

ASSOCIATIONS

PLCAA plans fall lawn care meeting

The board of directors of the Professional Lawn Care Association of America met last month and began planning for an association annual meeting to be held later this year. The PLCAA also hopes to sponsor an annual conference and trade show.

John Latting, PLCAA secretary-treasurer and president of Lawn Groomer, Normal, Ill., was named chairman of the conference planning committee. Although no definite dates have been set, PLCAA board members favor dates in November in a midwestern location such as Louisville, Kentucky.

Jerry Faulring, PLCAA president, told LAWN CARE INDUSTRY: "The theme of the event has been tentatively established to be one of strong emphasis on business management with lesser emphasis on agronomic issues.

"We do not want to conflict with any existing, successful regional conference as that would only serve to antagonize and diminish our potential draw," he said.

Faulring also said that the recently advertised First National Lawn Care Business Conference and Trade Show scheduled for March 16-19 in Milwaukee is not "affiliated with the Professional Lawn Care Association of America. We are certainly not

against it, but many people have indicated to me that they thought it was affiliated with PLCAA, and that is not the case. It should not be confused with our event planned for later in the year."

The board also accepted the resignation from the board of David Murphy of Green Valley Co., Shawnee Mission, Kans., because of personal time restrictions. Nominated to replace Murphy was Dr. Robert Miller of ChemLawn Corp., Columbus, Ohio. Dr. Miller accepted the board's nomination and is now an active member of the PLCAA board.

The PLCAA board also started plans to form a technical advisory group to the lawn care industry consisting of members of the turf educational communities at state land-grant universities.

INDUSTRY COMMENT

Spring influx of amateur 'lawn experts' threat to industry credibility, Lawn-A-Mat exec says

by Stanley L. Weber, general manager, Lawn-A-Mat Chemical & Equipment Corp., Westbury, N.Y.

Along with the first robins, lawn care businessmen this spring will probably see the return of another, less pleasing seasonal species ... the newly hatched lawn care "expert".

Unusually large flocks of these creatures will suddenly appear in most areas, stimulated by inflation, general economic uncertainty and the anticipated recession. Like in 1969-70 and 1973-74, the environmental conditions are ideal for their resurgence in force.

If the economy slows down and inflation and soaring energy costs continue, many hard-pressed individuals will try their luck with their own lawn care businesses, part- or full-time. The reasons are obvious. One the surface, they make sense to someone in a financial bind who is seeking to generate much needed income ... quickly.

The capital investment seems deceptively low. Almost any motor vehicle that can pull a second-hand trailer will fill the bill. A manual spreader and some hand tools are all that are needed (or so it seems) and the new "expert" may already have them if he's the handy type.

Signing up the first few customers is usually not much of a problem either. Spreading the word through friends, neighbors, relatives and the community grapevine can be counted on to produce a certain amount of "sympathy" business, particularly during the first mellow days of early spring.

Underpricing. Overhead is low. The home telephone and garage will do. Licensing and accreditation requirements are usually ignored or are unknown

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PULSE REPORTS

LCI Survey charts third quarter buying

More than 95 percent of respondents to a recent survey conducted by LAWN CARE INDUSTRY said they spent an average of \$2,168 apiece on turf fertilizer during the third quarter of last year — the months of July, August and September.

Results for this third quarter "pulse report" are based upon figures submitted anonymously by 159 respondents. This represents a 43 percent response to

questionnaires mailed to readers of LAWN CARE INDUSTRY, according to LCI market research manager Clarence Arnold.

The results in this fertilizer category would project to \$19.4 million worth of purchases by the total readership of LAWN CARE INDUSTRY, Arnold said.

In the pre-emergence herbicide category, 32.7 percent of the respondents said they purchased an average of \$849 worth of pro-

duct, for a readership projection of \$2.6 million during the third quarter of last year.

In the post-emergence herbicide category, 50.9 percent of the respondents said they purchased an average of \$660 worth of product, for a readership projection of \$3.2 million.

In the fungicide category, 37.7 percent of the respondents said they purchased an average of \$637 worth of product, for a readership projection of \$2.3 million.

In the turf insecticide category, 42.8 percent of respondents said they purchased an average of \$1,261 worth of product, for a readership projection of \$5.1 million.

In the tree insecticide category, 46.5 percent of the respondents said they purchased an average of \$534 worth of product, for a readership projection of \$2.3 million.

In the grass seed category, 59.7 percent of the respondents said they purchased an average of \$1,849 worth of product, for a readership projection of \$10 million.

In the soil amendment category, 35.8 percent of the respon-

dents said they purchased an average of \$3,220 worth of product, for a readership projection of \$11 million.

In the less than 10 h.p. tractor category, 7.6 percent of the respondents said they purchased an average of \$4,352 worth of equipment, for a readership projection of \$3.1 million.

In the 10-20 h.p. tractor category, 11.9 percent of the respondents said they purchased an average of \$5,217 worth of equipment, for a readership projection of \$5.8 million.

In the self-propelled rotary mower category, 29.6 percent of the respondents said they purchased an average of \$1,934 worth of equipment, for a readership projection of \$5.4 million.

In the irrigation sprinkler category, 25.8 percent of the respondents said they purchased an average of \$3,707 worth of equipment, for a readership projection of \$9 million.

For further information on other categories of purchases, contact Arnold at 9800 Detroit Ave., Cleveland, OH 44102.

QUICK STARTS

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Third quarter buying

	% of sample making purchase	average purchase	projection to LCI readership
Turf fertilizer	95.2%	\$2,168	\$19,400,000
Post-emergence herbicides	50.9	660	3,200,000
Fungicides	37.7	637	2,300,000
Insecticides	42.8	1,261	5,100,000
Seed	59.7	1,849	10,000,000
10-20 h.p. tractors	11.9	5,217	5,800,000

Source: LCI third quarter pulse report, 1979

For a look at LAWN CARE INDUSTRY's second annual listing of see INSIDE THE IN- g series of indepth looks at lems the lawn care busi- for this feature have been



## Pennsylvania turf conference to feature lawn sessions

A seven-person panel discussion focusing on "Starting and Staying in the Lawn Care Business" will highlight the 1980 Pennsylvania Turfgrass Conference, February 26-29, at the Hershey Motor Lodge and Convention Center, Hershey, Pa.

David Hoffacre, president of Spray-A-Lawn, Pittsburgh, Pa., will discuss advertising methods; Philip Catron, regional agronomist for ChemLawn Corp., Columbus, Ohio, will speak on product selection; and Dan Moreland, assistant editor of LAWN CARE INDUSTRY magazine, will discuss goofs to avoid in the lawn care business.

Other panel speakers include Robert Coyner, vice-president of sales for Pascoe Equipment Co., Pittsburgh, Pa.; Gregory Richards, of Professional Turf Operations, Gaithersburg, Md.; and Jim Kelly, general manager of Keystone Lawn Spray, Wayne, Pa.

A number of professional lawn service sessions will be conducted at the conference including a discussion of miracle products by Dr. Herbert Cole, Jr., of Pennsylvania State University, and a speech about how to

handle chemical spills by Dr. Win Hock, extension pesticides specialist at the university.

Nineteen-eighty will also be the first year a trade show will be conducted in conjunction with the conference which is being sponsored by the Pennsylvania Turfgrass Conference and Pennsylvania State University.

For further information contact Christine E. King, Pennsylvania Turfgrass Council, 412 Blanchard St., Bellefonte, PA 16823, 814-355-7652.

## DISTRIBUTION

### Rain Bird opens Florida facility

A new office and warehouse facility utilizing an on-line computer system to expedite equipment orders to the eastern U.S. was opened recently in Tampa, Fla. by Rain Bird Sprinkler Mfg. Corp., Glendora, Calif.

The direct hook-up with Rain Bird's computer at California headquarters allows the Florida distribution center to immediately transmit all order entry information directly to the factory.

The Tampa facility services states east of the Mississippi River.

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# MEMOS

**Pesticide market figures:** The U.S. Census Bureau recently published data from a preliminary report based on 1977 figures for value of pesticide shipments at the manufacturer's level. Value of total insecticide shipments was pegged at \$800 million; value of total herbicide shipments was pegged at \$1.156 billion; and value of fungicide shipments was pegged at \$217 million. The largest percentage of these figures would of course be for agricultural markets in the U.S.

**Toro's Barefoot into mowing/maintenance?** When The Toro Co., Minneapolis, acquired Barefoot Grass Lawn Service, Columbus, Ohio, last year, some lawn care businessmen felt that the company would move towards offering complete mowing/maintenance lawn care along with its granular chemical lawn care program.

This will never happen, many others feel. The reason? As one competing lawn care businessman said: "If Toro would get into complete mowing/maintenance you would find its dealers who handle consumer mowers and tractors up in arms. The dealers would never stand for Toro trying to push a mowing/maintenance service on one hand, and then trying to sell the same audience mowers and tractors on the other hand."

But the same businessman feels that it would not be illogical for Toro's Barefoot to become involved in offering a commercial mowing/maintenance service, much like ChemLawn Corp.'s Commercial Maintenance Division operating in a handful of cities.

**Oregon field burning:** Agreement has been reached between Oregon grass seed growers and officials of the city of Eugene on field burning proposals, according to a recent article in the *Portland Commercial Review*. The issue said the Oregon seed industry and officials of the city of Eugene presented a joint proposal to Oregon's Environmental Quality Commission, which was promptly accepted.

The proposal involves use of various field burning techniques, depending on weather conditions. Use of these techniques is expected to allow grass seed growers to burn their fields without polluting the air of Eugene. Limits on the number of acres to be burned will be lifted under the agreement.

The agreement came about because early in August, Oregon Governor Victor Atiyeh issued an executive order allowing up to 180,000 acres to be burned this year. The order also required the Environmental Quality Commission to adopt smoke regulations which would determine when and how the field could be burned.

The order did not guarantee that 180,000 would be burned, however. The actual number of acres burned will depend on the weather and on implementation of a smoke management plan, the article said. It was estimated at the time of the article (September 18) that 160,000 acres had been burned in the Willamette Valley. Other fields at the time of the article were still too wet to be burned. A good field burn is necessary for optimum seed yields, grass seed company executives say.

**Will economy affect mowing/maintenance?** Almost all economists, government officials and business executives anticipate at least a modest recession at some point. But when?

Economists believe the recession may have started as far back as April and that, in any event, it will become evident in the current quarter. Most business managers, however, cannot yet find cyclical decline in activity.

Neither can the sensitive statistics that foreshadow impending changes in business conditions. If the leading indicators are interpreted strictly, not only is the United States not in a recession now, and was not in a decline for the fourth quarter of last year.

Michael E. Levy, director of economic policy research for the Conference Board, states in *Business Week* that "The economy is still advancing sluggishly but without serious imbalances in real output."

But even those economists who hold to the view that the economy is still moving upward are ready to jump ship soon. Notes Levy: "Persistently high inflation rates, a fragile financial system and the monetary restraint initiated by the Federal Reserve in October have made a 1980 recession unavoidable."

One Midwest mowing/maintenance businessman asks "are we vulnerable?" and then answers his own question by saying "The only good thing about bad financial times is that the hand-to-mouth maintenance operations will fall by the wayside. Some of my top accounts might cut back on some of their maintenance budgeting, but for the most part, I'm not going to lose any of my major accounts. But when the economy goes back up again, you will find the fly-by-nighters back in the picture."



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## MEETING DATES

**Maryland Turfgrass '80**, Baltimore Convention Center, Baltimore, Md., Jan. 7-9. Contact: Dr. David J. Wehner, Department of Agronomy, University of Maryland, College Park, Md. 20742, 301-454-3715.

**Mississippi Turfgrass Short Courses**, Mississippi State University Campus, Mississippi State, Miss., Jan. 7-11. Contact: Dr. Euel Coats, P.O. Drawer PG, Mississippi State, Miss. 39762.

**Turfgrass Council of North Carolina**, Inn on the Plaza, Asheville, N.C., Jan. 9-11. Contact: Leon Lucas, 1239 Williams Hall, P.O. Box 5155, Raleigh, N.C. 27650, 919-737-2751.

**New Hampshire Turf Conference**, Sheraton-Wayfarer Motor Inn, Bedford, N.H., Jan. 10-11. Contact: John Roberts, Plant Science, Nesmith Hall, University of New Hampshire, Durham, N.H. 03824.

**Nebraska Turf Conference**, Nebraska Center, University of Nebraska, Lincoln, January 14-16. Contact: Dr. Robi C. Shearman, 377 Plant Science Building, University of Nebraska, Lincoln, NE 68503, 402-472-1143.

**50th Annual Michigan Turfgrass Conference**, Kellogg Center, Michigan State University, East Lansing, January 15-16. Contact: Richard W. Chase, Cooperative Extension Service, Michigan State University, East Lansing, MI 48824.

**Southern Weed Science Society Annual Meeting**, Arlington Hotel, Hot Springs, Ark., Jan. 15-17. Contact: Jerry Weber, North Carolina State University, Weed and Science Center, 3123 Ligon St., Raleigh, N.C. 27607.

**Southeastern Pennsylvania Turfgrass School & Trade Show**, Westover County Club, Jeffersonville, Pa., January 15-16. Contact: William White, Philadelphia County Extension Office, 215-424-0650.

**Mid-America Trade Show**, O'Hare Exposition Center, Rosemont, Ill., Jan. 20-23. Contact: James Kelty, 4300-L Lincoln Ave., Rolling Meadows, Ill. 60008, 312-359-8160.

**Capital Area Ornamental School**, York, Pa., January 22. Contact: Harold E. Stewart, 75 South Houcks Road, Suite 101, Harrisburg, PA 17109 or Tim Markovits, Court House, York, PA 17401.

**Landscape Ontario Annual Congress**, Sheraton Centre Hotel, Toronto, Ontario, Canada, Jan. 22-24. Contact: Robert Cheesman, Landscape Ontario, 103-3034 Palstan Road, Mississauga, Ontario, Canada L4Y 2Z6, 416-276-6177.

**International Franchise Association 20th Annual Convention**, Hotel Del Coronado, Coronado, Calif., Jan. 27-31. Contact: IFA Annual Convention Registration, 1025 Connecticut Ave., N.W., Suite 1005, Washington, D.C. 20036.

**Western Pennsylvania Turf & Grounds Maintenance School & Trade Show**, Howard Johnson's Motor Lodge, Monroeville, Pa., January 29-31. Contact: Philip Sellers, Allegheny County Extension Office, 412-355-4275.

**Virginia Turfgrass Conference**, Fort Magruder Inn, Williamsburg, Va., January 30-31. Contact: J. F. Shoulders, extension specialist, Virginia Polytechnic Institute and State University, Blacksburg, Va. 24061, 701-961-6000.

**Annual Turf & Landscape Conference**, Tappan Zee Inn, Nyack, N.Y., Jan. 30. Contact: Frank Claps, 136 Laurel Ave., Larchmont, N.Y. 10538, 914-834-6846.

**16th Turfgrass and Environmental Landscape Exposition**, San Mateo County Fairgrounds, San Mateo, Calif., Jan. 30-31.

Contact: Emory Hunter, chairman, NCTC, P.O. Box 268, Lafayette, Calif. 94549.

**Associated Landscape Contractors of America Annual Meeting and Trade Exhibit**, Town & Country Hotel, San Diego, Calif., Feb. 3-8. Contact: ALCA, 1750 Old Meadow Rd., McLean, Va. 22102, 703-821-8611.

**Super Turf Seminar**, Holiday Inn, West Palm Beach, Fla., Feb. 8-9. Contact: Eldon Mahan, Box 311, Bethany, Okla. 73008, 405-787-8034.

**National Landscape Association Annual Landscape/Garden Center Management Clinic**, Galt House, Louisville, Ky., Feb. 10-13. Contact: NLA Landscape/Garden Center Management Clinic, 230 Southern Building, Washington, D.C. 20005, 202-737-4060.

**National Arborist Association Winter Meeting**, Orlando Hyatt House, Orlando, Fla., Feb. 17-21. Contact: Bob Felix, 3537 Stratford Road, Wantagh, N.Y. 11793, 516-221-3082.

**Northern Virginia Professional Lawn Maintenance Seminar**, Vienna Community Center, Vienna, Va., Feb. 19. Contact: Charles L. Hall, Jr., 3945 Chain Bridge Road, Fairfax, Va. 22030 or the Cooperative Extension Service, U.S. Department of Agriculture, Virginia Polytechnic Institute and State University, Blacksburg, Va. 24061.

**Northwest Pest Control Conference on Integrated Pest Management**, Spokane Sheraton Hotel, Spokane, Wash., Feb. 22-25. Contact: Christopher Senske, P.O. Box 6258, Kennewick, Wash. 99336, 509-783-5461.

**First Agri-Turf Irrigation Exposition & Technical Conference**, Galleria Plaza & Houston Oaks Hotels, Houston, Texas, February 24-27. Contact: The Irrigation Association, 13975 Connecticut Ave., Silver Spring, MD 20906, 301-871-8188.

**Pennsylvania Turfgrass Conference**, Hershey Motor Lodge & Convention Center, Hershey, Pa., Feb. 26-29. Contact: Arthur D. Wick, P.O. Box 362, Sewickley, Pa. 15143 or Christine E. King, Pennsylvania Turfgrass Council, 412 Blanchard Street, Bellefonte, Pa. 16823.

**Northeastern Pennsylvania Turf School**, Master Host Motel, Wilkes-Barre, Pa., March 4-5. Contact: Cy Chadwick, Court House Annex, 5 Water Street, Wilkes-Barre, PA 18702.

**12th Annual Professional Turf and Plant Conference**, Salisbury Restaurant, Eisenhower Park, East Meadow, Long Island, N.Y., March 4. Contact: Waldemar Solovieff, 63 Central Avenue, Amityville, N.Y. 11701.

**National Lawn Care Business Conference and Trade Show**, Red Carpet Hotel, Milwaukee, Wis., March 16-19. Contact: Lawn Care Conference, Box 1936, Appleton, WI 54913, 141-733-2301.

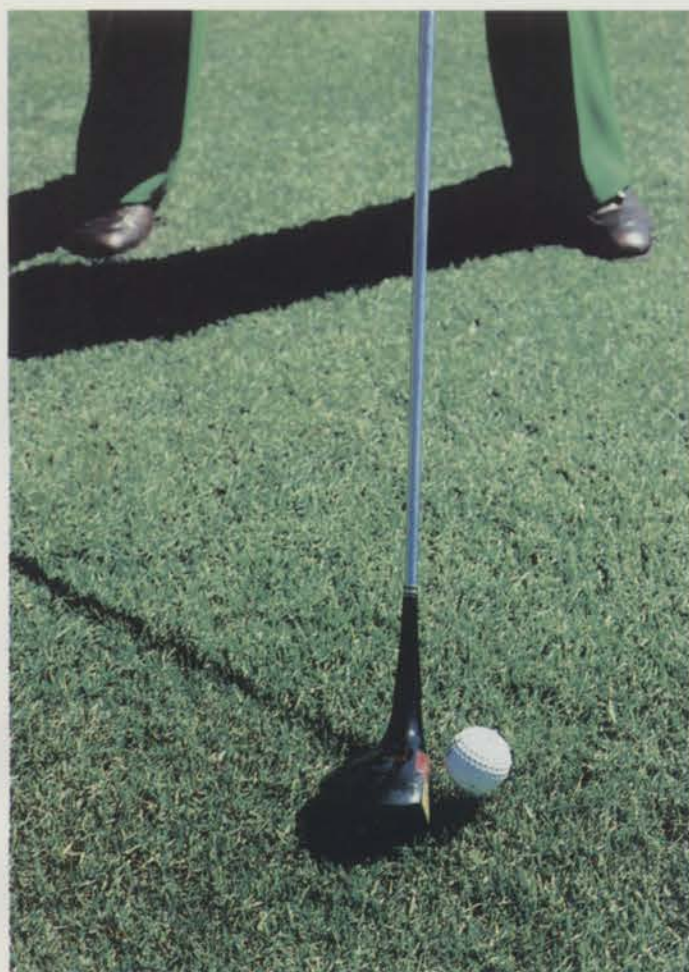
**Northcentral Pennsylvania Turfgrass School**, Smethport Country Club, Smethport, Pa., March 18. Contact: C. E. Craver, McKean County Extension Office, 814-887-5571.

**California Landscape Contractors Association 1980 Landscape Industry Show**, Long Beach Convention Center, Long Beach, Calif., April 3-4. Contact: Michael E. Leeson, CLCA Landscape Industry Show, 3617 W. MacArthur Blvd., Suite 500, Santa Ana, Calif. 92704, 714-979-2522.

**6th Annual Garden Industry of America Conference & Trade Show**, Convention Center, Baltimore, Md., Sept. 12-14, 1980. Contact: GIA Conference & Trade Show, Box 1092, Minneapolis, Minn. 55440, 612-374-5200.

**National Lawn & Garden Distributors Association Annual Convention**, Century Plaza Hotel, Los Angeles, Calif., Sept. 16-19. Contact: Nancy S. Irving, executive director NLGDA, 1900 Arch St., Philadelphia, Pa. 19103.

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



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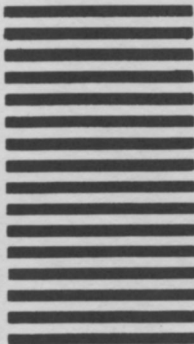
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ATTENTION: THE EDITORS

# LAWN CARE INDUSTRY

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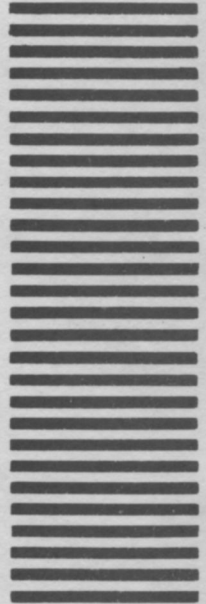
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The editors of LAWN CARE INDUSTRY would appreciate your comments on the magazine's contents. Please write your message below, tear out the card, and mail. Postage is prepaid.

Which article in this issue did you find the most interesting and/or helpful? \_\_\_\_\_

What subjects would you like us to cover in future issues of LAWN CARE INDUSTRY?

NAME \_\_\_\_\_ TITLE \_\_\_\_\_

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# "Chipco® 26019 gives us much more to sell than we ever had before!"

*Tru Green Agronomist, Steve Brown, talks about Chipco 26019 fungicide...and how it's helped their business.*

Steve Brown is responsible for all turf grass chemical programs for Tru Green Corporation, an East Lansing based lawn care company with 30 outlets throughout the Mid-West.



After using Chipco 26019 at all of their locations, he says, "With Chipco 26019 on our side, you can bet we'll be a lot more aggressive about going after fungicide business."

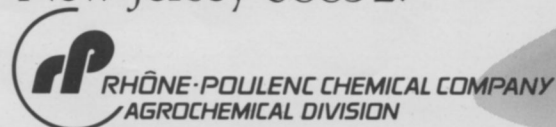
Steve is echoing the kind of response we've gotten from lawn care companies throughout the country. Chipco 26019 is a broad-spectrum fungicide that gives you more control with fewer sprays. It stops major turf disease like dollar spot (including benomyl-resistant dollar spot), brown patch and Helminthosporium (leaf spot). And it does it for up to three weeks at low, economical rates.

Chipco 26019 mixes well, with no residual left in the tank. And it presents no problems of phytotoxicity to turf. But the ultimate test is what it does for your business. On this point Steve Brown is totally positive. He says, "I appreciate the

fact that it has a 21 day residual, but even more important from a business standpoint, is the fact that it's going to work! Because now we can say to a potential customer, if you have a disease problem we can take care of it. We think of Chipco 26019 as a competitive tool."

If you'd like to have this competitive tool working to expand your business next season, ask your chemicals distributor for this profitable addition to the popular Chipco line of turf fungicides and herbicides. As Steve Brown says, "I'm convinced it's the best thing going today."

Rhône-Poulenc Chemical Co., Agrochemical Division, Monmouth Junction, New Jersey 08852.





## NEWSMAKERS

John Theodosakis is owner of **Spartan Services**, Deerfield, Ill. The company is involved in both mowing/maintenance and liquid and granular applications of fertilizer and pesticides.

Frank Reynolds, Jr. is president and Paul Sullivan is secretary of **Lawn Aid, Ltd.**, North Haven, Conn. The company handles both liquid and granular chemical lawn care and renovation of lawns.

R.W. Plicta is owner of **Greenwood Lawn Service**, Dearborn, Mich.

Byron Black is owner operator of **Country Side Exterminators**, Oklahoma City, Okla.

Rodney L. McCoy is owner of **McCoy Hydro Mowing**, Coshocton, Ohio.

Ron Jensen is owner of **Jensen's Gardening**, Aptos, Calif.

**A-1 Turf Irrigation Sales, Inc.**, distributors of the full line of **Rain Bird** sprinkler equipment plus irrigation supplies, has opened a new branch office in Houston. Managing the facility is George Burtch. A-1 is headquartered in Orange, Calif. Rain Bird is headquartered in Glendora, Calif.

Charles Baird is owner of **Green Thumb Chemical Lawn Care**, Powder Springs, Ga. The company applies both liquids and granular materials in its chemical lawn care program.

Frank H. Stevens is president of **Pro-Lawn-Plus, Inc.**, Baltimore. Donald C. Eccleston is vice president, and Lou Ann Markley is secretary-treasurer. The company is involved in liquid chemical lawn care and mowing/maintenance.



Sperber (left) and Goldstein.

Burton S. Sperber, chief operating officer of **Environmental Industries, Inc.**, Encino, Calif., recently received *Landscape West* magazine's Man

of the Year award. Publisher Denne Goldstein presented the award.

L.J. Cohen is president of **Pest Fog, Inc.**, Corpus Christi, Texas. Bill Cohen is vice president and Doug Odom is manager, and Gary Lewis is service manager. The company is involved in both liquid and granular chemical lawn care.

Peter Cohn is president of **Cohn Enterprises, Inc.**, Denver. The company handles mowing/maintenance and granular application of fertilizer and pesticides.

J. Roger Finn is president of **Antietam Tree & Turf Service**, Hagerstown, Md. Norman C. Culbertson is vice president.

David L. Smith is owner of **Dave Smith Lawn Care and Landscaping**, McHenry, Ill. The company handles both mowing/maintenance and liquid and granular chemical lawn care.

Joe Sander is owner of **Yard Maintenance**, North Tonawanda, N.Y. The company is affiliated with **Sander's Nursery**.

Ray Landers is owner of **Perfa-Lawn of Georgia**, Peachtree City, Ga. The parent company is based in New Carlisle, Ohio.

Bruce A. Volpe is landscape maintenance supervisor for **Post Properties, Inc.**, Smyrna, Ga.

Two Minneapolis-based executives of **The Toro Co.**, Ralph D. Murray and John G. Szafranski, have been appointed company vice presidents. Szafranski has been named vice president and general manager of Toro's Commercial Products Division. He was general manager. Murray is vice president, marketing of Toro's International Group. He was director of sales and marketing.

Bill Swadley is owner of **Barefoot Grass Lawn Service**, Rockford, Ill. The company also owns two retail garden centers and sells sod.

Andrew Hines is branch manager for **Leisure Lawn**, Columbus, Ohio. The company is based in West Carrollton, Ohio. Shawn Shea is president of **Misty Hill Landscape Design**, Wellfleet, Mass., a mowing/maintenance operation.

**Southtown's Lawn Service** has moved from Depew, N.Y. to offices in Orchard Park, N.Y. Dale R. Wagatha is owner.

Tom De Paepe is owner of **The Grounds Men**, Broomfield, Colo., a mowing/maintenance operation.

# A WORD TO THOSE WHO THINK IT TAKES A FORTUNE TO MAKE BIG MONEY IN LAWN CARE.

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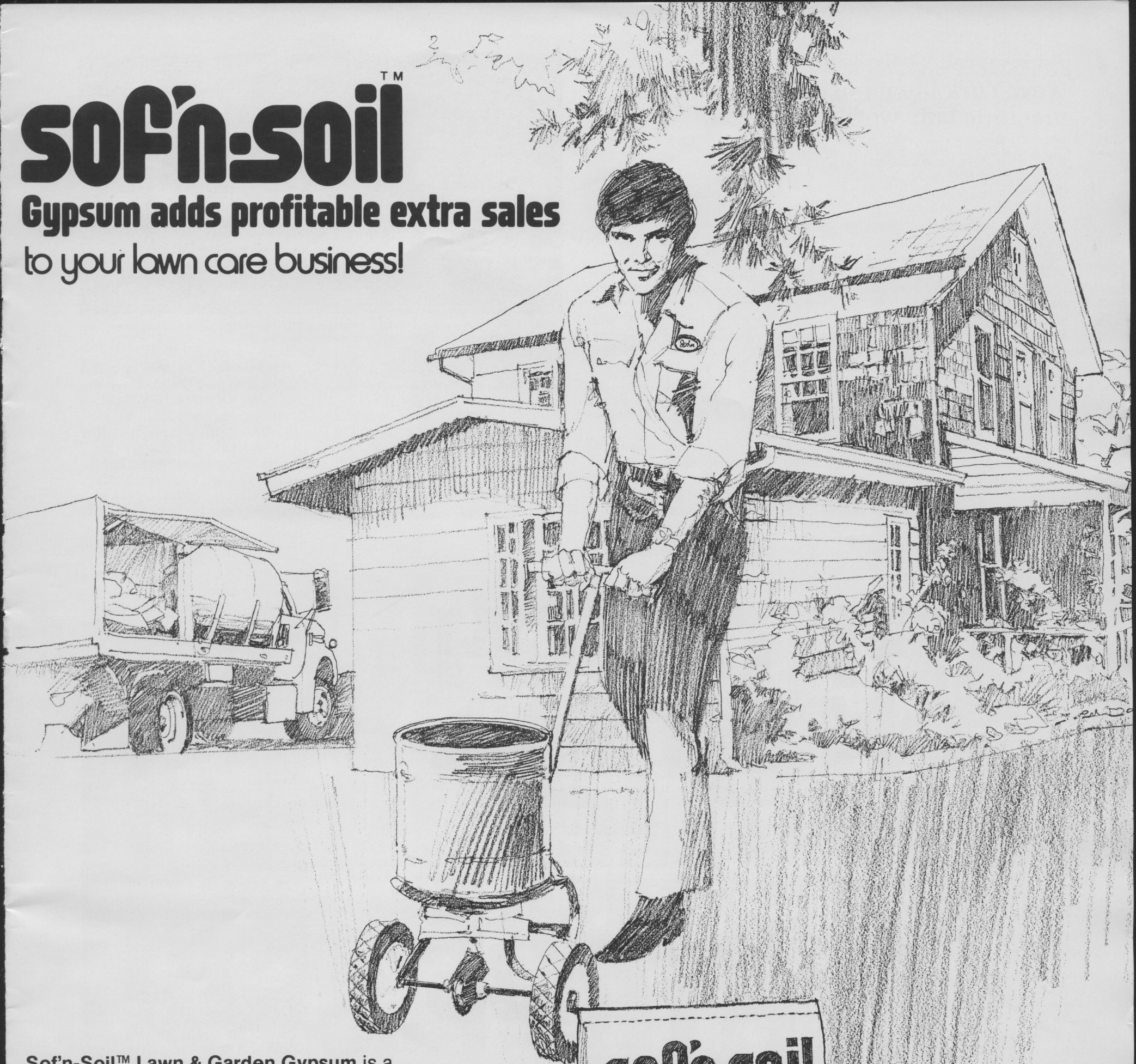
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CHEMICALS DIVISION

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## New York lawn businessman's spray machine cuts work time in half

When Bill Shearman of Florida, N.Y. first started his lawn care business nine years ago, two of his customers were right across the street from each other. One day, one of the customers cancelled her service.

"I was just starting out, and I really couldn't afford to lose a customer," remembers Shearman. "I asked her why she had changed her mind and she wouldn't give me any reason. Then I looked across the street and noticed that that lawn was two shades greener than hers.

"I said: 'Are you cancelling because that lawn is greener?' and she said 'yes.'"

Shearman tells the story to illustrate the importance of having a solid knowledge of turfgrass to be successful in the business, not

to mention a fair knowledge of human nature.

"I knew why that lawn was not the same color as the one across the street," he goes on. "The other lawn had had better care before Chem-Trol (his company) came along, but I couldn't tell the lady that. I asked her to give me eight weeks to get her lawn as green as her neighbor's and told her she did not have to pay me until she was satisfied. I had my money in five weeks."

That customer has been responsible for a whole lot of referrals over the years, Shearman adds.

Starting his lawn care service with two employees and two tank trucks, Shearman now has seven employees, 1,500 customers, a large hydroseeder and two three-



Steve Mcilroy drives one of Chem-Trol's two 11-horsepower spray units onto a 3/4-ton pickup.

wheel, 11-horsepower spray machines he designed himself and plans to market this year.

The machines can cover a 6,000-square-foot area with chemicals in five minutes, half the time it would take by hand, Shearman says. Depending on the terrain and operator, an acre can be covered in 45 minutes.

Considering the growth of his business in an area in which under 10 percent of the homeowners use a lawn service, and his enthusiasm over the three-wheel "Chem-troller," Shearman believes the lawn care industry has a very healthy future, despite inflation. He says he is now working to capacity.

"Our service is so popular because people are concerned about what others think," says Shearman. "I've sold the service to people who don't have a sofa or rug in the house."

Shearman started his business after working for 10 years as assistant treasurer of Dogett Patco Corp., a lawn and garden dealer. He had a solid basis in

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Chem-Trol owner Bill Shearman points out three nozzle controls which release a spray solution at the back of his specially-designed spray unit.

horticulture from which to draw on when he started Chem-trol in a semi-rural area of upstate New York, about 60 miles from Manhattan.

"I used a 23-foot tank-type truck at first," he says, "and we used a hose to spray the lawns. After one season, I decided there had to be a better way than pulling hose. I decided I needed a three-wheel, self-contained spray unit."

His first spray machine was adapted from a three-wheel, all-terrain type vehicle. It had the engine in the back, rider in front, and tank in the middle.

"The first week we changed to this machine from the tank truck, the operator said he felt like he was on vacation," remembers Shearman.

The present machine, which has been seven years in the making, is metal with a fiberglass tank, capable of holding 50 gallons of chemicals. Additional chemicals can be stored in the



11-foot pick-up which transports the machine to the job. Chem-trol sprays suspended materials for fertilizer. Insecticides go in with the fertilizer, but Shearman puts down herbicides separately.

In its final form, the machine will have two separate tanks, one for herbicide and the other for fertilizer, with the systems working independently. He plans to have this two-system machine perfected over the winter.

"In the winter," he says, "we develop, make and repair machinery and look for new business. The contractors are slow when we are slow. They have time to sit down for a cup of coffee and talk when I do." Chem-trol's business is 80 percent residential and 20 percent commercial. He will also often get jobs as a subcontractor for housing developments.

His spray machine is equipped to handle both large and small jobs, and because it is transported in a pick-up, there is a sizeable savings in transportation costs. "The pick-ups use one-fourth the gas of a tank truck," says Shearman. His business takes in a 75-mile radius from his office.

The machine has a hydraulic braking system and is calibrated to run at a certain speed, usually three or four miles an hour. The more experienced the operator, the faster he can go. By figuring out the amount of water going through the pump and how wide they are spraying, Chem-trol employees can determine how many gallons they'll need per acre before going on a job.

The right hand-grip controls speed; the left is the hydraulic brake. A lever near the floor has forward and reverse controls. Also near the floor are three nozzle controls which can be operated with the driver's free hand. They release the spray in the back of the machine. Spray comes out of the right, left and middle nozzles, and there are retractable booms for larger areas, which allow the operator to cover twice as much ground. For hard-to-reach areas, there's a hose attached to the machine. But few areas are hard-to-reach. The machine goes through an average four-foot-wide garden gate.

The unit is transported on a three-quarter ton pick-up with a custom-made body. The spray unit can be driven up and down a steel-mesh ramp. Chem-trol has two complete spray/pick-up units.

"We've shown a 50 percent increase in business in the last three years," Shearman said.

His basic, five-application program includes fertilizer, micronutrients, crabgrass control and broadleaf weed control in early spring; fertilizer, micronutrients and insecticide in spring; chinchbug and sod webworm control in early summer; fertilizer, micronutrients, grub and broadleaf weed control in early fall; and fertilizer, micronutrients and soil amendments in fall.

He uses 2,4-D and MCPP for weed control. Fertilizer is a 50

percent organic nitrogen mix in early spring. When fertilizer is used in summer it is a 100 percent organic nitrogen mix. He uses Boots Hercules Agrochemical Co.'s Powder Blue nitrogen.



Dave Feest operates Chem-Trol's three-wheel spray unit. It can cover a 6,000 square-foot area with chemicals in five minutes.

Micronutrients are magnesium, sulfur, copper, iron, zinc, and manganese. He feels they are an essential part of a lawn care program.

For crabgrass control he uses

Dacthal, manufactured by Diamond Shamrock Corp. He switches insecticides so pests do not become immune, alternating seasons with Dow's Dursban and Ciba-Geigy's Diazinon.

The company also handles tree spraying, hydroseeding, industrial weed control and mowing/maintenance. Union Carbide's Sevin is used for gypsy moth control on trees, which have been a problem in his area for more than 10 years.

Hydroseeding is done along highways and for subdivisions. Shearman usually will be part of a contracting package, but rarely bids on jobs alone. He has worked in the past with sewage contractors and builders. He usually gives a contractor an estimate on a job, which the contractor then includes as part of the total price when the job is bid.

Al Tierney, a Chem-trol sales rep, sells industrial weed con-

trol. Like Shearman, he often takes advantage of the winter months to drum up new business. "You haven't lived," jokes Tierney, "until you've sold weed control when there is five or six inches of snow on the ground."

Shearman does maintenance as part of a total lawn care program, but refuses to do it otherwise. He says he does not want anyone pointing to an otherwise poorly kept lawn which Chem-trol simply mows.

The average lawn Chem-trol services is 12,000 square feet. He charges \$19.88 per application for a 5,000-square-foot lawn, based on a five-application program. He advertises on radio, in newspapers and through direct mail.

He keeps his employees year-round, and pays well over \$5 an hour for a skilled, experienced operator. Story and photos by Carol Rose

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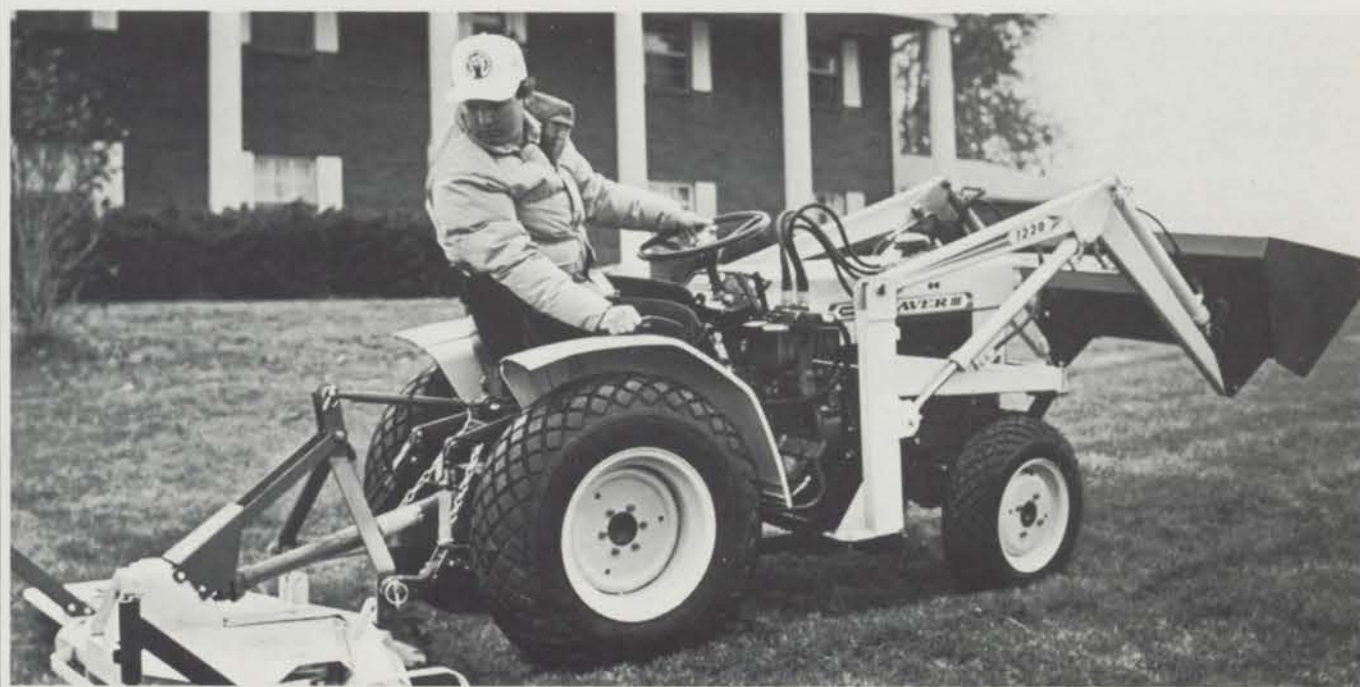
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# Million-dollar lawn care companies

*LCI's second annual look at the industry's largest*

by Bob Earley  
Editor/Associate Publisher

At least 28 chemical lawn care companies grossed more than \$1 million dollars last year. The largest percentage of these companies are chain operations.

At least another 34 chemical lawn care companies grossed between \$400,000 and \$1 million dollars. Many of these companies will go over the million-dollar mark in 1980.

The survey is based upon questionnaires filled out by many of the companies, estimates by lawn care businessmen across the country, and estimates by the editors and marketing staff of LAWN CARE INDUSTRY. The list is not conclusive, but does include most of the major chemical lawn care companies in the United States. The list does not include companies whose main business is not chemical lawn care, for example, mowing/maintenance companies.

In the following listings, (C) represents a chain operation with offices in more than one city, (F) represents a franchise operation, and (I) represents independent companies operating for all practical purposes in one metropolitan area. The companies are not listed in ranking order. The companies represented here collectively grossed in excess of \$204 million last year.

ChemLawn Corp., Columbus, Ohio, heads the list. It grossed about \$86.6 million last year with service to 694,000 customers. It has more than 100 branches, and employs close to 2,000 persons.

Lawn Doctor, Inc., has about 250 franchise outlets employing 1,200 persons. Gross sales were estimated by the company at more than \$17 million on service to 115,000 customers.

Lawn-A-Mat Chemical & Equipment Corp., Westbury, N.Y., has about 150 franchise outlets employing 800 persons. Gross sales were estimated by the company at \$13.5 million on service to 75,000 customers.

Lawn Medic, Inc., Bergen, N.Y., has about 92 franchise outlets employing 276 persons. It also has a company-owned division. Gross sales were estimated at \$6.4 million on service to 43,400 customers.

Davey Lawnscape Service, Kent, Ohio, has 10 company-owned outlets employing 110 persons. Sales were estimated at \$4.5 million on service to 37,000 customers.

Perf-A-Lawn Corp., New Carlisle, Ohio, has eight company-owned outlets and 18 franchise outlets. The company employs 175 persons. Sales were estimated at \$4 million on service to 45,000 customers.

Barefoot Grass Lawn Service, Worthington, Ohio, has 12 outlets, both company-owned and franchise. Sales were estimated at \$3 million.

R.W. Collins, Inc., Satellite Beach, Fla., has 17 company-owned outlets, employing 125 persons. Sales were estimated at \$3 million on service to more than 20,000 customers.

A-Perm-o-Green Lawns, Inc., Austin, Texas, has 13 franchise outlets, employing 65 persons. Sales were estimated at \$3 million on service to about 25,500 customers.

Leisure Lawn, Inc., West Carrollton,

Ohio, has four company-owned outlets employing 80 persons. Sales were estimated at \$3 million on service to more than 20,000 customers.

Liqui-Green Lawn Care Corp., Peoria, Ill., has 26 franchise outlets. Sales were estimated at \$2 million on service to 13,000 customers.

Lawn King, Inc., Fairfield, N.J., has more than 80 outlets. The company estimates sales of more than \$2 million. It is a franchise-based operation.

Excelawn, Inc., Louisville, Ky., has three outlets, and estimated sales in excess of \$2 million.

Hydro Lawn, Inc., Gaithersburg, Md., has two company-owned outlets, and employs 37 persons. Sales were estimated at \$1.75 million on service to more than 12,000 customers.

Keystone Lawn Spray, Wayne, Pa., has three company-owned outlets, and employs 30 persons. Sales were estimated at \$1.65 million, on service to about 14,500 customers.

No-Risk Exterminating Co., Inc., Fort Meyers, Fla., employs 60 persons out of its one office. Sales were estimated at \$1.5 million on service to 20,000 customers.

Easy Lawn Corp., Piqua, Ohio, has seven company-owned outlets employing 42 persons. Sales were estimated at \$1.5 million on service to 17,000 customers.

Spring-Green Lawn Care Corp., Naperville, Ill., has 23 franchise outlets. Sales were estimated at \$1.5 million on service to 10,000 customers.

Lawn Beautiful, Wheeling, Ill., has two company-owned outlets employing 40 persons. Sales of \$1.5 million were estimated on service to 13,500 customers.

Chemical Applicators, Pearland, Texas, has two company-owned outlets employing 22 persons. Sales were estimated at \$1.2 million on service to 700 customers, most of them industrial weed control accounts.

Super Lawns, Inc., Rockville, Md., has 10 franchise outlets employing 20 persons. Sales were estimated in excess of \$1 million, on service to more than 4,000 customers.

Yardmaster, Inc., Painesville, Ohio, has two company-owned outlets, employing 30 persons. Sales were estimated at \$1 million on service to 4,800 customers.

## Gross sales of \$1 million or more

**ChemLawn Corp. (C)**  
Columbus, Ohio

**Lawn Doctor, Inc. (F)**  
Matawan, New Jersey

**Lawn-A-Mat Chemical & Equipment Corp. (F)**  
Westbury, New York

**Ever-Green Lawns Corp. (C)**  
St. Louis, Missouri

**Lawn Medic, Inc. (F)**  
Bergen, New York

**Davey Lawnscape Service (C)**  
Kent, Ohio

**Tru-Green Corp. (C)**  
East Lansing, Michigan

**Perf-A-Lawn Corp. (C,F)**  
New Carlisle, Ohio

**Barefoot Grass Lawn Service (C,F)**  
Worthington, Ohio

**R.W. Collins, Inc. (C)**  
Satellite Beach, Florida

**A-Perm-o-Green Lawns, Inc. (F)**  
Austin, Texas

**Leisure Lawn, Inc. (C)**  
West Carrollton, Ohio

**Green-Lawn, Inc. (C)**  
Louisville, Kentucky

**Liqui-Green Lawn Care Corp. (F)**  
Peoria, Illinois

**Lawn King, Inc. (F)**  
Fairfield, New Jersey

**Excelawn, Inc. (C)**  
Louisville, Kentucky

**Hydro Lawn, Inc. (C)**  
Gaithersburg, Maryland

**Keystone Lawn Spray (I)**  
Wayne, Pennsylvania

**No-Risk Exterminating Co., Inc. (I)**  
Fort Myers, Florida

**Easy Lawn Co. (C)**  
Piqua, Ohio

**Spring-Green Lawn Care Corp. (F)**  
Peoria, Illinois

**Lawn Beautiful (I)**  
Wheeling, Illinois

**Chemical Applicators (I)**  
Pearland, Texas

**Super Lawns, Inc. (F)**  
Rockville, Maryland

**Yardmaster, Inc. (I)**  
Painesville, Ohio

**Burke Pest Control, Inc. (I)**  
Fort Lauderdale, Florida

**Tomasello, Inc. (I)**  
West Palm Beach, Florida

**Rollins Lawn Care (C)**  
Atlanta, Georgia

Spray-A-Lawn of Warren-Youngstown, Inc., Ohio, employs 25 persons. Sales were estimated at \$995,000 on service to 9,400 customers.

The Shur Lawn Co., Omaha, Neb., has two company-owned outlets employing 26 persons. Sales were estimated at \$962,000 on service to more than 6,400 customers.

Central Chemical Service, Inc., Kearney, Neb., has two company-owned outlets employing 12 persons. Sales were estimated at \$855,000 on service to 1,700 customers.

Turf Doctor, Inc., Framingham, Mass., has three company-owned outlets employing 40 persons (including part-time help). Sales were estimated at \$850,000 on service to 5,010 customers.



## INSIDE THE INDUSTRY

Ford's Chem Service, Inc., Pasadena, Texas, employs 15 persons. Sales were estimated at \$850,000 on service to 1,000 customers, mostly industrial weed control accounts.

Greenlon, Inc., Cincinnati, Ohio, employs 18 persons. Sales were estimated at \$794,000 on service to more than 6,500 customers.

Spray-A-Lawn of Pittsburgh, Inc., Pa., has two company-owned outlets employing 22 persons. Sales were estimated at \$767,000 on service to 8,300 customers.

Eastside Spraying Service, Kirkland, Wash., employs 20 persons. Sales were estimated at \$700,000 on service to 5,000 customers.

Lawn Builder, a division of R & T Landscaping, Inc., Harrison, Ohio, employs 26 persons. Sales were estimated at \$700,000 on service to 1,900 customers.

Lawn Groomer, Normal, Ill., has two company-owned outlets employing 13 persons. Sales were estimated at \$650,000 on service to 4,800 customers.

Lawnco, Inc., Brooklyn Heights, Ohio, employs 17 persons. Sales were estimated at \$640,000 on service to 5,126 customers.

Spray-A-Lawn, Inc., Orrville, Ohio, employs 16 persons. Sales were estimated at \$576,000 on service to 4,900 customers.

McGinty Brothers, Inc., Long Grove, Ill., employs 12 persons full-time. Sales were estimated at \$550,000 on service to 3,500 customers.

Lawnmark Associates, Peninsula, Ohio, has three company-owned outlets. Sales were estimated at \$520,000 on service to 3,900 customers.

Wagenschutz Lawn Spraying, Plymouth, Mich., employs 15 persons. Sales were estimated at \$500,000 on service to 4,200 customers.

Royal Lawns, Inc., Pine Brook, N.J., has five franchise outlets employing 13 persons. Sales were estimated at \$500,000 on service to 1,800 customers.

Lawn Craft, Bellevue, Wash., has two company-owned outlets, employing 20 persons. Sales were estimated at \$500,000 on service to 1,000 customers.

American Lawnservice, Inc., North Hills, Pa., employs 15 persons. Sales were estimated in excess of \$500,000 on service to more than 2,500 customers.

Spray-A-Lawn, Inc., Cincinnati, Ohio, has four company-owned outlets employing

10 persons. Sales were estimated at about \$500,000 on service to 2,500 customers.

Chem-Care Lawn Service of Alabama, Inc., Birmingham, has two company-owned outlets, and employs 15 persons. Sales were estimated at \$475,000 on service to 2,800 customers.

Atkins Lawn Pros, Columbia, Mo., has six company-owned outlets employing seven persons. Sales were estimated at \$450,000 on service to 3,300 customers.

Four Seasons Lawn Care, Parkville, Mo., has three company-owned outlets employing 27 persons. Sales were estimated at \$435,000 on service to 670 customers.

## Gross sales of \$400,000 to \$1 million

**Lawnrite Corp. (I)**  
Port Jefferson Station, New York

**Spray-A-Lawn of Warren-Youngstown, Inc. (I)**  
Warren, Ohio

**A-1 Wilson Power Spraying, Inc. (I)**  
Fort Lauderdale, Florida

**The Shur Lawn Co. (C)**  
Omaha, Nebraska

**Central Chemical Service, Inc. (I)**  
Kearney, Nebraska

**Turf Doctor, Inc. (I)**  
Framingham, Massachusetts

**Ford's Chem Service, Inc. (I)**  
Pasadena, Texas

**Greenlon, Inc. (I)**  
Cincinnati, Ohio

**A-1 Spray Service (I)**  
Tacoma, Washington

**Spray-A-Lawn of Pittsburgh, Inc. (I)**  
Pittsburgh, Pennsylvania

**Washington Tree Service (I)**  
Seattle, Washington

**Eastside Spraying Service (I)**  
Kirkland, Washington

**Lawn Builder (I)**  
Harrison, Ohio

**Lawn Groomer (I)**  
Normal, Illinois

**Lawnco, Inc. (I)**  
Brooklyn Heights, Ohio

**Techniturf, Inc. (I)**  
South Berlin, Massachusetts

**Spray-A-Lawn, Inc. (I)**  
Orrville, Ohio

**McGinty Brothers, Inc. (I)**  
Long Grove, Illinois

**Lawnmark Associates, Inc. (C)**  
Peninsula, Ohio

**Green Lawn Fertilizer Corp. (I)**  
Kansas City, Missouri

**Wagenschutz Lawn Spraying (I)**  
Plymouth, Michigan

**Security Pest Control of Florida (I)**  
Port Richey, Florida

**Royal Lawns, Inc. (F)**  
Pine Brook, New Jersey

**Lawn Craft (I)**  
Bellevue, Washington

**American Lawnservice, Inc. (I)**  
North Hills, Pennsylvania

**Cut 'N Care (I)**  
Ann Arbor, Michigan

**Spray-A-Lawn (C)**  
Cincinnati, Ohio

**Chem-Care Lawn Service of Alabama, Inc. (I)**  
Birmingham, Alabama

**Atkins Lawn Pros (C)**  
Columbia, Missouri

**Four Seasons Lawn Care (I)**  
Parkville, Missouri

**Lawncare, Inc. (I,F)**  
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**Signature Lawns, Ltd. (I)**  
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Spokane, Washington

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# Mower/tractor purchases are a 'critical' business function

by Dan Moreland, assistant editor

Planning mower and tractor purchases may be the most critical function of a lawn maintenance professional. One businessman recently contacted by LAWN CARE INDUSTRY undoubtedly echoed the view of many in the industry when he said, "I only do about \$100,000 of business a year, so if I want to make anywhere close to a halfway decent living I can't afford to make one and two thousand dollar mistakes when it comes to purchasing equipment."

Mistakes not only adversely affect profits, but end the career of many lawn maintenance professionals before they even get started. Therefore, mower/tractor purchases should not be determined haphazardly. Proper planning is a must for those who hope to be successful in the lawn maintenance field.

*"I only do about \$100,000 of business a year, so . . . I can't afford to make one and two thousand dollar mistakes when it comes to purchasing equipment."*

LAWN CARE INDUSTRY recently discussed this topic with several lawn maintenance businessmen across the United States and they had a variety of suggestions concerning how to successfully manage mower/tractor purchases. Their recommendations included:

- Cost justify all new equipment.
- Plan well ahead of seasonal demands.
- Collect product data throughout the year and keep that information up to date and on file.
- Be aware of alternatives to purchasing new equipment (i.e. leasing, overhauling old equipment, purchasing used machinery).
- Establish credit with several banks in your community.
- Do not purchase new equipment with the expectation of financing that equipment with new business.
- Purchase only one or two brands of mowers or tractors so your mechanics can develop a substantial used parts inventory.
- Trade in used equipment to get a break on the price of new equipment.
- Be aware of special offers by mower/tractor dealers and distributors (i.e. lease/buy agreements, special payment policies, etc.)

Most lawn maintenance businessmen agree that prior to purchasing a mower or tractor,

that piece of equipment must be cost justified. In other words, you must be able to establish that you need that piece of equipment and eventually turn it into a profit center for your business. Jerry Von Tress, general manager of Maintain, Inc., Dallas, Texas, said he tries to "accurately project" annual sales figures before purchasing new equipment. If those predictions indicate a need for new equipment Maintain, Inc. purchases what it needs. If they don't, the company does not purchase the new equipment.

Without exception, those contacted by LAWN CARE INDUSTRY said lawn maintenance businessmen should plan ahead

for equipment purchases. Marion F. Grove, president of Greenlawn, Greenville, S.C., said prior to each new season she reviews the size and types of accounts she will be servicing in the coming year.

"First, I take a look at my projects and the acreage I'm going to take care of," she said. "Then I determine what type of mower would best fit that application. I also look at the type of equipment I already have in hand because what I have at the start of one season may not be what I need the next season. Finally, after I decide what type of equipment I need I look at specific models."

Grove also recommends collecting product information throughout the year to aid in the selection process. "I try to have literature in hand on all equipment so at the point in time I start to evaluate a piece of equipment or bid on a certain job I will have it readily available."

Lawn maintenance businessmen should also be aware of the alternatives to purchasing new equipment. Kent Price, president of Lawnshapers, Inc., Minneapolis, Minn., recommends overhauling equipment. "We'll generally overhaul our equipment before we buy something new," he said, "although it depends on each individual piece of equipment."

Overall, the rule of thumb in the lawn care industry, is to overhaul large equipment (i.e. trucks, large mowers, etc.) and simply purchase new walk-behind mowers each year. Von Tress, of Maintain, Inc., said, "We feel we're better off con-

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*"Before I buy a piece of equipment I will usually have one half of the business that I need to support it. I will then actively seek out the business required to support the other half."*  
**Marion Grove, Greenlawn, Greenville, S.C.**

stantly maintaining our trucks and larger equipment because we can continue to use them long after they've depreciated in value. But there has got to be a point where the replacement cost of that equipment dictates how much effort can be put into rebuilding it."

Regarding small mowing equipment, Von Tress added, "Each year we feel our fleet of small mowing equipment is used up and is worthless at the end of the year. So we purchase small mowers every year."

Larry Shelton, of Classic Landscapes, Ltd., Raleigh, N.C., agrees. "The bigger motors lend themselves better to rebuilding than the smaller ones," he said. "We overhaul mid-sized equipment (i.e. 52-inch Goodall), but we just rob the motors of our small equipment after they've worn out. It's cheaper to do that than pay the service bills."

A second option to new machinery is purchasing used equipment. However, most lawn maintenance professionals contacted by LAWN CARE IN-

DUSTRY voiced concern over purchasing used equipment unless they knew the history of a particular piece of machinery.

"I only feel comfortable buying a used piece of equipment if I know the history of the equipment or the source I'm buying it from," Shelton said. "Anything with a motor on it I'm a little leary about buying used and I wouldn't consider buying a piece of used equipment from somebody I didn't know."

Although many view purchasing used equipment as "buying headaches," other consider it beneficial for newly established lawn maintenance businesses.

"I started out with a lot of used equipment," Bert Goodman, co-owner of Quality Lawns, Milwaukee, Wis., said, "even though I wouldn't be too interested in it anymore. It's a good way to cut down on the cost of equipment when you're first starting out."

Mowing maintenance businessmen also recommend not

purchasing new equipment with the expectation of financing that equipment with new business. "I purchase new equipment as the need becomes apparent," Goodman said. "I would never buy a piece of equipment and then say I hope I have the business to support it."

Price, of Landschpes, Inc., said his cash-flow situation largely determines if he buys a mower or tractor. "Because this is a seasonal business and our cash-flow is so tight, we buy our equipment after we get the business," he said.

Paul Constant, owner of Constant Care, Inc., Kansas City, Mo., said he has no "clean-cut" method of justifying a mower or tractor purchase. "I don't purchase another tractor based on dollar volume or the number of new customers I get each year," he said. "It isn't that clean-cut. I suppose it's slightly a gut feeling."

Although many lawn maintenance businessmen base their mower and tractor purchases anything from "gut feelings" to complex mathematical formulas, we think Grove, of Greenlawn, has the best suggestion. "Before I buy a piece of equipment I will usually have one half of the business that I need to support it," she said.

"I will then actively seek out the business required to support the other half. If I don't have at least one half of the business I use what I've got, even if it's not sufficient. It's better than going out on a limb."

Yet another way to decrease equipment costs is to limit your expenditures to one or two models of mowing equipment, thereby making repairs more uniform. For example, Maintain, Inc., attempts to utilize only one type of small mower so repairs can be made more easily. "If we only use one type of mower we not only can build up a large parts inventory, but our mechanics learn very quickly how to repair that piece of equipment," Von Tress said.

Finally, be aware of special offers by mower/tractor dealers and distributors. A significant amount of money can be saved by merely keeping your eyes and ears open. Lease/buy agreements are particularly affective in reducing the risk of buying new equipment. Goodman, of Quality Lawns said he often utilized lease/buy agreements when he was first starting in business.

"Rather than buy a piece of equipment right away and then be stuck with the payments, I figured as long as I could apply the rent towards the purchase price it would give me a way to determine if I really needed that piece of equipment," he said.

Obviously, there are a number of ways to reduce the risk of purchasing new equipment. The key is to plan ahead and to cost justify all new purchases. Remember the comments of Bert Goodman, co-owner of Quality Lawns, Milwaukee, Wis. "We're a small business and I don't have a lot of extra funds to put into new equipment. That's why I'm conservative. I need that money to live on."

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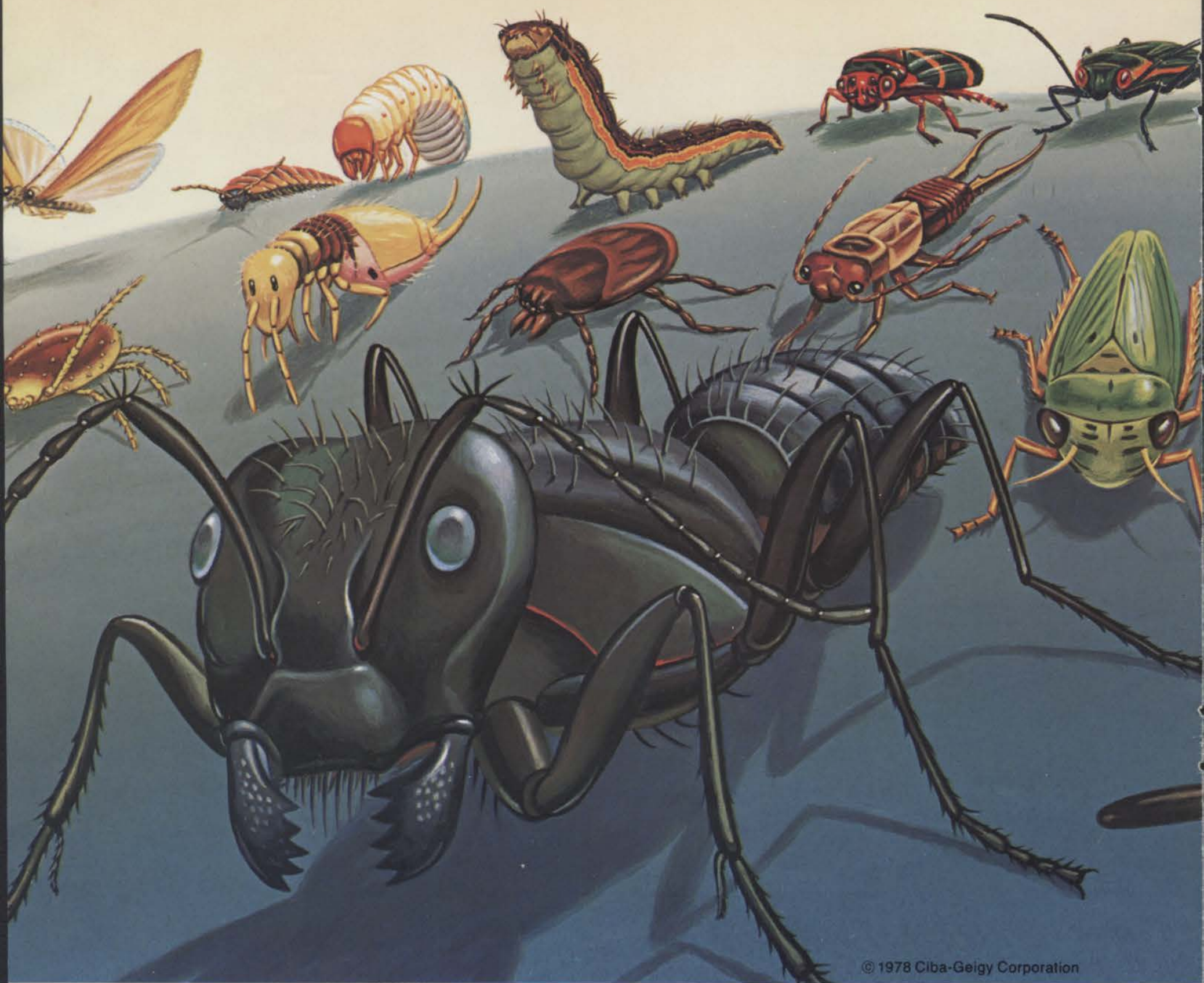
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# Guide to diagnosing ornamental problems

by Dr. R.E. Partyka

It is almost impossible to find a residential turf area that does not contain some ornamental plant material. Such plants include trees, shrubs, flowers, ground covers, annuals, succulents, etc. These plants are used for many purposes, but primarily for privacy and aesthetic value.

Ornamentals are prone to numerous problems and your presence, as a lawn specialist, will often require that you answer a homeowner's questions concerning these plants. The fact that you have training in turf and related fields in solving turf problems can be put to work in helping a homeowner with his or her ornamental problems. Your answers do not have to be specific, but they should encourage some action by the customer.

Observe the local site where the affected plant is located. Be particularly aware of the terrace or lay of the land because possible water pockets and drainage patterns may be involved.

Many situations may be baffling to you. In these cases it is best to point out to the customer that the problem is beyond the scope of your background, but you will seek further help or else advise the customer as to whom he should contact. Further, keep references and telephone numbers readily available so you can direct your customers to the proper source. County extension agents, reliable local consultants, and representatives of state universities are recommended contacts. Also, in some cases you may have well qualified people in your working complex who can help with the problem. Above all, if you can't help at the time, be honest and tell the customer, but be sure to follow up with help and advice when you come into contact with them again.

The following guidelines are to help a horticulturally-minded lawn specialist in making a diagnosis of an ornamental plant problem. Your agronomic background and common sense will play a role in the decision you make.

- Understand your customer and his or her knowledge of plants. Is the customer asking you or are you trying to explain a problem that you noticed? What does the customer expect and can you satisfy those expectations?

- Do you recognize the plant material in the area? Are you familiar enough with most plants due to your company training programs or your prior knowledge to be comfortable in discussing the plants?

- Do you feel you have sufficient background in ornamentals to discuss broad categories of insects, diseases, or physiologically-related problems that may occur in your area?

- Are you up to date with environmental conditions in your local area? Unusual or severe weather conditions for a few weeks may be a clue to the symptoms observed on a plant.

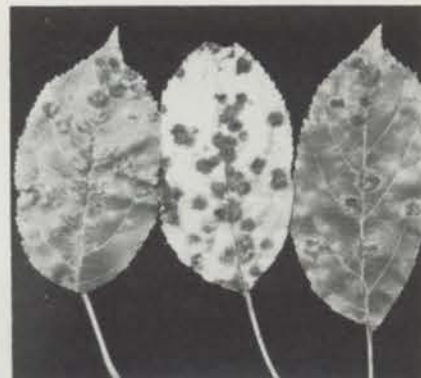
- As you approach the area, observe plant material to see if similar plants are showing the same symptoms. If so, this would often suggest that the problem is not confined to one property, but is due to climate or a reaction by

that species of plant.

- Observe the local site where the affected plant is located. Be particularly aware of the terrace or lay of the land because possible water pockets and drainage patterns may be involved.

- Be aware of the age of the home and surrounding area. New home sites can be associated with transplant problems, whereas older sites may be susceptible to root girdling, gas line leaks, etc.

Now that we have considered history, overall site, and the location of the plant we can begin to concentrate on the plant itself. Is the problem confined to the leaves only? Are leaves and certain branches affected or does one find that the entire plant is showing some unusual symptoms? Once a category is determined, one can begin to focus more closely and consider further possibilities. These include:



Dark spots on leaves often indicate a leaf spot disease which may be related to wet weather conditions.

## LEAF PROBLEMS

- Leaves with spots—Dark spots or sooty-like spots on leaves often suggests a leaf spot disease that may be related to wet weather. An early fungicide treatment may help and an application of a general purpose insecticide is recommended in the future. If leaf tissue sepa-

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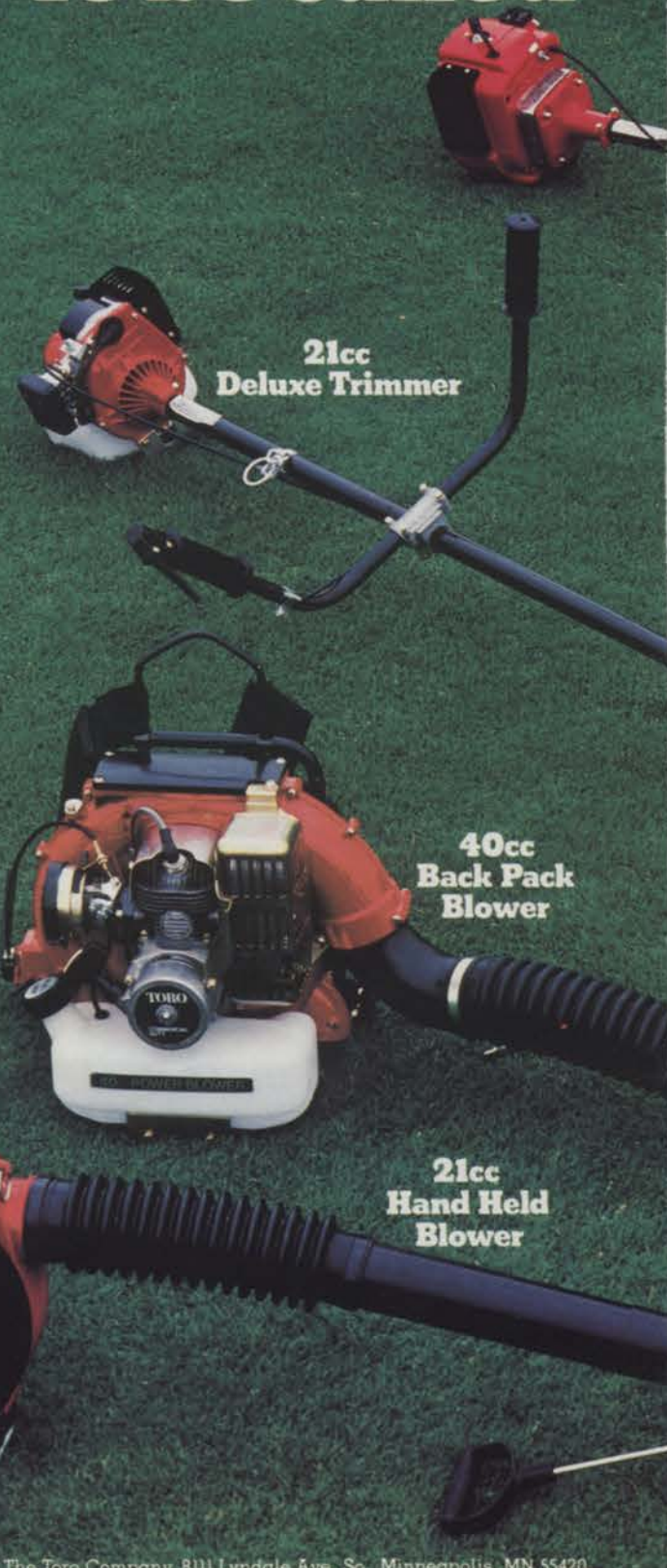
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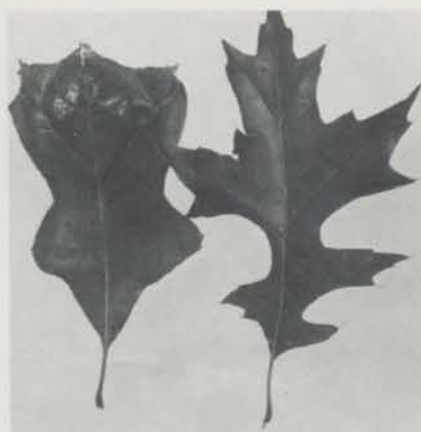


rates easily and round spots or serpentine areas are visible, a leaf miner may be present. Leaf miners require specific insecticides and careful timing for control.

- **Holes in leaves** — An uneven margin around a hole indicates insect feeders. The insect may be present, but if not, its cycle is complete and prepare for the next time with a general purpose insecticide. A smooth margin around a hole could mean possible frost damage when the leaf was in the bud stage. This is usually noted on the first leaves of the season. Further, weevils feeding at night produce notches in leaves, while broken leaf tissue with some holes indicates possible hail damage.

- **Leaf webbing** — Masses of fine threads on several leaves may indicate the presence of spiders or the early stages of webworm or caterpillar activity.

- **Leaf rolling** — The presence of webs and insects suggests a



These oak leaves were distorted by a growth regulating herbicide. The plant was affected through drift or root uptake.

leaf roller that a general-purpose insecticide can control. If no web is evident and the foliage is not off color, water stress may be the cause. Review recent weather conditions and water the plant. If there is no response, look for other problems.

- **Leaves off color and not a**

natural green — Stripple patterns with many small areas of yellow or light color may indicate spider mites, lace bugs, or leaf hopper plant bugs. Kelthane is effective for spider mites and Sevin should be used for the other insects. Green veins with yellow tissue between the veins may indicate a mineral deficiency (iron, zinc, or manganese), toxicity of a minor element, or a soil sterilant used in the vicinity being absorbed by the roots. Plant material and soil may require further testing. If the plant has brown edges and the tissue between the veins is brown, water stress is indicated. Look for a possible restriction in the root, trunk, or branch of the plant.

Further, leaf beetles or skeletonizers are present if the leaves are all brown and tissue is eaten. If insects are present, identify and control with stomach poison insecticides. Yellow leaves or needles may also

mean a natural leaf change, possible plant stress, or a genetic plant characteristic.

- **Leaves distorted, curled, and veins outstanding** — This indicates possible disease, insect-related problems, or the plant may have come into contact with a growth regulator compound from drift or root uptake.



An uneven margin around a hole (above) indicates insect feeder damage. Whereas, a smooth margin around a hole could mean possible frost damage when the leaf was in the bud stage.

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### LEAVES ON ENTIRE BRANCHES

- **Large amounts of webbing** — This indicates the presence of webworms.

- **Leaves turn yellow or brown on individual branches** — Definite discolored area on branch below off-colored foliage indicates a canker or restricted area. Treat by pruning off the affected area. If no canker or discolored area is present, but internal discoloration in vascular tissue is apparent, a vascular wilt disease is the cause. There is no control in most cases. If neither of the above, check for trunk or root damage on one side of the plant.



This dead elm tree is an example of an entire plant which has been affected by ornamental problems. Any number of factors could have caused the problems including nutritional disorders, water shortage, root rots, or old age.

### ENTIRE PLANT AFFECTED

- **Leaves curled and wilted** — This indicates a possible water shortage. Check for dry soil or a problem in the soil root zone and try watering.

- **Leaves yellow or off color** — A nutritional disorder or root injury is the cause. Examine root area and possibly run a foliar test.

- **Leaves all brown or with brown edges** — This indicates a serious water shortage. In new transplants (under three to four

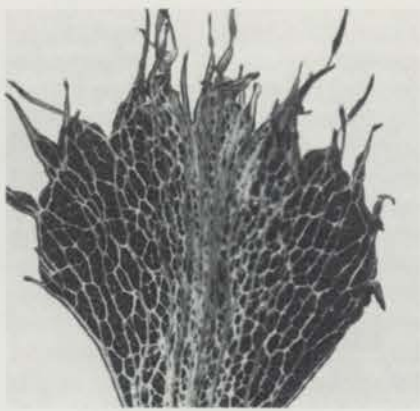


years in place) check the following:

- 1.) Watering practices — See if the soil is too wet or too dry.
- 2.) Size of root system — See if the root ball is too small for the size of the plant.
- 3.) Planting depth — Roots should be planted within one inch of the soil surface in most cases. Deep planting may be a problem in some cases.
- 4.) Confined roots — Roots may be restricted by their containers.
- 5.) Excess water — Wet, soggy soil and a sewer gas odor suggests poor drainage and excess watering.
- 6.) Excess fertilizer — You may need to take a soil sample and check the soluble salt level of the soil.

In older plants (more than four years in place) check the following:

- 1.) Girdling twine at soil line or below



The parallel veins on this grape leaf are indicative of the distorted foliage produced by the use of 2,4-D as a growth regulator.

- 2.) Girdling roots — They generally appear on plants which have been in one location for awhile, but girdling may occur sooner in container grown plants.
- 3.) Root rots — Check the color of roots in soil. White roots are healthy, but black or

brown roots indicate damage.

- 4.) Construction damage to roots followed by secondary root rots.
- 5.) Gas leak — Check the soil odor and the color of roots. Dead roots will be present if gas displaces oxygen in the soil. Locate gas and sewer lines.
- 6.) Fill soil — Check depth of soil around the base of the plant. Where do first roots begin?
- 7.) Excess water — Indicated by wet, soggy soil and sewer gas odor in area. Water stands in dug hole

may also be present.

- 8.) Vascular wilt disease — Indicated by internal discoloration.
- 9.) Age of plant — Old age, size, variety, and environment can cause a decline in the health of the plant.

## MIMICKING PROBLEMS

Other factors may produce symptoms on plant material that resemble a disease or herbicide and confuse the issue. These should be considered when appropriate for location and time of year:

- Air pollution — Causes various patterns on all plants or only affects tissue at a certain stage of growth. Some materials can damage all plant vegetation in an area so one plant could not be separated out. Other materials can affect certain plant species or only certain plants of a variety due to genetic background. In such cases, all possible avenues must be explored.

- Herbicides — Growth regulator herbicides often produce distorted foliage with parallel veins and twisting and curling of tissue on deciduous broadleaf plants. Key characteristics must be examined as insect and virus disease induced problems often look similar. Often finer details are needed to separate the problems. Broadleaf evergreen and needle plants may not show any symptoms and if present occurs only on new expanding tissue.



Soil sterilants used near this fence damaged oak trees when the material leached into the root zone.

- Materials that are not of a growth regulator nature — These materials may result in yellowing or scorching of leaves which resemble other plant problems. Soil sterilants used around fences and driveways often create problems on woody ornamentals when they do not stay confined to location or are not used properly. Many of these compounds are chlorophyll inhibitors so early yellowing and scorching may confuse the initial diagnosis.

- Temperature fluctuations and other environmental stresses — These can produce leaf symptoms that resemble a disease or a herbicide related problem. Weather records, stage of plant development, materials used, and timing must all be considered in evaluating a problem of this nature.

The above guidelines should help in looking at problems in a logical manner. On the spot diagnosis may be difficult until further tests have been conducted. These may be done by you or else the customer may have these done. A poor diagnosis on a snap judgement may lead to poor credibility for your company.

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RI-O2D



## COST CUTTINGS

### In-house computers versus service bureaus

A number of the most successful companies in the lawn care industry utilize computers for a variety of tasks including routing, inventory, and preparing customer statements. Computers not only streamline their operations, but also save time and money. There is no doubt that when used correctly computers can be beneficial to lawn care businessmen.

But what about the small lawn care company which may not have the capital to purchase a computer, yet could benefit from its capabilities? There is an alternative. Data processing services or so-called "data centers" can perform many of the same functions of an in-house computer. What types of services you purchase determine the cost, but according to Herbert D. Teague, of Tymshare, Inc., Decatur, Ala., the small businessman can save a significant amount of money by utilizing a service bureau.

"We normally think in terms of you being able to use a data center for 25 to 75 percent of what it costs you to do the same work on an in-house computer," Teague said.

However, Teague readily admits that there are also some disadvantages to service bureaus. "There are times when the service bureau or data center will not respond to you as

quickly as you would like them to respond," he added. "Problems within the data center with hardware, schedules, and personnel can also occur which cause us to perform less than what we would like to perform."

Teague also made a number of other statements concerning computers including:

- If you deal with 2,000 or more customers per month you have the base needed to "make use of the speed and efficiency of a computer."

- "Don't circumvent the development of your routing and accounts receivable systems trying to get low return applications (i.e. inventory, payroll, etc.) onto the system."

- Carefully determine what you want your data base to contain. Make sure you put everything in that data base that you would ever want and make sure you allow room for things that you're not thinking about presently.

- Make sure that your people do not "feel threatened" by computers. "The attitude of your people is very important to the success of any data processing installation."

- Computers are not infallible. "You have to remember that these things (computers) are mass produced just like televisions and calculators and you do stand a chance of getting a bad piece of gear."

- After purchasing a computer you must secure it against outside theft and vandalism, against accidental destruction of your data base, and against deliberate vandalism from an employee.

### GOVERNMENT

#### Withholding tax may be imposed on franchisees

The Internal Revenue Service's (IRS) attempt to impose income tax withholding requirements on independent contractors, including some 800 lawn care franchisees, has angered International Franchise Association (IFA) officials.

"Every participant in the franchise system of distribution could be hurt if the IRS has its way," Joseph Koch, IFA executive vice-president, said.

Representative Richard A. Gephardt (D-MO) and Senator Robert Dole (R-KS) are currently sponsoring bills to clarify the definition of independent contractors and establish a "safe harbour" for those business people who meet certain criteria. However, the IRS is seeking amendments to both bills. If the IRS pushes the amendments through, a ten percent withholding will be required for all independent contractors, safe harbour status notwithstanding.

"IFA is supporting both H.R. 3245 and S. 736 without amendment," Koach said. "We flatly dispute IRS' allegations that independent contractors, and franchisees in particular, are guilty of widespread tax abuses."

If the ten percent withholding were to pass into law, franchisors could be required to collect ten percent of their franchisee's gross earnings. "Franchisees are independent business people in every sense of the word," Koach said. "Such a withholding requirement would not only tamper with franchisee independence, it would be virtually impossible to satisfy. Franchisors are in no position to collect ten percent of income from franchisees, since the income stream goes directly to the franchisee," he added.

However, support may be growing. IFA's Director of Government Relations Jerry Wilkerson said, "Franchisors and franchisees are really pulling together in support of both the Gephardt and Dole bills."

## Mauget Tree Injection Seminars, they're meetings worth repeating

Should you attend a Mauget tree injection seminar again? New and experienced applicators can profit from yearly Mauget tree injection seminars. If you've been to a seminar before, you'll want to come again for a booster shot of new information. It's a meeting worth repeating.

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**March**  
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 Airport Holiday Inn  
 I-59 & I-20 Airport Exit  
**5** Memphis, TN  
 Airport Holiday Inn  
 I-55, Brooks Rd. Exit  
**7** Bowling Green, KY  
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**7** Erie, PA  
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 I-90 & Rt. 97 Exit 7  
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**19** Scranton, PA  
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**20** Cleveland, OH  
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 Ohio Turnpike,  
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**20** Binghamton, N.Y.  
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LC-1



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Turf-tested, true-solution nitrogen fertilizers developed especially for lawn and turf professionals. No burning, quick greenup, nitrogen released in one season. No agitation, no clogging, no bag handling. No aggravation.



FORMOLENE controlled release nitrogen fertilizer is a clear water solution of short-chain urea formaldehyde polymers. Soil pH activates FORMOLENE fertilizer into water insoluble nitrogen that's slowly broken down by microbial action to release usable nitrogen for healthy turf and lasting color throughout the season. But there's also sufficient readily available nitrogen for the rapid color response your customers like to see. And all the nitrogen in your formulation is available within the growing season.

In Spring, FORMOLENE fertilizer quickly greens up turf, but without that burst of growth which leads to disease and excessive mowing schedules.

During hot, dry Summer, FORMOLENE fertilizer won't burn, yet maintains steady growth with adequate watering while holding color for several months.

For Fall lawn care spray programs, you can strengthen root formations and obtain Winter carryover of nitrogen for moderate growth the following Spring.

FORMOLENE fertilizer blends easily with other N, P and K nutrients and with most turf herbicides, insecticides and fungicides. It feeds both foliar and through the root system. FORMOLENE fertilizer resists leaching and volatilization and can be used at rates as high as 2 lb per 1,000 sq. ft. per application without burning. Yet rates of less than 1 lb per 1,000 sq. ft. per application can yield excellent results. One gallon of FORMOLENE fertilizer contains about 3 lb of N.

FORMOLENE fertilizer can be stored in mild steel or plastic tanks and is available from Ashland in 20-ton tank truck loads. Smaller quantities and complete custom fertilizer blends are available from authorized dealers. Our dealers can assist you with blending and mixing information to achieve the exact analysis you require for turf conditions in your area.

In short, FORMOLENE fertilizers and blends are the ideal way to get nitrogen to your customers' lawns. We'll be glad to tell you more. To take the aggravation out of your 1980 lawn care program, write Ashland Chemical Company, Chemical Systems Division, Box 2219, Columbus, Ohio 43216. Or call one of our FORMOLENE fertilizer experts at (614) 889-3490.



**Ashland Chemical Company**

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## MARKETING IDEA FILE

### Expand lawn business by diversifying



Giffen

You can expand your lawn care business by diversifying and offering your present customer other services beyond a basic lawn application program, whether it be liquid, dry, or a combination of both.

Here are a number of services you can incorporate into your present program, offered by Ron Giffen, national lawn care marketing director for Lakeshore Equipment & Supply Co., Elyria, Ohio:

**Optional rounds for late fall application.** Your company could offer liming applications, gypsum applications, late fall fertilization, snow mold control applications, or ornamental spraying with anti-transpirants to protect the ornamentals against winter.

Services that can be offered to your customer during the regular growing season. These services include: installation of lawn irrigation systems, lawn aeration, thatching, seeding, reseeding or sodding, tree and ornamental spraying, landscape design and construction, general shrub and tree maintenance, fungicide applications. Other services include snow removal, consultation services done once or twice a year, monthly, etc. Or adding job services such as window cleaning, gutter cleaning or blacktop coating.

**Diversification into related fields.** This could include providing lawn care for industrial complexes, estates, school sites and athletic fields, cemeteries, condominium complexes, home development areas that have common entrances, common recreational areas or common meeting facilities.

"Diversification and expansion brings along with it benefits and new challenges," Giffen said. "Among these benefits are better cash flow and profits over a more extended period of time throughout the year, key employees are better able to be kept on the job year-round, and employee morale is increased because their jobs are diversified. They won't feel as if they are just performing an assembly line service day-in, day-out."

### KENTUCKY

#### The advantages of fluid lime

The advantages of fluid lime are that a lawn care businessman can get more uniform application and more uniform pH adjustment, there are no problems with dust and a faster pH adjustment can be achieved, according to the University of Kentucky's Dr. Lloyd Murdock. He spoke on "Soil Testing and Fluid Lime" at the recent Kentucky Turfgrass Conference in Owensboro.

*"If you don't keep the pH in an area around about 6.0 and 6.2, you don't get the most efficient use of phosphorus and the available micro-nutrients either."*

"Liming in the past has been a low-cost thing," Dr. Murdock said. "But it has been usually used in bulk, it's dusty, you don't get much on, and you can run into some toxic problems. But then fluid lime came along. It's a little more expensive, but it is a way to get the lime on in a more advantageous manner."

The pH level is one of the things a lawn care businessman tests for when he conducts a soil test. The other things to test for include primary elements such as phosphorus and potassium, and some minor elements, although for some of the minor elements it becomes a "little hazy" when you are testing to determine levels.

Dr. Murdock recommended at least 10 cores be taken of a test area, and that they be taken from three to six inches deep.

"And when you take these samples, be sure to mix them up well before you send them to a lab," he said. Most labs will give

to page 25

# CALC-A-LAWN™

## The computer data system for the lawn care industry...



**Specifically designed** for your professional lawn care service company to use for computer program controls in business operations and management planning.

**Improves efficiency** of day-to-day operations resulting in increased profits.

**Reduces problems** of estimates processing, customer records, service routing schedules, invoice printing and delivery, accounts receivable control, and special analyses needed for management.

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- reduces employee costs and errors.

- expedites routing, scheduling, invoicing, and customer inquiries with the result of less lost time and more cash flow.
- provides better control of accounts receivable and inventory requirements.
- allows back-up records for emergency use.

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The February issue of **LAWN CARE INDUSTRY** will feature stories about weed identification and control, fertilizer basics, and seed requirements for non-optimum turf areas. An in-depth look at how to develop your assistant will also be featured.

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## PRODUCTS



### Mini-utility spray tank

Snyder Industries introduces a 150-gallon miniutility spray tank which fits securely over the rear wheelwells of most mini-pickups. Made of a high density polyolefin material, the tank features a low center of gravity for increased stability. Further, dual recessed and reinforced outlets provide gravity and/or pump assisted drainage.

The seamless, one-piece unit also has a translucent green tinting and an ultra-violet inhibitor which help protect the tank and its contents from the sun's damaging rays. Standard equipment includes an anti-splash strainer basket designed especially for wettable powders, a high-strength urethane lid-tie which is corrosion resistant, and molded-in gallonage indicators. The spray units are also available in 300- and 465-gallon models for larger capacity liquid handling needs.

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### Fertilizer stakes for 'acid-loving' trees

Special evergreen stakes, which provide fertilizer for acid-loving trees and shrubs, as well as conifers, have been introduced by Ross Daniels, Inc. Added to the balanced fertilizer formula for acid plants are trace elements of sulphur, zinc, and iron. Trees are fertilized by merely pounding the stakes into the ground around the outer edge of the tree branches.

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### Valve stem grinder

Quick Face, a valve stem grinder for all small engines, is available from Ray's Lawnmower Sales and Service. The grinder features a diamond sharpener and a holder that secures all small engine and automotive valves.

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### Diagnostic laboratory

Port-A-Lab, a plant life diagnostic laboratory designed for field use, is available from Maier Tree Care Service Center Corporation. The portable laboratory includes a pH indicator, dissecting block, magnifying glass, microscope, tree-top inspection binoculars, and a variety of other diagnostic equipment.

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## Professional SPRAY EQUIPMENT

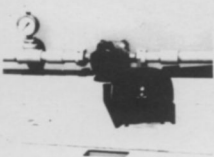
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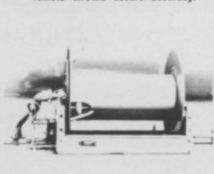
1. Two stage pump provides high volume and low maintenance.



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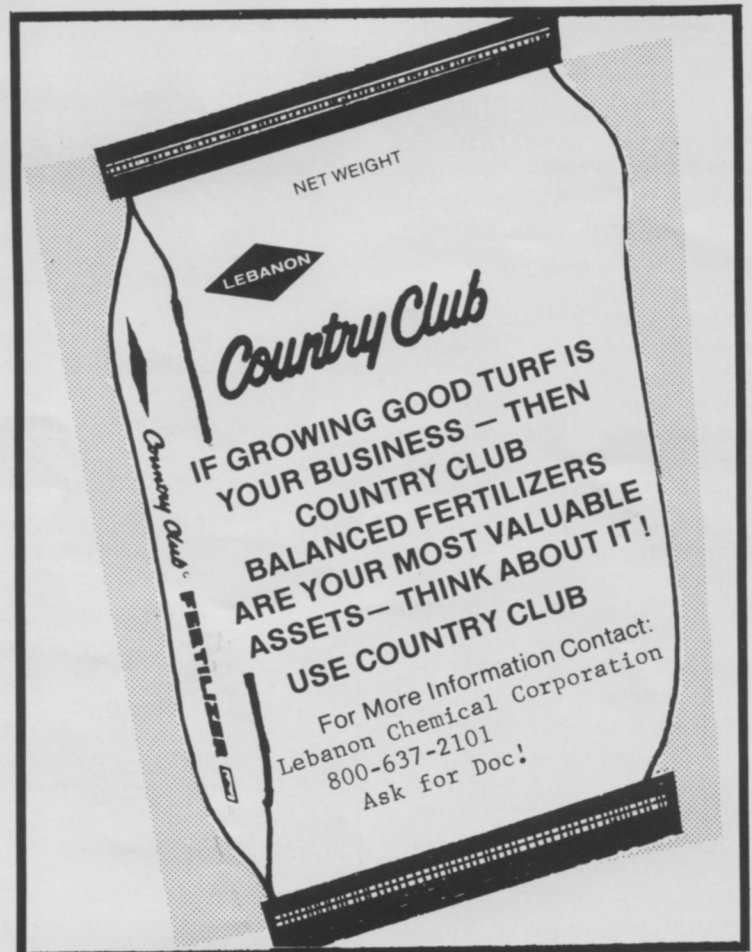
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### Chemical spreader

The WS-480 Grounds Wheelie, made by Wheel Spray Corporation, is a liquid chemical spreader with a ground-driven pumping system. The unit's twin-wheel pumps spray a fan of solution six feet wide at a rate of 1,000 square feet per gallon. The pumping system and six-gallon container are made of corrosion-resistant materials and the frame is fabricated of heavy gauge steel with shut-offs located on the handle grips.

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## TOOLS, TIPS & TECHNIQUES

### Spray truck provides formula flexibility



Hill

spent much of 1979 roaming the United States exhibiting his brainchild, a unique spray truck designed for lawn and tree maintenance work.

October brought Hill, of Hill's Liqui-System, to Ohio and a company owned by Al Dall, Lawncos, Inc., Brooklyn Heights. Dall recently purchased one of Hill's trucks and was so impressed that he invited Hill to exhibit the vehicle to other lawn care operators in northeastern Ohio. So Hill pulled up stakes and travelled more than 1,500 miles in an attempt to

sell the lawn care businessmen on the benefits of his unique truck design.

Hill developed the \$17,900 vehicle in 1978. Standard equipment includes:

- Dodge 300 one ton truck (other make trucks optional)
- Brahma 24 pump (volume four to 25 gallons per minute)
- Injection pumps for two optional streams
- Fiberglass 400-gallon, dual level holding tank
- Two 26-gallon fiberglass tanks for injected chemicals
- Liqui-System metering gong Fiberglass slurry tank for 1,000 pound fertilizer load
- Hannay electric hose reel
- Two hundred foot discharge hose with valve (other lengths optional)
- Seventy-five foot input hose and hand reel
- PVC lawn nozzle
- All fiberglass body shell.

The two primary benefits of Liqui-Matic is it offers formula flexibility and reduces fuel consumption. The vehicle's 400-gallon, float controlled, water holding tank is filled by connecting it to the customer's home water supply, thereby precluding the need to carry a large water supply on the truck. The resulting reduction in weight decreases fuel consumption and increases gas mileage. "The truck is a lot lighter than most spray trucks because you don't have to carry your water supply with you," Hill said.

#### FLUID LIME from page 23

about the same analysis, he said, but there are often differences in the recommendations given. He showed sample recommendations given by four labs for the same cores he sent each of them to prove his point.

"Just because one lab recommends more elements be added doesn't mean that that is necessarily the best recommendation," he said.

Advantages of liming in general are that it can help prevent low pH, which allows a more efficient use of nitrogen for turfgrass growth.

"If you don't keep the pH in an area between about 6.0 and 6.2, you don't get the most efficient use of phosphorus and the available micronutrients either," he said. He also said that proper pH also promotes bacterial activity, giving a "much faster degradation of organic material that you get if the soil has a pH in the 5's."

A low pH can also hamper some of the efficiency of herbicides, Dr. Murdock said.

Also, and this applies directly to many lawn care company practices, "as soon as you start using high rates of nitrogen, you can run into acidity problems." It takes two to three pounds of lime to neutralize one pound of nitrogen. Over the years, a high nitrogen program can make the top layer of soil very acid.

He said the four ingredients of fluid lime are a carrier (water, nitrogen or phosphate solutions for example); a dispersing agent; clay, to keep the solution in suspension; and lime. Lime is about two-thirds of the total mixture, the carrier is about 30 percent, and the clay and dispersing agent are each about one to two percent of the mixture.

He said use of fluid lime in a lawn fertilization could work to neutralize acidity on the spot, but warned that there could be some precipitation problems with certain materials. He suggested that if a lawn care businessman is using liquid lime, to be sure to mix the materials in a small jar to the right proportions first, to make sure there is no precipitation.

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**360-C:** A heavy-duty, compact 3-cyl., 35 PTO H.P. tractor engineered for outstanding performance and economy. Standard equipment includes: 6-speed trans., hydrostatic steering\*, continuous PTO, 3-pt. hitch with draft and position control, and more. The ideal tractor for heavier turf work or small farm chores. Turf or general purpose farm tires. Wt. 3,630 lbs. (approx.). Price with 5.00 x 15/12.4 x 24 GPF Tires.

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Circle 116 on free information card



to the new "expert". Little wonder that so many hard-pressed breadwinners view the lawn care business as an inviting cure for their immediate financial woes.

Lacking practical experience, in their zeal to get the flow of dollars started, these operators will often underprice the competition and blithely dispense sidewalk advice about lawn care that is a mixture of superstition and wishful thinking. Usually, they know little about lawn analysis or proper handling and selection of chemicals and other materials.

This irresistible impulse to overpromise and oversimplify leads to inevitable disappointment on the part of the consumer as spring heats up to summer and the harsh realities of the lawn care profession become evident.

Most lawn industry professionals are familiar with this

in business for any meaningful length of time. It is not merely a matter of coping with additional competition, which the professional can handle if he is worth his salt.

Even though most of this breed will vanish before the following spring rolls around (a very few will learn the business the hard way and survive) the damage they do to those already in the industry will live on.

Before going further, it should be made clear that nobody can object to the freedom of any individual to go into any kind of legally sanctioned business of his choice. This is the essence of our free enterprise system.

**Industry black eye.** The point is that few businesses see- to be as easy to get into as ours, and attract as many transients. As a result, the permanent, reputable people in our business have to bear the onus of the "negative image" fostered by those who, as it turns out, are only "passing through".

These new lawn "experts" overpromise and oversimplify, leading to customer disappointment.

By not understanding the real cost and seasonal factors of our business, their prices are often unrealistically low as a result of ignorance, casting shadows on the credibility of the knowledgeable lawn businessman who has already used a very sharp pencil to get his prices way down to meet those of bona fide competition.

Because this kind of operator invariably does not understand the essentials of turf management at the outset (or management of any kind, for that matter), the consumer is frequently duped into expecting better results than are possible to obtain within the claimed

period. Even if this is done out of ignorance and eagerness, the end result is the same, a black eye for the industry.

The problem is easier to describe than to solve, but we must try. The wisest approach is not to throw rocks at the other guy (thereby accling even more attention to him) but to play up all the factors which spotlight your own integrity and help build confidence in you.

"Soft sell" yourself at every opportunity. There are more ways to do this than you may realize. They make good business sense in general, but they are also your first line of defense against gypsy operators.

Display on your letterheads, envelopes, flyers, ads, contracts, etc., every printed notice you give the public, your affiliation with recognized organizations.

Among these might be the Professional Lawn Care Association of America, Better Business Bureau, Chamber of Commerce, local or state turfgrass associations, landscape gardener groups, etc. If you have these credentials, flaunt them. If you don't, you should start to acquire them.

If you have been in business awhile, say so, loud and clear, at every chance. "Established 1969" or 1972 or even 1976 conveys a message to the public that can be decisive when they compare your realistic sales presentation with the naive, blue-sky pitch of a misguided amateur.

**Blow the whistle.** The Lawn-A-Mat organization will be observing its 20th year in business during 1980 and it is a safe bet that we will be using this landmark event in many ways to drive home this theme. Depending upon how long you have been in business, you should do the same.

If you have fulfilled any testing, certification or licensing requirements of state, county, township, city or village agencies, let the public know about it. Include such information wherever possible in your literature. Display on your trucks, building signs and equipment any decals supplied by such agencies.

If you have taken educational or training courses or earned a degree relating to your business from a recognized institution, or won any awards for distinguished performance or length of service from any industry group, don't hide your light under a bushel.

Even if you don't feel these are particularly outstanding accomplishments, don't underestimate their impact on the public. Such credentials can make the difference when you are trying to explain why you can't possibly charge as little as the new lawn fellow down the street or can't possibly promise the immediate fantastic results he has, and stay in business at the same time.

Blow the whistle. That's right. If you spot any lawn operators you have reason to believe may not have complied with licensing or certification requirements, turn their names, vehicle license numbers, etc. over to the appropriate agency or authority. If you are playing by the rules, isn't it



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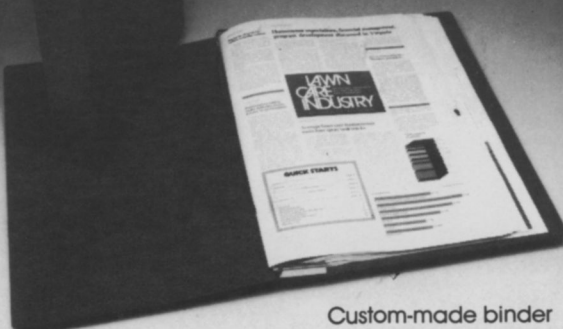
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your own fault if you let them join the club without paying the same dues? If every legitimate lawn businessman does the same, the word would soon get around that there is no free lunch in our industry.

**Licensing?** Although all of these tactics can help the responsible lawn businessman temporarily counteract the fly-by-night image projected by unqualified amateurs, they are not a permanent solution. The problem will probably persist until clear, fair and enforced standards are developed which must be met by anyone who wishes to call himself a "lawn care expert".

These standards could encompass formal education, apprenticeship-type experience, accredited training courses and testing and certification. Plumbers, lawyers, electricians, architects and barbers have evolved qualification standards which have served them well and have also benefitted the public. Why can't we?

A trend in this direction may already be in progress. In many localities there is talk of licensing lawn businessmen, usually in conjunction with regulation of home improvement companies. Federal Environmental Protection Agency control of pesticide applicators is another move in this direction.

Perhaps our industry is still too young and free-wheeling to seriously pursue this subject at this time. Probably in its current vibrant stage of rapid change and development, most of us have other more weighty matters to contend with, such as new technology and the complexities of mass marketing and administration.

However, at some point, the issue will have to be faced squarely. Much as every lawn businessman knows that each operational month and season brings its own set of needs and obstacles, and plans ahead accordingly, it is not premature to start stockpiling those ideas whose time is sure to come in the near future.

## RESEARCH

# Turfgrass color ratings studied throughout periods of drought

by Dr. R.W. Smiley and H.M. Pidduck, Cornell University

Green-color retention is often considered to be indicative of drought tolerance for lawns growing on dry sites during mid-summer. Actually, this is misleading because one mechanism of drought survival among grasses is dormancy.

Actively-growing grass which has not been allowed to become dormant may be killed by rather sudden periods of dry weather or by excessive temperatures. Dormant stands are much more resistant to excess temperature or lack of water and may, under certain circumstances, be more drought resistant than lush, green stands.

On the other hand, the axillary buds in the crowns of dry grasses are very susceptible to breakage and may be killed quite easily by traffic. Many of us have seen a droughted stand recover shortly after the onset of rains or irrigation, only to discover areas that fail to recover where the pressure of tires, foot, or pet traffic has occurred on the dry grass.

Nevertheless, the image that "green is good" is deeply ingrained in professional lawn care and very few users of turfgrasses would admire a straw-colored lawn especially if other lawns in a neighborhood remain green when drought stress is marginal.

Turfgrass species vary in their ability to survive periods of drought and excessive temperatures. Hard fescues and tall fescues have generally been considered more drought-hard than perennial ryegrasses and bentgrasses. Kentucky bluegrasses are intermediate in hardiness.

A large number of morphological and physiological plant characteristics govern these differences, some of the most important of which are rooting depth, root mass, leaf

shape, and surface area. Other factors include certain characteristics of the leaf stomata, leaf hairs, and leaf cuticles. These characteristics differ among species and among cultivars within species, so that newly-released cultivars may be quite different from their predecessors.

Assessments of mid-summer color on an unwatered, fully sunlit variety trial at Ithaca, N.Y. were made during a drought in 1978. The plot, at the Cornell University Turfgrass Field Laboratory, was planted in 1976 with 66 cultivars of Kentucky bluegrass, 33 cultivars of fine fescue, 24 cultivars of perennial rye-

grass, and 14 cultivars of fine fescue.

Each cultivar was planted in three different areas of the plot and all were maintained with a minimum of maintenance and at a mowing height of 1.5 inches. Many of the cultivars became dry whereas others remained lush and green.

Color ratings were made on July 14, 1978, and are listed in the table with a rating of one representing dry brown turf and nine representing active green turf. Ratings of six and above for the mid-summer rating generally indicated pleasing turf color. Soon after the ratings were made midsummer rainfall intensified and all plots became green and active within a period of two weeks. The summer dormancy was not long lasting.

Large variations in summer color occurred among turfgrass species and cultivars. The Kentucky bluegrasses best satisfied



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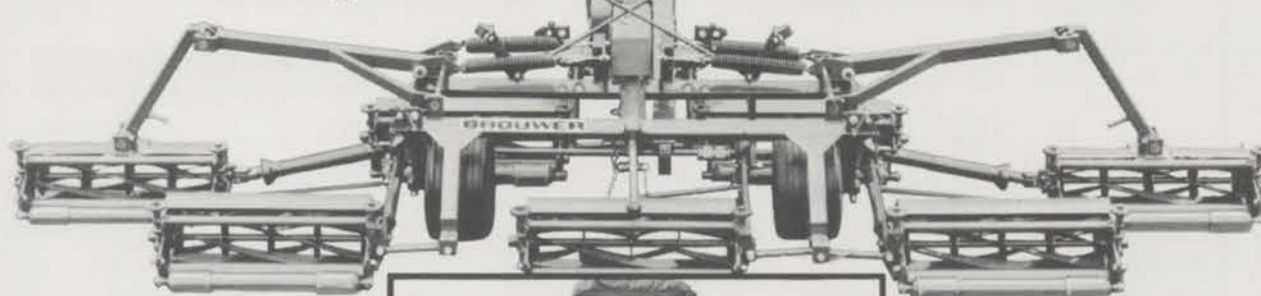
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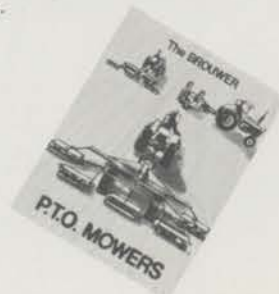
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these aesthetic demands. Ratings of fine fescues were depressed due to the presence of diseases. Dawson would have rated higher had it not been the only fescue to have red thread disease at this time. Leaf spot diseases also contributed significantly to many of the poor fine fescue ratings.

*Turfgrass species vary in their ability to survive periods of drought and excessive temperatures. Hard fescues and tall fescues have generally been considered more drought-hardy than perennial ryegrasses and bentgrasses.*

Further, during the leveling procedure prior to planting, one corner of the perennial ryegrass plot area was excavated deeper than all other plot areas. All varieties rated poorly in the deeply-excavated area, but some of the same varieties rated very well in the other two replicates.

The large non-uniformity of ratings among replicate plantings of the same cultivar was high only for these ryegrasses as is suggested by the statistical evaluations shown in the table. The ryegrass varieties affected by the soil bias are underlined in the table and it appeared that if the bias had been absent, more favorable ryegrass cultivar ratings may have occurred as follows: 4.5 for KO-12; 6.0 for Diplomat, Eton, KO-15, Pelo, S 321, and Wendy; and 7.0 for LP 101 Hunter.

It can be seen that if the soil bias had been absent we probably would have reported more favorable ratings among the ryegrasses underlined in the table. It is also of interest that upon resumption of the rains, replicates of cultivars in the more deeply-excavated corner

**Table 1. Summer color for 2-year-old, unwatered turfgrass cultivars during a mid-summer drought at Ithaca.**

Rating* (1-9)	Kentucky Bluegrasses	Fine Fescues	Perennial Ryegrasses	Tall Fescues
7.7	Nugget	_____	_____	_____
7.3	_____	_____	_____	_____
7.0	Majestic, Ram I	Centurion, Scaldis	_____	_____
6.7	A20-6, A-29-10	Dawson, Waldina	_____	BarFa 73-1
6.3	Bonnieblue, P-66, Sydsport	_____	Yorktown	56-GI-301
6.0	Galaxy, Orna, PSU-151, WWAG-452	Grelo	Loretta, Player	Kenny
5.7	Adelphi, Pennstar, PSU-150, Rugby, Touchdown, WWAG-463	_____	Lamora, LP 101, Norlea	Kennell
5.3	Bar 73-7, Barzan, Bensun, Delft, Fylking, I-13, K-128, Vantage	C-26	Perma, Score	_____
5.0	Bristol, Brunswick, Fanfare, Gardi, Geronimo, Olymprisp, Pion, PSU 173, Trivoli	_____	NK 100	Fawn, Kentucky 31, ZW 42-75
4.7	Banff, Bar 73-2, Birka, Enoble, G-22-990, HU-55, K1-143, Primo, PSU-190, Windsor, WWAG-412	Ensylva, Gracia	Eton, NK 200, Pelo, Wendy	Barbarossa
4.3	Baron, Bar 73-4, Cougar, Enprima, Parade, PSU-127, PSU-169, WWAG-436	Minuet, Polar, Puma, Ruby	Barenza, Diplomat, Sprinter, S 321	Alta, MSU
4.0	Bar 73-6, Enmundi, Glade, Merion, P-154, Victa	Atlanta, Checker, Koket, Pennlawn, Pruf-1, Scarlet, Veni, Waldorf, Wintergreen	KO-15, Manhattan, Omega	Barkas
3.7	Aquila, Cheri, Newport, Park	Banner, Barfalla, Cascade, I-307	_____	Backafall, Festal, Miner
3.3	_____	Boreal, Encota, Fortress, Highlight, Jamestown, Jamosa, Ranier	KO-12, Linn	_____
3.0	Kenblue	_____	Pennfine	_____
2.7	Captan	Engina	_____	_____
2.3	_____	_____	Citation	_____

\* Ratings: 1 = dry and straw-colored turf, 9 = lush and dark-green turf.

Statistical Significance: Within turfgrass species, those cultivars connected by the same vertical line do not differ at the 95% level of confidence (e.g. the variation in their ratings could be due to experimental errors rather than to cultivar performance).

were devastated by Rhizoctonia, whereas the disease was slight to moderate on all cultivars elsewhere in the plot.

The applicability of results such as those presented here is always questionable. The influences of many factors, such as geography, topography, climate, and management intensity are seldom adequately defined by a single plot. Therefore, it is of interest that for Kentucky blue-

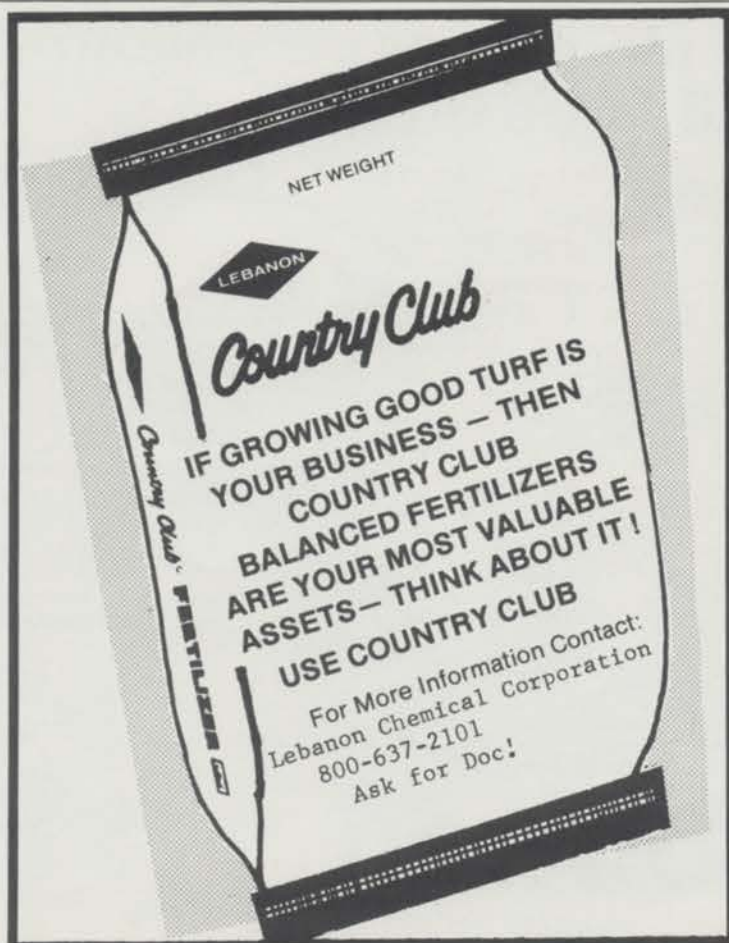
grass cultivars comparable drought-tolerance results occurred in a test in Maryland (Dr. John Hall, unpublished data for 1973).

Test results of 23 cultivars common to the Cornell study and a 1972 planting in Wye Mill, Md. indicates that a very close agreement exists between the cultivar ratings at both locations. This suggests that the test results for Kentucky bluegrasses are valid

over a wide geographical area.

Data such as that presented here, together with annual cultivar quality and pest resistance ratings, should be useful to those who are planning the establishment of new lawns and to those who will rejuvenate existing lawns by overseeding with new cultivars.

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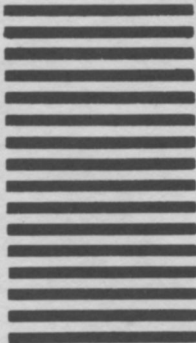
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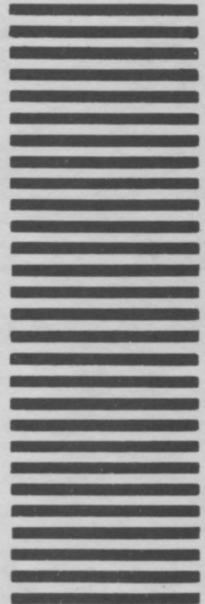
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# BEHIND THIS ISSUE



Last month we attended the Ohio and Illinois Turfgrass Conferences. This month we're headed for state turf conferences in Maryland, Nebraska, Michigan and Virginia. It is a heady time of the year for many reasons. First, it is exciting to see the new equipment and products on the

market. Second, it's a great time to talk to as many lawn care businessmen as we can. Third, the educational sessions provide a wealth of information for all those in attendance.

As you can see from the news story on page 1 of this issue, the Professional Lawn Care Association of America began planning last month at its board meeting for a 1980 annual meeting which hopefully will include at least a conference and perhaps even a trade show. The PLCAA board is talking Louisville in the first half of November, and we are behind the idea 100 percent.

The fact that PLCAA is planning a national lawn care conference is by no means a slight on the state turf conferences. PLCAA president Jerry Faulring would be the first to tell you that one of the main considerations in any planning is to not conflict with existing conferences. But the PLCAA

basically feels that a true business conference that addresses the management needs of the lawn care businessman is needed. And on the premise they have begun planning. Don't confuse the PLCAA conference with the scheduled lawn care conference to be held in March in Milwaukee. We're in favor of all educational efforts, but feel that the first national lawn care conference should be sponsored by the industry's professional association. Stay tuned for details.

*Bob Early*

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