

Turfgrass disease identification—

reference guide and photos, see pages 20-21

REGISTRATIONS

Ohio obtains label for *Ataenius* beetle

Ohio has obtained a state registration for the use of Diazinon AG500 4EC to control *Ataenius spretulus* beetle adults before they can lay eggs.

Dr. Harry D. Niemczyk, professor of turfgrass entomology at the Ohio Agricultural Research and Development Center in Wooster, told LAWN CARE INDUSTRY that plans call for test programs in Missouri, Colorado and Minnesota in 1978 in an effort to obtain national labeling. This testing program is being sponsored by the Golf Course

Superintendents Association of America, Lawrence, Kansas.

Today, damage from the *Ataenius* beetle has been confirmed in areas of Canada and from 20 states.

Dr. Niemczyk said the beetle larvae are what cause the damage. The tiny grubs feed on turf roots in mid-June in Ohio. Turf begins to wilt, even when it is irrigated. Under continued stress and summer heat, the turf begins to die in irregular patches. Diazinon is a trademark of Ciba-Geigy Corp., Greensboro, N.C.

REGULATION

Innovative safety standards sought by mower manufacturers

In a special product demonstration recently before the Consumer Product Safety Commission, the lawn mower industry once again urged that any CPSC mandatory standard avoid restrictive design requirements, and that performance requirements be adopted which would

allow manufacturers to develop new technological approaches to protecting users of power lawn mowers.

The CPSC is now in its fifth year of developing a mandatory power mower safety standard.

David T. McLaughlin, vice president of the Outdoor Power Equipment Institute and chairman of the Toro Company, Minneapolis, reminded the Commission of its statutory obligation to express safety standards in terms of performance requirements except as they concern product labelling or instructional materials.

Presenting the commis-
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ADVERTISING

ChemLawn testing TV in three major markets

ChemLawn Corp., Columbus, Ohio this spring is testing television advertising in three of its markets — Indianapolis, Cleveland, and Washington, D.C.

According to the company, the purpose of the television test is to determine whether television can be a productive medium at a reasonable cost.

The commercial was produced at the same Chicago home as the photograph on the 1978 spring brochure being distributed by ChemLawn. Bob Houshel, branch manager of the Chicago-Arlington Heights branch provided the truck used in the filming. Scott Solvie, branch manager of the Glenview branch in Chicago, drove the truck in the closing sequence.

LAWN CARE INDUSTRY

Serving lawn maintenance and chemical lawn care professionals.

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ASSOCIATIONS

Dormant nitrogen fertilization opposed by Michigan lawn sprayers

The Lawn Sprayers Association of Michigan has issued a formal statement against dormant nitrogen fertilization — a method of fertilization presently being recommended by many turfgrass specialists and lawn care businessmen across the country.

The main reason the 52-member organization gives for taking a formal stand against dormant fertilization is that the public will not accept it, making it difficult for professional lawn care businessmen to keep their customers happy.

Another reason why the organization opposes it is that it feels by the time the public accepts the concept of dormant fertilization, sod growers will have sold substantial amounts of sod resistant to *Fusarium* blight, a se-
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PROFESSIONALISM

"Our own worst enemy," Lawnrite president says

The president of a 45-employee lawn service company on Long Island in New York feels that "we can become our own worst enemy in presenting to the consumer the simple fact that lawn service companies do the job better while saving the consumer money."

Paul E. Kampe president of Lawnrite Corp., based in Bohemia, N.Y., recently said that it also seems apparent that legislation now in effect and being considered will lead to professional applicators being the
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QUICK STARTS

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For a complete market study of the lawn care industry in Los Angeles, see MARKETPLACE, page 12. This is part of a continuing series of in-depth looks at regions of the country where the lawn care business thrives. The study includes a profile of the city, potential lawn care

CONVENTIONS

Penn Allied Show sells out 250 exhibit spaces

The 1978 Penn Allied Nursery Trade Show, scheduled July 25-27 at the Hershey Motor Lodge and Convention Center, Hershey, Pa., has already sold out its exhibit area of 250 spaces.

Last year almost 3,500 turf managers, lawn care businessmen, nurserymen and landscapers attended the show.

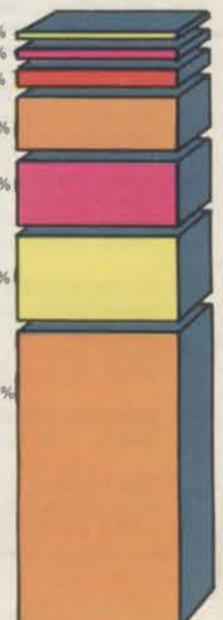
For further information, contact: Mrs. Pat Norman, Penn Allied Nursery Trade Show, 169 W. High St., Carlisle, Pa. 17013, or call (717) 243-1786.

Do you service other than residential lawns?

Yes 85.2%
No 14.8%

If yes, please specify type:

Churches 1.3%
Cemeteries 2.0%
Hotels and Motels 4.2%
Others 10.0%
Industrial 11.0%
Condominiums/Apartments 16.9%
Commercial Banks Business Office Buildings 54.6%



Source: 1977 LCI survey

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EPA considers ban on 2,4,5-T herbicide

The federal Environmental Protection Agency (EPA) is considering limitations or a possible ban on the use of the herbicide 2,4,5-T.

The herbicide is used widely for killing weeds and brush around rights-of-way along highways and utility lines. Environmentalists have long contended it should be banned because of evidence that cancer and birth

defects may be caused by the herbicide itself and by its highly toxic byproduct — dioxin — which the agency said is frequently found mixed in with 2,4,5-T.

Since 1970, the chemical has been banned for use around homes, parks, lakes and other recreation areas. About five million pounds of the herbicide were manufactured in 1976, according to the agency, mainly by three companies: Dow Chemical Co., Midland, Mich.; Thompson-Hayward Chemical Co., Kansas City, Kans.; and Transvaal, Inc., Jacksonville, Ark.



Dr. C. Reed Funk of Rutgers University (left), originator many of America's modern turfgrass cultivars, recently received an Award of Merit from Doyle Jacklin, Jacklin Seed Co., Dishman, Wash., president of the Lawn Institute, Marysville, Ohio.

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MEMOS

Dandelion as a crop: As a lawn care businessman, you may spend certain times of the year doing nothing but worrying about getting rid of your customers' dandelions, but in Vineland, N.J., the first harvest of the lowly yellow weed is a cause for celebration.

If you can't beat 'em, eat 'em — and if you can't eat 'em, drink 'em," said Mayor Patrick Fiorilli. More than 400 townsfolk in the rural south Jersey town paid homage to the dandelions this last month with unabashed fanfare.

They jammed a grammar school gymnasium at \$12 each to feast on crisp dandelion salad, murky dandelion soup, fresh dandelion ravioli, tender veal tips with dandelion, dandelion gelatin and dandelion wine — lots of dandelion wine. Dandelions are a serious spring crop in the area, where 16 farmers plant the weed's seeds in August and harvest dandelions as the ground thaws in March. Dandelions for salad greens are worth \$40,000 a year to local farmers.

Government bidding: One thing Scripps-Howard writer Peter Phipps says that he has learned covering city and county government in recent years is how to rig a bid. Readers of **LAWN CARE INDUSTRY** who are involved in government work have reported facing some of the problems that Phipps outlined in a recent column for Scripps-Howard:

"Rigging a bid is easier than many officials care to admit. Like most other things in government, competitive bidding is a game that can be tilted.

"Basically there are two ways to rig a bid. You can write the bid specifications or you can play for the gravy down the road. The key lesson for the first is that you don't have to be the lowest bidder to win a contract, just the lowest bidder who meets city specifications. And if the specifications are written by one of your city hall friends precisely around your product or services, you'll be assured of the contract even before the bids are opened.

"Now the second way to rig a bid — namely, conspiring to make a profit on subsidiary contracts. The idea is to get your friends to assure you that if they are taken care of that there will be plenty of extra work beyond the official contract. With this kind of inside information, you can submit a ridiculously low bid — confident that your city hall buddies will steer enough extra unbid work your way to make up for your front-end losses."

Many lawn care businessmen and landscape maintenance businessmen say they have stopped bidding on government work because of this type of atmosphere Phipps outlined.

Business failures: Business failures fell to a seasonally adjusted rate of 24.2 per 10,000 in October from 27 in September, Dun & Bradstreet, Inc., reports.

Maryland lawn care industry grows: The lawn care industry in Maryland is certainly the most rapidly growing sector of the Maryland turfgrass industry, University of Maryland turf specialist Charles H. Darrah told **LAWN CARE INDUSTRY** recently. He said he has become involved with many of the smaller businesses through the Cooperative Extension Service/Pesticide Applicator Training Program, and in most cases has found a tremendous "need to know" about current pesticide usage and regulations.

He said he has also become directly involved with a few of the larger chemical lawn care companies, and finds many of the problems they face fascinating and he enjoys trying to find workable solutions. "Certainly a part of our research effort at the University of Maryland in the future will be directed toward these problems," he said.

Growth retardants: Minnesota Mining and Manufacturing Co., St. Paul, has introduced a compound that slows the growth of turfgrasses so that mowing can be avoided for five to eight weeks. The product, under development for seven years, will be sold initially for the maintenance of turf growth on commercial businesses such as cemeteries, golf course roughs and airports. That product called Embark 2-S, will also be available for commercial application on home lawns. The product is sprayed on lawns with 1½ to four pints used per acre mixed with 15 to 50 gallons of water. Different strength mixtures are used depending on grass species. Application costs are being estimated by the company at about \$20 an acre.



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Dr. Henry W. Indyk (left) of Rutgers University has been named "Man of the Year" by the Irrigation Association. Presenting the award were president Paul Bohley (center) and past-president Kenneth White.

MOWER STANDARDS *from page 1*

sioners with a suggested "first draft" of performance language, he told them that "the public interest will not be served by the promulgation of requirements that compel industry to adopt one specific design which increases costs without commensurate benefits, eliminates any element of choice, and retards the incentive to develop new and innovative approaches to lawn mower safety."

A special product demonstration for the commissioners focused on protection from blade contact injuries which, according to the Commission, account for approximately 68 percent of lawn mower injuries.

The Commission's current proposed standard addresses this hazard by requiring a "dead-man control" device which would shut off the power completely or disengage the blade from the power source when the user leaves the operator position. The device being given consideration by the staff for accomplishing the latter is a blade brake/clutch mechanism.

McLaughlin told the Commission that testing by his company indicates that blade brake/clutch devices presently on the market are not reliable.

"We have tested every clutch/brake mechanism of which we are aware and which is commercially available and they have, without exception, failed

to satisfactorily perform," he said.

Pointing to problems of product failure and unacceptable performance, he indicated that much more development work was necessary before a blade brake/clutch device is incorporated in walk-behind rotary mowers.

Alternative designs addressing the blade contact hazard were also demonstrated. They included:

- a conventional walk-behind mower equipped with a control on the handle which requires continuous activation by the operator in order for the unit to run. When the operator



Toro's McLaughlin: "... requirements that compel the (mower) industry to adopt one specific design which increases costs without commensurate benefits. ..."

releases this control, the power source in the blade will come to a stop. Starting and stopping controls are mounted on the handle for easy access and remove the necessity for the operator to be in the vicinity of the mower housing when performing normal starting and stopping actions.

- a conventional walk-behind mower modified to place the height-of-cut adjustment control in the handle. This removes any necessity for the operator to be in the vicinity of the blade housing when it is necessary to change the height of cut. The unit included special auxiliary side shields to reduce the possibility of foot contact with the blade, and the discharge opening was configured so as to virtually eliminate the possibility of blade contact.

- a conventional walk-behind mower modified by adding additional shielding on the sides of the mower, placing the starting control in the operator position and incorporating a blade interlock with the discharge chute, as well as an automatic latching mechanism to the discharge chute. The latching system prevents the removal of the grass bag unless the latch is unhinged. If the latch is unhinged after the bag has been removed, the interlock stops the power to the blade giving the operator an audible warning that the blade is coming to a stop.

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Michigan State turf students Steve Vasher (left) and Dale Conzelman (right) received the TUCO Outstanding Scholar Award from Henry Lyons of the TUCO Division of Upjohn Co., Kalamazoo, Mich. at the Michigan Turfgrass Conference.

PROFESSIONALISM *from page 1*

source, if not the only source, of lawn and garden chemicals.

"It is important to note that this reality will occur only based on our mutual efforts earned through our professionalism," Kampe recently told **LAWN CARE INDUSTRY**.

Responding to an article that appeared in a recent issue of **LAWN CARE INDUSTRY** (see "ChemLawn Agronomist Speaks Out on Lawn Care Professionalism, March, page 1), Kampe said:

"Fractionalizing our industry by inaccurate, unsubstantiated claims against ChemLawn or any other company hampers, if not defeats, what has to be our major goal. But attacking companies does not lead to the growth of our individual businesses, and can only conclude in confusion to the homeowners, and therefore an uneasiness in purchasing services rendered by lawn service companies."

Kampe feels the great majority of homeowners are not purchasing any type of professional lawn service, but are instead either doing the work themselves or doing nothing at all. "From that large, untouched base comes the growth of our industry and the penetration of all of our individual companies."

"Our experience working in the Long Island area has been that large companies have aided in the development of our industry in this market," he said. "This is due to the fact that consumer awareness about our industry is developed by all of our promotional efforts."

SALES

OPEI companies see 2.8% growth this year

Participating member companies of the Outdoor Power Equipment Institute project an overall 2.8 percent growth in selected industry shipments for the 1978 model year.

The overall increase includes an average growth of 3.4 percent for walk-behind power mowers; 3.7 percent for lawn tractors and rising mowers; 0.5 percent for

garden tractors and a minus 2.1 percent for walk-behind tillers.

The overall average 2.8 percent increase for the four product categories combined contrasts with the decline in total shipments during the past three years. The last overall industry increase occurred in 1974 when manufacturers shipped 4.8 percent over the 1973 model year.

SERVICE

Turf specialist outlines what customer expects


Homeowners subscribe to a professional lawn service to develop an attractive lawn and reduce the time spent on lawn care. But most don't know what to expect from such a service, says a turfgrass specialist for the Texas Agricultural Extension Service.

Dr. Richard Duble recently outlined what he and other turf researchers feel a professional lawn service should offer.

Dr. Duble said that the homeowner is often in a vulnerable

TOOLS, TIPS & TECHNIQUES

PTO or auxiliary engine?



Which is the better way to run a sprayer tank to disperse fertilizer and pesticides — a power take-off (PTO) system, which operates off the truck engine, or use of an auxiliary engine to power the sprayer?

Joe Matulis, co-owner of L & M Lawn-care, Richmond Heights, Ohio prefers the PTO system because it eliminates additional mechanical problems, cuts down engine noise in residential neighborhoods, and just makes his spray truck look better.

He also says that he has found no excess use of fuel from running his sprayer off of the main truck engine, "at least not anything I would worry about." Others in the lawn care business say that savings of up to \$1,000 a year can be realized by using an auxiliary engine, but Matulis bases his feelings on the fact that there is no measurable difference, and backed up his feelings with the purchase of five new 1,250-gallon trucks this lawn care season to handle his burgeoning business — all powered by PTO.

position. "A customer is likely to subscribe to the first company offering their service and to change the first time another company claims their service is superior."

He said the company should describe its service in detail, provide advance notification of applications, respond within a reasonable time to problem calls and provide trained and qualified applicators. "Of course, the lawn service operator should also fulfill his promises. Too many operators promise weed control, thatch control and other benefits that they really do not provide."

Duble said fertilization in his area should consist of timely and

uniform applications of nitrogen, phosphorus and potassium at an annual rate of about six, two and four pounds per 1,000 square feet, respectively. At least half of the nitrogen should be from a slow-release source.

He said a source of iron is also needed in the fertilizer application to enhance color and prevent serious iron deficiencies that weaken St. Augustinegrass lawns in Texas and elsewhere in the Southwest.

"There is no advantage of liquid over dry fertilizer," he said. "Both slow-release and soluble fertilizers can be applied in dry or liquid formulations and can be applied uniformly with proper equipment."

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New officers for the Virginia Turfgrass Council are, front row, left to right: Rex H. Harris, assistant treasurer; Earl H. Odell, secretary-treasurer; Gus C. Constantino, president; and Charles Moss, director. Back row, left to right are directors: George C. Baker, Stephen P. Skowronski, Archie Goode, Richard J. Fisher and W. Ray Weekley. Harris is superintendent, Eagle Haven Golf Course, Norfolk. Odell is assistant division manager for turf for the Todd Farm Equipment Company, Chesapeake; Constantino is president of Wilson Feed & Seed Co., Richmond; Moss is sales administrator for Richmond Power Equipment Co., Richmond; Baker is landscape architect for Dixon & Van, Norfolk; Skowronski, Goode and Fisher are superintendents of, respectively, Meadowbrook Country Club, Chesapeake; Brookside Golf Club, Roanoke; and Lake Monticello Country Club, Charlottesville.

DORMANT *from page 1*

rious problem in Michigan and other parts of the Midwest.

"By the time dormant application becomes accepted the problem to which it principally addresses itself will have long since disappeared," said Art Brown, secretary of the association.

In summing up, the statement said "it may be more advantageous to keep the dormant application method inside the textbook."

The association defines the dormant application method as a program designed to begin with a dormant application of 1 1/2 pounds of nitrogen per 1,000 square feet in November, no nitrogen application until the

following June, 1/2 pound from June through September, and none in October. The main purpose of this fertilization program is to decrease lawn disease and improve overall vigor of turfgrass by more greatly emphasizing root growth rather than leaf growth."

The statement reads in part:

"From the commercial applicators point of view, we feel this method will not succeed since it presupposes customer acceptance . . . whether the dormant application is right or wrong may have little to do with public acceptance. We humans are prejudiced and opinionated, and work toward the preservation of what we want to believe, and most of us (the general public) would continue to believe that healthy grass is green-green grass. We would not wish to believe otherwise since we do not want our 'wisdom' to be obscured by the facts.

"There are a great many things today that we know and accept as 'fact' — yet will never implement. We still eat candy (bad for teeth), smoke, drink, waste all sorts of resources and in general do as we darned well please. If the general public strongly desires green-green grass in the spring, other recommendations to the contrary will not avail.

"It has taken the general public a good 15 years to accept and understand that Merion bluegrass is an undesirable grass. In the improbable event that dormant fertilization becomes generally accepted, this would take another 15 years. During this 'learning period' the sod growers will have sold millions of yards of sod, grown with 'disease-resistant' bluegrass seed. By the time the dormant application method becomes accepted, the problem to which it principally addresses itself will have disappeared.

"We feel that lawn diseases, in general, are either at their peak or declining because most newly sodded lawns contain some disease-resistant bluegrasses. A larger problem on the horizon might be the interference of the Environmental Protection Agency, who has taken our best insecticides and caused a proliferation of turf insect problems.

"Is a compromise possible? Some of us find that deleting June, July and August spray applications on *Fusarium*-infested lawns, plus a daytime watering program, results in the disappearance of the rings. In summing up: it may be more advantageous to keep the dormant application method inside of the textbook, for the time being. A more permanent solution which cures the problem rather than caters to it — disease-resistant varieties — is at hand. Those of us who work in the commercial realm are not willing to face up to 15 years of confusion if there are other viable alternatives."

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Drop the Agriform Tablets down into the root zone and walk away, for two years. No fertilizer bags to mess with. No spikes to hammer (and break). And, they won't burn or leach away.



You can fertilize a 4" diameter tree for two years for less than \$1.00. And the money-off coupon that comes with each probe saves you \$3 to start with. Agriform Tablets — nothing could be faster, easier, safer, or more economical.

Order your Agriform fertilizer probe for \$6.99 and we'll give you a \$3.00 coupon for Agriform Tablets
 Sierra Chemical Company
 1001 Yosemite Drive
 Milpitas, California 95035
 Please send me _____ probe(s). I have enclosed a check for \$6.99 each. Don't forget the coupon worth \$3.00 toward my purchase of a case of Agriform Tablets for each probe I ordered. Offer expires June 1, 1979.

Name _____
 Firm _____
 Street _____
 City _____ State _____ Zip _____



Circle 112 on free information card

sof'n-soil™

Gypsum adds profitable extra sales to your lawn care business!



Sof'n-Soil™ Lawn & Garden Gypsum is a natural soil conditioner you can depend on to help boost your business two ways, two times a year.

In Spring, application of Sof'n-Soil gypsum helps make fertilizers work more effectively all season long by loosening up heavy clay. This allows root systems to develop normally to keep lawns thriving all summer.

In Fall, application of Sof'n-Soil gypsum works like health insurance to protect against the harmful effects of winter de-icing salt. Sodium chloride is toxic to most plants, causes heavy clay soils to tighten, keeps water from leaching out the salt. The available calcium in Sof'n-Soil gypsum replaces toxic sodium attached to the clay soil particles, permits new seed or sod to grow normally. Look into the multi-profit opportunities of adding Sof'n-Soil gypsum benefits to your services. Remind ecologically-conscious prospects that Sof'n-Soil gypsum is non-toxic, noncaustic, harmless to plants, pets and people. ■ *For specifics, write to us at 101 S. Wacker Dr., Chicago, Ill. 60606, Dept. LC-58.*



Circle 125 on free information card

CHEMICALS DIVISION

UNITED STATES GYPSUM

PRIMARY SUPPLIER OF SECONDARY PLANT NUTRIENTS

Delta Ornamental moves into new offices

Delta Ornamental Spraying, has moved its offices from Agoura to Ventura, Calif., according to company president Don Rodrigues.

The company provides weed, insect, disease, rodent and growth regulator applications and consulting services exclusively to landscape maintenance and contracting operations in southern California.

New address is P.O. Box 5122, Ventura 93003. Phone is (805) 642-6244.

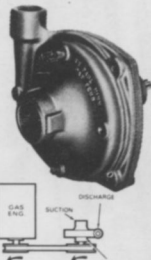
High speed Hypro Centrifugals

help you get
the job done right!



Whether you're spraying fertilizer or herbicides or insecticides, Hypro Series 9200 pedestal-mount centrifugal pumps give you nozzle pressures to get the job done right! Even with those long discharge lines, Hypro centrifugals deliver. Check 'em out. Rugged, dependable, economical Hypro centrifugal pumps—and a full line of accessories. Send for your free Hypro Sprayer Pump Handbook or pump catalog today.

Series 9200 Hypro pedestal centrifugals offer capacities to 130 gpm, handle pressures to 170 psi and speeds to 6000 rpm. Compact, engine driven model features space-saving side-by-side mounting.



**Choose gear
or hydraulic drive.**



Hypro Series 9000 gear-driven centrifugals mount directly on 1 3/8 inch PTO shafts.



Hypro Series HM9200 centrifugals come complete with hydraulic motor.



Circle 107 on free information card

MEETING DATES

Texas A & M University Turfgrass Research Field Day, TAMU Turfgrass Field Lab, College Station, Texas, May 24. Contact: Dr. James B. Beard, Department of Crop and Soil Sciences, Texas A & M University, College Station, Texas 77843, 713-845-1551.

Pacific Seedsman's Association, Vancouver, B.C. June 4-7. Contact: Margaret Herbst, 101 Park Ave., New York, N.Y. 10017, 212-685-5917.

Rutgers Turfgrass Research Field Day, Ryders Lane Station, North Brunswick, N.J., June 7. Contact: Dr. Ralph E. Engel, Cook College, Rutgers University, P.O. Box 231, New Brunswick, N.J. 08903, 201-932-9427.

Arizona Horticultural Trade Show, Mountain Shadows Resort Hotel, Scottsdale, Ariz., June 8-10. Contact: Ms. Morgan Rayburn, AHTS, 326 W. Cambridge, Phoenix, Ariz. 85003, (602) 279-1445.

Oregon Seed Trade Association Meeting, Bend, Ore., June 11-13. Contact: Margaret Herbst, 101 Park Ave., New York, N.Y. 10017, 212-685-5917.

Northern California Turfgrass Council Field Day, Fairfield-Suisun Waster Water Treatment Plant and Warren's Turf Nursery, June 14. Contact: Marilyn Heinrichs, P.O. Box 268, Lafayette, Calif. 94549.

Merion Bluegrass Association Annual Meeting, Red Lion Inn, Spokane, Wash., June 15-16. Contact: Arnie Bonnicksen, 12342 25th N.E., Seattle, Wash. 98125, 206-365-7548.

American Sod Producers Association Summer Convention and Field Days, Sheraton-Spokane, Spokane, Wash., July 19-21. Contact: Bob Garey, ASPA, Association Building, 9th and Minnesota, Hastings, Neb. 68901, (402) 463-5691.

Missouri Turf Field Day, University of Missouri South Farms, Columbia, July 25. Contact: Dr. John H. Dunn, 1-43 Agriculture Building, University of Missouri, Columbia, Mo. 65211, 314-882-7838.

Penn Allied Nursery Trade Show, Hershey Convention Center, Hershey, Pa., July 25-27. Contact: PNA, Inc., 169 W. High St., Carlisle, Pa. 17013, (717) 243-1786.

University of Massachusetts Turfgrass Field Day, University Farm, South Deerfield, July 26. Contact: Dr. Joseph Troll, Stockbridge Hall, University of Massachusetts, Amherst, Mass. 01003, 413-545-2353.

Illinois Landscape Contractors Association Annual Summer Field Day, Stonegate Farm Nursery, Poplar Grove, Ill., Aug. 2. Contact: Carole Rachesky, Box 484, Bloomingdale, Ill. 60108, (312) 894-4774.

Lawn, Garden, Outdoor Living Show, Division of National Hardware Show, McCormick Place, Chicago, Aug. 14-17. Contact: Charles Snitow, National Hardware Show, Inc., 331 Madison Ave., New York, N.Y. 10017, (212) 682-4802.

Central Plains Turfgrass Association/Kansas State University Field Day, Kansas State University, Manhattan, Kan., Aug. 23. Contact: Dr. Robert N. Carrow, Horticulture Department, Kansas State University, Manhattan, Kan. 66506, (913) 532-6170.

Farwest Nursery Garden and Supply Show, Memorial Coliseum, Portland, Ore., Aug. 25-27. Contact: Carl Plog, Farwest Nursery Show, 224 S. W. Hamilton St., Portland, Ore. 97201, (503) 221-1182.

Ohio Turf and Landscape Day, Ohio Agricultural Research and Development Center, Wooster, Ohio, Sept. 12. Contact: Edward H. Roche, OARDC, Wooster, Ohio 44691, (216) 264-1021.

Virginia Turfgrass Field Days and Trade Show, Virginia Polytechnic Institute and State University, Blacksburg, Va., Sept. 12-14. Contact: Dr. John F. Shoulders, Department of Agronomy, 419 Smyth Hall, VPI Blacksburg, Va. 24061, (703) 951-5797.

International Pesticide Applicators Association Annual Convention, Sea-Tac Motor Inn, 18740 Pacific Highway South, Seattle, Wash., Sept. 13-15. Contact: Ed Walters, 20057 Ballinger Rd., N.E., Seattle, Wash. 98155, (206) 362-9100.

Pacific Horticultural Trade Show, Anaheim Convention Center, Anaheim, Calif., Sept. 20-22. Contact: Richard Staples, 1005 8th St., Suite 303, Sacramento, Calif. 95814, (916) 443-7373.

Midwest Turf Field Day, Purdue University, West Lafayette, Ind., Sept. 25. Contact: Dr. William H. Daniel, Department of Agronomy, Purdue University, 2-443 Lilly Hall, West Lafayette, Ind. 47907, 317-749-2891.

Northwest Turfgrass Conference, Holiday Inn, Richland, Wash., Sept. 25-28. Contact: Dr. Roy L. Goss, Western Washington Research and Extension Center, Puyallup, Wash. 98371, (206) 845-6613.

Fourth Annual Garden Industry of America Conference and Trade Show, Cincinnati Convention and Exposition Center, Sept. 29-Oct. 1. Contact: Paul Anderson, GIA, Box 1092, Minneapolis, Minn. 55440, (612) 374-5200.

Northern California Turfgrass Council Irrigation Seminar, Goodman Hall, Jack London Square, Oakland, Calif., Oct. 4. Contact: Richard Harrison, Room 201, City Hall, Alameda, Calif. 94501.

Central Plains Turfgrass Conference, Kansas State University, Manhattan, Kan., Oct. 4-6. Contact: Dr. Robert N. Carrow, Horticulture Department, Kansas State University, Manhattan, Kan. 66506, (913) 532-6170.

NEWSMAKERS

ChemLawn Corp., Columbus, Ohio, has announced its new branch managers for this lawn care season:

Ron Bahr, Toronto; Denny Baker, Cincinnati South; David Battles, Flint, Mich.; Floyd Becktell, Fort Wayne, Ind.; John Brannon, Atlanta East; Morey Brubaker, Houston West; Terry Cahill, Fort Worth, Texas; Mike Carpenter, Louisville (Ken.) West; Larry Congleton, Louisville East; Phil Cozart, Austin, Texas.

Also, Chuck Deal, Boston; Dave Dempsey, Philadelphia Warminster; Tim Fortner, Columbus, Ind.; Dave Hildeth, Detroit Frazer; Fred Hobbs, Chicago Willowbrook; Rus Holliday, Baltimore Owings Mills; Dave Houchins, Quad Cities; Bob Houschel, Chicago Arlington Heights; Rick Knepper, Pittsburgh North Hills.

Also, Craig Mason, Wichita, Kan.; Pat McAtee, Memphis, Tenn.; Danny Meyers, Houston North; George Miller, Lansing, Mich.; Rod Mills, Dallas South; Eric Minks, Columbus Gahanna; Bob O'Bara, Detroit West; Dave Ransome, Quad Cities; Rich Spencer, Munster, Ind.; Bill Stanfill, Baltimore White Marsh; Doc Sturgeon, Huntsville, Ala.; Bob Vanchure, Philadelphia Malvern; Ray Wells, Baton Rouge, La.; Harold Williams, Denver; and Tom Wozniak, St. Louis Fenton.

Mike Shaffer and Dennis Kollmorgen have been named lawn applicators for **Yardmaster**, Mentor, Ohio, according to company owner Kurt Kluznik.

Jim Hamilton is the new sales manager at **Zaun Equipment** in St. Petersburg, Fla. He had been manager at the company's Orlando branch for five years and has been with company for 11 years.

Gordon LaFontaine, vice president of **Lawn Equipment Corp.**, Royal Oak, Mich., has been named president of the **Michigan Turfgrass Foundation**. Chuck Tatte has been named vice president. Among new board members are Robert Olsen, representing the lawn care industry.

The Outdoor Power Equipment Group of **Toro Co.**, Minneapolis, has announced appointments: Lyle Fahning has been named manager for product evaluation; James E. Lovaas has been named to the new post of planning administrator; James C. Bruha will replace Lovaas as plant superintendent at the company's Tomah, Wis. plant.

The company's **Irrigation Div.** has promoted two people: Sara Romspert has been named parts accessories product manager, a new position. She will be replaced in her former post as sales order supervisor by Sally Jo Ashton.

James McIntosh has been named manager of Snow Products Operation by **Jacobsen Manufacturing Co.**, Racine, Wis. Also, Dale W. Pautzke has joined the company's **Turf Products Div.** as manager of its international sales office.

Jay Glatt, former director of market development and assistant director of the **Oregon Department of Agriculture**, has joined **Turf-Seed, Inc.**, Hubbard, Ore., as vice president of the company's marketing department.

Monsanto Agricultural Products Co., St. Louis, has named J. Edward Ruzic industrial herbicide manager for Roundup herbicide. He succeeds Walter Hobgood, who has been appointed crop chemicals manager for Southeast Asia.

Kris Early has been named irrigation specialist for **Tri-State Toro Co.**, Davenport, Iowa. He will be responsible for sales and service of Toro irrigation equipment, working with contractors and designing systems for residential and commercial installation.

The Outdoor Power Equipment Group, **FMC Corp.**, Port Washington, Wis. has announced four appointments: William C.



Early

Soellner

Soellner has been promoted to general sales manager of lawn and garden equipment; David J. LeMay has been promoted to national sales manager; G. J. Ludke has been promoted to manager-distribution services; and Charles F. Bartlett has been promoted to director of marketing for international sales and marketing.

Roundup®. There's no better grooming aid for unruly turf.

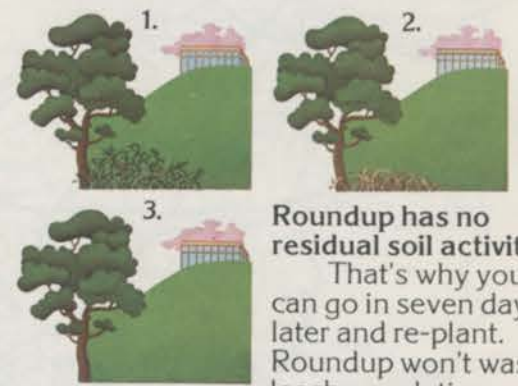


Roundup® belongs in your turf renovation program.

Renovation of a weedy fairway, sod farm or other grassy area used to be a laborious and time-consuming chore, but not any more.

Not with Roundup® herbicide by Monsanto. Because one application of Roundup will control many annual and perennial weeds, yet allow you to proceed with tillage and planting operations as soon as seven days later.

Roundup also makes sense wherever treatments for grounds maintenance are called for. One man with Roundup in a backpack sprayer can replace many of the herbicides and frequent repeat treatments that are often necessary.



Roundup has no residual soil activity.

That's why you can go in seven days later and re-plant. Roundup won't wash, leach or volatilize from the treated area to injure desirable vegetation. Naturally, normal precautions should be observed to avoid spray drift.

Roundup gets to the root of the problem.

Including many of your toughest vegetation problems, like: bluegrass, bermudagrass, quackgrass, bindweed, johnsongrass, fescue and vaseygrass.

Can you afford to let another season go by without Roundup in your turf renovation and grounds maintenance programs? Your local chemical dealer is the one to see for your supply of Roundup herbicide.



"Translocation" is the key.

Roundup is applied to the weed foliage, absorbed through the leaf surface, and "translocated" throughout the entire plant. In this way, Roundup destroys the entire weed, including the roots or rhizomes.



There's never been a herbicide like this before.

Monsanto

ALWAYS READ AND CAREFULLY FOLLOW THE LABEL DIRECTIONS FOR ROUNDUP HERBICIDE. Roundup® is a registered trademark of Monsanto Company, St. Louis, Mo. © Monsanto Company, 1978.

Circle 117 on free information card

R178-04

LAWN CARE INDUSTRY Marketplace

Los Angeles has a lot of things that you don't see in other parts of the country. . .

It has miles and miles of freeways, Hollywood . . . and dichondra.

It has the mountains, the ocean . . . and an alkaline soil to beat them all.

It has movie stars, the San Fernando Valley . . . and front yards so small that the drive-ways next to them can only fit one car.

It has the Palmdale Bulge, smog that makes your eyes burn . . . and Japanese gardeners.

And it has plenty of beaches, an abundance of long-legged blondes . . . and the type of pesticide and work regulations that make Ralph Nader sleep peacefully at night.

Add it all up, and you try to figure out the situation for the lawn care industry in Los Angeles.

Denne Goldstein has spent a lot of time and money doing just that. He came out from New York in the mid-60's with a franchise from what was then the giant in the East — Lawn-a-Mat. He established the base,

and as recently as 1975, there were 15 Lawn-a-Mat franchises in southern California.

Now there are two. The one run by Goldstein in the San Fernando Valley and Aaron Hawker's operation in Orange County.

Over the years, Goldstein says he has poured more than \$100,000 into advertising and promotion, including six ads in TV GUIDE one year at \$1,200 a pop. And a grand total of eight inquiries to show for his investment.

You talk to Goldstein's Encino barber — a typical southern Californian who recently moved into a new home and added \$9,000 worth of lawn and plantings. "I have a gardener that takes care of all of this, why do I need a lawn care service?" Bob Cohen, owner of another of the few bonafide lawn care services in Los Angeles backs up this point by saying that 80 to 90 percent of his customers have a gardener.

The Japanese gardeners are indeed predominant. This may be one reason why lawn care has barely gotten a foothold in Los Angeles. Another reason is the

small size of the lawns. Lawn care businessmen who are operating say that the average size of a lawn they care for is only 2,500 square feet, and many are smaller than that (with an average price of \$100,000 for a home, many people living in the East and Midwest might find this hard to believe based on the size of lawns for less expensive houses they have).

Another reason that might explain why lawn care has not flourished is the fact that the lawns are made up of so many different varieties of turfgrass and ground covers. Everything from bermudagrass, kikuyu-grass, bentgrass, bluegrass, ryegrass and ground ivy to dichondra, which is considered a weed in many parts of the country.

The sheer volume of varieties in most lawn areas makes it hard for a company to come in with a single uniform tank mix to treat a single type of turf. The efficiencies and economies of scale that come with a production-type, assembly line approach are just not possible.

And don't forget regulations. California is the most regulated of the 50 states, and it is hard to do much of anything involved with fertilizers and pesticides without filling out a raft of forms.

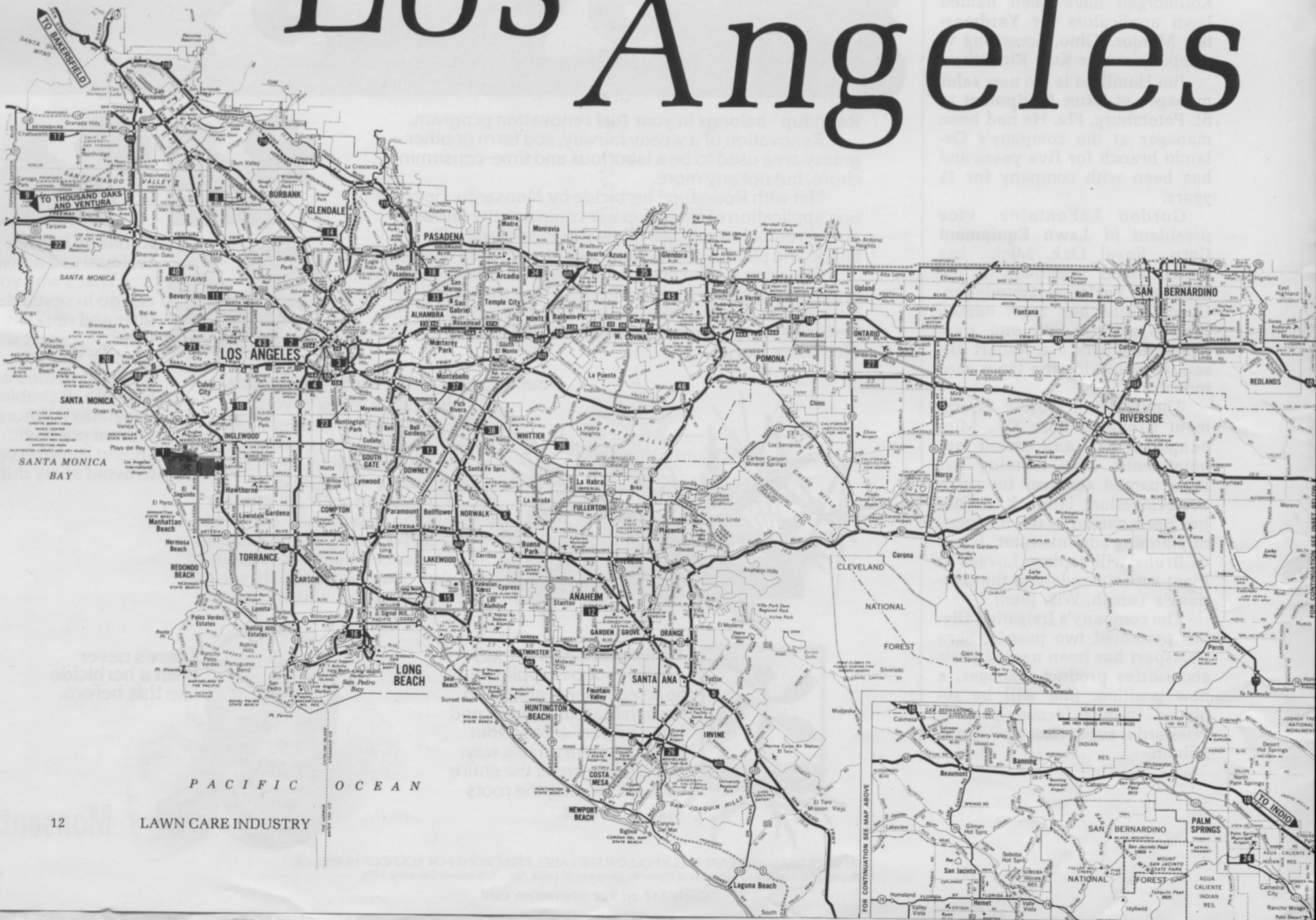
It makes it hard for the small company.

There wasn't even a "lawn maintenance" section in the Yellow Pages until last year, and even now most lawn care businessmen admit that "nobody reads it anyway."

But there is some very definite lawn care activity in Los Angeles, and observers of the green industry look for more in the future. Besides the Lawn-a-Mat franchises and Cohen's The Green Scene, there is also Mel Light and Bob Maxson with The Sowing Machine, Joe Di Bernardo with Four Seasons Pest Control, Mike Shapiro with Lawn Masters and others already in the market and making an impact.

In addition to this, a new company — Pacific Green — with an affiliation to respected Pacific Sod Farms in Camarillo is opening its doors this year in Beverly Hills offices. With their identification in the Los Angeles green industry the company should be a factor. Also, the strong landscape contracting industry has one eye cocked and is waiting for the market to open up, and then you can be sure that many of those companies who are dabbling in it now will become more of a force.

Los Angeles

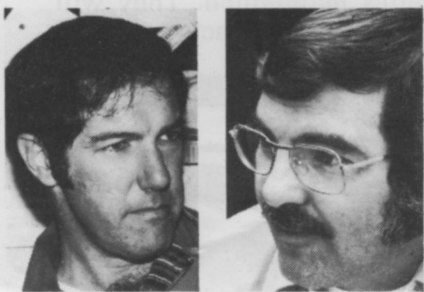


As you walk up to Bob Cohen's office of **The Green Scene** in west Los Angeles, you walk through what might be called a "lawn showroom." He has about 10 different kinds of seed and sod planted with signs on stakes in each patch of lawn grass. In the last few years he has become involved in installing lawns as well as caring for them, and this practice allows his customers and potential customers to see what a particular lawn will look like.

He began his lawn business in the late 60's after a career as an aerospace engineer and investor analyst. He started with a granular fertilization program, worked out of his home for the first year and grossed about \$25,000. He now has built his business up to the point where he has 600 customers. About two years ago he began doing business as a landscape contractor and got involved in sodding and hydro-seeding.

He feels that much of the competition for a lawn care business such as his is Japanese gardeners, "who are not always as knowledgeable and professional as they should be." Because of the proliferation of these gardeners, he says the concept of a lawn treatment service is foreign to most homeowners in Los Angeles.

"They say 'I have a gardener that does that, don't I,' when you ask them about a lawn care service program," the 40-year-old Cohen said. "But what kind of job can that gardener do? He might receive a 10 or 15 percent discount on his materials which is about the only profit he can make on the application. On a \$100 application, he might only make \$10 for himself, and if he



Cohen

Saunders

loses the lawn because of faulty application, he might risk losing a job that means between \$500 and \$1,000 a year to him in maintenance revenue."

Cohen says that 85 to 90 percent of his customers have a gardener to handle maintenance, while he fertilizes and provides pest control for the lawn. His average customer has a 2,500-square-foot lawn. He provides his service every other month, or six times a year. In addition to his basic spray service, he also offers dethatching, renovating,

seeding and root feeding of trees and shrubs.

He employs two "treatment specialists" who service 12 to 15 lawns a day. "You have to remember that we are managing a great variety of turfs, including bermudagrass, bluegrass, kikuyugrass, St. Augustinegrass, dichondra and many other groundcovers. Dichondra is considered a broadleaf weed back East, but for some people out here, that is the only cover they have."

How does Cohen or anybody in the lawn business in Los Angeles and the rest of southern California manage all of these different varieties? "Lawn business out here is much more technical — it's not just fertilizer, weeds and bugs," he says. "The biggest problem is choosing what herbicide to use, because they are not selective. You also can't afford to hire low-quality people, because they have to be able to make on-the-spot decisions about what to spray, where to spray and when to spray. The business is just more difficult out here because you can't go out with a common potion and spray everybody's lawn the same way."

Cohen says he has figured out a way to treat all of the varieties of turf, but won't say exactly how he does it, although he does say his trucks are outfitted with 200-gallon spray tanks after earlier using 1,000-gallon tanks. He also gets involved in treating garden areas adjacent to the homes he services. His typical charge for a 2,500-square-foot lawn treatment is about \$23 for the basic service. He says the existing pricing standard for lawn work is similar to the pricing standards of the more established pest control industry, but that as more companies come into the lawn care business in the next few years — and he definitely believes this is going to happen — that the pricing structure will adjust downward due to increased competition.

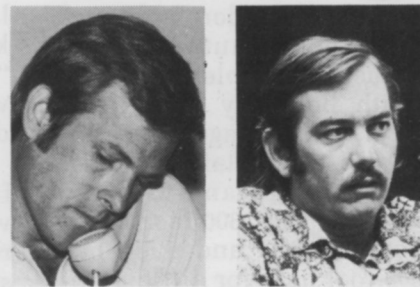
"I see no real limit to the kind of business I want to do," he says. He eventually hopes to have four or five service vehicles going full-time and also be grossing over \$500,000.

As for the future of the lawn care industry in Los Angeles, he feels that it will be necessary for a major sponsor to come in to make some kind of impact, "you are not going to do it with a lot of little guys because of advertising requirements," he says. "Right from the beginning you are going to have to drop \$50,000 to \$100,000 worth of advertising down a black hole to make any kind of impact." He said that he spends about \$5,000 a year on advertising.

To get Tim Saunders of **Mis-**

sion Viejo Pest Control on the phone, just dial 586-BUGS. The former Shell salesman decided to start a pest control business two years ago rather than transferring to a different city for the company. He is 34 years old and has a B.S. in horticulture from Colorado State University.

"I really think southern California has a lot of potential for the lawn care business, but I just



Arrowsmith

Handschuch

can't figure out why somebody has not gone into it yet in a big way," Saunders said.

He has not gone into the lawn care business in a big way yet, but does get involved in insect spraying and tree and ornamental work. He has three sprayers, and has them set up to do about \$200 worth of spraying a day, although he is gradually raising their quotas.

"As far as I am concerned, any employe of mine is going to be licensed because of the risks involved with burning a lawn or losing a lawn because of application of the wrong chemicals."

He has his employes on an hourly plus commission plan that allows them to earn between \$9,000 and \$12,000 a year. He now uses 50- and 100-gallon tanks, but says he will go to larger tanks when he gets further involved in outdoor work. He also uses small Toyota pickup trucks now, but says they are "toys." He is going to bigger, conventional pickups in the future.

Greg Arrowsmith, 31, and Clint Handschuch, 31, began **A & H Landscape Services, Inc.** in Mission Viejo two years ago after working as golf course superintendents and doing other types of landscape construction work for a number of years. About 25 percent of their work is spraying of trees, general business facilities, roadsides, residential areas and work for community associations. Jim Becker is in charge of the spray operation. About 50 percent of their work is hydro-seeding and the balance is contracting. They have 31 employes.

He feels that there is definitely a market for chemical fertilizing and pest control in Los Angeles, because "the homeowner is interested in having his lawn, trees and shrubs look good, and he is willing to pay for it." They both say that many of the landscape contracting compan-

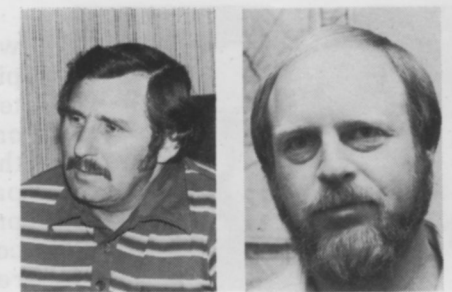
ies in the Los Angeles area have one eye cocked on the lawn care market possibilities.

"We are all thinking about it, but nobody has perfected a program for the great variety of situations present here in lawns," Arrowsmith said. Part of the reason for this, he says, is that there is so much lucrative contracting work available that nobody has had the time.

They feel that a system utilizing smaller tanks is the way to go rather than the 1,000- to 1,500-gallon spray tank systems that are predominant in other parts of the country.

Wayne DuBoise, 38, started **Mission Landscape Services**, Costa Mesa, in 1973 as a partnership, but found out fast that "partnerships just don't work out." It only lasted eight months, before he dissolved it and went into business for himself. He has built his business into a \$270,000-a-year gross with six trucks on the road at any given time and between 15 and 20 employes. His business is primarily industrial mowing and maintenance with about 40 industrial accounts.

He feels there is probably no place like southern California as far as lawn care potential goes.



DuBoise

Shapiro

"I think until the economic system really crashes that you are going to see people around here spending money on their lawn and shrubs. The market is definitely here, but I don't think any one company is going to come in and blanket the whole area and take over all of the business."

Mike Shapiro, manager of **Lawn Masters** in Encino in the San Fernando Valley has about 700 customers, probably the largest lawn care only operation in Los Angeles. His minimum rate is \$22.50 for his granular lawn care applications, and his company visits a customer lawn six times a year.

The company applies fertilizers and pesticides in granular form and also seed and aerate on an optional basis. Shapiro said that the company recently switched over from trying to sell new customers on an annual program with yearly cost figures. They have had more success selling customers with brochures and sales techniques geared to

to page 14

the one-time charge, and then converting the customer to annual.

In the past the company has used phone solicitations, but the results have not been successful.

Joseph Di Bernardo, 49, began his **Four Seasons Pest Control** 10 years ago after a career as an insurance salesman. Like many others getting into business, he found out quickly that a partnership was not the way to go for him. He said the problem is that there are just too many basic differences between partners.

When he first started out, he was involved in installing lawns, renovation and sprinkler installation, but now just sprays lawns, trees and shrubs with pesticides and also fertilizes. More than 20 percent of his business is home lawns, and he gets much of his work in lawn and tree disease spraying from other companies who do not specialize in it. About 15 percent of his work is weed control. He does much industrial spraying, and also includes among his customers many Hollywood and television stars (see accompanying story).

"The California market is very much different from the rest of the country," he said. "We have virtually a 12-month growing season and just an



Don Napolitano Kessloff

astronomical amount of gardeners. In fact, I get 25 percent of my referrals from gardeners. I have a tremendous respect for the gardener who seeks competent help in areas he does not understand. But not all of them do though."

Di Bernardo's program involves six to eight visits a year for a large estate and less number of visits for smaller yards. He handles pest control in the yard, fertilization and weed control and citrus spraying. His average yard is about 2,500 to 3,000 square feet, with a minimum charge of \$30. They service five to eight yards a day.

He said about 50 percent of his lawns are dichondra, 40 percent bluegrass and 10 percent bermudagrass. He said that cutworms and flea beetles are a problem in dichondra lawns.

At present, he is designing his own spray truck with a 400-gallon tank divided into two sections of 200 gallons each for the variety of spraying to be done on his jobs. Instead of the traditional green-and-white trucks that are pre-

dominant in the industry, he is having his painted red and white.

He said that it takes about \$25 for his minimum pest control spray, but that he rarely does a minimum job. He advertises primarily in the Yellow Pages under the tree care classifications, because it has been only in the past few years that a "lawn maintenance" section has been established in the directories, and he says that no home owners read it yet anyway. He also has small ads under "weed control" and "pest control." This year he will be advertising in three phone books, up from one book.

At present, he has three trucks with 300-gallon tanks and 20-gallon-per-minute pumps. Each truck is completely equipped with both dry and liquid chemicals in storage compartments. He uses stainless steel tanks on a ¾- and one-ton pickups. He uses 300-foot hoses on electric reels and even has one 600-foot hose for difficult-to-reach places.

Don Napolitano, 35, began **Associate Industries, Inc.**, in Montebello eight years ago along with his father, Alex, 58, and his brother, Dave, 28. They are a full-service company, doing design, installation, maintenance and irrigation. Last year the company grossed \$1.2 million. They now have 25 vehicles and 50 year-round employees. About \$250,000 of their business is maintenance.

"For a lot of the business that we install we also come back and pick up the contract for the maintenance on it," he said. "This is one of our main selling points — the capability to handle the full package." Most of their work at present is condominiums and commercial accounts, unlike the residential work they started with eight years ago. Their maintenance jobs range from a small bank with a charge of \$100 a month to a large industrial complex that brings in \$10,000 a month in maintenance fees. Alex is in charge of the maintenance division, with 12 full-time employees.

Bill Kessloff is president of **Programmed Landscape Maintenance** in Stanton in Orange County, and also is president of the Long Beach/Orange County chapter of the California Landscape Contractors Association. He is involved in commercial landscape maintenance, design, installation and irrigation installation. He has about 125 accounts on the books and about 45 employees. Most of his work is concentrated in residential areas, school systems, cities and parks.

He said for the lawn care industry to make inroads into the southern California market they will have to replace the gardener. "Back in the East and the Midwest, there is no split responsibility, and I just don't think that industry will ever grow out here because of that

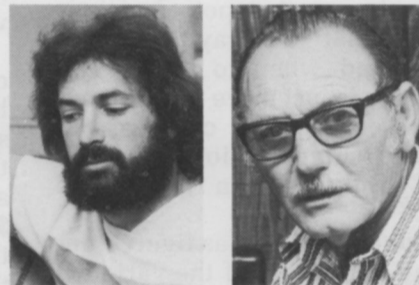
reason. The gardener takes care of everything, and that is what people are used to."

Dave Mitts is vice president and operations manager and O. V. "Chip" Morgan is director of institutional sales for **Bandini Fertilizer Co.** in Los Angeles. They sell a lot of fertilizer in the area, and have some definite ideas about whether or not the lawn care industry could ever make it in Los Angeles.

Mitts says: "To a great extent, professional gardeners do most of the lawn work." He estimates that 60 percent of the households with an income of \$25,000 or more have a gardener.

Morgan feels that the initial lawn care company in the market — **Lawn-a-Mat** — failed "miserably because most people want the total maintenance job done, including mowing."

"I am personally very doubtful that the lawn care industry will ever catch on out here in residential developments," Mitts said. "Perhaps in the condominiums, but I think the company will have to provide complete lawn care."



Alex Napolitano Dave Napolitano

Morgan adds: "It will be difficult for a company to compete with the Japanese gardeners and the firemen working on the weekends."

Larry Hart, 42, is vice president of **Davis Pacific Corp.** based in Beverly Hills, and closely involved with **Pacific Sod Farms** in Camarillo. Along with Brian Johnson, 27, and Christine McCarthy, 22, he has been studying the lawn care market and will be starting up a new branch



Mitts Morgan

of the company — "**Pacific Green**" — this year. The complete name is "Pacific Green Lawn Feeding Service."

"There are a great variety of lawn covers out here," Hart said, "and one thing we are going to tell people is that if they want dichondra lawns, then they will also have to have other broad-leaf weeds as well in the lawn, because we will not be able to treat it with our system."

They view their service as "supporting and supplementing the Japanese gardeners, not replacing them," according to Hart. The three are now in the process of designing their lawn care truck, and are working with the idea of using small pickups with two 60-gallon tanks. They will most likely be using the home owners' water and mix right on the spot.

"We feel that with the tremendous number of varieties that there is no way to offer a lawn care service but on a custom basis for each lawn," Johnson said.

They feel that the planned key to their success will be penetration within one area. They will be starting out in their backyard in the area around Beverly Hills, and hope to have incremental growth to the saturation point and then expand if all goes well. Before anything becomes firm, they will continue to test thoroughly.

"We will be looking for retention of customers and a slow, steady growth," Hart said. They envision a program of five or six visits a years, depending on the varieties maintained. They will offer fertilizer, insect and weed

Sprayer of the stars

On Academy Awards night recently, Joe Di Bernardo, owner of Four Seasons Pest Control in Westlake Village, Calif. was rooting for the movies "Goodbye Girl" and "Turning Point" to win the top award a little more avidly than the average movie-goer.

Herbert Ross, the producer of those two movies, is one of Di Bernardo's lawn spray customers.

His living room is adorned with autographed pictures of both television and movie stars he has done lawn care for in the last 10 years. People like Neil Simon, who wrote "Goodbye Girl"; Mike Connors of "Mannix" fame; Dean Jones of Walt Disney movies; Dennis Weaver of "Gunsmoke" and "McCloud"; comedian Foster Brooks; songwriter Jimmy Webb; pianist Roger Miller; Guy Marks; Ross Porter and many others.

A few days after the Academy Awards ("Annie Hall" won the top prize) Di Bernardo had another good reason to do some serious rooting for the Los Angeles Dodgers baseball team on their opening day. First baseman Steve Garvey is also one of his lawn and yard care customers.





Bob Baier

control and disease control on a special basis.

Although prices have not yet been established, they see a cost of between \$25 and \$30 per application the basic figure, McCarthy said. At the end of their first year in business, they hope to have between 500 and 1,000 accounts on the books. "Subsequent growth would hopefully be at a much more rapid rate," Hart said.

Bob Baier, 34, started **Plant Control Corp.**, Irvine, six years ago after being involved in turf sales for a number of companies. At present, 40 percent of his work is hydroseeding, 30 percent is maintenance and construction and 30 percent is spraying. They also do quite a bit of lawn renovation work with their 26 employees.

Almost two years ago, he had his brother Jim, 25, doing nothing but residential spray work after a trip back East to see how the Major companies were approaching the lawn care market. "The major problem I see



Hart



McCarthy

out here is that the landscapes are made up of so many different kinds of plant material," he said. "It does not lend itself to the production approach that you have to have to make money at it."

He is still attempting to develop a residential division, and one approach has been what he calls "quarterly sprays" in areas where the lots are between 6,000 and 10,000 square feet. He has less than 100 accounts at present, but charges anywhere from \$100 to \$250 a quarter, depending on lot size and work to be done. The basic program is pesticide spraying, with the accounts checked twice a month and billed monthly.

Another approach he has

taken is what he calls a "weed insurance plan" that was developed from the spadework he did in trying to develop his residential business. He works with a contractor putting in a subdivision, taking care of preparing the soil and landscaping prior to the new home owners moving in. Then he offers a plan to the owner, complete with a certificate



Johnson



Jim Baier

that guarantees a weed-free lawn if the program he started with the contractor is kept up. His basic charge might be \$30 for 2,000 square feet of lawn a quarter, and could go up to about \$80 depending on size of the lawn and number of slopes, etc.

He feels that for a lawn care company to make inroads in the market it will have to be on the basis of spraying pesticides, not fertilizer.

Mel Light, 31, and Bob Maxson, 34, started **The Sowing Machine** in west Los Angeles in June of 1976. They both had worked for **Lawn-a-Mat** franchises in the Los Angeles area, and decided to strike out on their own. They started out on the basis of providing lawn maintenance, but have gradually gotten further into installing bluegrass lawns.

At present they have 100 customers on a lawn maintenance schedule, and they service each lawn six times a year. They fertilize, apply pre- and post-emergence weed controls, spot seed and renovate when necessary. For installing a bluegrass lawn, they charge \$170 for 1,000 square feet.

Light adds: "If some big company comes along and opens the market up, makes people aware, then I think it will be a very viable market. And as soon as somebody does, us and a lot of people like us are going to be right there competing with them."

Manufacturers look at Los Angeles lawn care

While in Los Angeles gathering information for this Marketplace feature, **LAWN CARE INDUSTRY** organized a round table discussion with some of the local manufacturers that serve the national lawn care industry. Here's what they said about the Los Angeles market.

Bob Windham, executive vice president, Turf-Vac Corp., Signal Hill: "We don't have lawns out West, at least not the size they have in the East and Midwest. But that doesn't mean there isn't business. I think you can retain the name lawn care if you want, but concentrate on educating the customer to a total concept of yard care . . ."



John Slagor, Master Sprayers, Inc., Ontario: "I think you need to call it something besides lawn care. The first thing that goes through my mind as I look at the ads in your magazine is a couple guys piling off a truck with a 1,500-gallon tank on it and hosing down a lawn and then splitting. With the size of lawns out here, we don't have that situation . . ."



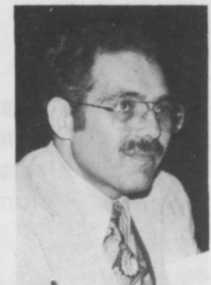
Gary Bailey, national sales manager, Moody Sprinkler Co., Costa Mesa: "People aren't as settled out here, they are very mobile. People moved in, put in K-Mart front yards, then saw their houses appreciate in value three or four times before they sold them. The new homeowner doesn't want that K-Mart front yard after the inflated price he paid for the house, and this is where your landscape people can come in and renovate and keep it green . . ."



John Dobbins, president, Dobbins Corp., Garden Grove: "Out here we can grow bermudagrass without too much trouble. But I have noticed particularly in the Orange County area people are beginning to appreciate the value of a beautiful bluegrass lawn that is, unfortunately, also more susceptible to insects and disease, and these people are going to pay to have their lawn maintained by an expert . . ."



Gene Burton, Raindrip, Inc., Panorama City: "With the smaller lawn area, the homeowner is more susceptible to transmission of diseases and takes more nutrients out of the soil because of the intensive growing. He goes along by himself until he finds a bunch of bare ground and dead bushes and wonders what happened. At that point he will call in a professional . . ."



W. F. York, president, Turf-Vac Corp.: "People will do what they are taught to do. I am really not that familiar with an awful lot of advertising that told me I ought to have a lawn care service. People out here have been educated to have a pest control service or they are eaten out of house and home. The same could hold true for lawn care . . ."



Dale Dodds, general manager, J. J. Mauget Co., Burbank: "People have yards out here with many ornamentals and trees to go along with their lawns. The lawn care man who is going to make it out here has to know trees and ornamentals as well as lawn problems. You can't separate the two. It will have to be combined with the lawn care . . ."



When are customers concerned about pests?

For more than 10 years, University of Illinois Cooperative Extension Service specialist Stanley Rachesky has kept records of the inquiries on pest problems that have come into his Chicago office.

Since Chicago is a typical midwestern city, Rachesky's results can be helpful in letting midwestern lawn and tree care businessmen see when each of their services can be of most value, and when to advertise them.

Over the years, 4,532 persons called in with lawn insect problems. In order of importance, June was the busiest month, with 856 inquiries. April had 846 inquiries; May, 812; September, 715; August, 513; and July, 408.

Rachesky's figures show that 1,554 persons had inquires about lawn diseases in the period. In June, 438 persons called in; in May, 356; August, 253; September, 148; and April, 145.

Figures showed that 656 persons called in cankerworm inquiries — 402 in June, and 176 in May.

For aphids, the predominant problem months were June and February. For bagworms, the predominant problem months were September and August. For black vine weevil, the predominant problem months were April and May. For tree borers, the predominant problem months were August and June.

For cottony maple scale, the predominant problem month was by far April. For elm leaf beetle, the predominant problem month was July. For moles, the predominant problem months were February and November.

Sizing up your market

Joe Bredeson has knocked on a lot of doors — those of both lawn care professionals and their customers. Here the territory manager for Swift Agricultural Chemicals Corp. tells you how to analyze your potential.



The business of professional lawn care breaks down into five areas — knowledge of the market, knowledge of the product and services, knowledge of the competition, knowledge of the customer's lawn and knowledge of the customer as a unique individual.

I. THE MARKET

- Who are the customers and potential customers in the target market?
- What are their needs and wants in the general areas of customer behavior that as a professional lawn care businessman you might be able to serve? Are these needs and wants relatively stable or relatively capable of change? How are they changing or how might they change (both short and long range future)?
- How are these needs and wants now being satisfied? Can they be better satisfied? If so, how?
- What relevant external forces of change are at work — social, economic, technological, political, and so on — that might change the answers above?
- How do customers or potential customers per-

ceive your firm as a professional lawn care business, your products and services?

- Who are your direct competitors in these target markets? For each, what service is being offered? What are the competitors apparent strategies? What is his capability for change in strategy? How has he reacted in the past to competitive pressures? How might he react in the future?
- What kind of indirect competition is there or might there be in the future?

Because of the great diversity of markets and lawn businesses, this description of kinds of lawn care market intelligence needed is necessarily overgeneralized, but it may serve as a framework of thinking for the new lawn service account management as one considers and analyzes this important element of the selling operations task.

II. PRODUCTS AND SERVICES

This element is basic . . . yet often not taken serious. Certainly, every lawn care employe in direct contact with the customer must have a "complete" knowledge of everything about his products and services — how they are made, characteristics, why they are made that way, how they will be applied and at what rates for best results, schedule of lawn service and what takes place on each call, and so on. This is a never-ending facet of a successful lawn care business because technology is changing so rapidly.

III. COMPETITION

Here we are merely opening the door with the following kinds of data about the competitors:

- Who: Obviously we must consider each competitor by name. Note that we are interested only in those rivals who are actively calling on the lawn care customers in this target market.
 - How much: How much business each competitor secures is important for the future strategy of one's lawn care business. In one's future strategy should one decide to focus on the rival who is
- doing the most business with this market? This competitor may be complacent, and the customer may decide that your firm has earned his lawn care business and it is this rival from whom it can most easily be taken away. On the other hand, one's strategy may be aimed at the small rival, who is not as strong in the market.
 - Trend: The trend of each competitor's lawn care achievement with the customer may be an important datum. Without question — your anticipated strategies and retaliatory behavior of a rival may be quite different when his own business with this lawn customer is on the "up-take" than when it is not.
 - The rival service man: What kind of an individual is he? How long with the lawn care firm? How long calling on customers in this target market? His technical skill? What is his call frequency, and is there any consistent pattern in it? What are his personal relations with the customer, if any?
 - Location: Of each lawn care rival's warehouses, order-handling facilities, and the like, is among the important facts to be learned.
 - Service: Dry or liquid fertilizer application (or both)? How often is lawn serviced? Type of equipment used? What lawn care protection offered — (pre-emergent weed control broadleaf weed control, insect and disease control.) Is mowing, soil aeration and thatching offered?
 - Pricing: Also requires a wide array of facts. For each competitor, what is his price per 1,000 square feet of turf area treated? Does he charge for a service call? How does he meet price competition? What are his terms?
 - Obviously, much is needed to be known about each competitor's products used in his lawn care program. This



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kind of "technical" information ranges from what type of nitrogen carriers are used in each lawn application (water-soluble nitrogen-WSN vs. water-insoluble nitrogen-WIN) — to what type chemical weed controls are being applied, etc.

"Comparability" — A Matter of Apples and Oranges ... What consumer hasn't been warned about the dangers of comparing apples with oranges? Yet many of today's most glaring statistical errors are of this sort: Comparing the non-comparable. For example, comparing a fast release nitrogen carrier with slow release nitrogen carriers. Make sure that what you are measuring is measurable. Not everything can be forced into a quantitative strait jacket. And where it cannot, serious errors will result with all concerned.

IV. CUSTOMER'S LAWN

To be extremely successful — with a profit for his lawn care business one must shape all his talents and professional functions to the customer's needs, wants, and problems. Professional lawn care accounts should present their lawn care programs (the company, the individual, and the products) in such a way that the customer will perceive all these to be in fact "need satisfiers" or "problem solvers." But, to do this, you must know and understand much about the customer's lawn

needs and problems. You must be able not only to perceive them, but also to discuss them with customer in the customer's language.

Professional lawn Analysis — the lawn care businessman must be able to discuss with the customer in the customer's language:

- Grass analysis
- Turf density
- Thatch depth
- Potential for beauty of lawn
- Mowing condition
- Grassy and sedge type weed analysis
- Broadleaf weed analysis
- Insect analysis
- Disease analysis
- Soil analysis and testing
- Shade conditions
- Lawn measurement and "exact" price quote

V. CUSTOMER AS A UNIQUE INDIVIDUAL

Certainly, it is an accepted fact that the successful lawn care businessman's job is to influence behavior. And certainly in our society, where the customer has great freedom of choice, such influence must result in end behavior and end results that satisfy both customer and the lawn care firm, or the lawn care businessman's success will be short-lived. For real progress — match your message to the customer's needs. Suffice it to say here that each homeowner or business customer who has influence (or final word) on your lawn care service program must be understood as a unique individual. Men in business positions are not different from what they are in their other roles. A purchasing agent, of

MARKETING IDEA FILE

Marketing penetration in a community

One problem that many lawn care businessmen across the country have reported is that they have gotten into financial trouble when they have tried to expand their business too fast. This is particularly true of new companies, but even established companies begin to have troubles when they try to do too much business in too large of an area.

John Dyarmett, representative for turf distributors Sidney L. Dryfoos Co., Solon, Ohio believes the only way that a lawn care businessman can make any profit is by concentrating his services in well-defined areas.

"The way I see it," Dyarmett recently told LAWN CARE INDUSTRY, "You go into an area and concentrate on it. Talk at ladies' garden club meetings, Lions clubs, Jaycees, offer your services to fertilize the local high school football field, things like this. It is a write off on your taxes anyway, and it can really establish you with customers and potential customers."

Sidney L. Dryfoos company is also one of the largest golf car distributors in the country in addition to distributing turf products to golf courses and lawn care businessmen in northern Ohio.

a large firm does not come to the office 8:30 A.M. close the door on the rest of the world, and become an economic robot or computer. He is human. How can you gather data on a customer that will help you to influence his other behavior in buying your lawn care service? To gather the data, you can use several means:

- (a) One way is to ask. Numerous customers want their lawn service company to have facts, and readily provide them.
- (b) Another way to gain data is by observing. It is amazing how data can be developed by keeping one's eyes and ears really open. Observing

and asking questions of neighbors while performing other lawn services in the area.

To make professional lawn care business successful one must make his own decisions about what is needed to satisfy enough customers — for the firm to make a profit and stay in business. This business of decision making is not always easy in a dynamic economy where customers have freedom of choice. The customer is under no obligation to buy the service one offers. Thus, the professional lawn care businessman must anticipate the consumer needs, and be ready to satisfy them, or risk losing the business. Planning ahead, figuring out what the customer demands will be, is vital to the business's very survival.

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Starting out: fertilizer, equipment and red tape

As they get into high gear servicing their third-year lawn care customers, Gary Weaver and Gary Hillman of Turf Gard in Troy, Ohio can concentrate fully on fertilizer and pesticide use — unlike in the past two lawn care seasons.

One of the most difficult problems Weaver, 31, and Hillman, 27, had was deciding on a company name and then marketing it. When they did decide on Turf Pro, they found themselves with legal red tape on their hands that would take over a year and more than \$2,000 to clear up.

They also faced other start-up problems many lawn care businessmen have.

Weaver joined ChemLawn Corp. in 1970 and moved up through the ranks to become a branch manager. He then took a position with Leisure Lawn, also based in the same area, where he met Hillman, who was also working for the company.

In 1976 the two of them filed articles of incorporation under the name Turf Pro and started servicing customers that spring. They were nearing the fall season when they got a letter from International Telephone

and Telegraph Corp., the parent company of O.M. Scott & Sons, Marysville.

The company said it felt that the lawn care company's name was a direct infringement of Scott's ProTurf name, and requested that it be changed. Weaver and Hillman contacted a patent attorney and began the task of finding a new name and incorporating it.

When they finally got approval of their present name, they were allowed a six month period to exhaust all previously printed advertising and marketing material. Then they developed a new logo and began operating under their new name. New uniforms had to be issued and all trucks re-lettered. In November — after nearly 13 months and approxi-

"We have the best service department in the business."



does not make the company much money." More areas and several smaller cities were added last year and a few more towns added this year. At present they service from Sidney, Ohio to Hamilton, Ohio from north to south; and from Richmond, Ind. to Springfield, Ohio from east to west. This is an area of about 3,600 square miles, with about an hour's drive from one corner to the other.

They originally offered two dry fertilizer programs. Their standard program used only water soluble nitrogen along with phosphorus and potassium. Their "elite" program featured two forms of nitrogen (normal and slow-release). Various products have been used, but they have settled on both urea-formaldehyde and sulfur coated urea in various blends and analyses purchased from several different manufacturers.

The elite program proved to be the one most customers preferred, so they have decided to drop the standard program this year.

From the beginning we have offered an optional prepayment plan," Weaver said. "An eight percent annual discount is extended to any customer wishing to participate. About 30 percent of our customers use this plan."

Hillman says: "Listening is the major factor in communicating with your customers; I think this is the main thing.

He feels that another important factor in their success has been using the best possible combination of products for their customers. They use a combination of dry, balanced fertilizer and liquid spray weed control. During the summer they also offer a slow-release nitrogen in the fertilizer mix.

They have a minimum square charge of \$17.25 for a 5,000-square-foot application. An 8,000-square-foot application costs \$22.50, and a 10,000-square-foot application costs \$26.50. Insect control is also part of their basic program, and optional services include grub-proofing, vacant lot weed spraying and preventive fungicide programs.

They started with an initial investment of about \$40,000 worth of equipment, and at present have three trucks and six employees.

"We have built the business on service," Hillman said. "We feel we have the best service department in the business. We try to answer each customer's questions and complaints as soon as possible. If we are out during the day and a customer calls, we try to get back to him that same evening or within 24 hours if it takes a visit."

COST CUTTINGS

How to reduce liability claims

A lawn care businessman can't risk not being covered by adequate and necessary liability insurance, but he can reduce the number of claims he might be subjected to simply by eliminating the word "insurance" from his advertising and contract forms.

If a customer asks if you are insured and wants proof, you can provide it, but don't invite trouble in this suit-conscious environment so prevalent today, advises business consultant Jim Nelson.

Don't boast, "we are fully insured," or "we carry one million dollars liability insurance." Remind all lawn care servicemen, too, to avoid practices in the daily performance of their work that can cause property damage. After all, insurance claims affect "front-end" dollars, profit sharing and the ability of a company to grant salary increases. In these days of skyrocketing insurance premiums, the lawn care businessman needs to do everything possible to eliminate unjustified and minor claims, Nelson says.



"Being a good long-distance truck driver does not make the company much money."

mately \$2,000 — they were official.

"We started in business by designing an attractive four-color brochure," Weaver told LAWN CARE INDUSTRY.

They felt that their first brochure was rather wordy, but designed it that way because they were the "new guys in town" and they wanted to fully explain their service. They feel a good brochure is the top consideration when starting out.

"Since there were only two of us at first, so we concentrated in the better market areas in an effort not to spread out ourselves too thin," Weaver said. "Being a good long-distance truck driver

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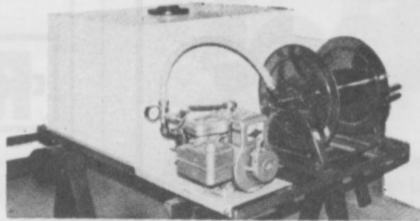
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PRODUCTS

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The new model 8260 nylon grass trimmer from Black & Decker Manufacturing Co. is a cordless product. It features a powerful



battery pack which runs up to 40 minutes on a single overnight charge. The pack slips in and out of the trimmer with ease. It also offers a unique means of grass-cutting by either of two methods. A tough nylon blade may be inserted for cutting in open areas, or a length of nylon line may be used for cutting close to fences, walls, rocks and trees. It weighs only six pounds.

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New spray heads offer control of droplet size

Improved spray distribution, greater penetration, lower capital and application costs and longer lasting protection result from low-volume, high-concentration ground spraying using the new rotary, ball-bearing type Beecomist spray heads, models 360 and 361, manufactured by Beeco Products Co. Droplet sizes are precisely



controlled through selection of easily replaceable porous sleeve assemblies which deliver fluid sprays, wettable powders and heavy flowable sprays in 20- to 100-micron droplets for greater effectiveness and reduced ecological danger.

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Riding mower offers rear bag option

The new John Deere 66 riding mower is powered by a six-horsepower engine and features a five-speed transmission that shifts on the move, enclosed engine, 30-inch mower and a rear bagging option. Ground speeds vary from 1.4 to 5.3 miles per

hour. Cutting height can be set from one to four inches.



Circle 203 on free information card

54-inch pull-behind mower from Massey

The new MF 5405 rear-mounted, pull-behind mower from Massey-Ferguson Inc. is a PTO-



driven rotary equipped with three in-line blades adjustable between cutting heights of 1½ to four inches. It mows a 54-inch swath.

Circle 204 on free information card

Compression sprayers

Burgess Vibrocrafters, Inc. has made available a four-color brochure explaining in detail its line of compression sprayers for professional use. One unit featured is the company's knapsack sprayer. It is a compact, large-capacity sprayer with a low center of gravity, a concave curvature and an adjustable, padded shoulder harness.

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MONEYWISE

Give employe a raise and save money

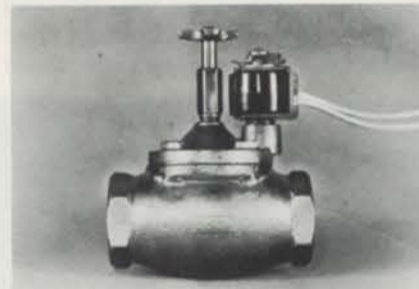
Although the figures in the example are a little high for most lawn care employes, payroll-tax strategist Roy Johnson has worked out an example of how you can give your employe a raise and save yourself money.

Suppose employes making \$15,000 get a raise to \$16,500. It will cost the employer \$17,498.25 a worker: \$16,500 of wages plus Social Security tax of 6.05 percent, or \$998.25. Social Security also takes \$998.25 from each worker's \$16,500, leaving \$15,501.75. In this example, the employer can save about \$100 an employe and the worker would not be any worse off if they got only a \$500 raise to \$15,500 and their employer paid their Social Security tax for them, Johnson says.

Then the employer pays \$15,500 plus 12.1 percent for Social Security, or \$1,875.50, for a total \$17,375.50. That is a \$122.75 saving. And each worker has \$15,500, only \$1.75 less than if they got the full \$16,500 and paid their own Social Security.

3-way diaphragm valve for lawn irrigation

A new electric diaphragm valve that has no minimum flow restrictions and utilizes a unique three-way solenoid has been developed for lawn irrigation by Johns-Manville. The three-way



solenoid operation eliminates continuous internal flow through tiny orifices and includes a non-continuous bleed manual operator, which greatly reduces the chance of malfunction. When the

solenoid is activated, the valve opens slowly and fully.

Circle 206 on free information card

Toro replacement blades

Now Toro replacement blades can be ordered from a single source through the Blade Division of Aladdin Manufacturing.



The replacement blades fit all Toro straight-blade mowers. These cover the 19-inch and 21-inch Guardian, Whirlwind and Home Pro models as well as the 21-inch Grassmaster. Further information is available.

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Snowco offers the all around utility trailer line



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TURFGRASS DISEASE IDENTIFICATION

by Dr. Joseph M. Vargas Jr.

The two most important things in identifying turfgrass diseases in the field are knowing the species of grass, or preferably the cultivar the disease is occurring on, and the weather conditions just prior to and during the development of symptoms. Knowing the grass species or cultivars can greatly reduce the number of disease possibilities since specific diseases only occur on certain species and in some cases only certain cultivars, i.e. melting-out only occurs on the common type Kentucky bluegrass whereas the improved types are resistant. The other important thing is the weather. If the Kentucky bluegrass is thinning and dying in the heat of the summer there is no sense looking for melting-out which is a cool wet weather disease. You can find the major turfgrass species grown on home lawn turf and their disease problems in the table. Photographs showing these diseases can be found also throughout the article. You may wish to cut the table and photos out and keep them in your vehicles so you can have them

with you when disease problems are encountered.

As stated before, most of the information you need to identify home lawn diseases can be found in the table. A few brief comments will be made to supplement the tables.

Kentucky bluegrass

The three major diseases are melting-out in the cool wet weather of the spring and fall on "common" types like 'Common', 'Kenblue', 'Newport', 'Park', etc. The "improved types" are resistant, i.e. 'Merion', 'Fylking', 'Nugget', 'Victa', etc. *Fusarium* blight is a problem whenever drought stress occurs but is most serious during droughty periods of the summer when warm weather adds to the stress problem. 'Merion', 'Fylking', 'Nugget', 'Pennstar' appear to be most susceptible whereas 'Adelphi', 'Baron', 'Cheri', 'Majestic', 'Vantage' and 'Parade' appear to be the most resistant although certainly not immune. Stripe smut is a systemic perennial disease and once a grass plant is infected it will remain so for life. There-

fore, the disease is present all the time, however, most turf is lost to the disease during the warm weather of summer especially where high rates of nitrogen are applied or where the infected turf is allowed to dry out.

Powdery mildew is a problem in shaded areas and cultivars like 'Nugget' or 'Bensun' can be used or other species like the fine leaf fescues in the more northern climates. *Poa trivialis* should be used for shaded areas in more southern regions of the Kentucky bluegrass growing region. Rust is primarily a problem on slow-growing turf in the late summer through the fall where nitrogen is deficient.

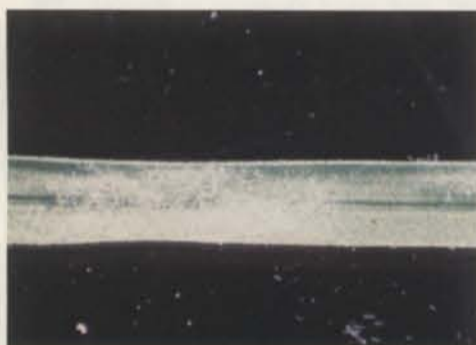
The bermudagrasses

Spring Dead Spot (SDS) has been the limiting factor in northward movement of bermudagrass. The longer the dormant period or the colder the winter the more severe the problem appears to be. Fungicide applications during the growing season appear to reduce the severity of the disease. The cultivar 'Midiron' has been reported to be

Dr. Joseph M. Vargas Jr. is associate professor in the Department of Botany and Plant Pathology at Michigan State University, East Lansing, Mich.



Powdery mildew on Kentucky bluegrass.



Close-up of powdery mildew on grass blade.



Spring dead spot on bermudagrass.



Fusarium blight on a Kentucky bluegrass home lawn.



Close-up of "helminth" or melting out lesions on grass blades and sheath.



Close-up of "frog-eye" symptom of Fusarium blight.



Melting out, susceptible cultivar of Kentucky bluegrass on right and resistant variety on left.



Rust on a Kentucky bluegrass blade.



Brown patch in lawn turf.



Stripe smut infection on Kentucky bluegrass. Note clump appearance of turf.



Close-up of stripe smut infected Kentucky bluegrass.



Close-up of grass blade with stripe smut spore breaking through epidermis.

resistant but more research is needed before any definite conclusions can be drawn. "Helminth" is most serious in the coastal regions in which bermudagrass is grown and brown patch is most serious when warm temperatures of summer are accompanied by high humidity.

The zoysiagrasses

Even though this species is advertised as a desirable species in the northern regions of the cool season grass belt, it is not. It does have the winter hardiness necessary to survive the northern winters but usually doesn't green up much before June and usually turns brown in late August. It is a fine southern grass and that is where it belongs. Since it is basically a slow growing turfgrass species anyway, its two most serious problems are diseases that are most serious on slow growing turf, dollar spot and rust. All attempts should be made to keep nitrogen fertility levels up to reduce the severity of these diseases.

The St. Augustinegrasses

The most serious disease on St. Augustinegrass is St. Augustine Decline (SAD) caused by a virus. This virus is mechanically transmitted. The question is often asked, "will I spread the disease from one lawn to another with my mowers or other equipment?" The answer is usually yes but it doesn't really matter because most turfgrass diseases are caused by fungi which produce spores that are spread by the wind, i.e. rust, *Helminthosporium*, etc. or are native to most soil, i.e. *Fusarium*, *Rhizoctonia* (brown patch) etc. However, the answer for SAD is yes and it is an important means of spreading the disease. When going from an infected lawn to a healthy one the equipment should be thoroughly washed with water or sterilized if possible. Another alternative is to mow or cultivate the infected lawns last where possible.

Other diseases of St. Augustinegrass include grey leaf spot which occurs most commonly during the hot humid weather of summer and is most serious on newly established lawns. Brown patch occurs during the warm weather of late spring, early summer and tends to disappear during the extreme hot weather of summer and return during the warm weather of late summer early fall. Excess nitrogen fertility will increase the severity of both diseases.

Do you want a copy of this article to put up on the walls of your office, or to give to your employes for them to use as an on-the-job aid as the author suggests?

Reprints are available for \$2 each, and can be obtained by writing:

Bob Earley
Editor
LAWN CARE INDUSTRY
9800 Detroit Ave.
Cleveland, OH 44102

Quick-reference turf disease guide

The Kentucky bluegrasses

Diseases	Cultivars	Time of Year	Symptoms
Melting-out	"Improved varieties are resistant. Common types like common, 'Newport', 'Park', 'Kenblue', etc. are susceptible.	Cool wet weather of spring and fall. Most severe in spring.	General over all thinning of turf. Black to purple spots present on leaf blade and sheaths. Spots tend to be very large on susceptible cultivars.
<i>Fusarium</i> blight	Most cultivars susceptible. A few cultivars like 'Adelphi', 'Vantage', 'Parade', 'Majestic', 'Touchdown' have shown some resistance.	Most prevalent during hot, dry weather of summer, but can occur anytime drought stress conditions exist.	The disease is characterized by a circle of dead grass surrounding a circle of so-called healthy grass often called a "frog-eye" symptom. They are usually 6" to 2' in diameter. In extremely susceptible cultivars, the disease will occur as dead spots ranging in size from a few inches up to a foot in diameter with the so-called healthy center missing.
Stripe smut	The most susceptible ones are 'Merion' and 'Windsor' followed by 'Fylking' & 'Pennstar'	Foliar symptoms most prevalent in spring & fall. Infected plants die most often during summer drought periods.	Clumpy appearance of a Kentucky bluegrass turf. Individual plants die leaving small bare spots. Turf may have a yellow appearance. Individual blades have black stripes which are the spores of the fungus being produced in the plants veins. They eventually rupture the epidermis. They can be rubbed off and will appear brown to black in color on a white handkerchief.
Rust	Most cultivars susceptible.	Most common in fall, especially on slow growing turf which may be due to lack of nitrogen.	The turf may have a reddish-brown appearance. The individual grass blades will contain rust-colored spores of the fungus which can be rubbed off.
Powdery mildew	Most cultivars susceptible	From mid-summer to late fall	An infected turfgrass stand will be white in appearance. A disease of low light intensities most commonly found in the shade. However, it will occur in open areas during a fall which has a lot of cloudy weather. Individual blades will contain a white powdery substance on the surface of the blades.

The Bermudagrasses

Disease	Cultivars	Time of Year	Symptoms
Spring Dead Spot	All cultivars with the possible exception of 'Mid-iron'.	Spring—when grass begins to green up.	Dead patches of grass ranging in size from 6 inches up to 3 feet.
Brown Patch	All cultivars susceptible.	Late spring through early fall when day time temperatures are 85°F plus and night time temperatures are 70°F plus accompanied by high humidity.	Brown circles of grass ranging from 6 inches to 3 feet or more. All grass in spots is not killed initially.
"Helminth"	Most cultivars susceptible.	During cool wet weather of spring and fall.	General all over thinning of turf. Black to purple spots on the foliage.

The Zoysiagrasses

Diseases	Cultivars	Time of Year	Symptoms
Dollar spot	All cultivars susceptible.	When temperatures are between 70°F and 85°F. Most severe when accompanied by high humidity. The disease is most serious on turf where nitrogen is deficient.	Roundish straw-colored spots ranging from 1 inch on low cut turf up to 6 inch in higher cut turf.
"Helminth"	All cultivars susceptible.	The cool wet weather of spring and fall.	General all over thinning. Black to purple spots present on the foliage.
Rust	All cultivars susceptible.	Late summer early fall especially a problem on slow growing turf where nitrogen is deficient.	Turf area becomes yellow to rust-colored in appearance. Rust colored spores can be found on the surface of the grass blades.

St. Augustinegrass

Diseases	Cultivars	Time of Year	Symptoms
Brown Patch	All cultivars susceptible.	Late spring-early summer and late summer-early fall.	Circles of brown grass ranging in size from 6 inches up to a few feet or more. All the grass in the spot is not initially killed.
Grey Leaf Spot	All cultivars susceptible.	During periods of warm rainy weather.	Turf may appear burned or scorched. Mature spots on foliage have depressed grey centers with irregular brown margins often surrounded by a yellow ring.
St. Augustine Decline (SAD)	Most cultivars. Floratam is the exception, but its turfgrass quality is questionable.	The disease occurs all season long.	Turf areas turn yellow in color initially. The infected grass will eventually die.

BEHIND THIS ISSUE



Life in the fast lane. That is the way one lawn care businessman described his city to me recently while I was there working on a Marketplace feature (see page 12).

According to figures released by the Marketing Economics Institute, Orange County alone has demonstrated a need for 20,000 new housing units a year, with the average new home price \$121,000.

The lawn care potential is there. But the company or companies that crack the market are going to have to solve the problems of servicing low-profit, postage stamp lawns with great varieties of turfgrasses and ground covers, myriad California pesticide regulations and an established network of Japanese gardeners.

Tough problems indeed. But the plum (or should we say orange in this case) that is the Los Angeles lawn care market may be well worth the time and effort.

Bob Early

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