will cut into the soil and mix the seed with the thatch, soil and fertilizer.

If there is an excess layer of thatch on the surface — 3/4-inch or more, it should be removed, says Freeborg. This can be done by first using the vertithinner to loosen dead grass. Then follow with a rotary mower with a bag attachment, picking up the loosened grass. Use this as a mulch or discard as desired.

Once the excess thatch is removed, the seed should be spread. Apply a good lawn fertilizer after seeding. Then use the vertithinner again, running it over the area once more to work the seed into the loose surface soil and thatch. In this way, you sow the seed in a well prepared bed.

Custom Designed Truck Units & Hose Reels

Choice of tanks, size & material

Tank mounted 1" from truck frame for low center of gravity.

Mechanical or pressure agitation.

Power rewind reels.

Will build one piece or complete truck to your specification.

CONSOLIDATED SERVICES

401 S. College St.
Piqua, Ohio 45356
513-773-3109

Circle 129 on free information card

Lo-Blo, the Air-Broom®

rounds up leaves and litter

ADD PUNCH in lawn cleanup work to make tough jobs quick and easy. A small crew using Atwater Strong **HEAVY DUTY COMMERCIAL BLOWER-SWEEPER** can gather leaves, trash, litter, clippings faster than any other way!

DIRECT A BLAST EITHER WAY!

NEW! 16 Horsepower PULL-ALONG BLOWER
IDEAL for towing behind work cart, pick-up truck, Jeep or tractor. Remote switch directs air blast left or right. Remote throttle controls 16 hp B&S engine. Blows 5700 cu. ft./min. at 180 m.p.h.

MI-T-VAC 16 SVL 'BIG JOB' LOADER ON-A-TRAILER

packs dump truck full of leaves in 25 minutes. Has 16 hp engine, 8" hose reaching 20 feet. Boom to swing hose available.



MODEL 14KPT

WORKS like a "handful of hurricane" to blow lawns and paved surfaces clean every season of the year. Get facts on 7 models, 3 to 45 hp available.

VACUUMS 3400 CU. FT. PER MINUTE



ATWATER STRONG
BOX 68 • ATWATER,
LAWN EQUIPMENT SINCE 1949

DIVISION OF GOULDER INDUSTRIES, INC.
OHIO 44201
216 / 947-2344

Circle 109 on free information card

DURSBAN Plus

Turf Insecticide

Gives the added advantage!

Contains Dursban, DDVP and a wetting agent. Reaches down deep into the thatch. Controls sod webworms, ants, chinch bugs, crickets, cutworms, earwigs, grasshoppers and brown dog ticks.



Southern Mill Creek PRODUCTS COMPANY, INC.

P. O. BOX 1096 • TAMPA, FLORIDA 33601

Circle 124 on free information card

TOOLS, TIPS & TECHNIQUES

Verticut dethatchers compatible with turf

Lawn maintenance owners in parts of the South and West may still have time to dethatch turf. Verticut dethatchers that burrow about 1/2-inch into the soil should be used, says Dr. Roger Funk of Davey Landscape Service in Kent, Ohio. Jacobson and Ryan are two manufacturers of this machine.

Dr. Funk said other types of dethatchers that "scalp" the turf should not be used. "They open up the crown for drying. It puts the turf in tremendous physiological shock."

Dethatching should be done before temperatures are consistently between 50 and 70 degrees and the soil is moist. These are the best conditions for turf growth and the grass needs ample time to grow before the soil hardens during winter.

Thatch reduces insecticide's effectiveness

Thatch significantly decreases the effectiveness of insecticides to control soil-inhabiting pests, according to three researchers in Wooster, Ohio. And since the U.S. Environmental Protection Agency has eliminated many of the chlorinated cyclodiene insecticides from the market, they also said that lawn care specialists will have to provide timely watering of organophosphates to insure effective control.

The three men, Kenneth O. Lawrence, an entomologist with the U.S. Agriculture Department, and entomology professors Harry D. Niemczyk and Harvey P. Krueger, say that if chlordane is also removed, applicators will have use organophosphates such as Diazinon, chlorpyrifos, and trichlorfon.

The major disadvantage of these short-term insecticides is their inability to move through thatch. Experiments in Ohio showed that granular Diazinon, applied at 5.5 to 6 pounds on 1/2-inch or more thatch gave 69 to 74 percent control for each active ingredient (AI/acre). Granular chlorpyrifos at 2 pounds AI/acre gave just 21 percent control and 4 pounds only 26 percent.

Liquid Diazinon proved less effective than its granular component, giving 52 to 60 percent control, but liquid chlorpyrifos was more than twice as effective as its granular form, showing 51 to 63 percent control. Tests showed that the insecticides were absorbed by the thatch and never reached its target. The reason, however, is a mystery.

"Our knowledge concerning the specifics of insecticide movement through this dense mat of organic matter called thatch is almost non-existent. Much is known about the factors related to movement of insecticides through soil, but not through thatch," the researchers said.

The organophosphate insecticides, however, can better treat pests if large amounts of water are applied at specific periods. Since most manufacturers recommend 15-30 gallons of spray for each 1,000 square feet, an impractical amount for many lawn care applicators, the researchers suggested a viable alternative.

"If less than the recommended volume of spray is applied, the treatment should be irrigated with 1/2-inch or more of water immediately after application. Sprays of these relatively short-lived insecticides should not be allowed to dry before irrigation is applied." They also recommended to spray the insecticides when the turf is wet.

Two experimental insecticides which evade thatch may be ready for commercial use by spring, 1978. An organophosphate being tested by the Ciba-Geigy Corp. and a carbamate by Fisons Corp. have been shown to control grubs. They will also need timely irrigation and are effective for short periods, the researchers concluded.

MANAGEMENT

Handling your mistake

All people in business make mistakes. Though some are reluctant to admit to having done so, it is a fact of business life every lawn care operator must cope with at some time or another.

Only one thing is more important than keeping mistakes to a minimum. That is how effectively each is handled once the error is recognized.

Here are some proven short cuts toward not only keeping your own working mistakes at a minimum but also effectively handling them when they do occur:

Spot it quickly. Develop the knack of identifying such a mistake immediately. The longer the results of the mistake remain the more difficult it will be to handle.

Mistakes tend to expand business damage with each day that goes by. The more time they continue to exist the more side effects develop. The latter also tend to compound themselves.

Stay aware of your own potential to err. That reduces the number which will occur. It also sharpens capability to find a quick solution when one does get by.

Handling mistakes becomes easier when no false illusions about one's self are present. Personal attitude is of major importance when a correction must be made.

Ask others for help and do it right away. Things are less complicated then later on. Associates are also more willing to help at such a time.

Naturally that request will produce most effectively when directed toward those involved with the procedure. More applicable ideas may surface from them than if assistance is requested from non-involved people.

Examine the why of what went wrong in depth. The more details available while handling even a small mistake the surer the solution will be a good one.

Business mistakes occur in many cases because of lack of this depth in the original procedure. Make sure the same thing does not happen again.

Blame yourself or no one. The problem seldom revolves around personalities, but rather procedures. Time spent affixing blame is wasted.

If an individual does enter into the mistake to major extent handle it solely as a person-to-person matter.

Avoid looking for the solution with quick short cuts. They often do more damage than a small delay in handling could exact.

Get a proper perspective on it before you begin. Giving the small mistake major importance only makes solution more difficult.

Clean up the debris resulting

from the original mistake immediately. That usually cuts down total damage involved. Such a clean-up also assures that nothing will remain to hamper speedy and efficient development of the new procedures.

Avoid throwing out the good achievements with the bad ones. Check closely for the former. Incorporate them wherever possible into the new steps that are being taken. Their use could reduce the amount of damage from the mistake.

Hold onto your confidence. Any business mistake tends to dim one's personal confidence a little. If a wrong assessment develops, handling even the small mistake can become a difficult procedure.

Be patient in working out details. The lack of this patience in original planning could have been a major contributor to the mistake. Be sure it doesn't happen again.

Take a little time, also, to anticipate what could possibly go wrong with the new procedure. Doing so may assure that a second mistake will not happen.

Where quick action is a must try to develop a stop-gap procedure that can hold things steady while you take time enough to handle the mistake carefully.

Be sure to have checked any possible side effects of related procedures which could have contributed to the mishap. If one remains uncorrected it is likely the same thing will sabotage your new procedure.

If applicable, handle the mistake correction in two stages. The first should be designed to halt any further damage immediately and the second toward development of the new one. That provides a more leisurely approach to the latter.

Don't apologize for the mistake; even to yourself. Apologies are only necessary for deliberately wrong actions. Besides they do nothing toward finding the good solution to the problem.

Look for no stupendous gains to counter whatever losses did occur; they will be difficult, if not impossible, to locate. Concentrate solely on handling it all with correction of whatever went wrong in the first place.

The easy way may not be the best in handling any of your working mistakes. But the simplest way could be preferable. Complications are often the major reasons for something going wrong in a business procedure.

Look to new sources for corrective steps. Total reliance on the old ones could result in the need to do it all over again almost immediately.

What did you overlook in the procedure that went wrong? That's a good question to ask as you begin handling any mistake.

PRODUCTS

Big trimmer/edger

Model 1100 from The Toro Co. cuts a 12-inch swath trimming grass next to walls, fences, and other obstructions. Adjusted to



vertical, it edges lawns along sidewalks and driveways. It has automatic line feed, activated by a light tap on the ground, which measures out the proper length of new line. A built-in cord lock won't let the extension cord come unplugged during use. Weight of the trimmer is just 5¼ pounds.

Circle 201 on free information card

Rotary mower

A new twin-blade, 36-inch model rotary mower has been added to the Powermow line manufactured by F.D. Kees Mfg. Co. Designed for large residential



and commercial grounds, the unit features an eleven horsepower Briggs & Stratton synchro-balanced engine. For easy operator handling, the mower features fingertip brake and power turning control levers on each handle. The mower's sleek deck design and individual drum-type wheel brakes allow the operator positive maneuverability for mowing in close quarters.

Circle 202 on free information card

Kill hard-to-kill weeds

Velsicol Chemical Corp. now offers Provel herbicide, a combination of Banvel and 2,4-D herbicides. Its use is registered on

lawn and other turf for control of chickweed, clover, dandelions, poison ivy, yarrow, and other broadleaf weeds. One pint in solution treats 5,000 square feet.

Circle 203 on free information card

Shredder/grinders

New shredder/grinder models manufactured by Lindig feature an extra large wood chipper unit that is factory installed.

Circle 204 on free information card

New mulching mower

The Bolens mulching mower line for 1978 includes a 20-inch model with a 3½-horsepower four-cycle engine and all of the standard features of the line: all-steel con-



struction, "click-lock" adjustable wheels set back for easy trimming, and a handle that folds down for easy transporting from job to job. FMC Corp. is the manufacturer.

Circle 205 on free information card

Vibratory plow

The new VP 12 vibratory plow, manufactured by Ditch Witch permits installation of cable, conduit and plastic water sprinkler lines with minimal damage to turf.

Circle 206 on free information card

*Build your reputation for beautiful turf—
even under low maintenance...*

PLANT

Birka

Kentucky Bluegrass

A newcomer to the ranks of low maintenance Kentucky bluegrasses...one we're glad to stake our reputation on.

And you will, too. Because Birka has consistently proven its ability to maintain attractive appearance under low maintenance programs throughout eight years of testing at research stations in the U.S. and Canada.

If mildew or other common turfgrass diseases are a problem in your turf areas, Birka is a wise choice. It's ideal for golf courses, home lawns, athletic fields, any area which demands a combination of hardiness and good looks.

You won't have to pamper Birka. Yet if you do, it will reward you with even better performance. Birka greens up early in the spring and keeps its dark green color late into fall. Its narrow leaves, excellent creeping ability and dense growth provide a beautiful turf even under heavy use.

Birka is a turfgrass that can build your reputation.

It's building ours!

E. F. Burlingham & Sons, P.O. Box 217,
Forest Grove, OR 97116. Phone: (503) 357-2141;
Telex: 36-0274; Cable: Burlingham.



E. F. BURLINGHAM & SONS



Circle 106 on free information card

Why TERSAN® fungicides give you **Lawn**



LEAF SPOT (*Helminthosporium* spp.) on bluegrass.



DOLLAR SPOT (*Sclerotinia homoeocarpa*) on bentgrass.



TYPHULA BLIGHT or Gray Snow Mold (*Typhula itoana*).



LEAF SPOT on bentgrass (melting-out stage).



LARGE BROWN PATCH (*Rhizoctonia solani*).



TYPHULA BLIGHT or Gray Snow Mold, close-up view.



RUST (*Puccinia graminis*) on bluegrass.



FUSARIUM BLIGHT (*Fusarium roseum* and *Fusarium tricinctum*).



PYTHIUM BLIGHT or Cottony Blight (*Pythium* spp.).

TERSAN LSR Turf Fungicide controls Leaf Spot and Rust. It is also effective against Large Brown Patch.



TERSAN 1991 and TERSAN 75 effectively control Dollar Spot and Large Brown Patch. TERSAN 1991 controls Fusarium Blight.



*In order to help reduce the possible development of tolerant strains of dollar spot it is recommended that TERSAN 1991 be used in conjunction with TERSAN 75 or another suitable contact fungicide.

TERSAN SP provides outstanding control of both Typhula Blight and Pythium Blight.



Disease Protection.

You're faced with a lot more than one or two lawn disease problems. That's why you need the DuPont TERSAN program. It gives you protection against just about every disease you will ever encounter.

But you get more than proven, effective control with the TERSAN program. You get economical control as well. You use just the treatment that works on a given problem. There's no waste. No extra expense. You pay only for the specific treatment to control a specific disease.

And it's more effective. Because you zero in with prescription precision on specific diseases. You use one right treatment applied at the right rate at the right time to achieve the most effective control.

So, if you want to keep your customers' lawns greener for less money, use the TERSAN lawn disease control program. It's the best way to obtain protection against most lawn disease problems.

With any chemical, follow labeling instructions and warnings carefully.



Lawn Products

PRODUCTS

Feed lawn, control pests

Fertilizer Plus Insecticide III is a complete, high-analysis granular fertilizer for dry application on all types of turfgrass. It also



contains Dursban insecticide to stop turf damage by sod webworms, chinchbugs, cutworms, earwigs, grasshoppers, and several other insects. It is a product of the ProTurf Div., O. M. Scott & Sons.

Circle 207 on free information card

Soil test kit

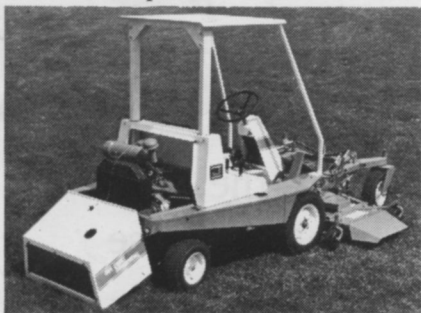
A chemistry background is not needed to perform your own soil

tests using a self-contained Soil Test Laboratory developed by Hach Chemical Co. The kit contains simple step-by-step instructions, and the chemical reagents used in the tests are packaged in safe, unit-dose powder pillows. The kit can test for ammonia nitrogen, nitrate nitrogen, phosphorus, potassium, pH and lime requirements. All chemicals (enough to perform each test 50 times) and necessary apparatus are packed in a durable, black plastic carrying case which weighs just 15 pounds. The kit is battery-powered, and a battery eliminator is also provided for a.c. operation.

Circle 208 on free information card

Water-cooled engine option

Jacobsen Manufacturing Co.'s 72-inch Out Front Commercial riding mower is now available with an optional water-cooled



engine offering increased life expectancy. The engine runs cooler, the water jacket quiets the engine noise, and the ab-

sence of air ducts makes maintenance easier. The mower has rear steering and a front-mounted cutter deck.

Circle 209 on free information card

Home lawn aerator

Aeri-Boy, Jr. is a simple, inexpensive, pull-behind aerifier



which attaches easily to a riding lawnmower. Just flip the drawbar over to transport it. The manufacturer: Hahn, Inc.

Circle 210 on free information card

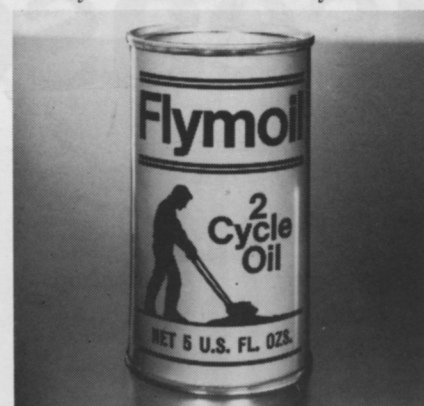
Multipurpose sprayer

A 30-gallon sprayer for liquids, water-soluble chemicals, or wettable powders is available from Engineering Products Co. for its Economy Power King and Jim Dandy tractors. A 48-inch spray pattern delivers 31 to 54 gallons of solution per acre at 20 to 60 pounds pressure. Included are a 100-pound pump, pressure gauge, tree spray nozzle, and a four-nozzle spray boom.

Circle 211 on free information card

Mower motor oil

Flymo Products Co. now offers Flymoil, an oil blended especially for use in Flymo air



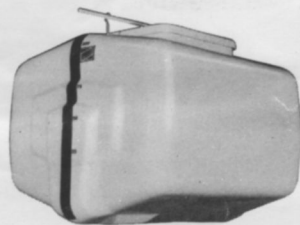
cushion lawnmowers and other two-cycle engines. It comes in a 5-ounce can, the exact amount recommended to mix with a gallon of gas. Packaging includes clear instructions.

Circle 212 on free information card

Power blower

The Winro BL-52 provides an efficient, fast method of clearing turf and pavement of debris — or of removing accumulated leaves from hard-to-reach flower beds. Power comes from a 5-horsepower Briggs & Stratton engine. Other features: an eight-blade fan, self-contained carrying grip, and handle-top throttle. Product of Billy Goat Industries.

Circle 213 on free information card



R-100 gal.

Tuflex
MFG. INC.

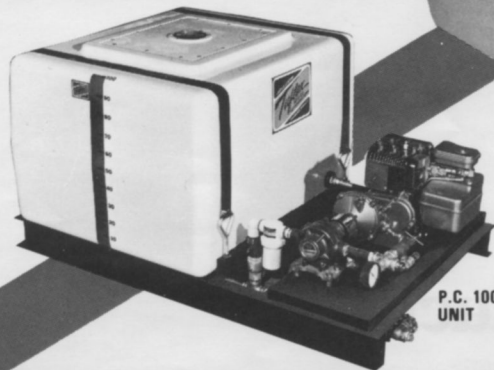
Tuflex Manufacturing Co. . . . specialists in pest control fiberglass spray tanks. Economical prices with high quality handcrafted workmanship. Many other tank sizes available from stock.



PC-1200 gal.

CONTROL PESTS... WEED... FERTILIZE

ECONOMICALLY
WITH FIBERGLASS
SPRAY TANKS



Tuflex

INTRODUCES
THE NEW
MODEL PC 200 Cap. 208
gal. 64" Long, 31-3/8"
Wide and 27" Deep. De-
signed for installation
forward of the wheel wells
in a standard size pick-
up truck and meeting EPA
standards.

Plant Location:
800 Eller Drive, Port Everglades, Fort Lauderdale, Florida



THE LARGEST FIBERGLASS "PEST CONTROL" SPRAY TANK MANUFACTURER IN THE SOUTHEAST

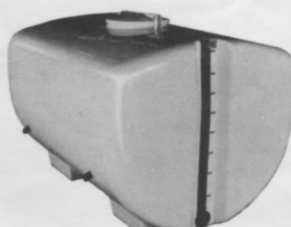
THE Tuflex Manufacturing
process allows a five year
warranty on all tanks.

Write today to TUFLEX MFG. CO.,
Box 13143, Port Everglades,
Florida 33316

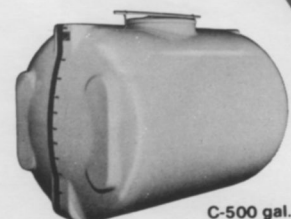
Call **305/525-8815**



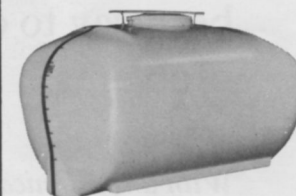
D-200 gal.



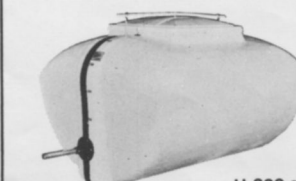
PC-800 gal.



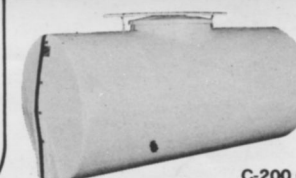
C-500 gal.



U-600 gal.



U-200 gal.



C-200 gal.

Circle 131 on free information card

**FOR
MICKEY MANTLE
AND
WHITEY FORD,**

Adelphi
KENTUCKY BLUEGRASS

(U.S. Plant Patent No. 3150)

**IS "A WHOLE NEW
BALL GAME"**



Photography at McGOVERN SOD FARMS, Melville, N.Y.

**RATED OUTSTANDING FOR OVERALL PERFORMANCE
...IN YEARS OF UNIVERSITY TESTING
...IN ACTUAL USE BY PEOPLE WHO KNOW GREAT GRASS,
GROW GREAT GRASS and DEMAND GREAT GRASS.**

Nowadays it's more golf than baseball but Mickey Mantle and Whitey Ford know great grass. Whatever the game, "Adelphi" is the answer for them and it may be for you.

- **DARKER GREEN COLOR THE ENTIRE GROWING SEASON**
- **EXCELLENT DENSITY** • **GOOD DISEASE RESISTANCE**
- **TOLERANCE TO MODERATELY CLOSE MOWING**

**JOIN THE "ADELPHI" TEAM.
IT'S "A WHOLE NEW BALL GAME" IN TURF.**



"ADELPHI" HAS BEEN CHOSEN by the Plant Variety Protection Office, U.S.D.A., AS A STANDARD FOR DARK GREEN COLOR to which all bluegrasses applying for plant protection will be compared for color classification.

(Use of this statement does not indicate any approval or recommendation of Adelphi by the U.S.D.A.)

Canadian Inquiries: **National-NK Seeds Ltd.**, Box 485, Kitchener, Ont. • **Rothwell Seeds Ltd.**, Box 511, Lindsay, Ont.
Other International Inquiries: **Northrup, King & Co., Inc.**, Minneapolis, Minn. 55413

FOR INFORMATION, CONTACT:
J & L ADIKES, Inc.

Jamaica, N.Y. 11423

JONATHAN GREEN & SONS

Farmingdale, N.J. 07727

NORTHROP, KING & CO., Inc.

Minneapolis, Minn. 55413

VAUGHAN-JACKLIN CORP.

Bound Brook, N.J. 08805 • Downers Grove, Ill. 60515
Spokane, Wa. 99213

PRODUCTS

Spray tanks

From 65 gallons on up, Raven Industries, Inc. offers corrosion-resistant tanks that are easily mounted on any type of rig used in custom lawn and park spraying. Tanks are available up to 1,000 gallon capacity.

Circle 216 on free information card

CLASSIFIED

HELP WANTED

POSITIONS OPEN

Persons with horticultural, entomology and agronomy backgrounds or related practical experience to fill positions in Chemical Lawn Care Management.

Several openings for Branch Managers and District Managers throughout Florida. We are a growth company (over \$3,000,000 annually) with aggressive but realistic expansion plans. Send resume (held in confidence) to:

Ron Collins, Pres.
R. W. Collins, Inc.
P.O. Box 2477
Satellite Beach, Fla 32937

FERTILIZER



SLO-RELEASE LIQUID FERTILIZER

Turf can now be fed with a sustained release of nutrient from a convenient liquid fertilizer without the hazard of burning. New, effective, and safe, Slo-Release is now available for bulk shipment in 12-0-0 and 10-3-3 analyses.

*LIQUID *NEUTRAL pH *COMPETITIVELY PRICED
*PATENTED
*COMPATIBLE WITH TURF CHEMICALS

Call or Write Slo-Release, Inc.
A (804) 458-0090 P.O. Box 1270 Hopewell, Va. 23860

Lawn care chemicals

A full line of lawn care products is offered by PBI-Gordon Corp. — including chemicals to control broadleaf weeds, grasses, dollar spot, funguses, Fusarium blight, water loss, and other problems.

Circle 217 on free information card

Bagging lawn tractor

Garden Pro, Inc. calls this its Bagger-Upper. It's an 11-horsepower lawn tractor with a 38-



inch cutting blade, a baffled ejection chute, and a device that blows clippings directly into a plastic disposal bag.

Circle 218 on free information card

DIRECT MAIL from page 1

ventional sizes, the classification case called for height to length ratios which fall between 1 to 1.3 and 1 to 2.5.

A nearly square envelope, for instance, is cumbersome to handle with mail processing machinery because it has four possible bottom and top edges.

In addition to height and length, there will also be a minimum thickness for mailing pieces. Prohibited next year will be cards and other thin mailing pieces which are less than seven-thousandths (.007) of an inch thick. This is slightly less than the .009 thickness of the official U.S. Postal Card.

The problem with flimsy cards and other mailing pieces is that they can jam machinery and lead to the tearing of other mail passing through processing machinery at high speeds.

Incidentally, because the present U.S. Postal Card is one-fourth of an inch short in terms of height, the Postal Service will be coming out with a new Postal Card measuring 3½ by 5½ inches.

There is one exception to the minimum sizes. If a small piece of mail, such as a film mailer, is more than one-fourth of an inch thick, it will be accepted although it may measure less than 3½ by 5 inches. Such mailings will be subject to a surcharge if weighing less than one ounce as first-class mail or two ounces as third class. Film mailers and other items more than one-fourth of an inch thick will be acceptable because their thickness makes it possible to mechanically separate them from letters and cards.

The changes coming for the dimensional standards of letter-size mail call for advance plan-

ning. It takes time to exhaust existing stocks.

It is time, too, to meet with envelope and printing suppliers. In most cases they will be familiar with the new dimensional standards. They can help design envelopes, forms, and cards which will meet both the needs of customers and the new mailability standards scheduled to become effective April 15, 1978.

A template, prepared by the Postal Service, which illustrates the dimensional standards that are not acceptable and those subject to the surcharge, is available from the American Association of Nurserymen, 230 Southern Building, Washington, D.C. 20005.

APPLICATORS from page 1

sey, Ohio, and Missouri said they will certify between 800 and 1,000 persons.

Legislatures in Nebraska, Colorado, and Massachusetts have not passed laws enabling them to enact the EPA's regulations. Many states which have this legal authority, however, have not yet actually certified any commercial applicators or are just beginning their training programs or exams.

Four states with approved EPA plans have not certified anyone and at least five others, including some large states, have not completed testing. The federal government does not plan to penalize states which are "working in good faith," but want them to complete their testing by early 1978.

"It (the testing) should not extend past January 1," said Andrew Cerake of the EPA's office of pesticide programs in Washington. "That's when restricted use pesticides will begin appearing on the market."

If there has been a flaw in the certification program, it would be in the number of persons who have failed the tests on their first attempt. Only 93 of 215 applicants passed the first set of tests in California, and while 996 have passed in Pennsylvania, another 243 have not.

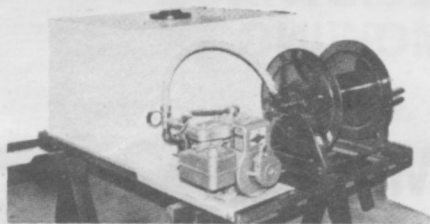
Although the federal government has dished out more than \$16 million over the past four years and anticipates giving about \$2.2 million more this fiscal year to set up training and testing programs in the 10 pesticide categories, no state official expressed disappointment with test results.

"The failure rate is not too extremely high. The test is a learning device rather than a measure of competence," said Dwight Dunbar of the Illinois pesticide program.

No state refuses to allow an applicant the chance to retake the exam until they pass, with a short waiting period after three failures being the most restrictive measure. Explains an Iowa official: "It's pretty hard to deny the public to keep on trying." —Scott Scredon

essco
Mfg. Company

SPRAYERS



Whether your needs are for weed control, lawn insect or fungicide spraying, ornamental and shade tree spraying, or any general outdoor work, we have the exact sprayer you require.

Our reinforced fiberglass low profile tanks are available in the following sizes: 50, 100, split 100 (2 x 50), 200 and split 200 (2 x 100) gallon sizes.

The reinforced fiberglass tanks are a low profile square design to minimize space, look attractive, and reduce chemical sloshing that you get in higher round style tanks.

These tank sizes can be incorporated into many varieties of sprayers using Hypo, Bean, Cat or Sherwood pumps, either electric or gasoline powered.

All our spray units come complete with tank, pump unit, welded steel chassis and hose reel, either skid or trailer mount.

P.O. BOX 124

AMITYVILLE,
NEW YORK 11701
516-799-7805

essco
Mfg. Company

Circle 128 on free information card

**Rely on the experts to
supply your every need
for positive chemical
control of major diseases,
insects and pests.**

Over 20 years of experience

WE SUPPLY:

TRIMEC—Broadleaf Herbicide

DYMEC 50—Turf fungicide

TOPEC 70—Systemic fungicide Ornamental, Turf

FORMEL 80—Fungicide for Turf, Ornamentals.

DIAZINON 50W—Insecticide

DURBAN 2E—Insecticide

BANVEL 4-S—Herbicide

BANVEL +2, 4-D—Herbicide



**Professional Turf & Ornamental
Products Division**

3622 State Ave., Kansas City, Kansas 66102

Circle 130 on free information card

HOUSING MARKET from page 1

forecasted 22 million more U.S. households by 1985.

In addition to new business available, side effects of the housing boom will benefit the lawn care industry. The cost of land has risen faster than construction costs to the point that a lot often represents 25 percent of the total cost of a home. For this reason it makes sense for the homeowner to protect his investment in a lawn by proper care.

Another factor, brought about by higher housing costs, is the growth of the two-income family. To afford their dream home a family must often break with the wife at home tradition. The result is less time for homeowners to do necessary chores and more hiring out of standard maintenance services.

An unusual, but growing factor in home buying, is the number of divorced or unmarried persons buying single homes. Remarried men often find themselves paying for two homes.

Barriers to Face

The boom is not without challenges. Rising utility costs, soaring labor and materials costs, higher taxes, and a tightening

money market may dampen the prospects of some smaller builders.

Congress is currently debating deregulation of natural gas prices. All-electric homes in the North can cost \$125 a month to heat. Heating oil prices jumped significantly in 1977.

Builders pass on to buyers increased labor and materials costs. The Council on Wage and Price Stability of the Department of Housing and Urban Development is presently investigating sharp increases in the price of lumber. Insulation prices rose approximately 15 percent this summer. Union labor contracts keep the hourly wage on a steady upswing. In some areas, developers are turning to non-union workers to keep the price of their homes down.

Taxes have doubled in some areas this year because of reassessment by smart county auditors taking advantage of inflation. Annual property taxes of \$1,000 for a small, single-family home are not unusual.

Finally, the Federal Reserve System is studying an increase in the interest rate on Federal funds to 6½ percent from 6¼ percent earlier this year. Commercial banks across the country have raised their prime interest

HOUSING START STATISTICS FROM NAHB

Year	Single Family Starts	Multi-Family Starts	Total Starts	Median Price Single Family
1970	812,900	620,700	1,433,600	\$26,600
1971	1,151,000	901,200	2,052,200	\$28,300
1972	1,309,200	1,047,500	2,356,700	\$30,500
1973	1,132,000	913,300	2,045,300	\$35,500
1974	888,100	449,700	1,337,800	\$38,900
1975	892,200	268,300	1,160,500	\$42,600
1976	1,162,900	373,800	1,526,700	\$48,000
1977 Projected	1,410,900	523,500	1,934,400	
1978 Projected	1,222,100	471,800	1,693,900	
1979 Projected			1,805,000	
1980 Projected			1,910,000	
1981 Projected			1,820,000	

rates accordingly to 7½ percent, with 8 percent possible this year.

Mortgage rates are beginning to creep up to 9% and higher as a result. Banks are counteracting to higher mortgage rates with variable-rate mortgages and mortgages that permit young homeowners to start with a smaller monthly payment. Proposals for FHA lending guidelines would also allow buyers to make a smaller down payment.

The Investment Motive

Despite many outside factors working to limit the number of homes built, the investment motive dominates. Once a buyer gets his first house, he can use its rapidly inflating value toward a

bigger house. Recent experience has shown that the first time buyer is no longer the new house buyer. Instead, he is forced to buy a smaller, older home until he builds up the equity for the new home.

Builders aren't building the basic ranch either. Splits and colonials are the builders' choice. They build condominiums to make up for the lack of simple new homes.

The new home buyer, your new potential lawn care customer, is therefore in a higher income bracket, with a bigger and fancier house and yard, and with less time to take care of it. It couldn't look better. — Bruce F. Shank

CHEM-LAWN'S DUKE

from page 1

kered with small businesses for a few years, running a nursery, their own landscape firm and two garden stores in the small Ohio cities of Troy and Piqua. In the middle and late 1960's, Duke experimented with liquid applications, spraying nitrogen and



Dick Duke

then planting granular nutrients. In 1968, he, his father, and a friend, Tom Grapner, now a company vice president, decided to establish a lawn care business and rented in office in Troy to set up their headquarters.

Duke's hometown of Dayton, and its suburbs, were the testing grounds for his idea that homeowners would pay for professionally-treated lawn care service at a reasonable price. The business did well enough that Duke expanded to Columbus in 1969 and Cincinnati, Toledo, Indianapolis and Louisville the next year. The growth in this decade has sprouted 72 branch offices throughout the country.

In 1971, two significant moves were made by the founder. He moved the firm's national operations center to Atlanta, expanding outside of the Midwest. And he offered company stock to employees, an action that company vice president William Copeland says signified Duke's concern for his workers.

"The company is unusual in that he (Duke) was adamant about the total value of the individual," said Copeland. "He spent his whole life trying to make it an exceptional place to work. He wanted each job to be a challenging job, a rewarding job."

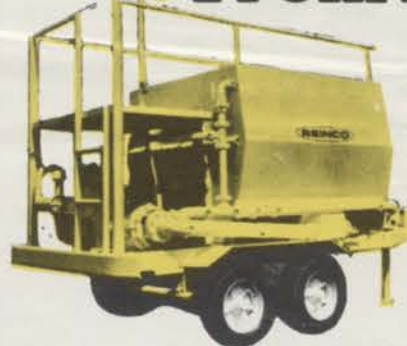
With the company well established, Duke took the position of board chairman in 1972 and Jack Van Fossen was appointed president at company headquarters in Columbus.

The leisure life which Duke earned from his creative service lasted only a short time. He remained an overseer, but enjoyed tennis and was attracted to Hilton Head's climate and resort atmosphere.

Copeland said there are no plans to fill the chairman's position.

the Reinco power team

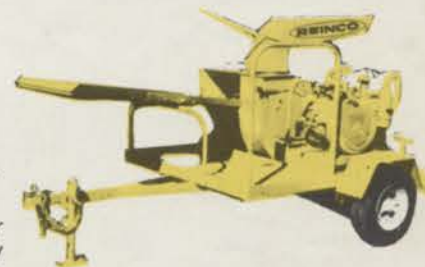
Two For The Grow... From REINCO



HG-8A Hydrograsser

Versatility plus! Reinco's HG-8A Hydrograsser can handle any job. Rugged,

heavy duty construction that gives extra mobility because of its tandem-axle trailer mount. 800 gallon capacity and 20 to 80 foot range for seeding, fertilizing or mulching. Spray batch in less than 15 minutes. Hydrojet agitation assures uniform solids dispersion for even coverage. It's a real time saver and money maker.



TM7-30(X) Power Mulcher

Trailer mounted mulcher that spreads 5 tons of hay mulch per hour up to distances of 70 feet. Full engine output is used for breaking and blowing mulch. Just two bearings...no belts; all the power works for you. Hardened flails are adjustable to regulate strand length. Straight-through drive with pre-thrasher lets you use lower quality or moldy materials. Full horizontal sweep and 60° vertical boom movement. Emulsion or tacking spray system optional. Reinco's compact TM7-30(X) will give you a 5,000% advantage over hand-shaking.

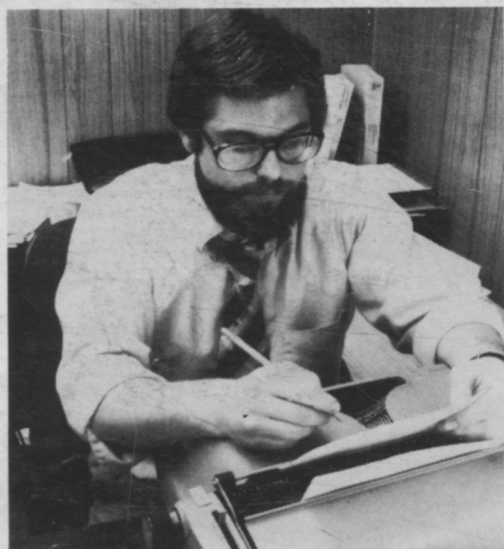
Two ways from REINCO to make your profits grow!

Reinco

P.O. Box 584 Plainfield New Jersey 07061
(201) 755-0921

Circle 108 on free information card

BEHIND THIS ISSUE



My name is Bob Earley and with this issue I become the editor of LAWN CARE INDUSTRY.

I have reported for a daily newspaper, worked for an advertising/public relations agency and edited five business magazines, including WEEDS TREES & TURF, THE GOLF SUPERINTENDENT and GOLF BUSINESS.

But I have never been more excited than I am now as we at Harvest Publishing put this issue to bed and begin working on the next. And the next and the next, with a monthly dateline beginning the first of the year.

This is a new magazine serving a dynamic, growing industry and I am thoroughly thrilled to be part of it.

I'll be traveling and getting to know you well over the next few years, and with your help LAWN CARE INDUSTRY will be as good and as helpful to you as it can be. I have a feeling we are going to go a long way together.

As I said before, I'm excited.

Bob Earley

ADVERTISERS INDEX

Adelphi Kentucky Bluegrass.....	31
American Pelletizing Corp.	8
Atwater Strong.....	25
E.F. Burlingham & Sons.....	27
Consolidated Services	25
Derby Tiller Co.....	10
Diamond Shamrock Corp.	5
DuPont	28-29
Essco Mfg Co.	32
FMC Outdoor Power	21
Hanson Equipment Co.	4
Hercules, Inc.	7
Heritage House Products.....	24
Highland Colonial Bentgrass	22
Hypro Div., Lear Siegler, Inc.....	24
International Spike, Inc.	9
F.D. Kees Mfg. Co.....	6
Lakeshore Equipment & Supply Co.....	12
Lofts Pedigreed Seed	36
PCS, Inc.	32
Pro Lawn Products	20
Reinco	33
Rockland Chemical Co.....	10
Sierra Chemical Co.	13
Southern Mill Creek.....	25
Swift Agricultural Chemicals Corp.	34-35
Thomson Publications	4
Tuflex Mfg.	30
Velsicol Chemical Corp.	3
Yanmar Diesel Co.	19

par ex® distributors

PROFESSIONAL PRODUCTS

Capitol Nursery Supply, Inc.
Phoenix, Arizona 85005
602/272-5508

Swift Agricultural Chemicals Corp.
Los Angeles, California 90023
213/264-5800

Foster-Gardner, Inc.
Coachella, California 92236
714/398-6151

Foster-Gardner, Inc.
Anaheim, California 92801
714/761-2521

Agri-Turf Supplies
Santa Barbara, California 93101
805/963-3691

Abate-A-Weed
Bakersfield, California 93308
805/589-0615

Robinson Fertilizer Company
Orange, California 92666
714/538-3575

Wilbur-Ellis Company
Chula Vista, California 92012
714/422-5321

Caceres Chemical Company
Los Angeles, California 90046
213/876-1460

Moyer Chemical Company
San Jose, California 95108
408/297-8088

Moyer Chemical Company
Santa Ana, California 92707
714/549-2871

Agri-Chem, Inc.
Ft. Lupton, Colorado 80621
303/288-4281

Avon Cider Mill
Avon, Connecticut 06001
203/677-0343

Swift Agricultural Chemicals Corp.
Winter Haven, Florida 33880
813/293-3147

McMullen Feed Store
Clearwater, Florida 33516
813/446-5961

Swift Agricultural Chemicals Corp.
Pompano Beach, Florida 33060
305/772-5550

Swift Agricultural Chemicals Corp.
Atlanta, Georgia 30304
404/955-0774

Lawn & Turf, Inc.
Conyers, Georgia 30207
404/483-4743

Swift Agricultural Chemicals Corp.
East St. Louis, Illinois 62201
618/271-5650

Turf Products, Ltd.
West Chicago, Illinois 60185
312/668-5537

Turf Management Supply Company
Rockton, Illinois 61072
815/624-7578

Paarlburg Chemical Company
South Holland, Illinois 60473
312/474-3086

Olsen Distributing Company
Barrington, Illinois 60010
312/381-9333

Professional Turf Specialties
Bloomington, Illinois 61701
309/829-5031

Indiana Seed Company, Inc.
Noblesville, Indiana 46060
317/773-5813

Deisch-Benham, Inc.
D/B/A Desco Chemical
Nappanee, Indiana 46550
219/773-7781

Chemi-Trol Chemical Company
Indianapolis, Indiana 46225
317/634-7963

Seedkem, Inc.
Evansville, Indiana 47708
812/424-2401

Tri-State Toro Company
Davenport, Iowa 52802
319/326-4416

Leisur-Aid A Division of Aidex Corp.
Council Bluffs, Iowa 51501
712/336-2441

Toro Service Center
Des Moines, Iowa 50318
515/243-0498

Big Bear Equipment Company
West Des Moines, Iowa 50318
515/243-1271

Champion Turf Equipment, Inc.
Wichita, Kansas 67209
316/943-0283

Rhodes Chemical Co.
Kansas City, Kansas 66103
913/432-2424

Swift Agricultural Chemicals Corp.
Glen Burnie, Maryland 21061
301/760-5927

Cornell Chemical & Equipment Co, Inc.
Baltimore, Maryland 21227
301/247-1525

Vaughan's Seed Company
Div. of Vaughan - Jacklin Corp.
Landover, Maryland 20785
301/322-8800

R.F. Morse & Son Company
Wareham, Massachusetts 02571
617/295-1553

L. & E. Chemical, Inc.
Div. of Lawn Equipment Corp.
Royal Oak, Michigan 48067
313/398/3636

J.J. Dill Company
Kalamazoo, Michigan 49005
616/349-7755

Turf Supply Company
St. Paul, Minnesota 55121
612/454-3106

Swift Agricultural Chemicals Corp.
Jackson, Mississippi 39205
601/366-4401

Champion Turf Equipment Inc.
Kansas City, Missouri 64114
816/333-8000

Champion Turf Equipment, Inc.
Springfield, Missouri 65803
417/869-2551

Professional Turf Specialties
St. Louis, Missouri 63155
314/225-7515

Big Bear Equipment, Inc.
Omaha, Nebraska 68137
402/331-0200

Rhodes Chemical Company
Lincoln, Nebraska 68507
402/466-8156

Clark County Wholesale Mercantile
Las Vegas, Nevada 89101
702/382-7700

The Terre Company
Saddle Brook, New Jersey 07662
201/843-6655

Vaughan's Seed Company
Div. of Vaughan - Jacklin Corp.
Bound Brook, New Jersey 08805
201/356-4200

Wagner Seed Company, Inc.
Farmingdale, New York 11735
516/293-2920

Eastern Turf Equipment, Inc.
Fayetteville, North Carolina 28301
919/483-0179

Swift Agricultural Chemicals Corp.
Wilmington, North Carolina 28401
919/371-2216

Sidney L. Dryfoos Company
Cleveland, Ohio 44146
216/439-4363

Van Atta Seed & Imp. Company
Cincinnati, Ohio 45225
513/541-2051

C.O. Lowe Sales
Columbus, Ohio 43229
614/891-9668

Lee Road Nursery, Inc.
Cleveland, Ohio 44101
216/561-3786

Larry's Garden Center, Inc.
Maple Heights, Ohio 44137
216/662-3884

Binding Stevens Seed Co.
Tulsa, Oklahoma 74135
918/627-4480

Lawn & Golf Supply Co., Inc.
Phoenixville, Pennsylvania 19460
215/933-5801

Allen's Seed Store, Inc.
Slocum, Rhode Island 02877
401/294-2722

Bell Oil Company
No. Myrtle Beach, So. Carolina 29582
803/249-2616

Swift Agricultural Chemicals Corp.
Columbia, South Carolina 29250
803/254-5189

Central South Turf Distributor, Inc.
Nashville, Tennessee 37211
615/832-7725

Swift Agricultural Chemicals Corp.
Houston, Texas 77002
712/682-6217

Turf & Garden
Division of Todd Farm Equipment, Inc.
Chesapeake, Virginia 23320
804/543-2071

Swift Agricultural Chemicals Corp.
Vancouver, Washington 98660
206/696-3321

Turf Management Supply Company
Sun Prairie, Wisconsin 53590
608/837-5598

Reinders Brothers Inc.
Elm Grove, Wisconsin 53122
414/786-3300





IBDU® and PAR EX® Fertilizers

The Professional's Choice

Every customer wants the very best fertilizers for their lawn. Why? Because today everyone is green conscious. With IBDU and PAR EX fertilizers, you can provide the most complete, balanced nutrition available for turf and ornamentals.

Month after month, IBDU and PAR EX fertilizers release just enough nutrients to keep turf and ornamentals green and hardy. IBDU, unlike all other slow release nitrogens, is activated by soil moisture, not soil bacteria. It releases at an even, steady rate that can't be hurried or slowed by extremes in temperature. Precision mixed with other nutrients, gives you

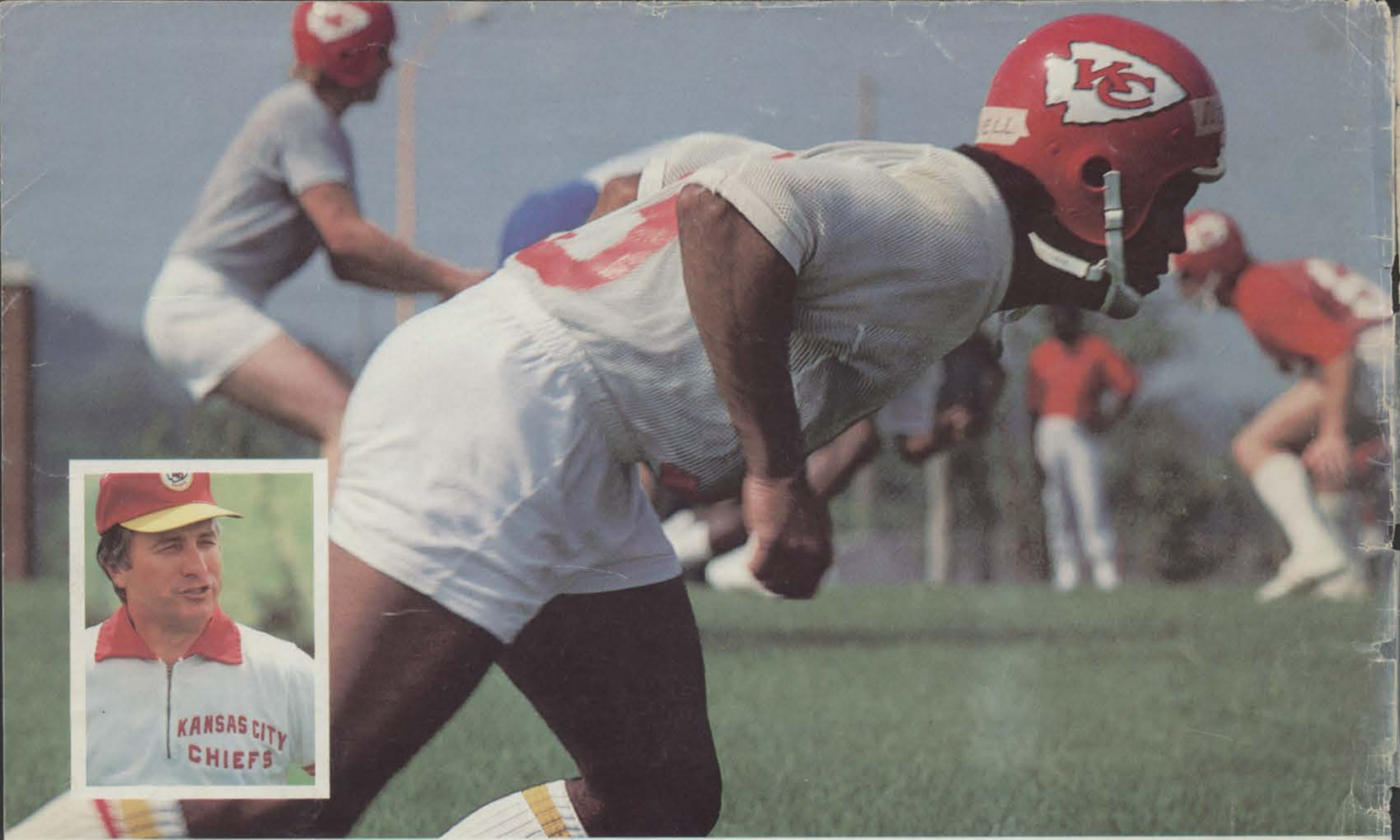
the best balanced fertilizer available today.

Start your customers out with a nutrition program that includes IBDU and PAR EX fertilizers. Your customers will like the results. And you'll like the added green. Contact your PAR EX distributor or call us, 813/299-5023.

par ex®
PROFESSIONAL PRODUCTS

Swift Agricultural Chemicals Corporation
Winter Haven, Florida 33880

Circle 121 on free information card



"Tough K.C. Chiefs need tough grass! That's why I picked **baron** KENTUCKY BLUEGRASS."

George Toma, Director of Field and Landscaping Operations, Kansas City Chiefs and Royals, and consultant for all Super Bowl games.

"I need a grass that will withstand the wear and tear of forty big football players on it five days a week from August to December. With the toughness of Baron there are darn few worn out spots."

George Toma explains to Peter Loft:

"I overseed this practice field with 50 lbs. of Baron as early as February and the field is ready in April. We'll have good grass all the way through the season."

"With the field in use so much of the time, I need a grass that doesn't need much care. In the 3 years this field has been in, I've never used a fungicide, insecticide or herbicide. That's a plus for me. I can only water maybe once a week and you can see how green this field is."

"We fertilize well around Thanksgiving. With the lower fertilization requirements of Baron, we don't have to worry about tender grass. Baron stays tough."



it to 3/4" up until June 1. After that we keep it at 2".

"We mow whenever the grass needs it. That may be once, twice or even three times a week. We only remove 1/4 of the growth and usually cut



"The players love this field. They even replace their own divots! And I think psychologically they practice better when they see a beautiful field like this."



**Lofts
Pedigreed Seed, Inc.**

Bound Brook, NJ 08805 / (201) 356-8700

Circle 112 on free information card

Lofts/New England
Arlington, MA 02174
(617) 648-7550

Lofts/New York
Albany, NY 12205
(518) 456-0042

Loft Kellogg Seed Co.
Milwaukee, WI 53201
(414) 276-0373

Great Western Seed Co.
Albany, OR 97321
(503) 926-2636

(Canadian Baron Dist.)
Oseco Ltd.
Ontario, Canada
(416) 457-5080

