

Dr. Paul Schnare: "Just a matter of time before sales tax people contact us."

#### **30 CENTS PER TON FEE**

### **State fertilizer laws** may burden industry

If the lawn care industry has to come into compliance with fertilizer laws designed primarily for agriculture it is going to "cost a lot of time, trouble and money for the industry," according to Dr. Paul Schnare, Accu-Spray Lawn Care, Cape Girardeau, Mo.

"If each lawn care applicator has

to prepare 20 or 25 tickets a day to meet requirements, it is going to generate a lot of paperwork for our industry," Dr. Schnare told a lawn care audience at the recent Missouri Lawn & Turf Conference.

There are also possibilities of taxes and penalties, he said.

"The way I interpret it, the lawn



PLCAA PRESIDENT ASKS

### Are increasing rates of lawn customer turnover inevitable?

by J. Martin Erbaugh, President Lawnmark Associates

Are increasing rates of customer turnover inevitable? It is a subject that is quite complex. It is also a subject that is or should be of concern to all participants within the lawn care industry, for the way in which it is answered by the individual firm undergirds the key decision-making processes which must be in place to remain competitive through the 1980's.

I make no claim on "absolute truth." My conments are based on my experience in managing a lawn care business. Also, my involvement in the Professional Lawn Care Association of America (PLCAA) has allowed me on many occasions to discuss this subject

with leaders in the industry and to gain their perspectives. (Editor's note: Erbaugh recently was elected PLCAA president.)



Marty Erbaugh

#### The lead article in the July 1981 issue of LAWN CARE INDUSTRY carried the following headline: "Customer Retention Down, New Sales Up, Lawn Care Businessmen Say." It went on to provide briefly a "demand analysis" for lawn care cited services and many businessmen around the country with respect to their experience in spring 1981 in the area of customer retention and new sales. I know of no lawn care

businessman who is not concerned about his annual retention of customers. Notice I did not say "paranoid," or "suicidal," or "immobilized." I said "concerned." This concern is bottomed in an awareness of the accelerating to page 22

#### MOWING/MAINTENANCE AVERAGE: \$71,666

### Average chemical lawn firm grosses \$193,436

A recent survey conducted by LAWN CARE INDUSTRY showed that its average reader involved in chemical lawn care has an average annual gross of \$193,436, based on

age annual gross of \$71,666, based on service to 86 customers, mostly commercial/industrial accounts.

These figures indicate that chemical lawn care firms are av-

### Sek replies to lawn care critic

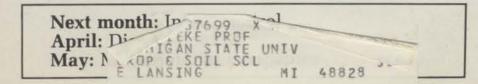
In the May 1981 issue of LAWN CARE INDUSTRY excerpts from a New York newspaper article entitled "Confessions of an Ex-Lawn Sprayer" appeared, written by former Funk Lawn Company employe Tina Wright. In it, Wright denounced Funk Co. for technical malfeasance in the proper use and application of pesticides. In the article below, David Sek of Monroe Tree & Landscape, Inc., Rochester, N.Y., offers a rebuttal to Ms. Wright's views.

I was an employe of Funk Lawn Spray Co. from 1973 until the business was sold in 1976. I worked with Ms. Wright and I feel that her allegations are grossly misstated. They are unfair to Mr. to page 31

### **QUICK STARTS**

Late fertilization	7
Fusarium blight control 10	0
L.P. gas <b>savings</b> 12	2

Cincinnatti disease pr	ogram 13
Cut mowing costs	
Lehr on labor law	
Upfront 4	Tools, Tips, Techniques 10
Marketing Idea File 13	Products 25
Moneywise	Newsmakers 32
Cost Cuttings 31	Meeting Dates 24



service to 1,189 customers.

The same survey showed that the magazine's average mowing/ maintenance reader had an aver-

eraging an annual gross of \$162.88 per customer, while mowing/ maintenance firms are averaging an annual gross of \$833.32.

Accounts/ Receipts	Average No. Accounts	Average Gross Receipts
Chemical lawn care	1,189	\$193,436
Mowing/ Maintenance	86	\$ 71,666



# Without a summer application of Dursban, big problems could pop up in fall.

While most insects emerge in spring, sod webworms and other varieties don't spring into action until late summer or fall. And even DURSBAN\* insecticide – which gives you the longest residual action in the business – won't protect your customers' lawns from spring to fall.

That's why it's important to apply DURSBAN twice a year – on your first round for the early risers and later in the summer to get the late bloomers.

And considering the relatively low cost of DURSBAN, a two application insecticide program makes doubly good sense. After all, DURSBAN costs as little as 35¢ per 1000 sq. ft. application. A small price to pay for protection against the immeasurable costs of call-backs and shaken customer relations.

DURSBAN gets just about every bug you'll face, too: chinch bugs, sod webworms, armyworms, cutworms, you name it.

DURSBAN. Make sure *all* insects get a shot. Available in 2E and concentrated 4E formulations. See your Dow distributor. Also ask him about our new "DURSBAN delivers the goods" incentive program. Be sure to read and follow all label directions and precautions. Agricultural Products Department, Midland, Michigan 48640.

# DURSBAN

### Gets the jump on late emergers.



DOW Chemical U.S.A.

\*Trademark of The Dow Chemical Company.

Circle No. 106 on Reader Inquiry Card

### UPFRONT

### Your average customer?

Most lawn care businessmen who deal with residential customers have a pretty good idea who they are talking to when they send out their direct mail pieces in the spring. **Household income** of \$25,000 or so, **average house value** of \$65-70,000 (although this is going up every day, literally), **average lawn size** of perhaps 7,500 square feet. This of course is just an average (I know some guys

### LAWN CARE INDUSTRY

ROBERT EARLEY, Editor/Publisher PAUL McCLOSKEY, Associate Editor JOAN HOLMES, Production Manager MARILYN MacDONALD, Production Supervisor DENISE JOHNSON, Graphic Design JOAN SMITH, Circulation Supervisor DAVID PETERSON, Reader Service Manager JULIE LAITIN, Promotion Director

#### MARKETING/SALES

New York Office: **ROBERT EARLEY** (212) 888-2892 757 Third Ave., New York, NY 10017

Southern Office: JIM BROOKS, National Sales Manager RON KEMPNER (404) 233-1817

3091 Maple Dr., Atlanta, GA 30305 Northwest Office: **BOB MIEROW** (206) 363-2864

1333 N.W. Norcross, Seattle, WA 98177 Classified: **DAWN ANDERSON** (218) 727-8511

1 E. First St., Duluth, MN 55802

Please send advertising materials to: LAWN CARE INDUSTRY 120 W. Second St. Duluth, MN 55802 218-727-8511

#### HARCOURT BRACE JOVANOVICH PUBLICATIONS (HBJ)

ROBERT L. EDGELL, Chairman RICHARD MOELLER, President LARS FLADMARK, Executive Vice President ARLAND HIRMAN, Treasurer THOMAS GRENEY, Group Vice President EZRA PINCUS, Group Vice President LAWRENCE WITCHEL, Group Vice President JOE BILDERBACH, Vice President JAMES GHERNA, Vice President GEORGE GLENN, Vice President HARRY RAMALEY, Vice President that love those minimum lawns so easy-to-do, and the money is good) but it is certainly in the ball park.

This is the average customer. If you have ever sat down and determined what your average **gross-per-customer** is annually, it might be interesting to compare your figures with those on page 1 of this issue, which are based on a recent survey we completed of our readers.

Our chemical lawn care businessmen say they have an average of 1,189 customers on the books, and gross an average of \$193,436 annually. This works out to a little more than \$162 per customer. Our mowing/ maintenance readers say they have an average of 86 customers on the books, and gross an average of more than \$71,666 annually, or \$833 per customer.

Many lawn care businessmen I have spoken to are going back to their customer lists and offering **extra services** — aeration, tree work, renovation, disease programs, etc. Increasing the gross from their existing customer lists rather than increasing their number of customers. It makes sense.

One company that lives by this philosophy is **LawnBuilders**, in the Cincinnati, Ohio area. They have about 4,000 customers, and 1,000 have been signed up for their LawnBuilders Plus program, which includes — among other things — disease control. They feel it gives them a competitive edge in their marketplace.

Also in this issue, Marty Erbaugh, newly elected president of the Professional Lawn Care Association of America (PLCAA), asks the question: "Are increasing rates of **customer turnover** inevitable?" He says . . . well, why not read the article and find out for yourself? By the way, Marty has a chimney sweep business for his LawnMark Associates in the offseason, and after a couple of false starts, it is on its way again. Pretty imaginative, huh?

Our old friend Richard Lehr is back this month with his labor column, where he talks about mininum wages, unemployment and follows up some questions he was asked during his presentation at the recent PLCAA Conference and Trade Show in Louisville. Should employes be paid for non-working time they spend in an employer's vehicle? How is a non-weekly bonus averaged over prior work weeks? Richard knows. Should you be converting your fleet to diesel? Some people who have written about this issue, and they are very happy with the results. Why? Because they are saving between 30 and 50 cents per gallon for fuel. Fusarium blight. In many parts of the country, these are two words that are usually preceded by some more colorful adjectives when lawn care businessmen get together to talk turf. Researchers in California have reduced incidence of the disease by going with perennial ryegrasses and Kentucky bluegrasses in their programs, instead of just Kentucky bluegrass. It might not put fungicide manufacturers out of business, but the information could be very helpful to you in your area. Yes, we have a story on it.

Dr. Charles Darrah, research agronomist for ChemLawn Corp., takes the floor in this issue and states the case for incorporating late-season fertilization into a lawn care program. This seems to be the way of the future, and ChemLawn is certainly among the leaders of research of the concept. By the way, Chuck is rubbing his hands together at the thought of putting together ChemLawn's Symposium on Turfgrass Fertilization to be held in October near company headquarters in Columbus. The Symposium will follow the successful format of past symposiums on disease, insect and weed control. Attendance is recommended for lawn care businessmen who want to stay on the cutting edge of their profession.

Are you paying a **fertilizer tax** in your state? At the recent Missouri Lawn and Turf Symposium, former PLCAA board member Dr. Paul Schnare discussed fertilizer tax laws in his state, and it looks like it could become mandatory in many other states where it is not already.

A few months ago, we published an article that told of another article that appeared in an upstate New York weekly newspaper where a former lawn care employee gave a real kick in the shins to the industry as a whole. The article was written by Tina Wright, who was employed with Funk Lawn Spray at the time, and she told of how chemicals were applied unsafely by her firm. In an article in this issue, David Sek, who was also employed by Funk at the time and now works for Monroe Tree and Landscape, Rochester, N.Y., sets the record straight.

Do you know your **mowing costs?** A survey conducted by 3M Co. recently showed that many mowing/maintenance lawn care businessmen do not. In an article in this issue, that survey's results are published, along with words from 3M on how **growth regulators** might be utilized in your business to cut mowing costs, particularly in low maintenance areas.

**Cash flow planning.** Hardly a turf conference has gone by this season without a speaker tackling the topic for those lawn care businessmen in attendance. In this issue, Gerald B. White of Cornell's Agricultural Economics Department tackles it once again. If you don't have a handle on your cash flow, you should.

4

LAWN CARE INDUSTRY (USPS 397250) is published monthly by Harcourt Brace Jovanovich Publications. Corporate and Editorial offices: 757 Third Avenue, New York, New York 10017. Advertising offices: 757 Third Avenue, New York, New York 10017, 111 East Wacker Drive, Chicago, Illinois 60601 and 3091 Maple Drive, Atlanta, Georgia 30305. Accounting, Advertising Production and Circulation offices: 1 East First Street, Duluth, Minnesota 55802. Subscription rates: one year, \$15 in the United States, \$18 in Canada; all other countries: \$40. Single copies: \$2 in the United States and Canada; all other countries \$4.50. Second Class postage paid at Duluth, Minnesota 55806 and additional mailing offices. Copyright © 1982 by Harcourt Brace Jovanovich, Inc. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher.

#### POSTMASTER: Send address changes to LAWN CARE INDUSTRY, P.O. Box 6200 Duluth, Minnesota 55806-9900.

Also in this issue, Associate Editor Paul McCloskey traveled to Dallas, Texas to talk with mowing/ maintenance businessmen in that boomtown. His report is featured on pages 18 and 19.

Feb Carly

Inquiries serviced for 90 days from date of issue. For those countries outside the U.S., please apply appropriate postage before mailing.

#### READER SERVICE INFORMATION CARD 2-82

For more information on products or services mentioned in this issue, circle the

corresponding numbers below, fill in appropriate information and mail today.

101 102 103	108 109 110	115 116 117	122 123 124	129 130 131	136 137 138	143 144 145	150 151 152	157 158 159	164 165 166	171 172 173	178 179 180	185 186 187	192 193 194	199 200 201	206 207 208	213 214 215	220 221 222	227 228 229	
	111	118	124	132	139	145	152	160	167	174	181	188	194	202	208	216	223	230	
105	112	119	126	133	140	147	154	161	168	175	182	189	196	203	210	217	224	231	1
106 107	113	120 121	127 128	134 135	141 142	148 149	155 156	162 163	169 170	176 177	183 184	190 191	197 198	204 205	211 212	218 219	225 226	232 233	
Contraction of the local division of the loc		ECK BEI							10000		104	191	190	205	212	219	220	233	
		CTOR OR			mani	DUSINE	.00 AI	THIS L	120		I. college	e, univer	sity, hos	pital, or	similar f	acility			
n		awn care			involved	primari	ly		130			housing							
	N	ith fertili.					-		140			rounds; p	barks, an	ound mu	unicipal t	ouildings	, military		
				method					150	faciliti									
20	10	) □Liqu	id .		ry	12 Bo	th		150 190		(please s	nemorial	garden						
30		andscape							150	Comer	(picase a	shoculd -							
40		ursery or							C. SUP	PLIER									
50		est contro							210			er or dist							
60		rigation of	contracto	r/lawn s	ervice co	mpany			220			aler or di	stributor						
R G	ROUND	S CARE	MAINTE	NANCE	AT ONE	F THE			230 240			lealer							
		TYPES							240	1300 y	IUWEI								
110		Private or	public (	estate															
NAME_		_							T	ITLE _									
BUSINE	SS N	AME_	-		-	-			·	ADDR	ESS_	10.1	-	223	2013	11.00			_
CITY						TATE			ZIP_		-	TELER	HON		)	1.1			
															A COD	-			
I WISH	TO F	RECEIV	E (CO	NTINU	JE REC	EIVIN	G) LA	WN C	ARE I	NDUST	RY EA	CH M	DNTH	□ YES		)			
SIGNAT	TURE	-								DAT	E								

Circle the Reader Service numbers of those items of interest to you.



NECESSARY IF MAILED IN THE

GET

MORE

FACTS

READER SERVICE DEPARTMENT

LAWN CARE INDUSTRY

POST OFFICE BOX 6200 DULUTH, MINNESOTA 55806

### Customer attitudes, program problems hamper late-season fertilization, Dr. Darrah says

Two of the biggest problems in incorporating late-season fertilization into a lawn care program are operational considerations and consumer attitudes, according to Dr. Charles Darrah, research agronomist for ChemLawn Corp., Columbus, Ohio.

"Your customers and potential customers get the urge to have a green lawn in the spring," he told an audience of lawn care businessmen at the recent Ohio Turfgrass Conference. "They can't see the benefits of root growth, all they see is the benefits of shoot growth."

#### Root to shoot

He said that the turfgrass plant partitions growth and fertilizer use between root growth and and shoot growth. As temperatures warm up, the plant moves from root to shoot growth. Thus, he said, nitrogen should be applied after air temperatures begin to limit topgrowth, and this is dependent on the temperatures where the lawn care businessman is in the country.

He said the fertilizer should be applied so that the turfgrass plant is still able to carry on photosynthesis. If it is applied too late, this does not occur, and it could even hurt the plant.

There are some differences in the optimum time to put down a late-season fertilizer application. He said that in the Ohio area, the first week in November is the optimum time.

"In a typical chemical lawn care program, this means you would be applying it from late September through late November to keep within your cycle," he said.

"The first week in November provides for increased color because of photosynthesis," he said.

As for sources of nitrogen, he said the lawn care businessman wants to have it readily available, solution nitrogen sources SO should be used. He recommends 1<sup>1</sup>/<sub>2</sub> pounds of nitrogen per 1,000 square feet, or split applications of 1 pound and then 11/2 pounds of nitrogen.

He said that phosphorus and potassium levels should be wellestablished prior to late-season fertilization, and noted that the turfgrass plant is not able to take up phosphorus in the fall.

He said that the nitrogen appli-



Dr. Charles Darrah: "Your customers can't see the benefits of root growth."

cation should be applied late enough so that topgrowth is not pushed, and so that a spring green-up can be obtained. But he said that it is possible to have too much nitrogen in the spring carried over from a late-season application.

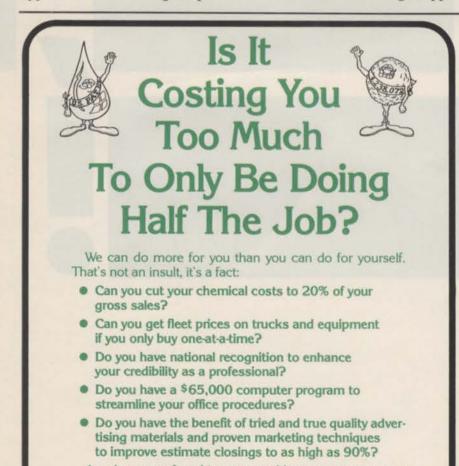
#### Liquid or dry?

He said slow-release nitrogen forms should not be used for late-season application, because the nitrogen would not be available in the fall, when it is needed.

As to the use of liquid or dry nitrogen sources, he said: "98 percent of the time, the results are equal, according to the testing we have done. Agronomically, there is no difference."

From an operational standpoint, he said that he feels the lawn care businessman would get more fertilizer to the turf by going dry, because of problems of leaf cover. He also said that there could be problems from cold temperatures, if a company is not able to get their trucks inside out of the cold at night.

An important consideration, he emphasized, was to let your customers know the difference between root and shoot growth.





As a Lawncare franchisee, we enable you to save money, increase profits and maintain a high standard of quality. And, we give you something no one else can: The proven, patented two for the price of one process that keeps customers coming back.

Some franchisors take advantage of you. We invite you to take advantage of us.

For more information, write or call (216) 481-5000



19506 Nottingham Rd. Cleveland, Ohio 44110

Circle No. 116 on Reader Inquiry Card

LM

complete labeling for turf and ornamental Insect control, available through more than 40 distributors nationwide. Call or write for the distributor nearest you. and the



Drug & Chemical Co. Inc

363 Seventh Avenue New York, N.Y. 10001 (212) 736-6766 PO. Box 701 Park Ridge, Ill. 60068 (312) 825-0020 PO. Box 12433 Fort Worth, Texas 76116 (817) 738-6042 3609 Shallowford Road Atlanta, Ga. 30340 (404) 458-1055 

Circle No. 123 on Reader Inquiry Card



ALWAYS READ AND FOLLOW LABEL DIRECTIONS FOR ROUNDUP. Roundup<sup>®</sup> is a registered trademark of Monsanto Company. © Monsanto Company 1982. RUP-SP2-102

### COLS, TIPS, TECHNIQUES

#### iberinger behaverst applications

termine many lines are built with your built and reaction are built on the second of t

biost percentions can be abare if paramet in distance are realistic and the parameter is a set of parameters of the set o

and a single lagest formulation of the strengt with a second strengt with a second sec









### Lots of lawn care jobs you do are easier and faster with Roundup.

Wherever you use it, Roundup<sup>®</sup> herbicide helps make weed control around your customers' homes fast, easy and effective. Just one application of Roundup controls tough labeled weeds right down to the roots, so they won't grow back. That means less need for timeconsuming repeat treatments. And Roundup has no residual soil activity, so it can't wash or leach from treated areas to injure desirable vegetation. wherever they grow. Around shrubs and bushes. In sidewalk cracks. Along driveways. At the base of trees. Along fences. In and around flowering ornamentals. Spot lawn renovation. Edging around obstacles. You name it—there's virtually no limit to the uses of Roundup!

So reach for Roundup before you begin your

Whether you apply Roundup with a backpack sprayer or a hand-held wiper, it effectively controls weeds next lawn care job. It'll help make weed control faster and easier—which can mean more profit for you.

FOR A FREE GUIDE TO ROUNDUP, CALL 1-800-621-5800 TOLL FREE. IN ILLINOIS, CALL 1-800-972-5858.

Monsanto

Circle No. 121 on Reader Inquiry Card

Cour

### TOOLS, TIPS, TECHNIQUES

#### Storage between applications

Because many lawn care businessmen are between application seasons, everyone who deals with pesticides must concern themselves with storage of these materials in such a way as to ensure that they will not deteriorate. There are hundreds of pesticide formulations, and all cannot be treated the same if a useful product is desired when the chemical is again removed from storage for use.

Most pesticides can be stored if proper facilities are available. However, before storing any chemical, read the label and if you still have questions, contact the manufacturer. Under normal conditions, the following rules apply for the maintenance of pesticides.

• Never allow liquid formulations to freeze. On the other hand, dry and liquid formulations should never be stored where temperatures may exceed 100 degrees F. Heat initiates the breakdown process.

• All pesticides should be kept in a well ventilated but dry

#### CALIFORNIA STUDY

### Mixing turfgrasses can control fusarium blight

Appealing color, density, texture and overall uniformity make Kentucky bluegrass the most commonly used cool-season turfgrass species in California. It grows best along the coast but is also planted in inland areas where it is not as well adapted because of high summer temperatures.

During the summer, Kentucky bluegrass can be damaged by Fusarium blight, a disease which bleaches the leaves and causes a severe root rot, killing the grass.

Perennial ryegrass is another cool-season turfgrass adapted to the same California climatic zone as Kentucky bluegrass. Excellent turf-type perennial ryegrass cultivars have been developed re-

re cently that closely resemble Kentucky bluegrass in color, texture and overall appearance, but are not f- susceptible to Fusarium blight.

In a study designed to find a practical, non-chemical method for controlling Fusarium blight in Kentucky bluegrass, California researchers evaluated various mixes of Kentucky bluegrass and perennial ryegrass for Fusarium blight resistance and overall turf quality response.

#### **Field researchers**

Researchers were: Dr. Victor A. Gibeault, environmental horticulturalist, Cooperative Extension, Dr. Victor B. Younger, professor, Department of Botany and Plant Sciences, Richard Autio, staff research associate, Cooperative Extension, all of the University of California, Riverside; and Stanley Spaulding, staff research associate, Department of Botany and Plant Sciences, South Coast Field Station, Santa Ana.

The study was conducted at the University of California South Coast Field Station. Eleven bluegrass/ryegrass mixes were established in September 1975 in 25square-foot plots, and each was seeded at a race equivalent to three pounds of seed per 1,000 square feet.

The treatments were replicated four times and arranged in a completely randomized block design. Once established, the experimental area was cut at a 1¾inch height and fertilized with a slow-release nitrogen source at a rate equivalent to three pounds of nitrogen per 1,000 square feet per year. Irrigation was based on water loss from an evaporative pan. No other primary or secondary maintenance was performed.

#### **Color intensity ratings**

Park Kentucky bluegrass and a blend of 50 percent Manhattan and Pennfine perennial ryegrass were used in all treatments.

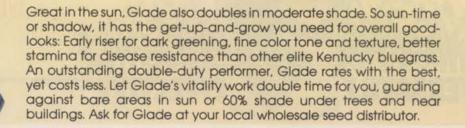
Observations were made regularly on plot appearance. At least two persons made monthly turf scores (visual appearance ratings based on color, texture, density, pest activity and uniformity of the turf2grass treatments). The plots were rated for color intensity three times during 1976. Fusarium blight was noted in August 1978, and data were recorded as percent area affected by the disease. During the winter of 1978-79, the Kentucky bluegrass and perennial ryegrass tillers were counted in three 2-inch plugs harvested from each plot. All data were subjected to an analysis of variance, and significant differences determined by the Duncan's Multiple Range Test. During the warm season (May to September), all bluegrass/ryegrass mixes had a somewhat better overall appearance than the 100 percent Kentucky bluegrass plots, although the differences were not great. In comparison, all mixes of bluegrass/ryegrass had signifi-



to page 34

10

Another fine qualitycontrolled product of Jacklin Seed Company.



DOUBLE

Circle No. 114 on Reader Inquiry Card

cantly higher turf scores than the straight bluegrass treatment during the cool season (October to April). The perennial ryegrass, which has excellent vigor during those months, obviously exerted a positive response in the mix.

When the turf scores were combined and analyzed for the twoyear period, the researchers found that all mixes were given significantly higher appearance ratings

than the straight bluegrass. Even a small amount of ryegrass added to the Park Kentucky bluegrass improved turf color. Five percent perennial ryegrass gave significantly better color than 100 percent bluegrass, and the treatment with 10 percent ryegrass was significantly better than either the five percent or no ryegrass treatments. There were no further significant increases in color ratings when 15 percent or more ryegrass was used as part of the mix.

After the experimental area was subjected to moisture stress in the summer of 1978, Fusarium blight occurred that August. Fusarium blight on the 100 percent Park Kentucky bluegrass plot was devastating: About 30 percent of the plot area was killed. The amount of affected area decreased markedly in plots with only five percent ryegrass in the mix. The disease symptoms, in essence, were eliminated in all treatments containing 10 percent ryegrass or more, and there was no significant difference in Fusarium blight incidence among any treatments above 10 percent ryegrass.

These results show that mixing even small amounts of perennial ryegrass with Kentucky bluegrass can mask or control the disease symptoms. The amount of perennial ryegrass needed falls in the 10 to 15 percent range on a seedweight basis.

#### **Competitive ryegrass**

The count of bluegrass ryegrass tillers in the 2-inch plugs showed that Kentucky bluegrass decreased very rapidly and perennial ryegrass increased when even a small percentage of ryegrass on a seedweight basis was added to the mix. There was no significant difference in the bluegrass/ryegrass plant counts in mixes containing more than 15 percent ryegrass on a seed-weight basis (85 percent or less bluegrass).

The bluegrass/ryegrass balance assumed approximately a 50/50 plant count relationship with 18 percent ryegrass or more in the seed mix.

These results tend to support and explain the results of turf scores, color, and Fusarium blight activity. Evidently, the quickgerminating and rapid-growing perennial ryegrass was able to establish and remain competitive, even when very small seed numbers per unit area were seeded. The slower-germinating and growing Kentucky bluegrass was able to fill in around the established ryegrass plants, and the species mix was maintained for the duration of the three-vear test. In conclusion, the researchers said, mixes of Kentucky bluegrass and perennial ryegrass practically eliminated Fusarium blight activity, whereas control plots of straight bluegrass were damaged.

**BUSINESS** 

### **Cash flow planning can** smooth peaks and valleys

In the lawn care business in many parts of the country, receipts are very seasonable. Much of the receipts are incoming in the period of April through November, but the lawn care businessman incurs to Gerald B. White, assistant professor in the Department of Agricultural Economics at Cornell University.

The cash flow statement is a periodic summary of all sources

The well prepared cash flow statement can be used to determine if the expected cash income will pay all the operating expenses and service debts.

expenses and has to pay debts over the whole year.

Cash flow planning becomes a necessity to insure that there are sufficient funds to meet financial obligations year-round, according

and uses of cash flowing into and out of the business, he told lawn care businessmen at the New York Turfgrass Conference. It shows which activities produce income, how much income is generated

Sooner or later you'll need Ryan.

and when it flows in. Similarly, it lists the cash expenses, debt payment and salaries by amount and timing. The cash flow statement also accounts for cash capital sales and purchases.

The well-prepared cash flow statement has the following uses:

• It can be used to determine if the expected cash income will pay all operating expenses, purchase needed capital items, and service debts.

• It can be used to manipulate income and expenses between different periods of the year to relieve or eliminate potential periods of financial stress.

• It can be used to set up loan repayment schedules so that they coincide with periods of cash surpluses.

• It can be used to determine in advance when loans will be needed and for how much.

• It facilitates communication with creditors, and shows them you have a handle on finances.



delivers up to 21/2 inches of penetration at 7-inch intervals over a 19-inch

Today's sophisticated fertil izer, herbicide and insecticide treatments are making lawns and large turf areas more beautiful every season. But professionals know that thick, green lawns eventually develop thatch.

The professionals also know that it's easier, better and more economical to de-thatch and aerate on a regular basis to allow air, fertilizer and water to reach the roots.

That's where the Ryan® power rakes and aerators come in. Since 1948, Ryan has been making precision turf equipment for professionals...equipment that is designed to give you day-in, day-out performance, year-after-year.

The gutsy 7-hp Ren-O-Thin® IV, and the economical Ren-O-Thin III, for example, are rugged power rakes that handle those big de-thatching jobs with a wide 18-inch swath. Both feature a floating front axle and easy micro-screw height adjustment to aid in setting the exact depth you need. A choice of three optional blade reels lets you adjust for every type of turf.

And the self-propelled Lawnaire® III makes it easy to aerate large areas. With 50 lbs. of water in the ballast drum, the Lawnaire III Circle No. 129 on Reader Inquiry Card

#### swath.

Discover how easy it is to maintain that fine stand of grass year after year. Make the Ryan line a permanent part of your equipment pool. You can count on professional results when you use professional Ryan equipment. CUR2 5954

### EQUIPMEN

2306 Cushman, P.O. Box 82409 Lincoln, NE 68501 For the location of your nearest dealer, call 402-435-7208 © Outboard Marine Corporation, 1981 All rights reserved

30 TO 50 CENTS PER GALLON LESS

## LP-gas conversion could cut fuel costs

When your company is pushing a fleet of trucks over the road for hundreds of miles every day to service your lawn care customers, the distribution costs can eat up a hefty chunk of your profits.

LAWN CARE INDUSTRY

Some lawn care businessmen say they spend four percent of their gross on fuel costs, others say the percentage is as high as 10. This cost, plus engine maintenance, tires and repairs all make for an overhead that is pushing many lawn care businessmen to the garage wall. More and more businessmen are fighting back, however. And they are doing it with liquefied petroleum gas (LPgas), also known as propane or bottled gas.

For companies in the propane business like AmeriGas of Valley Forge, Pa., whose LP-Gas Division services customers in 15 eastern LP-gas is cheaper, it is cleaner and most of it comes from domestic sources. For truck fleet operators, LP-gas in the tank can mean money in the bank.

Jay Cellone is an AmeriGas customer who's happy about the change. After struggling through the last gasoline shortage only to run up against skyrocketing prices, Cellone decided there must be a better way to keep his 30 vans

Vehicle conversions to this alternative motor fuel take a jump every time gasoline prices go up or there is another twitich in international oil politics. And the reason isn't surprising – it's cheaper.

states, vehicle conversions to this alternative motor fuel take a jump every time gasoline prices go up or there is another twitch in international oil politics.

The reasons are not surprising.

on the road. So Cellone, who works out of the Pittsburgh suburb of Carnegie, Pa., converted all of his vehicles to LP-gas.

The switch has meant both savings and peace of mind. LP-gas is



No one grass seed combines every characteristic for every type of turf. That's why Northrup King research has developed a complete line of Medalist Turf Products to meet specialized professional needs.

MEDALIST TURF PRODUCT	MAJOR AREAS OF USE	SPECIAL FEATURES	are looking at the growing price spread compared to gasoline and
Athletic Pro Mix High maintenance ath turf		Both are well suited for new seeding or overseeding. Fast establishing, excellent traffic	the unstable oil supply picture, and LP-gas is suddenly very at-
Athletic Pro II Mix	Low to moderate maintenance athletic turf.	tolerance, and rapid recovery. Provides good footing.	tractive. The fact that is also reduces maintenance is a bonus."
Boulevard Mix	Any area with high pH (roadsides, sidewalks, boulevards, beachfronts, etc.)	Contains both "Fults" <i>Puccinellia distans</i> and Dawson red fescue which thrive on high saline or alkaline soils. Performs at low to high fertility levels.	Fuel costs down a quarter In Atlanta, Ga., Ken Davis, another AmeriGas customer, has had its entire fleet — four pick-up
Landscape Pro Mix	School grounds, cemeteries, golf course roughs, lawns	Fast establishing. Adapts to broad range of conditions and management levels. Low to moderate fertility requirements.	trucks and a van — running on LP-gas for more than a year. Each truck travels about 100 miles on a
Overseeder II Mix	Fairways, tees, athletic fields	Fast establishing, traffic tolerant, disease resistant, penetrates compacted soil.	typical one-day run. Says Davis, who has even con- verted his personal pickup truck:
Overseeder III Mix (Formerly Medalist North Mix)	Fairways, tees, cart paths, wear areas	Long term quality in high traffic areas. Clean mowing and disease tolerant.	"I'm tickled with it. Our fuel costs are down about 25 percent. The engine oil stays cleaner longer,
Premium Sod Blend	Commercial sod producers	Fast establishing, exceptional dark green color, shade tolerant, superior disease resistance.	too." Davis says that savings from
Special Park Mix	Parks, commercial developments, lawns	Low fertility tolerance, shade tolerant, adapts to wide range of soil types.	LP-gas have paid for the cost of the conversions. Like many AmeriGas customers, he leases his LP-gas equipment, including the fuel and

currently selling for 30 to 50 cents less per gallon than gasoline. And while both fuels are now in plentiful supply, the flow of gasoline could easily be interrupted once again. What's more, LP-gas burns without leaving harmful deposits or diluting engine oil, so that oil, spark plugs and carburetors last longer, and maintenance expense is reduced.

For the drivers the obvious difference with LP-gas is that they now refuel their 35-gallon tanks in less than a minute and a half after locking on the special hose hozzle. The LP-gas is pumped from an 18,000-gallon bulk storage tank that enables Cellone to buy propane at low tank-wagon prices.

The vans make stops in the Pittsburgh area and into neighboring West Virginia, averaging about 170 miles a day. Since the engines have dual fuel conversions, the vans can also run on gasoline but this is seldom necessary since they return to the garage daily.

#### One day conversion

Almost any gasoline-powered vehicle can be converted to operate on LP-gas in one day. It involves installation of a new fuel tank and line, vaporizer/regulator and modified carburetor. Stored under pressure as a liquid, the LP-gas is introduced into the engine as a dry, vaporized fuel. Gallon for gallon, it provides slightly less mileage than gasoline. But it has a higher octane than premium fuel and performs better in most engines.

Cellone's vans were converted by mechanics from the LP-Gas Division district office of AmeriGas in nearby Greensburg, Pa. AmeriGas also installed the bulk storage tank and refills it on a regular basis.

'The popularity of LP-gas as an alternative motor fuel is increasing dramatically," observes Robert C. Mauch, vice president/general manager of AmeriGas, LP-Gas Division. "For years it was the friend of farmers, rural homeowners and the operators of in-plant vehicles like fork-lift trucks. Now, people who operate over-the-road fleets the growing price ed to gasoline and il supply picture, suddenly very atfact that is also nance is a bonus."

#### a quarter

bulk storage tanks. Other operators prefer to purchase these items

In Graceville, Fla., REA has

converted a two-ton Ford bucket

outright.

to page 24

### FEB 1982

12

Ask your Northrup King distributor about the Medalist Turf Products for your needs. Or write Northrup King Medalist Turf Products, P.O. Box 959, Minneapolis, MN 55440.

Circle No. 122 on Reader Inquiry Card



### Cincinnati company has 25% of customers on lawn disease program

When it comes to applying fungicides as part of a total lawn care program, you would be hardpressed to convince Lawnbuilders that is is not a worthwhile, profitable segment of the business.

LawnBuilders is servicing about 4,000 customers in the greater Cincinnati, Ohio area, offering everything that is needed for proper lawn and ornamental care. About 1,000 of these customers are on a total lawn care program that the company calls "LawnBuilders Plus."

#### **Program outline**

As part of this program, the company treats lawn four times a year, in spring, early summer, summer and fall.

The spring program consists of pre-emergence crabgrass and foxtail control, broadleaf weed control, reseeding, fertilization, power rolling and power aeration.

The early summer segment includes nutsedge, crabgrass, broadleaf weed, chinch bug, sod webworm and disease control plus fertilization. The same program is repeated in the summer with grub control being added.

The fall program consists of reseeding, power aeration, power rolling, broadleaf weed control and fertilization.

Steed attributes his customer base increase in part to his Lawn-Builder Plus program which he believes gives him a competitive edge.

In the disease control segment of the program, Lawnbuilders uses Diamond Shamrock's Daconil 2787 as its basic fungicide.

With its LawnBuilder Plus customers, the company applies the fungicide at a preventive rate of 4½-5 ounces per 1,000 square feet on a twice-a-year basis. The company will also return to a customer's lawn and reapply the fungicide when additional disease control is needed.

If Pythium or Fusarium blight are detected on a lawn, the company will spray Tersan, from Du Pont, for the control of these diseases. days of rain.

Steed said that customers are pleased with the fungicide program. However, he cautioned that this may depend on how well people from LawnBuilders communicate with customers. With a fungicide program, you don't get instant greening of problem areas and the customer needs to realize this fact.

LawnBuilders reports an increase in its number of customers, which Steed attributes in part to the LawnBuilder Plus program which he believes gives the company a competitive edge.

### **MARKETING IDEA FILE**

#### **Roundtable marketing**

Where do your marketing ideas come from? Seminars? Trade shows? Consultants? Well, according to Gary Thornton, president of Thornton Landscape, Inc. in Maineville, Ohio, a valuable source of marketing ideas could easily come from your own office staff. At the recent Associated Landscape Contractors of America symposium in Cherry Hill, N.J., Thorton told the assembled crowd that they often hold brainstorming sessions with a cross-section of their entire staff.

"It's important that your marketing approach be disseminated throughout your whole operation," he said. "Take a crosssection of the company: some secretaries, some customers even, some management, and just look for ideas. You'd be surprised at the results." Although the ultimate decisions will finally rest with company management, many lawn care companies are cohesive enough that even the support staff know the general direction of company policy. It may surprise you what the rest of the staff can come up with.



No other fungicide works as well as Subdue<sup>®</sup> against Pythium damping-off and blight because only Subdue has twoway action against these diseases.

First, Subdue gives you systemic control that protects grasses from the inside out. Second, it works in the soil to control

Pythium by contact action. Two-way action that keeps turf healthy.

In established turf, Subdue is an ideal preventative treatment for Pythium blight. Plus in newly seeded or overseeded turf, you

A low tradition in the latter

get protection from Pythium damping off and blight.

Subdue provides effective control for 10-21 days. Longer residual control than other Pythium fungicides. So Subdue can help you reduce application trips and labor costs. But just as important, Subdue fits

your total program because it's compatible with most other fungicides.

Subdue gives you protection like you've never had. Subdue, the only fungicide for Pythium with two-way action.

What was the and A Dallander

FEB

1982

The fungicide program is also offered to the company's basic lawn care customers at additional cost. These customers do not receive disease control under the company's basic program which is called LawnBuilder II.

"We had a lot of humidity this summer so we had a considerable amount of dollar spot and leaf spot on our lawns," said Bill Steed, who is lawn manager for the western portion of LawnBuilder's service area. During one 65-day period, Cincinnati reported 47



Subdue

2E

CEA-GEG

@ 1982 Ciba-Geigy Corporation

**CIBA-GEIGY** 

Circle No. 104 on Reader Inquiry Card

### Long lasting crabgrass control just takes one application.

Whether for bluegrass, fescue, bentgrass, or Bermudagrass, it's a fact that more turf care professionals demand Betasan<sup>®</sup> herbicide over any other brand.

The simple reason. Betasan delivers the maxi-

They've all put Betasan into their own herbicide products. Because they want to bring turf care professionals the ultimate in protection against crabgrass.

Follow label directions. Stauffer Chemical

mum amount of crabgrass control with a minimum amount of effort.

Just one application at labelled rates stops crabgrass before it starts. Stops it without hurting established turf. And stops it in most of the U.S. all season long.

That's the furthest man has come in fighting crabgrass. But you don't have to go far for your own supply. Just to the distributors listed here. Company, Agricultural Chemical Division, Westport, CT 06881. ® T.M. of Stauffer Chemical Company.



Betasan No. 1 against crabgrass



Agway, Inc. Syracuse, New York

The Andersons Maumee, Ohio

**Brand Name** Betasan 7-G

Northeast

**Sales Area** 

Betasan plus fertilizer Midwest

Firm Mallinckrodt, Inc. St. Louis, Missouri

Occidental Chemical Co. Lathrop, California

**Brand Name** Pre-San 4-E, 12.5-G and 7-G **Sales** Area National

West Coast Southwest

Best 4-E and 12.5-G

**Balcom Specialty Products** Greeley, Colorado

Faesy & Besthoff, Inc. Edgewater, New Jersey

Lakeshore Equipment and Supply Co., Inc. Elyria, Ohio

Lebanon Chemical and Fertilizer Corp. Lebanon, Pennsylvania Clean Crop Betasan National 4-E and 7-G F&B Northeast

Betasan 4-E, 3.6-G and 7-G

Lescosan National 4-E, 12.5-G and 7-G Betasan plus fertilizer

Lebanon Betasan National plus Fertilizer, 4-E and 7-G

PBI Gordon Corp. Kansas City, Kansas

Pratt-Gabriel Div. Miller Chemical and Fertilizer Co. Robbinsville, New Jersey

Pro-Lawn Products, Inc. Syracuse, New York

**Rockland Chemical Co.** West Caldwell, New Jersey Betamec-4

Pratt 4-E, 12.5-G, 7-G Northeast

National

Betasan 7-G

Northeast

**Rockland Betasan** 4-E, 12.5-G and 7-G Betasan plus fertilizer.

Northeast

Circle No. 130 on Reader Inquiry Card

#### **16** MOWING/MAINTENANCE

### **Cutting mowing costs**

No one with responsibility for large-scale turf maintenance needs to be reminded that these are especially difficult times, with the wrenching of the economy touching everyone.

WTE tou B effe wit buc labe situ valu con

Being expected to accomplish effective mowing/maintenance with no increase in contract budget — in spite of growing fuel, labor and many other costs — has been bad enough. But a worse situation is becoming all too prevalent: The mandate to accomplish as good a job with reduced budget. Cost-conscious clients of lawn care mowing/ maintenance businessmen have been forced by inflationary and recessionary pressures to do just that, putting the onus on the contractor to perform miracles.

Lurking in the foreground is the expectation by the client that the quality of maintenance will be maintained. A vicious circle is drop-offs; office buildings may lose potential tenants.

If anything, maintenance should be upgraded to attract more users. But how to do it in the face of tight customer budgets?

The search for ways to accomplish the same results at lower costs requires a sharp outlook and a sharp pencil. Finding a better way is the answer, but that better way, and its cost benefits, are far

The calculation of typical mowing costs is not complicated, but the principal problem is in remembering all the items that should properly be included, and valuing those items realistically.

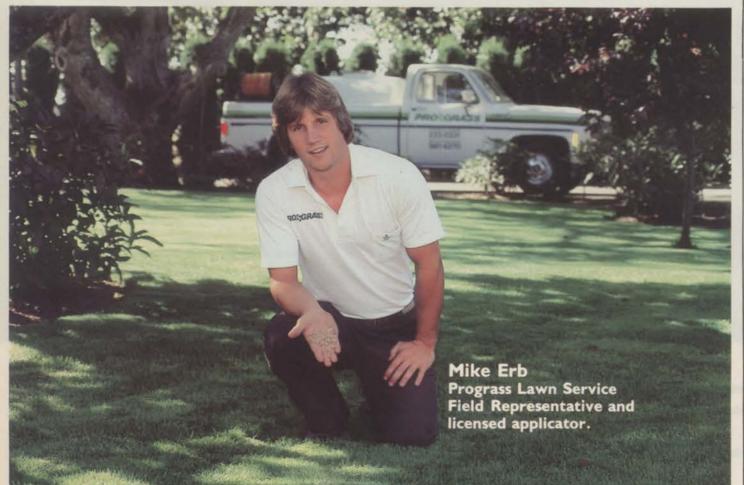
created: If maintenance becomes poor, use will diminish and income will drop. Tenants will be tempted to find other apartment or condominium complexes; employee morale at an industrial complex will cause productivity from obvious.

One of the most significant components of turf maintenance is the mowing/trimming operation — vital to aesthetics, effective use and safety.

In a recent survey of mowing/

### The pros chose SHADOW

"As professional lawn care specialists, we want our customers' lawns to advertise for us. One of the major problems we find in many of our customers' lawns is stressed areas under and around shade trees. We formulated our Prograss lawn overseeding mix to remedy these difficulties. For our shade mix we chose 90 percent Shadow Chewings Fescue and 10 percent A-34 bluegrass. We see exceptional results when proper overseeding procedures are followed. Shadow makes us look good, too.''



maintenance professionals, 62 percent of the respondents agreed that it is very important to know how much it costs to mow per acre. Yet, only 12.5 percent felt they actually knew their per-acre mowing costs. Attempting to search for a better way becomes a futile proposition if you do not know what factors need to be considered.

Comparing costs becomes vital when previously untried solutions are being considered. One such solution, much in the news of late, involves plant growth regulators, which have had some significant success stories.

Plant growth regulator chemicals are generally welcomed by users as a supplementary turfmaintenance tool. They have been proved effective, especially in difficult-to-mow or low-utility areas or applications where a high degree of labor-intensive trimming is involved.

It is self-evident that plant growth regulators are expensive; you need only look at the prices. What is not so evident is the need to give them a serious thought in tight economic times.

On the face of it, the calculation of typical mowing costs is not complicated. The principal problem is in remembering all the items that should properly be included, and valuing those items realistically. If there were a suitable, all-inclusive checklist, it would provide a valuable tool for mowing/maintenance businessmen, purchasing agents and others with decision responsibility.

#### Mowing cost checklist

Such a checklist accompanies this article. It includes a costestimating formula for using 3M's Embark plant growth regulator. Even if one uses only the first portion — the mowing cost checklist — it will constitute a major move, for many, toward the goal of better awareness of real costs.

To determine the real cost of mowing, several ingredients need to be considered. A review of the factors listed below will provide a dollar per acre figure which will serve as a means for comparing alternative maintenance practices.

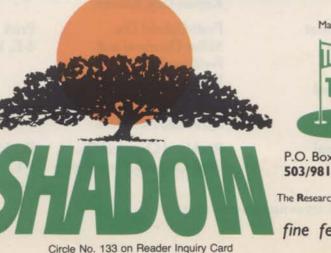
• Of course the largest share of mowing expenses is directed to labor; included in the labor cost should be Social Security, worknan's compensation and health insurance expenses.

• The rising cost of fuel is continually increasing the cost to operate equipment, and additional fuel expense is incurred in transporting mowing equipment and personnel to and from the job site.

Purchases of mowing and

Shadow is a new variety of Chewings type fine fescue developed for improved shade tolerance and resistance to powdery mildew. Breeding for these attributes was a long and tedious job, but the results were better, stronger turf than the old line fescues. Insist on the seed the pros choose for your shade mix.

"The hottest shade tolerant



Marketed by
Turf-Seed, Inc.

P.O. Box 250, Hubbard, OR 97032 503/981-9571 TWX 510-590-0957

The Research, Production, Marketing Company

fine fescue under the sun"

trimming equipment are sizeable investments. The depreciation meter is always running, but if the equipment is used less, it will last longer. The more frequently mowing and trimming equipment is employed, the more equipment maintenance will constantly tap your budget for oil changes, grease jobs, blade sharpening, tune-ups, cleaning and replacement of worn parts.

• Don't forget those costs that indirectly affect total expenditures, such as equipment storage, taxes and insurance.

In the analysis, the cost of the plant growth regulator is added to

#### COST COMPARISON ANALYSIS MECHANICAL MOWING VS SPRAYING A PLANT GROWTH REGULATOR

	Cost of	Mowing		9. Indirect Cost: Equipment storage,	Add your own			
	Costs to Mow and Trim One Difficult-to-Mow Acre	Typical Costs		Your Costs	taxes, insurance, etc.	Example:	\$ 29.22 per acre	s
1.	Labor: Person assigned to job. Actual cost depends on equipment and ter- rain. Typical time involved is 2 to 4 hours/acre.	Assume hourly wage of \$6.50. Assume 2 hrs./ac \$ 1	ore 3.00	\$	Mechanical Mowing/Trimming Costs For a Typical 8 Week Period: Multiply the cost/ acre obtained by the number of times you mow/trim during 8 weeks.			
2.	Labor Burden Costs: Other costs of labor-employer, social security, work- mans compensation, insurance, etc. \$1.65/hr.	\$1.65/hr. x 2 hrs.	3.30	-	Total Cost:	Assume weekly mo 8 x \$29.22 =	s233.76	\$
3.	Travel Time: To and from job site. Total 20 min.	1/3 hr. \$8.15/hr.	2.69	-	Cost of Compiler & Di	ant Crowth Down	Inter	
4.	Equipment Fixed Costs: A \$5,000 purchase price for mowing/trimming equipment spread over 6 yrs., opera- ting at 500 hrs./yr. Depreciation cost/ hr. \$1.67.	2 hrs. \$1.67/hr.	3.34	-	Cost of Spraying A Pla Costs to Apply EMBARK <sup>®</sup> PGR To One Acre	Typical Cost		Your Costs
5.	Equipment Operating Cost: 1/2 gal. fuel consumed/hr.	1 gal. fuel \$1.35	1.35					
6.	Equipment Maintenance Cost: Main- tenance cost for labor to change oil, grease, sharpen blades, etc.	1/4 hr. \$8.15/hr.	2.04		1. Chemical Cost per Acre: One gal. of EMBARK 2-S PGR will cover 4-8 acres on cool season grasses.	Divide cost/gallo number of acres		
7.	Fuel and Vehicle Expense: Vehicle expense to transport mowing equip- ment and personnel to and from job	If applicable, assume 10 miles round trip 35¢/mi			2. Cost of Application: Typically spraying	\$ /gal Assume the cost	Acres	/gal. \$
8.	site. Per mile cost 35¢. Parts and Supplies: Replacement blades, oil, grease, fil- ters, etc.	Add your own			is faster, easier, less expensive, and uses less fuel than mowing. <b>Total Cost:</b> Grass growth will be regulated for up to 8 weeks	is the same as m trimming one acr example \$	owing/	\$

#### the cost of application. The application cost used in this analysis is the same as the estimated cost to mow an acre, reasoning that the same personnel and similar equipment and hidden costs are incurred in spraying an acre as in mowing it. Generally, it is less expensive to spray than to mow.

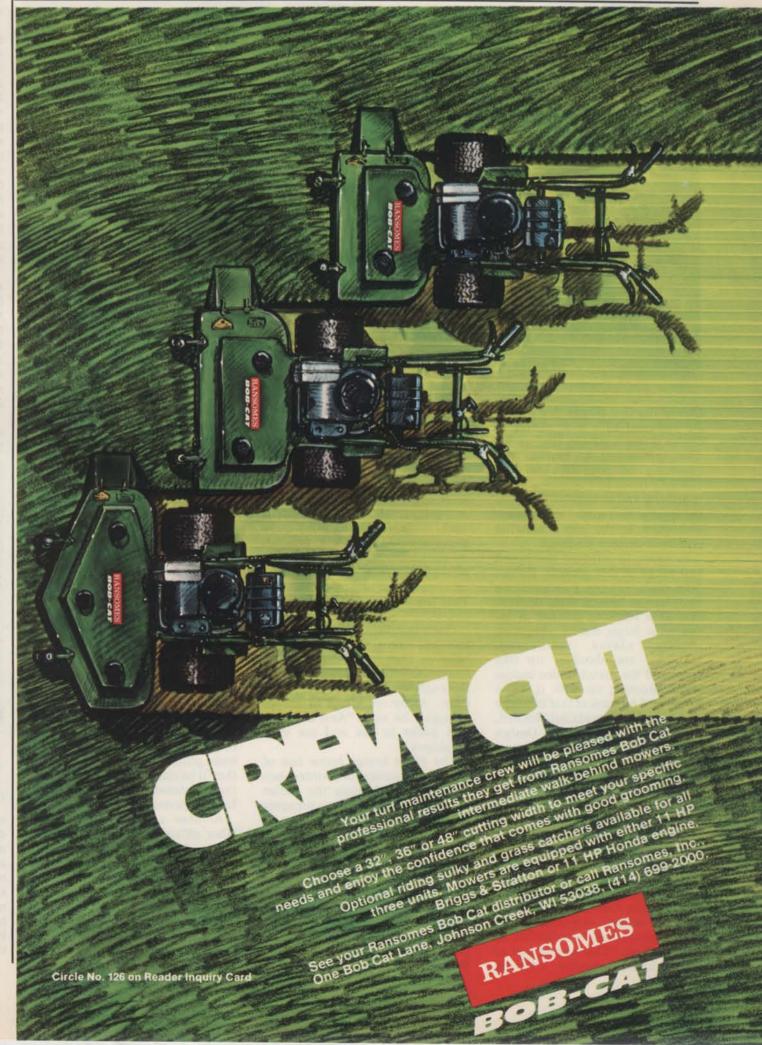
The savings come from the many mowings which will not be needed while the growth regulator is doing its job: up to eight weeks, under normal conditions. The next mowing may not need to take place until that two-month span has elapsed.

According to the survey cited businessmen earlier, most schedule mowing at regular intervals, rather than scheduling the operation on the basis of grass height. Approximately 57 percent mow at least once a week or more; 13 percent twice a month. Only nine percent schedule mowing on the basis of grass height. However, with the use of a plant growth regulator, more attention should be given to scheduling mowing according to grass height rather than by the calendar.

#### **Cost savings**

Even if, in some circumstances the time between mowings cannot be maintained at eight weeks, the growth regulator should still be considered. This is especially true for low-maintenance grasses, difficult-to-mow areas and trim areas. Even if only two scheduled mowings are eliminated, cost savings have already begun. (As a practical matter, each businessman must do his own figuring.)

It would appear, then, that when



LAWN CARE INDUSTRY

17

FEB 1982

true and complete actual costs are carefully calculated, using plant growth regulators can be an approach that saves time and money. By incorporating growth regulators into their programs, progressive mowing/maintenance businessmen have been able to upgrade overall maintenance operations by allocating more time to other grounds improvements.

A mowing/maintenance businessman who can show he knows how to do as good a job on a lower budget is one of the most valuable assets any management can ask for these days, and plant growth regulators just might be it.

### MOWING/MAINTENANCE MARKETPLACE

### **How Dallas battles overhead**



tanks on Briggs and Stratton engines aren't sealed as well as they could be," he said. "The result is that after you mow you've got one strip of dead grass one inch wide and an acre long."

These are just minor improvements in otherwise hardy machines that can lead to labor savings and business solvency. Another case in point, said Moreland, is weed-eater chords that just won't last. "The line that comes on the weedeater itself is great, but when you try to replace it, you can't find the same product," he said. Again, a minor flaw that through the year can add up to hundreds of dollars. And to a maintenance company battling interest rates on expensive equipment, the differences are significant.

Many machines are cost effective if they are used properly, however. David Pincus of North Haven Gardens in Dallas says that he regularly sees huge lawn areas being mowed with mowers that are too small. "I think the market for the intermediate and larger mowers is going to be tremendous," he said.

Working quickly with a calculator, Pincus estimated that a 72 inch mower could mow a land-



One of the first things that's readily apparent to a new visitor to Dallas is that it is a city that works. The screaming of traffic, the crashing of pile-drivers, the hustling noise of commerce — all is activity and enterprise. And not the least of that industriousness is embodied in the city's mowing and maintenance business.

In order to support the speed and range of this growth, Dallasarea maintenance businessmen have had to look at their occupation as a working partner of industry at large. Banks, shopping centers, plazas, residences, buildings are shooting up like corn, and the maintenance industry is shooting up with it. "The future and outlook of this industry is outstanding," said Carl McCord, president of Landscape Design and Construction, one of the premier businesses in Dallas. "It's growing like it's never done before." Part of the reason for this growth, notwithstanding the degree of construction in Dallas, is that more and more people are beginning to view maintenance as an integral part of total landscape management. Proper maintenance and mowing habits will influence all other aspects of grounds care, from architecture, to irrigation, to construction. "The biggest part of our whole industry will be maintenance in the future," says McCord.

His estimate is based in part on the growth in the size of maintenance jobs in general. More and more companies have contracted with large industrial centers such as business plazas and industrial parks — in Dallas they are quite prevalent — for total grounds responsibilities. And the trend has changed the face of the industry.

#### Fees too low?

One example is the standard of fees paid for maintenance. McCord believes that many maintenance businessmen are charging less for their services than the market will bear. "Many are afraid to charge enough," he said. "And the ones that suffer in the end are your employes." The point brings home one of the major concerns of maintenance businessmen through the Dallas area: personnel. Employe turnover in the maintenance industry is high and anytime one employe is substituted for another, the business cycle falters — money is lost. That's why one of the cardinal principles of succeeding in business according to McCord is a well-managed employe network. "If you lose one guy the cost to your business could be tremendous. That's why it's important to make sure that his replacement will be trained and ready to go to work."

"You will have a successful business," McCord submits, "if you have people that are on top of their job quality and costing control. If you charge anywhere between 17 and 20 dollars an hour for labor, a savings of five minutes on a routine job like unloading a truck will add up to thousands of dollars by year's end."

One way time savings can be enhanced is through compatible design and construction. Many maintenance businessmen view the design function as a key to labor efficiency. Tracy Moreland and Tim Hosmer, both foremen at LD&C, say many designs are just not practical. "Sometimes you'll get an island in a parking lot that's no more than three feet wide with trees planted on it. A week later they'll be scarred. And then you as the maintenance contractor will be held responsible for it." Another area that can hinder labor efficiency is the machinery in use. All maintenance businessmen say the key to results is labor and machinery. Even if you have a five-star crew out on a job, one loose bolt on a gas tank can lead to valuable down time. Hosmer believes that while most mowers are durable, many often have one piece that's not. "The gas

area unit at 23 percent of the cost of doing the same area with a 21-inch mower. And using the same variables, he estimated that a 36-inch mower represented a 50 percent savings over the cost of a 21 inch mower on appropriate land. "We try to use the smaller mowers as a trim mower," he said. "Otherwise, the bigger the better."

"We're behind the 8-ball as far as

maintenance goes," said Pincus. "As long as we're viewed as just lawn mower pushers, we're going to have problems. But the real challenge is labor and personnel. You can make anyplace look good if you put enough labor behind it, the trick is to make your profit."

One example is the costing of the use of the various growth



**David Pincus** 

regulators and inhibitors that have come onto the market. You have to ask yourself the question, says Pincus, whether it is more cost efficient to trim an area 30 times a year or spray with a growth retardant twice a year. It's expensive, but what is the actual labor savings? Is it compatible with your design? And will your customers like it?

Pincus thinks that the number one maintenance problem industrywide, however, is parts availability. "If the manufacturers want their equipment to be used by professionals, they have to be capable and prepared to make it readily available. We're not just looking at a \$300 piece of equipment, but at the income that machine generates."

The problem resides not only with the manufacturing sector, says Pincus, but with the overall profile of the industry as a whole. Manufacturers are making decisions on where to place distributorships based on their own cost analysis. "It's our problem too. We've got to be able to get down and tell the manufacturers what we need."

#### **Cost of inventory**

The solution is not an easy one, but Pincus believes that it could be solved with more effective use of the post office. "The cost of parts are high because of the cost of must watch out for the best business deals for your market. Fourth, you have to find architects with a mind for maintenance, and lastly, watch out for subcontracts, there's a large risk factor involved there."

Shore believes the key to the business of maintenance is making cost effective decisions. If you want to grow and expand your business, he says, you must decide whether the marginal addition of new clients can be justified by the cost of adding another crew to do the work. "The key is being efficient," he said. "At a prime rate of 15 percent, no businessman can afford to have receivables problems. You end up being your client's banker."

#### Subcontracting headaches

TGC's concept of total grounds management is one that has become a necessity in the scale of the Dallas market, Shore believes. A company must have a certain degree of diversity unless he wants to be at the mercy of subcontractors who only provide scheduling headaches. "You may be at the bottom of his priority list to get the job done. What do you do then?" he asked.

Finally, Shore believes that the maintenance market in Dallas is a natural one. Seventy-five percent of the total ground cover in Dallas was artificial to begin with. "Dallas used to be one vast cotton field," he said. "Grounds management is a necessity here."

If Dallas mowing and maintenance businessmen are concerned about the nuts and bolts job of cutting costs, they are also looking at ways to save through other unique management concepts. One of these businessmen is John Ross of the John Ross Company, who is investigating the possibility of setting up on-site maintenance centers.

By having a maintenance manager on the job at all times, Ross feels that transportation, gas, and vehicle expenses could be dramatically reduced. Although



of it is that it can cut reaction time way down. How fast can companies react to grounds management problems and emergencies? Some markets demand faster attention than others and that's what we're trying to develop."

Ross feels that in general the mowing and maintenance market is wide-open in the Dallas area. "There's a huge market potential here, but so far we haven't made the strides in consumer education that we would have liked. That's the biggest problem the industry has got to face."

If the consumer is educated adequately, he feels that there is no limit to the future of the maintenance industry in the Dallas area. "In the not too distant future," he said, "we can look to about 10 or 15 maintenance contractors in the country who will control about 50 percent of the total market. You're



**Charles Shore** 

dealing now with smaller contractors, but he can look forward to total buy-outs, non-competing clauses, mergers, and total multidisciplinary firms."

Ross sees the maintenance industry as directly compatible with the future of city growth. The top contractors, he feels, will be selected-out by the city planners looking for a way to enhance the planned unit developments. These contractors will be the main profit centers of the industry and can look forward to command 1g attention from the manufacturers.

"Power comes in numbers," said Ross. "The manufacturers will have to respond to our needs in the future. We'll be our own suppliers. If somebody is buying 500 Jacobsens at once, the manufacturers will be forced to deal with you." Ross stresses the need to keep up with what's happening in the industry. "Because of this if rate world. One of these markets, the residential, is being ably handled in Dallas by Bill Dunlop Lawn Service. Doug Smellage, the general manager at Dunlop's, is in charge of their seven crews. "We're completely different than many of the companies in the area," he said. "We handle the residential market and are based completely on the concept of a quality service to that market."

Smellage says that they operate on an eight month mowing season and maintain three types of grasses in the summer during the growing season: Bermuda, St. Augustine, and Tiff. During the fall they overseed with cool season ryegrass which "keeps us very busy." The residential market in the area holds the greatest demand for the rye grasses overseedings because many homeowners are particular about winter appearance.

But Smellage's main philosophy is simplicity. Their entire marketing program is word of mouth. In terms of controlled growth, this, they find, is the most acceptable alternative to direct advertising. "Verbal referral is the best marketing method there is," said Smellage.

But they do cater to accounts that can afford to pay for top quality work rather than spread themselves too thin. "We're a young profession," said Smellage, "but we will grow and be able to develop the consumer's education a lot better in the future. People are taking much more stock in their own homes as money gets tight and we'll be there to take advantage of that."

Even if the economy begins to buckle, it's obvious that Dallas area mowing and maintenance businessmen are thinking of methods to save and expand their enterprises. It's a sophisticated market that will only grow more



LAWN CARE INDUSTRY

maintaining so many regional inventories. I think we should have one or two regional centers and air freight parts. It would be a savings on both ends."

"There's really nothing exotic about maintenance," says Charles Shore of Total Ground Care in Dallas. "The main concern is how you run the business." Shore is Total's business manager and believes there are five critical concerns in the maintenance industry:

"First, you can't buy the wrong equipment for your market. Second, you must be efficient in scheduling and keeping pace with your ground cover. Third, you John Ross

his services would be supplemented by company mowing crews, the on-site manager would be able to address the problems with immediacy, thereby saving the account valuable delays and confusion.

"This could only be cost effective on a job of around \$50,000 in scope," said Ross. "But the beauty you're not associated with a trade organization or some information center, you're going to be left behind."

The future will also change the plant materials in use by most of the industry today, says Ross. Raw materials will have become limiting factors. "We're going to be forced to neglect certain plant materials that need a lot of water and labor," said Ross. "And the people developing those new materials are going to be sitting on at the top of the industry."

There are, of course, a lot of maintenance markets which will be swept less readily into the corpo-

#### Doug Smellage

competitive in the coming years as the city itself matures and landscapes are developed. People are flowing into Dallas from every corner of the country creating a demand that in the future will reward these businessmen.

Whether they are developing new concepts in cash management, equipment utilization, or new contract applications, these are businesses that are riding the crest of the future. And in Dallas according to one maintenance businessman, that future shock isn't that far down the road.

#### PUYALLUP, WASHINGTON'S RON POLLAND 20

### N.W. maintenance businessman has a sharp eye for efficiency

AWN CARE INDUSTRY

When he started in the mowing/ maintenance business eight years ago, he was grossing \$6,000 with a net profit of \$1,200. Today, Ron Polland, 34, owner of Ron's Yard Care in Puyallup, Wash., has built the business to a gross of \$75,000 with a net profit of \$30,000.

"My growth in the business has come about through my learning how to accurately estimate my costs, and then by charging a price that insures a reasonable profit," Polland told LAWN CARE IN-DUSTRY

Polland got his first taste of the lawn care business in junior high school when "my uncle made me a deal. He said that if I took care of his lawn he'd give me a lawn mower. I never expected to make a living this way."

After he got out of the military, Polland worked in a lumber mill, but lost two fingers. He then worked in lawn maintenance for an institution, but got laid off. At age 26 he determined to "find a job I wouldn't be fired from.'

With a beat-up car and beat-up lawn mower, he went into business for himself. Through the years he has upgraded his equipment, hired others to work for him, but, most of all, learned through trial and error the principles of good business management.

#### \$40 minimum charge

"I had to learn how to estimate and bid for a lawn," he says. He evolved to a price of one cent per square foot on a seasonal basis, but then realized it was much better to insist on a year round contract for that price. Inflation has pushed that basic price for mowing and maintenance to 1-3/10 cents per square foot. The minimum is \$40.

Aeration per job costs 11/2 cents per square foot, with a \$40 minimum. And thatching costs 3 cents per square foot, with a minimum of \$100.

The contracts extend from March to March. Polland says, "we figure March through November pays for the mowing and maintenance. December pays for the aeration, January for fertilizing, and February for the weed spray.'

He adds, "Out of all this we aim for a 30 percent profit margin, which we're getting this year." Polland bills his accounts

monthly, and sells his year round service to customers by pointing out, that, in the winter months, they're paying for the aeration, fertilizing, and weed spray work. He's also recently added leaf cleaning. Polland has 130 customers. Of these 118 are residential, with the average contract being \$47.50 per month; and 12 are commercial, with the monthly average being \$105. The firm cuts 15 acres a year. In terms of thatching, Polland does a more thorough job than most. "We first cut it as short as we can," Polland says, "then we take our Thatchomatics over it, doing it north and south as well as east and west. We cut it a second time. And we cut it a third time. The thatching goes on from March through May 15. When we're done the lawn looks so bald it seems nothing will ever possibly grow there. But then we fertilize, and three to six weeks later the lawn looks just beautiful, and flat as can be."

#### 50 percent less thatch

Polland adds, "by doing it this way we take out about 50 percent more thatch than the usual methods.'

For his fertilizing Polland has recently changed over to a much

more cost efficient method. The switch has been from using several different mixes four times a year to a single mix three times a year.

"It used to be that in March we would apply a spring feed and moss cure, going to a gardener's mix in May. In June we would apply a slow release pellet fertilizer, with our final winterizer in October," Polland says. "Now we've gone to a single mix, Par-Ex, which lasts up to four months, thus reducing our applications from four to three."

Polland adds, "We've not only reduced the number of applications, we've reduced consumption as well. For the same amount of dollars we now get 12,000 square feet as opposed to 5,000 square feet previously."

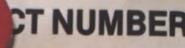
Polland says it's important to realize that a 50 pound bag of fertilizer can cover 12,000 square feet for this helps in buying enough fertilizer needed to do the job, but not too much so it's unnecessarily tying up cash flow.

In terms of accurately estimating labor costs, and making sure that employees add to the profit margin rather than drain it away, Polland figures "1,000 square feet can be cut per 10 minutes per man. This is an average, since the grass is harder to cut in the spring when it's growing fast than in the fall. If I'm paying a man \$4.20 an hour, that comes to 7 cents a minute. It's important to maintain a good labor-to-profit ratio."

Polland says, "it takes a full year to train a man just to operate a lawn edger. The first year is very slow, though in the second year he really

How to make a great crabgrass herbicide even better for turf.

About the only thing that could make Chipco<sup>\*</sup> Ronstar<sup>\*</sup> G herbicide better for turf would be to lower the cost. So that's what we've done. Now you can get the superior performance of RonstarGat a



# FEB 1982

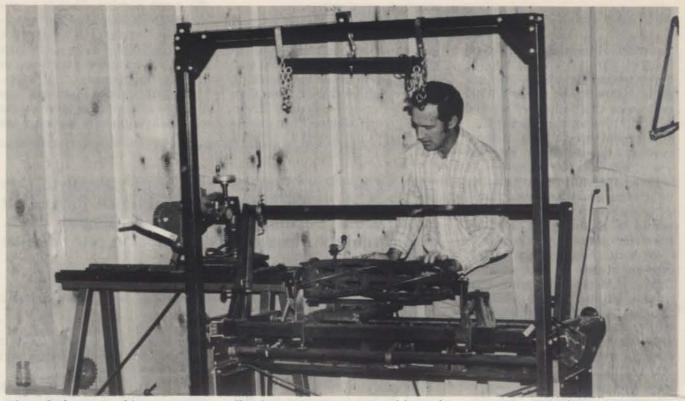


21

goes at it. For the lawn mower it takes a man about two to three weeks before he's good at it." Polland does the aeration, fertilizing, and weed spraying himself.

Though he's had up to six employees, he now has four. These are divided, for efficiency, into two crews. One man in the crew does the mowing, and the second, the foreman, does the lawn edging and trimming. It's the latter's responsibility to make sure the work has been done correctly, and to make minor repairs.

The task of finding good help is especially difficult in the Northwest, where the weather is often rainy. This year Polland has gone through 14 employees, "who didn't want to work." However, he's provided his foremen with good incentives. Out of his \$30,000 net Polland figures a base salary of \$1,000 per month for himself, then, with the remaining, has a profit sharing plan with his



Through sharpening his own mowers, Polland saves time, money, and keeps his mowers in top condition.

dramatically reduced price.

Nothing controls crabgrass and goose grass better than Ronstar G. And you get this great weed control for the whole season with just one easy, early application.

Treat your turf with Ronstar G. The great crabgrass herbicide with the better-thanever price. Rhône-Poulenc Chemical Co. Agrochemical Div., Rhône-Poulenc, Inc. Monmouth Junction, NJ 08852.

> tics and two McLane edgers. Back to school Polland has taken classes so that he now repairs and sharpens his own mowers. His Foley sharpening equipment includes a reel grinder, bed knife grinder, and rotary mower grinder. "If you take a machine to a shop it's a three day to a week wait," Polland says. "I've

foremen of 2 percent to 10 percent - which is usually awarded as a

"It helps to cut back on time loss because of delays and repairs," Polland says, "for the foreman says to himself, 'hey, this is my bonus

Polland has gradually upgraded his equipment over the years. He

now has seven Promaster mowers, of three different models. Four are

25 inch roller drives with the rear

wheel that drives; two are 25 inch

wheel drives that will climb al-

most any hill; and one is a 30 inch wide wheel drive. Polland says he "prefers reel mowers for they're

His two weedeaters and three blowers he is in the process of transferring to the Echo brand. He has a Ryan and Hahn lawn aerators, four Parker Thatchoma-

Christmas bonus.

that we're cutting into.' '

much faster than rotary.'

had to stay up till midnight at times, but I can have it working the next day." He saves the \$25 per mower sharpening charge and is able to sharpen them more often, which, in turn, makes for faster cutting times.

Polland has a small Toyota truck with a hydraulic dump and two cubic yard box. His 74 one ton Ford truck with a six cubic yard dump box in the year is of interest. The frame was cut and stretched three feet so that now there is an area behind the cab upon which mowers rest, thus eliminating the need for a trailer. Steel ramps pull out from this section so the mowers can easily be rolled on board. Also, the workers don't have to carry gas tanks, for there's an electric pump built into the truck which carries a 35 gallon tank. Polland has about 75 percent renewal of customers every year. "I've learned you can't please all the people all the time," he says. "One customer dropped us because he said we went too fast. That was the only reason he could to page 32



#### TURNOVER from page 1 22

1982 FEB

LAWN CARE INDUSTRY

cost of acquiring a new customer. Let's take a very simple hypothetical situation. Let's assume your company serviced 1,000 customers this fall. Further, that from fall 1980 through spring 1981 you experienced a 20 percent attrition (cancellation) rate on your 1980 customer base.

Using this 20 percent factor as your experience base, you could project that by spring 1982 you would be retaining 800 of those customers serviced this past fall.

Without taking your likely interest in growth into account, this set of facts would indicate the need to acquire 200 new accounts this spring to finish the period with the same number (1,000) that were serviced this past fall. To develop my thesis, let's assume that the cost of acquiring a new customer is \$30 (total cost of advertising, estimating and closing, divided by the number of accounts acquired).

This figure is debatable and there is no data bank on which to draw for verification. Nevertheless, based on my experience and conversation, if you are acquiring new customers at a cost less than this you might consider diversifying your business into market the 1,000 number. That is a considerable investment just to replace lost customers. This cost is also accelerating as an increasing number of companies compete for a decreasing number of non-users.

The thoughts that can go through your mind as the manager of this hypothetical business are

"As we have ridden the crest of go-go growth this past decade, it has been easy to, at times, forget that our present customer base is our biggest asset. Unfortunately these assets are not on our balance sheets."

consulting and I can assure you that you will have plenty of clients.

However, using this figure of \$30 would indicate the need to spend \$6,000 to acquire the 200 customers needed to get back to

many

• "Well, I did a better job this year than last so my retention next spring should be better," or

 "I'm not going to increase my prices as much as I did last spring, so my retention should be better.'



#### She'll see to it your Lescosan\* is delivered when you need it.

Barb has been helping Lakeshore Equipment & Sup-

Barb's job is to help you. Call her to order your

Or perhaps you are really out there thinking:

 "The quality of my product is good but not much better than my competition."

• "Inflationary pressures are such that I must increase my prices as much as last year."

 "My existing competitors are not asleep and they are as aware of the dimensions of this 'retention issue' as I am."

• "I'm aware that several new companies are going to be entering my market and as a result maybe my cancellation rate will, therefore in fact, increase."

If your thinking runs in this order and you do nothing about it, do not come to grips with it and examine how your firm will react, you are resigning yourself to a net, long-term, affirmative answer to the question: "Are increasing rates of customer turnover inevitable." You are saying "yes."

We are in business to make a profit and we hope to see this profit increase. It is extremely important to analyze your future profit potential with an eye toward the total cost impact of acquiring new customers to replace lost customers. The 1970's were rather a halcyon period of growth for our industry. Market demand saw us growing at a much, much faster rate than I believe, in general, we will see in the 1980's.

#### **Replacement costs**

Advertising dollars were those that we spent to grow, to add to our relatively stable customer base. Now there is increased competition and all that implies. Let it be sufficient to state that replacement cost of lost customers is a critical variable in our profit structures today, and one which can only increase in importance in the future.

My own inclination is to believe that increasing rates of customer turnover are inevitable. I say this because whether we are dry or liquid, offer four or five applications, whether I'm \$1 per application higher or lower than you, whether you have tank trucks or I have vans, that from the viewpoint of the non-user of lawn care service who is examining alternatives that we offer a rather undifferentiated product.

My belief is further strengthened by the old supply and demand analysis.

For the sake of simplicity, let's assume that in your city there are 1,000 properties that are potential lawn care customers. Let's assume that in this city Company A presently serves 500 customers, Company B 300 customers. Company C will enter the market next spring. On the supply side there will be three companies. On the demand side there are 200 unserviced properties. Let's assume that Company C will enter aggressively with a slight price advantage in the interest of developing market share. We know that of the unserviced properties that a certain percentage are do-it-yourselfers and that another percentage are the province of the full-service maintenance firm. We also know that there has been some new building which will increase market size. On the other hand, we are aware that this has been less than in the

ply Co. customers with prompt, courteous service for over 15 years. With the busy turf season at hand, Barb can get you your Lescosan\* quality preemergence crabgrass control now - when you need it.

LESCO chemicals, grass seed, fertilizers and LESCO sulfur-coated controlled release fertilizers. See how well she does her job.

\*Lescosan (Betasan-Registered trademark Stauffer Chemical Co.).

(800) 321-5325 (800) 362-7413 NATIONWIDE IN OHIO

Lakeshore sells the patented ChemLawn Gun. The best gun in the business.





Division of Lakeshore Equipment & Supply Co. 300 South Abbe Road, Elyria, Ohio 44036 (216) 323-7544 A Family of Fine Products Lescosan 12.5G — Lescorene — Lesco 4 — Lescobor — Lescopar — Lescopex — Lesco Non-Selective Herbicide — Lesco MSMA — Lesco Thiram 75W — Lescozyme — Lakeshore Chinch Bug & Sod Webworm Control.

Circle No. 117 on Reader Inquiry Card

past, due to today's real estate environment.

Last year companies A and B experienced a 20 percent cancellation rate. The question is: In this environment what will their turnover rate be next year? Supply in this hypothetical is approaching demand without the prospect of a new entrant into the market. The new entrant will undoubtedly attract some new customers from the established firms.

The established firms had a 20 percent runover last year without a new entrant. Is it realistic for companies A and B to project on the same basis of 20 percent knowing the new company is coming in, that the market is nearing saturation and that the market (due to economic conditions) is not growing rapidly?

#### **Old customers**

#### I think not.

This supply/demand analysis is only relevant to the individual firm when it is done with a view to cities that the firm is actually working in. We know nationwide that the demand for lawn care still is greater than the supply and that our industry — nationwide — will grow next year and into the future. That is small solace to the firms doing business in one city which is highly competitive.

There can be a tendency to point to the economy as the real villain. I do not recommend this. Rather, if the position I have developed makes sense to you I would use whatever conclusions you draw as the basis for a re-analysis of your short- and long-term goals and the planning of your strategy.

As a starting point in the reanalysis I believe that we should pay as much attention to keeping old customers as getting new ones. This sounds ridiculously basic but as we have ridden the crest of go-go growth this past decade, it has been easy to, at times, forget that our present customer base is our biggest asset. Unfortunately, these assets are not on our balance sheets.

#### Maintenance of assets

These assets need maintenance like any other. They are maintained through competent product delivery and this is an area we all work hard to improve. They are also maintained through follow-up service delivery. Oftentimes, this is the area where we either solidify our customer base or subject it to erosion.

These assets of ours are human beings. When we acquire them through our selling procedures we create certain expectations on whole host of reasons. As far as brand loyalty in their consumer product area, efforts are made at what is referred to as "the margin." In other words, it is the marginally satisfied consumer who is most likely to consider alternatives and switch their brand.

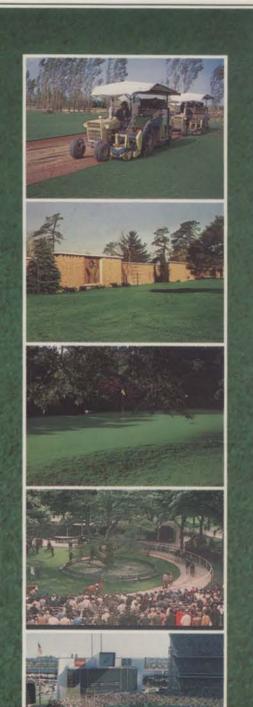
Understanding what a prospective new customer's objectives are, outlining for them what they can reasonably expect given the existing condition of their lawn will help create the proper relationship in which the maintenance of our assets (the customer) can occur. Then to follow up with technically competent product and service delivery is really the only manner in which brand loyalty can occur and decrease the extent of mobility "at the margin."

What I am talking about here is "product differentiation." Not in terms of type of truck, liquid or dry, big or little or advertising posture. Product differentiation which will allow the firm to stem to page 34

For information, contact: J & L ADIKES, INC. Jamaica, N.Y. 11423 JONATHAN GREEN & SONS Farmingdale, N.J. 07727 NORTHRUP KING CO. Minneapolis, Minn. 55413 VAUGHAN-JACKLIN CORP. Bound Brook, N.J. 08805 Downers Grove, III. 60515 JACKLIN SEED CO. Post Falls, Idaho 83854 ROTHWELL SEEDS LTD. Lindsay, Ont., Can. K9V 4L9

### FOR A THICKER GREENER TURF

A packer at Reynold's Aluminum plant gives irrigation pipe a final check before shipment to lawn care companies around the country.



FEB

1982

23

their part. It is clear that the definition of "results" for lawn care is subjective. Nevertheless, the literature we leave and the interactions we have with the customer prior to the delivery of either product or follow-up service help create certain expectations.

We do have our occasional miracles occur, but in general we are not miracle workers. If we, through out employes in the sales process promise miracles and do not deliver them, we are buying assets with a short life inasmuch as we may not deliver either product or service to their satisfaction. Customer attrition occurs for a

### Adephi KENTUCKY BLUEGRASS

THE GREENER KENTUCKY BLUEGRASS®

U.S. Plant Pat. No. 3150

### **MEETING DATES**

Capital Region Turf and Ornamental School, Feb. 16-17, Hershey Lodge and Convention Center, Hershey, PA. Contact: Harold E. Stewart, County Extension Director, Suite 101, 75 South Houcks Road, Harrisburg, PA 17109, (717) 652-8460.

Northern California Professional Turf and Landscape Exposition, Feb. 17-18, Sacramento Convention Center, Sacramento, CA. Contact: Wanda Sarsfield, Executive Assistant, P.O. Box 2768, Lafayette, CA 94549, (415) 283-6162.

Agri-Turf Irrigation Exposition and Conference, Feb. 21-24, Portland Memorial Coliseum, Portland, Oregon. Contact: Walter D. Anderson, Executive Vice President, The Irrigation Association, 13975 Connecticut, Silver Spring, MD 20906, (301) 871-1200.

Midwest Regional Turf Conference, March 1-3, Stewart Center, Purdue University, West Lafayette, Indiana. Contact: Dr. W. H. Daniel, Dept. of Agronomy, Purdue University, West Lafayette, IN 47907, (317) 494-4785. Iowa Turfgrass Conference and Trade Show, March 1-3, Marriott Hotel, Des Moines, Iowa. Contact: Barb Erickson, Horticulture Extension Office, Iowa State University, Ames, IA 50011, (515) 294-1870.

The Pennsylvania Turfgrass Council Turfgrass Conference and Show, March 1-4, Hershey Lodge and Convention Center, Hershey, Pennsylvania. Contact: Christine E. King, Executive Secretary-Treasurer, 412 Blanchard St., Bellefonte, PA 16823, (814) 355-8010.

Massachusetts Fine Turfgrass Conference and Industrial Show, March 2-4, Springfield Civic Center, Springfield, Massachusetts. Contact: Dr. Joseph Troll, Plant and Soil Sciences, Stockbridge Hall, University of Massachusetts, Amherst, MA 01003, (413) 545-2353.

American Sod Producers Association Midwinter Conference, March 3-5, Royal Lahaina Hotel, Maui, Hawaii. Contact: Bob Garey, Executive Director, 9th and Minnesota, Hastings, NE 68901, (402) 463-54683.

ow Calorie

Canadian Turfgrass Conference and Show, March 7-10. Constellation Hotel, Toronto, Ontario, Canada. Contact: Mary Gurney, Canadian Golf Superintendents Association, 698 Weston Rd., Suite 32, Toronto, Ontario, Canada M6N 3R3, (416) 767-2550.

Northeast Pennsylvania Turfgrass and Grounds Maintenance School, March 9-10, Luzerne County Comnunity College Conference Center, Nanticoke, Pennsylvania. Contact: E. V. Chadwick, Courthouse Annex, Wilkes-Barre, PA 18702, (717) 1701.

University of Wisconsin Turfgrass Conferences, March 22, Columbus Club, Appleton: March 23, Exposition Center, Milwaukee; March 25, Dane County Fairgrounds, Madison; March 29, Waukesha County Youth Center, Waukesha; March 31, Holiday Inn, Eau Claire. Contact: Dr. R. C. Newman, Dept. of Horticulture, University of Wisconsin, Madison, WI 53706, (608) 262-1624.

Southeastern Turfgrass Conference, April 12-13. Rural Development Center, Tifton, Georgia. Contact: Dr. G. W. Burton, Coastal Plains Station, Tifton, GA 31793, (912) 386-3353.

Alabama Turfgrass Field Day, April 22, Turfgrass Research Unit, Auburn University, Auburn, Alabama. Contact: Kin M. Sheffer, Extension Hall, Auburn University, Auburn, AL 36849, (205) 826-4985. LP-GAS from page 12

truck that has been in constant use for more than 13 months handling line repairs on and off the road. REA has also just completed conversions on its fleet of nine, halfton pickup trucks which travel up to 200 miles each day. Three of the trucks are dual conversions that can use either gasoline or LP-gas with just a simple flick of a switch on the dashboard. The rest of the fleet is 100 percent LP-gas.

REA owns all of its LP-gas equipment and has already paid for it out of nearly \$8,000 in savings for fuel alone on just five vehicles. Engine maintenance costs are also down.

AmeriGas has found that LP-gas conversions are most advantageous to fleet operators whose vehicles return to home base daily and who have adequate space for onsite bulk storage. REA, for example, has a 2,000 gallon bulkstorage tank which requires a plot of land 10 feet by 28 feet with a 25-foot clearance from the nearest structure. The fuel tanks in its trucks range in size up to 60 gallons.

#### **Enough savings to convert**

In LaVergne, Tenn., near Nashville, the Ditchwitch Company, a manufacturer of ditch-digging equipment, has had two trucks running with dual conversions for the past year. The one-ton Ford and Chevy trucks have 60-gallon fuel tanks and travel as much as 300 miles a day. So far, fuel savings have been more than \$1,700, enough to pay for the conversions.

Russ Minuto in Florence, N.J., had AmeriGas install dual fuel conversions with 60-gallon tanks on a six-cylinder pickup truck and a one-ton utility body truck. The company's commercial and industrial business takes these vehicles as far afield as West Virginia and Connecticut. Says Minuto, "After only three months with LP-gas we are ready to go ahead and convert 30 more trucks. We've had no problems and the drivers are really pleased with the performance."

Because LP-gas is not readily available at neighborhood filling stations, although it is sold from coast-to-coast, AmeriGas has created an "Over-The-Road-Club" for its customers. Club members can obtain LP-gas at local bulk prices when they stop to refuel at any one of the 64 district offices in the AmeriGas LP-Gas Division.

LP-gas is obtained from two sources. It is a component of natural gas, and it is also a byproduct of oil refining. "Supplies are plentiful on both the domestic and foreign markets," says Bob Mauch. In addition to LP-gas, AmeriGas produces and markets carbon dioxide and industrial gases such as oxygen and acetylene. It also sells welding supplies and LP-gas appliances. AmeriGas is a subsidiary of UGI Corporation, a diversified energy company headquartered in Valley Forge, Pa. UGI operates gas and electric utilities in eastern Pennsylvania, produces oil and natural gas in Pennsylvania, and provides gas and oil field services and supplies in Pennsylvania, New York and Ohio.

If you watch figures a lot, when it comes to the bottom line, Fylking keeps costs under control two ways. First, it's priced lower than most elite bluegrass seed. Second, it's an inexpensive beauty to maintain — a diet delight compared to other bluegrass needs for water and fertilizer. It's low growing, can be mowed as low as one-half inch and has the great body you want for seed mixtures. Fylking. A very nice spread with very appealing figures. Ask for Fylking Kentucky bluegrass at your local wholesale seed or sod distributor.





Circle No. 115 on Reader Inquiry Card

### PRODUCTS

#### **Edger slices** quick and neat

Built by MTD Products Inc. specifically for edging, the new Lawnflite Model 241-595 power edger offers quality construction and performance at an economical price.

The 595's nine inch blade and two horsepower Briggs and Stratton engine make quick work of



trimming even badly overgrown lawn edges. The edger rides on seven inch wheels on the rear and a six inch wheel in the front. The blade engagement lever is conveniently located on the sturdy three-quarter inch black tubular steel handle. Blade depth can be adjusted on the handle and on the edger head.

Circle No. 180 on Reader Inquiry Card

#### **Outfront rotary rider**

Jacobsen's Outfront 72 riding rotary mower is available with either water or air-cooled engines. A front-mounted deck that cuts a 72 inch swath combined with man-



euverable rear wheel steering permits tight trimming trees and under shrubs. Articulated deck suspension allows operators to mow hills and dales and climb curbs when in transit.

utility, municipal and marine applications.

Featuring new models, the catalog's easy-reference format presents each tool group in alphabetical order, with full specifications and ordering information on the same page.

To receive your copy, contact a Stanley Hydraulic distributor, or Stanley Hydraulic Tools, 3810 S.E. Naef Road, Milwaukee, Oregon 97222, or phone 503-659-5660.

Circle No. 182 on Reader Inquiry Card

#### **Diesel** equipped **Groundsmaster 72**

Toro has added diesel power to its Groundsmaster 72, a versatile mover with a three-bladed rotary cutting deck and accessories for snow removal, leaf mulching and sweeping. The unit features a three-cylinder, four-cycle, watercooled Mitsubishi engine. The Groundsmaster 72 Diesel accepts all of the options available to the gasoline-powered Groundsmaster 72 including rear discharge cut-



ting deck, roll over protection system, enclosed cab, two-stage 48 inch snowthrower, and a 48 inch V-plow, among others. The prime mover of the Groundsmaster 72 Diesel has rear-wheel steering,

front-wheel drive, hydrostatic transmission and a single, footoperated traction pedal control for instant forward and reverse selection. Speed is instantly variable from zero to 9.5 mph. The threebladed rotary cutting unit, mounted at the front of the vehicle under the operator, is offset 18 inches to the right to facilitate mowing under low-hanging limbs and to allow trimming close to fences, walls and buildings and around trees.

Circle No. 183 on Reader Inquiry Card

#### Rotary pop-up for wide turf coverage

Weather-matic Division of Telsco Industries has introduced a moderately priced rotary pop-up sprinkler featuring plastic housing and optional check valve designed for large turf areas.

The PK50, 60, 70 and 80 sprinklers are impact driven and to page 26

# You can win against weeds in early spring and lose to disease by early summer.



But that won't happen when you make two applications of Daconil 2787\* flowable fungicide a basic part of your early season program.

Daconil 2787 controls Helminthosporium leaf spot, red thread and dollar spot. The three major diseases that can destroy everything you've done early in the season to give

your customers a vigorous, good looking lawn. Leaf spot develops in cool weather when temperatures range between 45° and 60°F

Dollar spot and red thread immediately follow, developing at temperatures between 60° and 75°F which is exactly the time when leaf spot starts to become severe

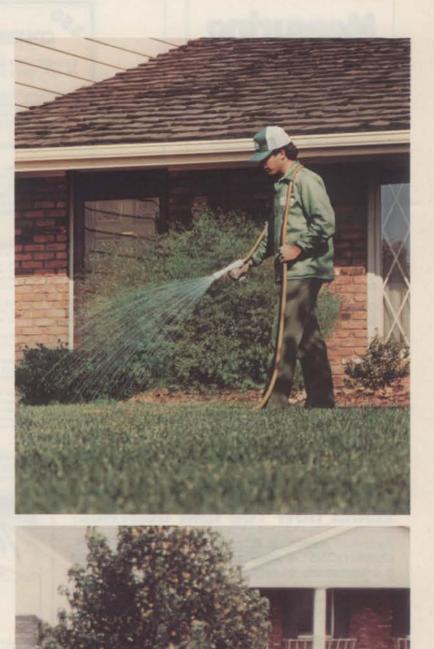
First rate, effective control of all three diseases starts with Daconil 2787. Get the first spray on at 'green up" or shortly after the first mowing Make your second Daconil 2787 spray two to

three weeks later.

And count on superior coverage, unsurpassed retention and proven residual control. Plus excellent turf tolerance.

What's more, Daconil 2787 is just as effective against 29 ornamental diseases.

So when you start your early season program



LAWN CARE INDUSTRY

FEB

1982

25

Circle No. 181 on Reader Inquiry Card

#### **Stanley tool offers** their latest catalog

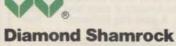
The 1981-1982 edition of the Stanley Hydraulic Tools Catalog is now available, continuing the company's full line of hydraulic powered hand tools, power units and accessories for construction,

Circle No. 105 on Reader Inquiry Card

this year, don't forget to fight disease with Daconil 2787 fungicide while you fight weeds.

Daconil 2787 from Diamond Shamrock. It's the way to healthier lawns, better customer satisfaction and higher profits.

For a FREE copy of our Disease and weed control guide for turf and ornamentals, write: Diamond Shamrock, Agricultural Chemicals Division, 1100 Superior Avenue, Cleveland, Ohio 44114.



**Agricultural Chemicals Division** 

**Diamond Shamrock Corporation** 1100 Superior Avenue Cleveland, Ohio 44114

Always follow label directions carefully when using turl chemicals.



#### PRODUCTS from page 25 26

available in full circle or part circle models. Long life and trouble free



service are assured due to the thick, corrosion-resistant ABS plastic housing. The PK series optional check valve can be installed in the field without re-

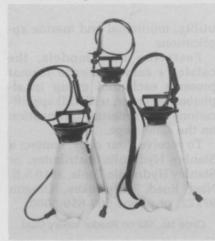
moving the sprinkler from the line. Sprinkler assembly is cast bronze, stainless steel and glassfilled nylon; covers are die cast aluminum with green epoxy finish. The PK50F and PK60F utilize a single high performance brass nozzle. The PK70F and PK80F incorporate dual nozzling in which the smaller nozzle actuates the impact torsion drive to assure uniform coverage on a large area. Part circle models utilize single, high performance brass nozzles. Part circle trip collars allow for coverage adjustments from 20 to 340 degrees.

Circle No. 184 on Reader Inquiry Card

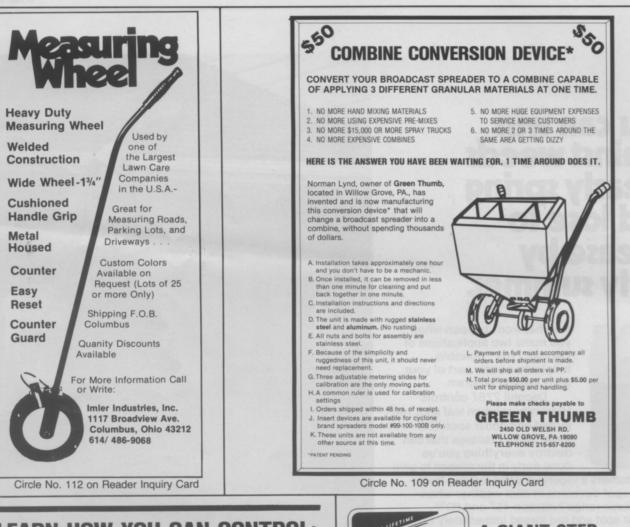
#### Weed killer keeps out vegetation

Framar Industrial Products, Inc. has announced its new Non-Selective Herbicide #3, a scientifically formulated and highly effective herbicide for use in the lawn care industry.

Non-Selective Herbicide #3 controls a wide range of perennial and annual grasses and weeds in



public areas where such growth is especially unwelcome: parking lots, highway medians, pipelines and drainage banks. Applied as a spray, the product will provide rapid action, and leave the ground



#### LEARN HOW YOU CAN CONTROL:

Fusarium Neucrotic Ring Spot Disease, "STRESS **CONDITIONS**" & other problems that hinder lawns & ornamentals beauty, health & growth.

Mother Nature has "BUILT IN" cures & controls. Are your current procedures interfering with her & therefore causing conditions for disease & other problems?

A Natural Scientific Breakthrough..... This ONE DAY - 6 HOUR Clinic will totally awake you to a completely new, better, easier & more positive method to improve lawns beautifully. You will be supplied with proven facts & step by step HOW TO DO IT procedures.



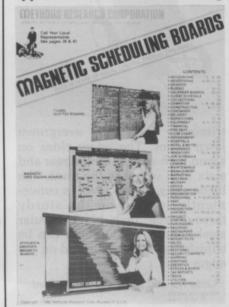
bare for one full year. The herbicide acts through both roots and foliage. Though best results are obtained after growth has emerged in late spring or early summer, it may be applied at any time of year except when the ground is frozen.

Power sprayers and compressed air hand sprayers are best for application, although an ordinary sprinkling may be used. Foliage should be thoroughly wetted to insure maximum effectiveness. One gallon will cover 1,000 square feet of soil surface.

Circle No. 185 on Reader Inquiry Card

#### It's time to organize

Methods Research Corporation's new 1981 catalog describes and illustrates dozens of ways to organize and improve your entire operation — with magnetic scheduling boards and visual planning systems in addition to hundreds of colorful accessories. Illustrated by 40 full color pages, applications include scheduling



projects, personnel, equipment, production, computers, maintenance, purchasing, finances, inventory, among others. Also included is a special section with multi-purpose magnetic board kits for use in designing a system to suit your needs and a section describing our Spin-File, open rotary file system, for maximum filing capacity in a minimum of space.

Circle No. 186 on Reader Inquiry Card

#### **Trans-Tree** is a total tree system

A new machine to dig, transport and transplant 11 mature trees with up to four and a half inch dianeters has been introduced by the Trans Tree Corporation of Minneapolis.

The patented Trans Tree Model TTC 45 combines a truck mounted hydraulic tree spade and a special dual axle trailer equipped with 10 metal cones to perform all work operations in transplantation of mature trees. Contour of the tree spade fits the interior dimensions of the tiltable cones for ease in placing and removing the tree, root system and soil, from the cones. While traveling, the root system and soil seats snugly in the cones and remains compacted and intact to enhance survival of the tree.

Researched & developed for more than 24 years with 3 years of positive performance by others like yourself in the field.

DATES: March 2, 1982 COST: \$165.00 Per Person March 16, 1982 Reserved seats will be guaranteed TIME: 9:00 a.m. - 3:00 p.m. (lunch & snacks included) upon receipt of the \$165.00 fee. NOTE: Seating is limited. Seats PLACE: Agro Chem Training Center will be reserved on a first 11150 W. Addison St come, first served basis. Franklin Park, IL 60131 Additional clinics by popular demand. (312) 455-6900 For further information CALL (312) 455-6900 AGRO:C HEM, INC. CONTROLLED GROWTH THROUGH CHEMISTRY'

Model PC 500 510 gallon portable use tank. 81" long, 60" wide and 48" high. Standard equipment: 18" vented cover with posi-lock hatch hardware, baltling system, integral molded mounting base for ease in mounting, steel tie down lugs to secure tank to frame, 2" poly-coated drain and calibrated sight tubes.

The TUFLEX manu-

facturing process al

lows a five year war

ranty on all tanks.

write or call now:

Tuffex: the only manufacturer to special-ize in seamless fiberglass spray tanks specifi-cally engineered for the pest control and lawn care industry, is building a new, smaller ver-sion of its popular PC 800 and PC 1200 gallon fiberglass tanks. The model PC 500 fiberglass tank answers the industry's call for smaller For economy prices and more information on our high quality spray tanks. Tanks that meet and exceed the demands of every lawn and pest complete line of tanks, specialist. A giant step backwards . . . from Tuflex for you!

> **Tuflex Manufacturing Company** P.O. Box 13143, Port Everglades Station Fort Lauderdale, Florida 33316 Phone 305/525-8815

Circle No. 132 on Reader Inquiry Card

Circle No. 187 on Reader Inquiry Card

Circle No. 102 on Reader Inquiry Card

### **Congress** introduces subminimum wage bill

Representative John Erlenborn (R-Ill.) introduced a bill that would permit employers to pay 85 percent of the federal minimum wage to full-time students and to youths under 19 years of age during their first six months of employment. Students could not be paid the subminimum wage for more than 20 hours per week, except during vacation periods.

According to the Bill, the Secretary of Labor could require payment of unpaid wages and overtime compensation by an employer who displaces workers with those eligible for the youth rate, or by an employer who hires young employees for six-month period, replacing them with other subminimum wage employees.

Prior attempts to reduce the minimum wage for teenagers were unsuccessful, as proponents were unable to demonstrate that a lower rate would reduce teenage unemployment, which exceeds 20 percent. Though we do not expect this bill to pass for the same reason that others failed, we will keep lawn care employers informed on this legislative development.

#### **Problems at EEOC**

In response to a request by Senate Labor and Human Resources Committee Chairman Orrin Hatch (R-Utah), a General Accounting Office report released December 3rd on the financial management of EEOC found serious deficiencies regarding the Agency's ability to control its appropriated funds.

The GAO found that internal controls on accounting are weak due to inadequate training of accounting personnel, poor supervision, inadequate internal audit of financial activities, and a generally improperly maintained and operated accounting system. The report stated: "It is recognized that the absence of adequate supervision can promote work errors, exceptional backlogs and bottlenecks, and instances of procedures not being followed. Such conditions are prevalent in the finance and budget branches of EEOC.'

#### Agency criticized

It is ironic that this report was issued in December, two months before the Senate Labor and Human Resources Committee begins hearings on the overall management of the EEOC. The Agency has been widely criticized by employers and employer associations who believe the Agency is unobjective in its analysis of changes and promulgates rules which are excessively burdensome on employers, and small employers in particular. We will follow these hearings closely, as those lawn care employers with fifteen or more employes must follow the administrative requirements promulgated by the Agency.

unemployment rate during November rose from 8% to 8.4%, nearly a full point from September. The number of unemployed workers reached 9,000,000 in the month of November. Indicating the impact of the current recession, work stoppages during the month of October fell to their lowest levels in nearly 20 years. For example, major contracts in the railroad industry, longshore and maritime industry, and in the postal service were negotiated and ratified without work stoppages, in contrast to prior years.

Because of the high unemployment rate, most employes are more concerned about maintaining



Scientists study the effects of growth regulators on heterogeneous plant material at BASF Wyandotte Headquarters.



### **Professional Turf Specialties Spraying Systems**

#### The System that answers every need . . .

THE PROFESSIONAL TURF SYSTEM includes:

#### You've got a growing business, we've got a growing business. Why

not combine them? Installing under-

sprinkler systems is easy and profitable.

valves from Rain Bird, rainmakers to the world since 1933, your customer is assured the best system available. His lawn stays healthier and so

For more information on this moneymaking opportunity, contact your nearest Rain Bird distributor. Or write to us at the

We'll show you how easy it is to make more green while you make more green.

> Bringing new ideas to life. 7045 N. Grand Avenue, Glendora, CA 91740

Work Stoppages Decrease. The

1. Tank (Single or compartmented) 2. Bed 3. PTO and drive train 4. Pump 5. Tachometer 6. Pressure gauge 7. 300 ft., 1/2 inch high pressure hose 8. Electric hose reel 9. Sight gauge 10. Spray gun 11. High volume agitation 12. Chemical inductor 13. Carbon Steel or Stainless Tanks

600, 1,000 and 1,250 gallon tanks available

Toll Free: (800) 447-4388 or Call Collect: (309) 454-2469





**Professional Turf Specialties** 400 Northtown Road Normal, Illinois 61761

Circle No. 124 on Reader Inquiry Card

#### 28 EXECUTIVE SUITE

### **ChemLawn taps Luke**

ChemLawn Corp. recently announced major management additions to strengthen its organizational structure for a future of growth.

To strengthen the management capability, Don L. Luke has joined the company in the newly created position of executive vice president and chief operating officer, where he will oversee all operations and new business development. He was fornerly a vice president with Parker Pen Co., R. J. Reynolds and Quaker Oats.

To give more attention to its 3,000 employees, the company also recently created the position of vice president of human resources. Joining ChemLawn in this capacity is William R. Kaufmann, former human resources executive with Brown-Forman Distillers Corp., Raybeston-Manhattan, American Optical and Questor Corp.

Topping \$100 million in sales in 1980, ChemLawn has close to a million customers nationwide. It serves markets in 81 metropolitan areas in 35 states, the District of Columbia and Canada.

A major thrust of the company's expansion is ChemScape, a tree and shrub care division, and the commercial lawn care market, both of which so far have been dramatically successful. Ag-Vantage, its agricultural consulting service, currently operates in Ohio, Indiana, Michigan and Illinois.



Poor soil is not necessarily a deterrent to having a nice lawn, as this photo demonstrates. Grass will thrive – even on concrete – if it's fed and watered regularly. (O.N. Scott & Sons.)

### Introducing Pel-Tech: Little benefin pellets that solve big turf problems.

The Andersons, the professional's partner, has done it again. After rigorous, on-the-job liquid spray testing, we proudly introduce Pel-Tech... the state-of-the-art in pelletized benefin, an industry acclaimed top choice for effective pre-emergence

We're gonna stir up some excitement.

crabgrass control.

Major lawn service companies that assisted us in proving Pel-Tech's high efficiencies and outstanding economies are already applying it confidently. And they're coming back for more. Cost savings are ranging from 20 to as high as 40 percent against leading competitive products. Exciting? You bet!

#### Here's some more good news:

- Pel-Tech disperses quickly with minimum mechanical agitation.
- It's compatible with most commonly used fertilizers and pesticides.
- Won't stick to plant foliage.
- It's EPA approved.
- Pel-Tech is conveniently packaged.
- Urea carrier delivers 35 percent nitrogen.

#### The Big Difference.

The big difference that sets Pel-Tech way out in front of the competition is the result of our unique pellet forming process. Developed in The Andersons' research laboratory, the technique has enabled us to combine a nutritional urea carrier with a performance proven benefin compound.

What this means for you is that, with Pel-Tech, you're getting a stable herbicide product that's nearly 100 percent composed of active ingredients . . . throughout each pellet! Not just an outside coating.

Call us toll-free or write for

the name of your nearest Pel-Tech distributor. He'll be able to tell you more good news about this exciting breakthrough for sprayable pre-emergence crabgrass control. You'll be glad you did.

### the professional's partner



Lawn Fertilizer Division P.O. Box 119 Maumee, Ohio 43537

Ohio: 800-472-3220 Outside Ohio: 800-537-3370



#### HERBICIDES LEAD

#### Pesticide production to increase 1.4% annually thru 1985

Domestic production of pesticides is forecast to increase 1.4 percent annually from some 1.4 billion pounds in 1980 to about 1.5 billion pounds by 1985, reports Frost & Sullivan, Inc.

Concurrently, market value will grow 8.4 percent from about \$3.9 billion to \$5.8 billion.

Production of herbicides, the largest pesticide class, is seen building at a 1.9 percent annual clip, climbing from 600 million pounds in 1980 to nearly 700 million pounds by 1985, the marketing research firm says in a new study, Pesticides Market. Dollar value is projected to rise 8.6 percent annually from about \$2.3 billion to almost \$3.5 billion.

Insecticide production is forecast to grow 0.9 percent annually from 585 million pounds to 611 million pounds over the period. Value is estimated to climb 7.8 percent per year from more than \$1.3 billion to just under \$2 billion.

Fungicides, the smallest of the major pesticide classes, will show a 1.4 percent increase in annual production, from 165 million pounds in 1980 to some 173 million pounds by 1985. Value is seen escalating 8.1 percent annually from about \$270 million to \$415 million.

When segmented by chemical class, the pesticide market is currently dominated by five active ingredients. Organophosphates account for 19 percent of total value; carbanates, amides and heterocyclic nitrogens each have 18 percent shares; and, dinitroanilines control 12 percent. These ratios are expected to remain intact through 1985. Government actions are seen as influencing pricing. "It is clear that many more pesticides will become restricted and removed from the market," Frost & Sullivan said. "This will reduce selection of pesticides, and the fewer products available, the higher the prices."

LAWN CARE INDUSTRY

Circle No. 101 on Reader Inquiry Card

#### LEHR from page 27

existing wage and benefit levels, rather than increasing them. Those lawn care employers who are at full employment in areas of high unemployment, such as Michigan, Indiana, Ohio, Pennsylvania and Washington should occasionally remind employes of this fact so they do not take their jobs for granted.

One approach is for the lawn care employer to review his projections for 1982 with employes. At such a meeting, the lawn care employer could mention his full employment situation, in contrast to many other employers throughout the country. Furthermore, he could add that the cooperation and teamwork of everyone associated with the lawn care employer will determine whether 1982 is an even better year than 1981.

#### **Unanswered** questions

Questions arose during our sessions at the recent Convention which I said would be addressed in this column. First: Does a lawn care employer have to compensate an employe for transportation during nonworking time in a lawn care employer's vehicle? No, because an employe may use a company vehicle does not require the employer to pay that employe for his driving to and from work, just as if he were in his own vehicle. Second: How is a periodic (non-weekly) bonus averaged over prior work weeks?

Step One: Assume a technician earns a \$200 bonus at the end of a 10-week period. That bonus must be averaged for each of the ten work weeks, regardless of whether or not the work week involved overtime. Thus, dividing the total bonus by the total work weeks equals the amount of bonus earned per week — \$20.

Step Two: The amount of per week bonus (\$20) should be divided by the total hours worked in the week, which indicates the total amount the employe earned per hour in bonus. If the employe worked a 50-hour week, \$20 divided by 50 hours equals 40<sup>e</sup> per hour.

Step Three: Because the employe earned 40° per hour bonus for every hour, one through 50, one and one-half times that rate is not owed, only "half-time" is owed. Thus, one-half of 40° equals 20°. Multiply the half-time figure times the number of overtime hours (10), and that employe is owed an additional \$2.00 for that work week.

Remember that this calculation is made after the technician has received his compensation for that week, and is in addition to the bonus. Because the bonus is awarded at a time subsequent to the work week, it then must be calculated back over each work week, as this example demonstrates. Thus, an employe who worked 10 weeks, 50 hours per week and earned a \$200 production bonus is entitled to an additional \$20 — 10 weeks × [half-time  $(20^{\circ}) \times \text{No. of overtime hours } (10)].$ 

#### GARFIELD WILLIAMSON

### Lawn care newsletter offered

Garfield Williamson Co., Jersey City, N.J., manufacturer and distributor of professional lawn and fertilizer products, is producing a newsletter directed to lawn care businessmen and other interested professionals in the field.

The Lawn Street Journal provides up-to-date information on the firm's products, general industry news, topical features of interest to turf managers and new marketing methods and study results.

John Zajac, general manager of the firm told LAWN CARE IN-DUSTRY: "Two-way communication is vital for every industry. The Lawn Street Journal is our contribution to that process. The journal provides a no-nonsense approach to topics of interest within our industry. In this way, we hope to keep the industry appraised of our research endeavors, new product applications and data from industry and dealer sources. The dialogue should be



John Zajac

useful to all concerned."

Lawn care businessmen may obtain a free subscription by writing: John Zajac, Garfield Williamson Co., Dept. LSJ, 1072 West Side Ave., Jersey City, NJ 07306.

#### INTERNATIONAL SEEDS

#### Sabre rough bluegrass is licensed in Canada

Sabre rough bluegrass has been licensed for sale in Canada, according to Harry Stalford, products manager, International Seeds, Inc., Halsey, Ore.

Stalford said that Sabre had found a ready market in the U.S. because of its exceptional performance in the shade. Sabre is one of the first domestic varieties of rough bluegrass to be granted a permit under the Plant Variety Protection Act in the U.S. and is the first to be licensed in Canada.

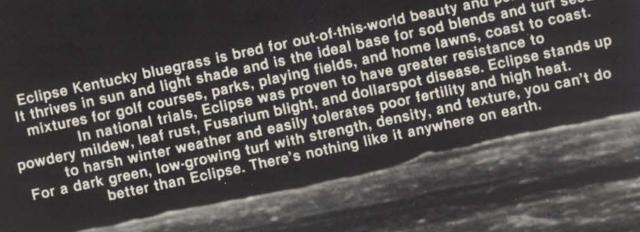


FEB

1982

29

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



Eclipse Kentucky bluegrass seed available exclusively from:

COWBELL SEEDS, INC., 1093 129th St., Bradley, Mich.; 850 N. Old 23, Brighton, Mich. GARFIELD WILLIAMSON, INC., 1072 West Side Ave., Jersey City, N.J. JACKLIN SEED COMPANY, W. 5300 Jacklin Ave., Post Falls, Idaho • NUNES TURFGRASS, INC., 2006 Loquot Ave., Patterson, Calif. TWIN CITY SEED COMPANY, 500 30th Ave., N.E., Minneapolis, Minn. • ROTHWELL SEEDS (IN CANADA), P.O. Box 511, Lindsay, Ontario

Circle No. 107 on Reader Inquiry Card



480 - GREENHOUSE MANAGEMENT FOR FLOWER AND PLANT **PRODUCTION \$15.35 490 - GREENHOUSE OPERATION & MANAGEMENT \$19.95** 

740 - TREE FARM BUSINESS **MANAGEMENT \$20.50** 750 - TREE IDENTIFICATION \$9.00 760 - TREE MAINTENANCE \$29.95 ARCHITECTURE APE \$11.95

Name

Address

670, 680 - GUIDE TO TREES \$19.95 hardcover, \$8.95 paperback 350 - HANDBOOK OF LANDSCAPE ARCHITECTURAL CONSTRUCTION \$48.50 360 - HOME LANDSCAPE \$18.95 510 - HORTUS THIRD \$99.50 690 - INSECTS THAT FEED ON TREES & SHRUBS \$42.50 530 - INTERIOR PLANTSCAPING \$28.50 540 - INTRODUCTION TO FLORICULTURE \$29.50 335 - LANDSCAPE DESIGN THAT SAVES ENERGY \$9.95 paperback 370 - LANDSCAPE OPERATIONS: MANAGEMENT, METHODS & MATERIALS \$18.95	385 - TREES FOR ARCHITECTURE AND THE LANDSCAPE \$11.95 770 - TREE SURGERY \$18.95 650 - TURFGRASS MANAGEMENT \$17.95 630 - TURFGRASS: SCIENCE & CULTURE \$23.95 640 - TURF IRRIGATION MANUAL \$22.95 620 - TURF MANAGEMENT HANDBOOK \$14.65 110, 120 - TURF MANAGER'S HANDBOOK \$23.95 hardcover, \$18.95 paperback 565 - WEEDS \$32.50 560 - WEED \$32.50 560 - WEED \$24.00 570 - WESTCOTT'S PLANT DISEASE HANDBOOK \$34.50 580 - WYMAN'S GARDENING ENCYCLOPEDIA \$29.95
---	--

City	State	a source and and	Zip
Signature	(15 B)	Date_	namo na man
Phone Number		G1. G2111040	
Please send me the following boo Please charge to my Visa, Master Account Number	Card or American Ex		
ORDER NUMBER	QUANTITY	PRICE	TOTAL PRICE
MARTINE MARTINE		tering being	
		Comborer D	a s barras br
		tibbs man	nis is entitled t
	-	[half.Hime	20 - The sumales N
		ours [10]]	No. of overtime b
			Commences which
*Please add \$2.50 per order plus 25¢ postage and handling.	t per additional copy for		(postage & handling
Please allow 6-8 weeks for delivery Prices subject to change.	Tot	al Enclosed	A statuoni sapil
Quantity rates available on request			LCI 22

Harcourt Brace Jovanovich Publications

One East First Street, Duluth, MN 55802

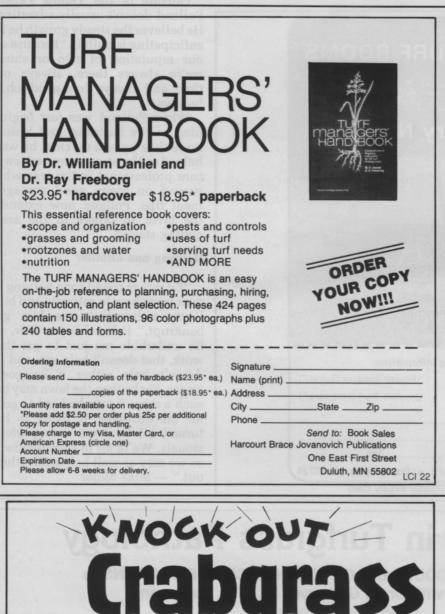
### **COST CUTTINGS**

#### Minimum wage exemptions

Many lawn care companies could lose their minimum wage exemptions if Congress adopts the recommendations of the presidentially appointed Minimum Wage Study Commission. According to a report in *Inc.* Magazine, about one million small companies meet the annual sales volume test of \$325,000 or less, exempting them from minimum wage requirements.

In a minority report, commission member S. Warne Robinson, former chairman of the G. C. Murphy Co., commented, "The only way (small businesses) can cope with the increased wage rates is to reduce employment and service levels, the one competitive edge they have over larger enterprises . . . By recommending abolition of the exemption rather than its expansion, the Commission majority turns its back on the nation's small businesses."

Before 1966 amendments to labor laws, the dollar-volume test for exemption was one million. Lawn care businessmen would do well to contact their congressmen in support of Robinson's position.



#### SEK from page 1

Funk, the owner of the business, and paint an inaccurate picture of how we and people in the lawn care industry ran their businesses during the mid to late 1970's.

Although I was primarily a salesman for Funk Co., I also sprayed lawns, did soil sterilization work and handled the same chemicals as everybody else employed by Funk Co. during those years.

Ms. Wright implies Mr. Funk deliberately hid from our employes the fact that we were working with potentially hazardous chemicals. This is totally false and to set the record straight I would say this:

During those early years in the lawn spray business we were guilty of carelessness and ignorance of possible dangers of mishandling and misapplication of these chemicals. There is no excuse for that. However, our transgressions were in no way deliberate, and they were not done to the detriment of our employes health and welfare.

During the mid to late 70's, articles on the possible hazards of certain pesticides such as 2,4,5-T and silvex (2,4,5-TP) were just being published as a result of the Agent Orange controversy. As more of this information became available, we at Funk and people in the lawn care industry in general were becoming more aware of the fact that we'd better spruce up our safety procedures just in case there was more truth to these allegations.

Also in New York state prior to 1978 all that was required to become licensed as a professional lawn care businessman was to apply for a custom applicator's pernit. There were not tests or exams required to get into the business. It wasn't until 1977 that the individual licensing came through with an applicators core exam and then a Commercial Specialty exam for turf and ornamental spraying. The new program in New York State helped all of us become more knowledgeable and more professional in our use of pesticides.

Ms. Wright pictures Funk Co. as a shabby operation that "thoroughly doused" Buffalo and Niagara Co. with 2,4-D and silvex, and that suburban customers were "hustled" and "sucked" into a program. Well, we didn't thoroughly douse anything. We sprayed lawns with herbicides and insecticides that were standard products used by anyone in our business.

Our customers weren't "hustled" or "sucked" into a worthless program. Funk Co. has a fine reputation in the Buffalo area and we did a good job for our customers. That's how our business grew and became successful.

In the mid 1970's we were young and in a fledgling industry. As we learned about potential hazards of pesticides through government and mandated training and licensing programs and through in-house training and education programs we improved our safety procedures.





Polyethylene Tank Sprayers for Commercial Applications FEB

1982



PROFESSIONAL

ROCKLAND

**ROCKLAND BETASAN** now available in a new 8/16 mesh 7% granular plus three different strengths 12.5%G., 3.6%G. and a 4 lb. E.C.

(R) Betasan is a registered Trademark of Stauffer Chemical Co.

**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.



Circle No. 128 on Reader Inquiry Card

. .....

65-Gallon polyethelene tank. Powerful single cylinder pump. Handles all types of pesticides, herbicides, soluble fertilizers and disinfectants. Can be converted to trailer hitch



Many models to choose from. See your local jobber or write for free catalog.

Master Manufacturing P.O. Box 694 Sioux City, IA 51102 (712) 258-0108



Circle No. 120 on Reader Inquiry Card

-----

This single cylinder, medium pressure sprayer features a trailer hitch for attachment to garden tractors. It also comes with orchard gun which adjusts from steady stream to fine mist. The sturdy polyethylene tank is noncorrosive and lightweight.



### NEWSMAKERS

The appointment of E. P. Janke as President of Gravely Division of McGraw-Edison in Clemmons, North Carolina, was announced. Gravely is a manufacturer of high quality two and four wheel lawn and garden tractors, riding mowers, and a variety of mowing, snow removal and cultivation attachments.

Janke, who has over thirty years experience in the outdoor power equipment industry, replaces James A. Fischer, who has been promoted to vice president planning and development, commercial and industrial development group, McGraw-Edison Co.

Jack D. Gum is president and general manager of Lawn Pride International, Inc., Lexington, Ky. The conpany offers liquid and chemical lawn care services.

Charles Kleuh is vice president, and Ton W. Johnson is secretary treasurer.

James Swift is owner and Brian Wessel is manager of The Grassman, Inc., St. Clair Shores, Mich. The company offers both liquid and granular chemical lawn care and mowing/maintenance services.

Robert C. Haney, Jr. is president of Duncan Lawn Care, Inc., Vienna, Ohio. The company offers liquid chemical lawn care services.

During the annual NLA business meeting, the following officers were chosen for 1981: Gerald Harrell, Landscapes Unlimited, Houston, Tx, president; Joe Wayman, Forrest Keeling Nursery, Elsberry, Mo., vice president; and Bob Siebenthaler, The Siebenthaler Co., Dayton, OH., secretary-treasurer.

National Landscape Association directors elected to two-year terms are: Dick Campbell, **Campbell's Nurseries & Garden** Centers Inc., Lincoln, NE and John Korfhage, Korfhage Florist & Nursery, Louisville. Directors continuing on the board are Denny R. Church, D. R. Church Landscape Co., Inc., Addison, IL, and Bill Doerler, Doerler Landscapes Inc., Lawrenceville, NJ. Immediate past president Frank Tomlinson, Amfac Nurseries Select, Brea, CA, became director-at-large.

Michael Baron has been named marketing coordinator of the Turf Division of the Rain Bird Western Sales Corp., according to marketing manager Rex Dixon.

In his new role, Baron will participate in the development and execution of marketing goals for the world's largest sprinkler manufacturing company.

TURF BOOMS

The Right Combination for

Yes, I'd like more information:

The Broyhill Co. • 402-987-3412 • Dakota City, NE 68731

□ MicroMax Rotary Nozzle

Broyhill Turf Booms

Name:

Address:

City & State:

A More Effective Chemical Application

AND IN ADVISED

**Rotary Nozzles** 

#### POLLAND from page 21

give. The gardeners working there before took from an hour to an hour and a half, but we finished it in a half hour. 'I know you must be doing something wrong,' he told us, 'cuz you're going too gawddarn fast!' "

But even with a little attrition he's been adding 10 to 25 new customers a year. Polland wants to grow, but doesn't want to overextend himself by growing too quickly. A couple of years ago, when he wanted to add a new crew, he advertised in a local paper and picked up 76 customers in just two months. So finding new customers is not a worry. But he estimates that it costs \$3,000 to outfit a new two man crew (not counting truck and trailer), so he plans to gradually add a new crew about once every two years.

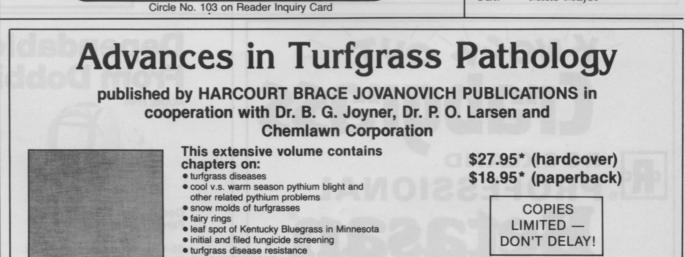
#### **Deemphasize advertising**

Outside of the Yellow Pages, Polland doesn't usually advertise. He believes the steady growth he is anticipating is built in "because of our reputation of rain or shine we're always there, always on time, and always do a good job,' he says.

When Polland was just beginning in the business, and losing more than he was making, he was helped out by an experienced lawn care professional in the area who passed on many good management tips. Polland now extends the favor to others in the area getting started.

#### Helping one another

"I'd rather spend time helping a man learn how to estimate and bid lawns rather than see him go bankrupt," Polland says. "For, if he underbids me just to get the work, that doesn't help me, and it doesn't help either if he goes under. For by then the lawn may be such a mess it may be hard to get, for the customer is likely to be turned off by lawn care professionals. We're all in this together, so we may as well help each other out." - Mike Major



Power Sprayer Guide

Broyhill Turf Sprayers

Zip:

### NEW! DIAPHRAGM **PUMPS FROM** HYPRO. Announcing a complete line of low cost,

low maintenance diaphragm pumps and accessories. These new pumps feature proven designs, high quality engineering and the reliability you expect from Hypro

Outputs range from 5 to 60 gpm. Pressures from 250 to 850 psi. Pumps are extremely durable and easy to repair. Diaphragm pump applications range from spraying to pressure washing to liquid transfer to hydrostatic testing. And a full range of accessories plus nationwide Hypro service is available. Get the facts on new diaphragm pumps from Hypro today.



Low pressure diaphragm pumps, to 280 psi, with outputs to 60 gpm



580 psi, with outputs to 13 gpm

AWN CARE INDUSTRY



	:
	:
ADVANCES IN TUREGRASS	
PATHOLOGY	
Section of the sectio	

\_ copy(ies) of ADVANCES IN TURFGRASS

Zip

PLUS MUCH MORE!

Harcourt Brace Jovanovich Publications One East First Street, Duluth, MN 55802

\_State \_

ADVANCES IN TURFGRASS PATHOLOGY is a compilation of more than 23 reports and discussions by the nation's leading turfgrass pathologists. Explore the diseases that attack turfgrass. Find out how to conquer the battle of turfgrass diseases. KEEP CURRENT WITH NEW IDEAS ON HOW TO HANDLE TURFGRASS PROBLEMS WITH ADVANCES IN TURFGRASS PATHOLOGY.

> \$27.95\* hardcover \$18.95\* paperback Quantity rates available on request.

A check or money order for \_\_\_\_ \_is enclosed.

\*Please add \$2.50 per order plus 25¢ per additional copy for postage and handling.

Please charge to my Visa, Master Card, or American Express (circle one) Account Number	NUCKLAN
Expiration Date	
Please allow 6-8 weeks for delivery.	LCI 22

Circle No. 111 on Reader Inquiry Card

#### LAWS from page 1

care industry has to comply, at least in the state of Missouri," he said. He has served on consulting committees with the dean of the University of Missouri School of Agriculture, who would handle applications for fertilizer permits. Dr. Schnare said that comwe put this information on a ticket, it could be subject to sales tax," he said.

Also, state and federal Environmental Protection Agencies might begin viewing the industry as formulators, then it would have to comply with more regulations. Furthermore, there could be problems in terms of licensing

"By law, sales reports would have to be filed on July 31 and January 3 each year reporting the amount of fertilizer sold and a 30 cents per ton fee would have to be paid, including the weight of water and fertilizer in solution."

pliance is becoming required now because of complaints from homeowners, university personnel and the agricultural liquid fertilizer industry.

He described a fertilizer distributor as a "person who imports, consigns, manufactures, produces or compounds fertilizer, or offers for sales, sells or supplies fertilizer for consumers," according to the law. He also described a fertilizer as a "substance containing nitrogen, phosphorus, potassium or any other elements that promote growth."

He said the state is looking at the liquid lime industry as well, in terms of coming into compliance with the fertilizer laws.

#### Info requirements

He said information required on containers is —

Name, brand or trademark

 Name, address and person who is guaranteeing the fertilizer analysis

• A guarantee of chemical composition of the fertilizer by analysis.

He said that by law, sales reports would have to be filed on July 31 and January 3 each year reporting the amount of fertilizer sold and a 30 cents per ton fee would have to be paid, including the weight of water of and fertilizer in solution. Also, a copy of each customer invoice would have to be filed with the director of the progran. This copy would have to include the name and address of the purchaser, analysis of the fertilizer and the weight of the fertilizer.

The director has the power to collect samples and make analyses, the right to enter a lawn care company's premises and carry out inspections, the right to issue "stop-sale" orders, and the right to revoke or suspend a company's permit.

Penalties for deficiencies of reported analyses could be levied for deficiencies as low as three percent, he said. Penalty rates would be 15 cents per pound for nitrogen, 3.6 cents per pound for phosphorus and five cents per pound for potassium. Penalties would have to be paid to the purchaser the homeowner — and Dr. Schnare said: "We could be in a position of having to write a lot of 25-cent checks.' He said there could be repercussions in other segments of government. "It will just be a matter of time before the sales tax people are going to be contacting us. We now call ourselves a service, we say we are not delivering products, but if with fertilizer company trademarks on their products, if "we are taking their product and repackaging it with our trademark. We don't feel we are doing this, but the law might say we are," he said.

### MONEYWISE

#### Will medical claims soar?

Within the year, many lawn care companies may experience a hefty increase in the cost of Group Health insurance. The overall industry estimates indicate the average increase will run about 30 percent. Of course, the actual amount will depend on the size and loss ratio of the group, as well as the carrier that insures you.

The variation will swing from as little as 10 percent to as much as 60 percent. Practically no one will escape an increase of the same type. The increases are directly attributable to the greater use of medical benefits and the effects of galloping inflation.

Many smaller groups have a type of coverage which pools their loss ratio with a number of other firms. Even if their own experience is very good, the effect of pooling may bring about increases ranging from around 20 - 40 percent. In a pool situation the same increase would be true even if their experience was poor.

The larger insureds aren't affected by the experience of other firms — their own individual claims history determines the extent of their increases.



For years, Balan<sup>®</sup> has been one of America's most popular preemergence herbicides. It's earned its popularity by giving dependable control of turfgrass troublemakers like crabgrass, goosegrass, poa annua, and foxtail.

Now, Balan is going to be even more popular. First, you now have the flexibility of either granular or sprayable formulations. And when you compare Balan against other preemergence herbicides, you will find Balan is now the *most economical* in controlling crabgrass in the spring-or goosegrass in early summer-or poa annua in the fall. So now, granular or sprayable, Balan is your annual weed grasses' worst enemy and your budget's best friend.

Get Balan granular from your Elanco distributor. For sprayable formulation, contact USS Agri-Chemicals or Anderson Chemical. The Andersons Lawn Fertilizer Division P.O. Box 119 P.O. Box 109 P.O. Box

ELANCO

an

Elanco Products Company, A Division of Eli Lilly and Co., Dept. E-455, Indianapolis, IN 46285, U.S.A.

Maumee, OH 43537

(Balan\*-benefin, Elanco Products Company)

Circle No. 108 on Reader Inquiry Card

#### AUSTRALIAN RESEARCH 34

LAWN CARE INDUSTRY

### 2,4-D poses no health hazard, report says

A government committee in Australia recently reported following a six-month review ". . . that no evidence exists to suggest that the continuation of present approved uses of 2,4-D will in any way harm the health and well-being of any members of the general public."

The Interdepartmental Committee appointed by the Queensland Cabinet evaluated the inpact of 2,4-D on human health and termed the herbicide ". . . among the most thoroughly researched chemicals in the field of toxicology."

Following an extensive examination of the medical and scientific information available on 2,4-D, the Committee's report also offered the following conclusions: "Research has shown that 2,4-D is of low toxicity and the hazard to the user or bystander is no greater than that fron an extremely large range of other industrial, agricultural and domestic products that are common and undisputed use."

 "Statistical studies on large populations have never substantiated any connection between the use of 2,4-D and the incidence of health problems."

• "Studies on the fate of 2,4-D after release in the environment show that the herbicide is broken down by natural agencies and offers no continuing hazard to the environment."

 "Monitoring programs have shown that approved use of 2,4-D is not a hazard to food and water quality.'

The report further stated that the evidence upon which the Committee's conclusions were based "is clear and unambiguous."

The Committee was formed at the request of the Queensland

#### TOOLS, TIPS, TECHNIQUES from page 10

place. Also, keep chemicals in the dark, as some are decomposed by prolonged exposure to sunlight.

 Keep different chemicals separated. Herbicides, fertilizers, and pesticides should be stored in separate compartments with no air exchange between them.

 Always keep chemicals in their original containers, if possible. If the original container is damaged, use a substitute of similar composition and label it clearly. Glass, plastic, and paper are the best storage containers as many pesticides will corrode metal.

 The floor and exterior walls are usually the dampest places in a room. Therefore, keep powdered, granular and dust formulations, and all chemicals in paper containers away from these surfaces where moisture may condense.

Cabinet and was comprised of representatives from various governmental departments in Australia. These included the Land Administration Commission, the Department of Health, the Department of Primary Industries,

Stock Routes and Rural Lands Protection Board.

The National Coalition for a Reasonable 2,4-D Policy - who published in America the results of the Australian research - is a non-profit organization.

#### "HANDS-ON"

### **4-day seminars** begin March 10

Two four-day seminars on business and technical lawn care topics are set for March 10-13 at Green Pro Cooperative Services headquarters in Hempstead, N.Y. in the New York City/Long Island area.

The first of the concurrent seminars is special for "key men," and will also deal with management and sales. The second will cover shrubs and ornamentals and also deal with management and sales.

"These seminars will give 20 hours of technical knowledge and 12 hours of business management - including advertising, sales and pricing - for both long-term and short-term goals," Bob Riley of the firm told LAWN CARE INDUS-TRY. "Each participant is presented a definite plan enhanced by the efforts of several teachers. They are taught a quality way of lawn care and how to make it pay."

The "key man" seminar will cover basic turf knowledge; insect, disease and weed control; pest identification; plant identification; deep root feeding; spraying; trimming; turf identification; fertilizers; chemical application; verticutting; seeding; customer relations; and will have question and answer sessions and a final examination.

The shrub/ornamental seminar will cover shrub/ornamental basics; shrub/ornamental management; soil and tissue testing; soil conditioners; insects, diseases; plant identification; advanced business management; advertising/promotion for growth; selling special services; customer relations; suggested care programs; and will also have extensive question and answer sessions. Both seminars will include information on accounts receivable, planning cash flow, borrowing from banks, budgeting, collections and employee management. Early registration can save participants \$50. For further information, contact: Green Pro Cooperative Services, 380 S. Franklin St., Hempstead, N.Y. 11550, 516-483-0100.

# lers ner

30-0-2 Low-Burn Liquid Fertilizer **Proven Your Safest Source of** Nitrogen and Potash.

Formolene is a concentrated N&K product with a high proportion of Methylol Ureas to avoid burning, Slow 8 to 12 week release through the growing season promotes a green lawn that will keep customers happy with you as a lawn care professional. Tested at leading Turfgrass Research Institutions, it's

Call or Visit These Authorized Dealers and Keep Those Lawns Happy:

CHEMICAL COMPANY

AGRICHEMICALS INC. Bishop. GA (404) 769-6475 ALPINE PLANT FOODS LTD. New Hamburg. Ontario NOB2GO Canada (519) 662-2352 DOUGLASS FERTILIZER AND CHEMICAL COMPANY Sanford, FL 32771 (305) 629-0172 Lake Placid, FL 33852 (305) 322-0443 ELDON STUTSMAN, INC. (319) 679-2281 ELWOOD AVIATION INC Elwood, IL 60421 FLO-LIZER INC. Kingston, OH 45644 (614) 642-3001 LARRY FRICKER COMPANY INC. Tustin, CA 96280 (714) 544-2608 GREAT PLAINS ASSOCIATES LTD. Niles, MI 49120 (616) 683-7463 GROWER'S AG SERVICE Kearney, NE 68847 (308) 234-2124

HOWE INC. Shakopee. MN 55379 (612) 445-6570 ORRAL CHEMICAL COMPANY Morral. OH 43337 (614) 465-3251 MOYER AND SON INCORPORATED Souderton, PA 18964 (215) 723-6001 NICE 'N GREEN PLANT FOODS INC. isle. IL 60532 (312) 963-3328 OLD FOX CHEMICAL COMPANY Enfield, CT 06082 (203) 749-8339 SAALE BROTHERS F. West Alton, MO 63386 (314) 899-0933 TURF SPECIALISTS CORP. Holbrook, L.I. New York 11741 (516) 981-1118 TURFTEK ke, VA 23320 Chesa (804) 547-7111 VOGEL SEED AND FERTILIZER Jackson, WI 53037 (414) 677-2273 WESTERN FARM SERVICE INC. Alpaugh, CA 93201 (209) 949-8476

proven the safest concentrated source of liquid N&K for low gallonage hot weather application.

#### Want Water-Insoluble Nitrogen?

Ask for Technical Information Sheet V, which describes a simple tank mix method for converting 25% of Formolene fertilizer's N into W.I.N. (Patent applied for.)

HAWKEYE

Circle No. 110 on Reader Inquiry Card

Clinton, Iowa 52732 • (319) 243-5800

Inquiries serviced for 90 days from date of issue. For those countries outside the U.S., please apply appropriate postage before mailing.

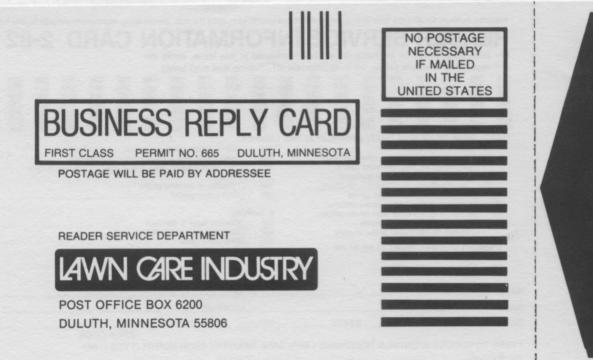
#### **READER SERVICE INFORMATION CARD 2-82** 2

For more information on products or services mentioned in this issue, circle the

corresponding numbers below, fill in appropriate information and mail today.

101 102	108 109	115 116	122 123	129 130	136 137	143 144	150 151	157 158	164 165	171 172	178 179	185 186	192 193	199 200	206 207	213 214	220 221	227 228	22
103	110	117	124	131	138	145	152	159	166	173	180	187	194	201	208	215	222	229	-
104	111	118	125	132	139	146	153	160	167	174	181	188	195	202	209	216	223	230	2
105 106	112 113	119 120	126 127	133 134	140 141	147 148	154 155	161 162	168 169	175 176	182 183	189 190	196 197	203 204	210 211	217 218	224 225	231 232	22
100	114	120	127	134	141	140	155	163	170	177	184	190	197	204	212	219	225	232	22
PLEA	SE CH	ECK BE	LOW YO	OUR PR	MARY	BUSINE	SS AT	THIS L	OCATI	ON:					100		-		
A. (	CONTRA	CTOR OF	R SERVIC	ES:					120	Schoo	I, college	e, univer	sity, hos	pital, or	similar f	acility			
			service t				y		130						ndustrial				
	wi		zation, w						140			rounds; p	barks, an	round mu	unicipal t	ouildings	, military	1	
			e specify							faciliti									
			uid				th		150			memoria	garden						
20			nowing/r						190	UUther	(please s	specify)_							
30 40			e contract						C. SUP	DIIED									
40			ol/lawn s			ice comp	any		210		alcoh len	er or dist	ributor						
60			contractor			mnany			220			ler or dis							
00		igation c	ontractor	17 10 101 31	CIVICO CO	inparty			230	Seed			Alloutor						
			OF FACI		AT ONE O	IF THE			240	□Sod g	rower								
110		Private or	public e	estate															
NAME		-							т	ITLE _									
BUSINE	SS N	AME_		1						ADDR	ESS_		00	32.4	-	0.3			
CITY_					S	TATE		1	ZIP_			TELEP	HONE	=_(	)				
														AREA	A COD	E			
I WISH	TOR	ECEIV	E (CO	NTINU	E REC	EIVIN	G) LA	WN C	ARE I	NDUST	RY EA	CH MO	ONTH	T YES		)			
			- ,00				-,			DAT				-					
SIGNA	TURE		-	· · · · ·						DAT									-

Circle the Reader Service numbers of those items of interest to you.



GET MORE FACTS

#### Seedmen question ethics of buying and selling of uncertified ryegrass

The grass seed industry has become increasingly concerned about a current practice which could result in questions about industry ethics as well as potential litigation involving growers, dealers and distributors.

The controversy deals with the buying and selling of uncertified "fine-leaf perennial ryegrass, variety not stated."

Should a perennial ryegrass be produced or sold as uncertified fine-leaf" the chances are very good that it is a protected variety which has been illegally produced or narketed, Harry Stalford, product manager for International Seeds, Inc., Halsey, Ore., told LAWN CARE INDUSTRY.

"It may be possible for some

seed to be bought and sold in this manner in which parties are involved but unaware that they are engaging in an illegal practice," he said. "However, those of us in the seed industry cannot claim ignorance. The provisions of the Plant Variety Protection Act are known and understood by us all.'

At present, the list of varieties which have been granted Plant Variety Protection certificates are: Augusta. Caravelle, Citation, Derby, Diplomat, Game, Loretta, Omega, Pennfine, Score, Sprinter, Yorktown and Yorktown II.

Those varieties which have a certificate pending are: Acclaim, Barry, Belle, Bianca, Blazer, Dasher, Elka, Fiesta, Oregreen, Pennant, Regal and Venlona.

Stalford wrote a letter recently to his distributors urging continued caution "when you are offered uncertified perennial ryegrass seed designated as 'fine-leaf perennial ryegrass, variety not stated,' because it seems only a matter of time until the whistle is blown.

"When that day cones, it would be a shame to see legitimate seed companies or growers involved in litigation either through carelessness or ignorance of the law," he wrote.

#### DIRECTORY

#### Landscape contractors publish a Who's Who

The "1981/1982 Who's Who in Landscape Contracting" has been published by the Associated Landscape Contractors of America, the national trade association for the

Lebanon Professional **Turf Care Products** COUNTRYC GREENSKEEPER GREEN GOLD

### ECONOMICAL, TESTED & PROVEN... That's our pledge to you!

There's no need to shop around - we have them all. • GRANULAR PREMIUM FERTILIZERS- "UF" for water insoluble nitrogen FERTILIZER-HERBICIDE combinations

\*GRANULAR SPECIALTIES- Weed or Crabgrass control - Turf Fungicide - Insecticides \*SULPHUR COATED UREA \*Urea-Form 38-0-0 \*SOLUBLE 33-0-16 and 28-7-14

\*ONE NUTRIENT FERTILIZER MATERIALS \*SERVICE AND DISTRIBUTION FOR ALL MAJOR PROPRIETARY PRODUCTS TO THE **TURF INDUSTRY** 

Supplying the professional turf markets for over 40 years. Are you buying from us? If not - Why not?

landscape contracting industry. The new directory contains over 900 listings for commercial landscape contractors throughout the United States.

The Directory, listing the members of ALCA, provides the full name, address, and phone number for each contractor, as well as the name of the principal contact person. Additionally, each listing contains a size index and the specialties for that contractor.

The "1981/1982 Who's Who in Landscape Contracting" has been distributed to all members of the association, and is available on request to landscape architects, general contractors, and other qualified buyers and specifiers of landscape contracting work. Those requesting the new Directory should send \$3.00 for postage and handling. For more information, or to order, contact: ALCA Publications, 1750 Old Meadow Road, McLean, VA 22102.

#### TURNOVER from page 23

the tide of increasing rates of turnover and to increase market share as the demand/supply analysis comes close to equilibrium occurs through a recognition of each and every employe that our "customers are us" and that the way we sell, service and follow-up defines our livelihood in the future.

I am suggesting nothing other than simple "back to basics" in the context of increased competition, increasing rates of customer turnover, and a difficult economic environment. It was strength in this area that has propelled our industry and it will be strength in this area that will allow the individual firm to be a strong participant into the future. Efforts in this area are certainly preferable to looking with moist eyes at the Yellow Pages or defining your advertising at customer replacement.

I am aware of several firms who though they are attempting to upgrade product and service delivery and emphasize responsible salesmanship, have concluded that in the markets they service that customer replacement cost economics - given accelerating turnover rates - suggest a different course. Namely, diversification . . . most within green industry areas . . . some outisde. There are other firms for whom shrinking customer rolls and increasing marketing expense have meant that "it's time to sell."

Most of us today operate profitably and are confident of our own ability and in the prospects for our industry. I am optimistic about the future but not so blind-eyed optimistic to be unaware as to what is occuring in the marketplace. We provide the consumer an economic value so in that sense our industry is stable. The real importance in discussing a subject such as customer turnover and rate acceleration is not to cast doubt about future viability of firm or industry but rather to trigger the type of selfanalysis which will result in continued dedication (or rededication) to the needs of our customers, which if met translate into profitable growth.

FEB

37

LEBANON

LEBANON CHEMICAL CORPORATION LEBANON, PA 17042

Mid West Northeast (Pennsylvania) (717) 273-1687

(800) 637-2101 (217) 446-0983 (800) 233-0628

Circle No. 118 on Reader Inquiry Card

### MEMOS



#### Their supply, your demand

In Dallas they are saying that the future of the mowing/maintenance industry is bright, even to the point of predicting that one day a handful of companies will link up to supply the better part of the nation's demand. While this is an optimistic prediction on the part of these

#### businessmen, it can not be too wide of the mark. In fact, the same might be said of the nation's chemical lawn care businesses, already burgeoning and linking-up from coast to coast.

At the same time, many businessmen have said that their industry suppliers and manufacturers are supplying their needs only in conjunction with other already established markets. In the case of mowing/maintenance it's the consumer market; on the chemical side it's the agricultural market. The industry therefore suffers from lack of direct research and development on the part of the manufacturers, reaping r&d benefits only if it happens to enhance their already established target markets.

As one maintenance businessman suggested, the problem is not necessarily the exclusive burden of the manufacturers, but is shared by those who place the demand — you, the businessmen. With the proper media support by trade associations, newspapers, and your own vigorous effort to inform the manufacturers of

the potential of your industry, the battle can be won.

Both sides of the lawn care industry should do their best to let their suppliers know their needs, both in terms of direct improvement of hardware and in terms of parts availability. The technical representatives of the leading manufacturers are on hand at all the trade shows. They know how fast the industry is growing, how shrewd your predictions are. But they must know exactly what the demands are before company policy on research and development changes. It's in their interests as well as the industry itself. The lawn care market will take care of itself as far as market recognition goes, but it's up to you to direct the challenge to those who supply your needs.

Land She Clorken

### CLASSIFIED

RATES: 50° per word (minimum charge, \$20). Bold face words or words in all capital letters charged at 75° per word. Boxed or display ads charged at \$50 per column inch (one inch minimum). Agency commissions will be given only when camera-ready art is provided by agency. For ads using blind box number, add \$5 to total cost of ad. Send ad copy with payment to Dawn Anderson, LAWN CARE INDUSTRY, 1 East First Street, Duluth, MN 55802. BOX NUMBER REPLIES: Mail box number replies to: LAWN CARE INDUSTRY, Classified Ad Department, 120 W. 2nd St., Duluth, MN 55802. Please include box number in address.

#### FOR SALE

Used Spray Trucks-Chevy, 750-gallon tanks. Automatic hose reels, mechanical agitation. Call Ron Wilson, 513-845-0517. 2/82

LAWN - TREE - SHRUB NUTRIENTS. Now you can get superior LAWN FOOD in bulk - as little as 300 gallons - at substantial savings. Delivered within 250 miles of Long Island, NY. Also 55-gallon drums. Delivery to other areas easily arranged. Root food for trees and shrubs in 5-gallon pails shipped continental U.S. Highest quality long-lasting; low, low chlorides. Not using liquids? . . Phone or write for the reasons why the largest operations do. Bulk tanks available, sale or lease. For quick ordering—GREEN PRO COOPERATIVE SERVICES, 380 S. Franklin Street, Hempstead, NY 11550 (516) 538-6444. 2/82

**1981 Used Spray Units For Sale** — 1250 gallon tanks. John Bean F.M.C. 20-20 pumps. Steel beds. 16 HP Kohler engine. Ford F600's. Call 502-241-

For Sale — Irrigation Equipment 1977 VP-12 Ditchwitch vibratory plow, 1976 Wacer Dirt Tamper, pipe fittings and various other pipe tools and supplies. Montgomery Ward Hydroseeding & Lawn Care, P.O. Box 9695, Kansas City, MO 64134 816-765-2577

#### LAWN SPRAY UNITS

Low Cost

Hydro-Seeder (Finn)-900 gallon mounted on 1974 Ford. Both in excellent condition. Priced to sell fast. Call 216-481-5000. 2/82

For Sale — Used spray trucks. 2 1979 GMC 6,000 in good condition, PTO operated hypro centrifugal pumps up to 170 PSI, 16 ft. wood beds with 4 ft. reinforced sides (will carry dry & liquid). One with 1,200 gallon steel tank and 2 manual hose reels. One with 500 and 300 gallon plastic tanks and 1 manual hose reel. Your choice, \$9,750 each. Questions, call 219-769-8313.

For Sale - Established lawn maintenance business located in the wealthy community of Princeton, Illinois. Excellent equipment and 15 years of satisfied customers. Many opportunities for expansion. 2,250 sq. ft. of building space available to rent. All utilities included. \$200 a month. Asking price \$25,000 to \$30,000. Call 815-875-8231.

MAKE BIG MONEY - PLANT BIG TREES - New and used tree transplanting equipment. Call or write for list. Financing available. Turf & Tree Supplies, Inc., P.O. Box 291, Rockton, Illinois 61072, Phone: 815 624-7578 9/82

CRABGRASS PREVENTER + FERTILIZER delivered for under **\$1.00/1000** sq. ft? ... **YES!**... 34-0-10 + Benefin; also ask about 19-6-8 + Benefin and our full line. **You** want to make **money** — we want to help! Spring Valley Turf Products (414) 677-2273. Ask for Bill! 2/82

**Used Spray Units for Sale** 1,250-gallon stainless steel tanks, Mechanical agitation. FMC 20 gallon/minute pump. Hanney electric reel. Ford F600 and Chevy C60's -'76's, '77's, '78's and '79's. Call 502-241-7341.

#### WANTED TO BUY

Wanted: Used Stainless Steel Combines, that aerates, rolls, sprays liquid, and used tractors and trailers, as formerly used by Lawn-A-Mat dealers. Write: Conestoga Golf & Country Club, Conestogo, Ontario. NOB 1NO or call 1-(519)-664-2234. 4/82

Established 20 year old company wishes to expand its lawn care business in Florida and the Southeast. Terms may be arranged to suit the seller. All replies confidential. Contact Ron Collins, R. W. Collins, Inc., P.O. Box 2477, Satellite Beach, FL. 3/82

#### MISCELLANEOUS

KELWAY® SOIL ACIDITY TESTER, used by PROFESSIONALS nationwide. Direct reading lightweight, portable, fully serviceable, no power source, Model HB-2 reads moisture too. Available through distributors. For brochure contact Kel Instruments Co., Inc., Dept. T, P.O. Box 1869, Clifton, N.J. 07015, 201-471-3954.

"GARDEN TIPS" — Prepare now to increase next year's profits. "Garden Tips" the monthly customer newsletter, with your company name/phone. Proven response . . . cements customer relations, gets them to spend more, opens new doors expertly in new expansion areas. Low cost, effective profi building. Call today (516) 483-0100. We'll send complete information. Or write Green Pro Cooperative Services, 380 S. Franklin Street, Hempstead NY 11550. 2/82

**GREEN PRO EXECUTIVE NEWSLETTER** - the Only Newsletter for the Lawn Care-Shrub/Tree Care businessman. Full of ideas, timely information, model letters, promotional pieces to bring in more sales, tips to save you money + make you money. Call Rich Hawkes (516) 483-0100. Or write: Green Pro Cooperative Services, 380 S. Franklin Street Hempstead, NY 11550 2/82 2/82

LIQUIDATING, MUST SELL OR LEASE (8) 1976-81 Lawn Spray Trucks, 750 gal. to 1500 gal., (3) 8000 gal. steel storage tanks. Electric pump & eter for fertilizer fill system, 300 gal. bean sprayer Call for complete list & prices. 216-357-8400. 4/82

#### **HELP WANTED**

LAWN CARE SPECIALIST - Applicator needed for rapidly expanding commercial lawn care com-pany. We are one of the most reputable companies in the Washington DC metropolitan area. Experi-ence in turf management preferred, but not a must. Excellent advancement opportunities with a competitive salary and full benefits. Write LCI Box 64 2/82

ESTIMATOR/SALES - Opportunity for an enthusiastic individual with an innovative growing landscape contractor. Experience and/or degree is necessary. Responsibilities involve estimating commercial insulation, sight analysis, advertising and purchasing. Excellent benefits. Natural Land-scape Contractors, Inc., P.O. Box 4434, Silver Spring, MD 20904. (301) 384-7766. 2/82

**EXCELLENT OPPORTUNITY** for degreed turfgrass agronomist. Major lawn care company seeks aggressive individual to handle regional responsibilities. Communication skills extremely important. Will consider recent graduate. Send resume and salary history to LCI Box 63 2/82

AREA MANAGER — Landscape contracting firm emphasizing commercial ground care and high quality performance seeks highly qualified applicant with strong managerial experience and horticulture knowledge. Successful applicant will assume re-sponsibilities and make his own decisions. Must be willing to work long hours for high rewards. Natural Landscape Contractors, Inc., P.O. Box 4434, Silver Spring, MD 20904. 2/82

Nationally know lawn care firm, needs branch manager to supervise in the servicing of over 1800 accounts. We need a take-charge person capable accounts. We need a take-charge person capable of overseeing our entire operation. Unlimited opportunities for the right person. Supervisory experience is necessary. Knowledge of the lawn business is not a requirement. Send resume and salary requirements to Lawns — P.O. Box 198, Morrisville, PA 19067. 2/82 2/82

Join a growing, 31/2 million dollar pest control & lawn care company. We need Branch Managers and Manager trainees to staff our new locations in Florida and the Southeast. Send resume in confidence to Ron Collins, R. W. Collins, Inc., P.O. Box 2477, Satellite Beach, Fla. 32937. 3/82



Read	der	
Ingu	iiry No.	Page No.
	Adelphi Andersons (Regional) Agro-Chem	
101	Andersons (Regional)	
102	Agro-ChemBroyhill Co	
103	Broyhill Co	32
104	Ciba-Geigv	
105	Diamond Shamrock	25
106	Dow Chemical U.S.A.	2-3
107	Eclipse Elanco Products Co	29
108	Elanco Products Co	33
134	Grass Roots	30
135	Grass Roots	30
136	Grass Roots	30
137		
109		
	Hawkeye Chemical Co	
111	Hypro	32
112		
113	Improved Lawn Equipmen	
114	Jacklin Seed Co	10
115	Jacklin Seed Co	
116	L & M Lawncare	7
117	Lakeshore Equipment	22
118	Lebanon Chemical Corp.	37
119	Mallinckrodt	39
120	Master Manufacturing	31
121	Monsanto Co.	8-9
122	Northrup King Co	12
123	Prentiss Drug & Chemical	Co 7
124	Professional Turf Specialt	ies 27
125	Rain Bird Sales Inc	27
126	Ransomes Inc	17
127	Rhone Poulenc Chemical	20-21
128	Rockland Chemical Co	
129		11
130	Stauffer Chemical	14-15

38

#### Dependable

- Versatile
- Proven

Standard units include: Compartmentized tanks, sparge agitation, low profile, PTO pump, 400 ft. of 1/2" hose, sight gauges.

> Call us collect: 217-832-9031. CARSO, INC. "The Spray People" Camargo, Illinois 61919

#### **BUSINESS OPPORTUNITY**

INTERESTED in expanding into SHRUB & TREE CARE (insects disease control and feeding)? Attend our unique four-day ACADEMY March 10-13, 1982. Prepares you — just as if you bought into a franchise—to take advantage of big profits waiting for you. Tuition includes **EVERYTHING YOU NEED** to get started, including advertising, promotional pieces, specialized forms and, of course, BASIC KNOWLEDGE from several teachers with specialized experience you'll find invaluable. Call GREEN PRO COOPERATIVE SERVICES (516) 483-0100 or write to 380 S. Franklin Street, Hempstead, NY 11550. Remember, on-the-job tuition is the most expensive kind. Get it for a very small fee *before* you get on the job. We've already paid for the mistakes. 2/82

**PROJECT MANAGER** — Landscape contracting firm emphasizing commercial ground care seeks high qualified applicant who can motivate a crew. Managerial and horticultural experience required. Willing to work long hours for high rewards in a growth oriented company. Natural Landscape Contractors, Inc., P.O. Box 4434, Silver Spring, MD 20904.

DEALER/REPRESENTATIVES NEEDED for Specialized Lawn-Shrub-Tree Care Products, Equipment, and Marketing and Educational Programs. Write: Green Pro Cooperative Services, 380 S. Franklin Street, Hempstead, NY 11550, Attn. R. Riley or Call (516) 538-6444. 2/82 2/82

Expanding eastern Pennsylvania landscape/tree care company, is looking for good sales people. Groundfloor opportunity for a take-charge person. Income opportunities unlimited for the right people Rusk Landscaping, Ltd. P.O. Box 91, Levittown, PA 19059

130	Stauffer Chemical 14-	15
131	Tuco Agri Chemicals	40
132	Tuflex Manufacturing Co	26
133	Turf Seed Inc	16
NEW PRODUCTS		
180	Edger slices quick and neat	25
181	Outfront rotary rider	25
182	Stanley tool offers their	
	latest catalog	25
183	Diesel equipped Ground-	

..... 25

..... 25-26

master 72

184 Rotary pop-up for wide

turf coverage .....

185 Weed killer keeps out

186 It's time to organize ..... 26 187 Trans-Tree is a total This index is furnished for the reader's convenience. However, the publisher can not guarantee its accuracy due to circumstances beyond our control.

Circle No. 119 on Reader Inquiry Card

200

### Here are broad-spectrum weed and fungus controls...



**TREX-SAN® 3-way kill of broadleaf weeds** Liquid herbicide kills virtually all broadleaf weeds including troublesome chickweed, knotweed, sheep sorrel, spurge and clover. Economical, synergistic formulation of 2,4-D, MCPP and Dicamba. Concentrated formula saves

storage space.



pre-emergent for grassy weeds. Liquid herbicide for pre-emergence control of crabgrass, goosegrass, poa annua, and many other grassy weeds. Long residual control with up to four months protection. Safe for annual use. Also available in granular form.



#### DUOSAN<sup>®</sup> double-action fungicide.

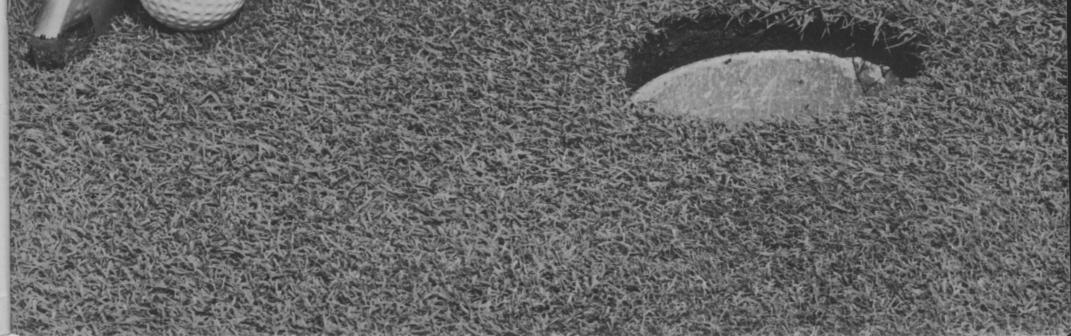
A wettable powder, broadspectrum, systemic-contact turf fungicide for control of most major spring and summer diseases. Synergistic action provides higher level of control than use of components separately.

They've been keeping 40-acre golf courses green and healthy for many years. They're available to do the same for your customers' lawns. Each is an easy-to-apply, compatible spray providing extremely broad control...with a proven effectiveness that will keep call-backs and complaints minimal. Contact us for more details.

#### Mallinckrodt

**TALK TO THE GREEN GROUP** MALLINCKRODT INC. ST. LOUIS JERSEY CITY • LOS ANGELES





# **PROXOL® KILLS GRUBS AND SURFACE FEEDERS.** FAST!

There's no need to wait over a month for a grub control to work. Economical Proxol 80SP insecticide readily penetrates thatch to work fast for an effective broad spectrum kill, including grubs and surface feeding sod webworms, armyworms, and cutworms. You apply Proxol with the liquid application equipment you already have. So there's no need to haul spreaders and bulky packages on your rig, put up with package breakage and waste, or carry them in inventory. Proxol's convenient 2- and 5-lb. packages make measurement easy. Eliminates waste. You can even mix Proxol with other nonalkaline chemicals.

And you can rest easy with Proxol. Customer's children and pets are not exposed to



Kalamazoø, Michigan 49001

a granular residue left on the turf. Proxol is easy on the environment, too. No unpleasant odor to offend customers. No long-term residual buildup in the soil.

Proxol kills grubs and surface feeders. Fast! Over 150 U.S. distributors and 8 regional **TUCO** Distribution Centers assure convenient product availability. These same sources also have Acti-dione," a TUCO broad spectrum fungicide, long used by golf course superintendents, to stop turf disease problems before they start.

For more information, call toll-free: Outside Michigan - 800-253-8600 Inside Michigan (collect) -616-385-6613



Circle No. 131 on Reader Inquiry Card